Restrictive Mental Health Practices in the Management of Acutely Unwell Patients

By

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ABSTRACT

Restrictive practices such as seclusion, physical, mechanical, and chemical restraint are commonly used in acute mental health and other inpatient settings and remain a wicked problem in the ongoing quest to reduce their use. This thesis focusses on the use of restrictive interventions in adult inpatient units as a significant issue in the ongoing care of people with a mental illness and other inpatients (exhibiting acute agitation, aggression or violence), and its effect on their experience of hospitalisation. Laurence (2003) stated that the continuation of restrictive practices in psychiatry would be condemned in any other area of medicine and many stakeholders have called for at least their reduction while increasing numbers of consumers and carers call for their complete elimination. Individuals who find themselves inpatients in acute mental health and other services deserve to receive the least restrictive care possible as a basic human right, and not to experience trauma or be re-traumatised as a result of hospitalisation.

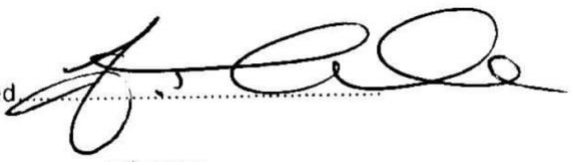
A PhD by Prior Published work (PhD PP) is significantly different to a traditional PhD in that the published papers stand both independently and collectively as the body of research and are allowed to speak for themselves, as it were. The eight published papers are situated within this thesis which systematically explores historical, legal, ethical and clinical issues relating to seclusion and restraint. The dynamic tension between safety and risk is examined to demonstrate how restrictive practices are perpetuated in inpatient settings. The consumer experience and the evidence regarding contemporary restrictive practices is presented with an examination of the basis of specific models designed to reduce conflict and containment in acute psychiatric inpatient settings. The eight published papers include the topics of risk assessment and clinical decision-making, absconding, seclusion and restraint, chemical restraint, and the role of security guards. The research settings include aged care acute psychiatric units, adult acute psychiatric units, Emergency Departments (EDs), and acute and medical-surgical units, with all the research conducted in South Australia. The Safewards Model (Bowers, 2014a) is adopted as a discursive tool to discuss the implications of the eight papers within the current literature and suggest further research to tackle the wicked problem of restrictive practices.

The collective impact of various forms of restrictive practices as a whole (in the context of the period of hospitalisation) needs to be recognised and understood as greater than the sum of individual restrictive practices which frequently have a profound and enduring negative impact on inpatients. The paradox of providing care in the context of the use of restrictive practices remains both a perennial issue and a significant problem facing health professionals working in the care of people with an acute mental illness. Multi-factorial interventions developed through co-production with consumers and carers are required at every level of mental health services if transformative rather than incremental reformist change is to be achieved in the reduction of the use of restrictive practices. Significant barriers remain to transformational change to facilitate the reduction and

elimination of restrictive practices and while elimination of such practices is echoed in international and Australian policies and initiative, this goal remains elusive as safe practical alternative clinical practices do not currently exist.

DECLARATION

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Signed 

Date January 10th 2022

ACKNOWLEDGEMENTS

I would like to thank my family and friends for their support and love during my candidature of this, my second PhD. Some of you also expressed initial expressed shock and astonishment as I commenced my candidature. You all know who you are! I dedicate this thesis to my late father, 'Doc', Dr Robin Richard Muir-Cochrane, who worked as a GP until his 75th year. You have been an inspiration to me in a myriad of ways. Also to Caity, my fabulous daughter (and great reference checker), and Rowland, my best friend, thanks for your love, encouragement, support and belief in my abilities. I couldn't have done it without you! To Lynette and Ray Ham, thanks Lyn for assiduously checking references with me and Ray for the frequent refreshments! To my principal supervisor, Professor Sharon Lawn, thanks so much for your considerate, constructively critical supervision and timely feedback. Finally to Dr Candice Oster, who has been such a fabulous research colleague working with me on projects for over fifteen years, thank you for your help with formatting and editing of my work!

KEYNOTE PRESENTATIONS AND AWARDS ASSOCIATED WITH THIS THESIS

1. **Mental Health Achievement Award** Journal of Psychiatric and Mental Health Nursing, London, UK, (online) (2020).

2. **The SABRE project** Towards Elimination of Seclusion and Restraint Conference, Hobart, Tasmania (2018).

3. **What's so funny about peace love and understanding.** 19th Victorian Mental Health Nursing Collaborative Conference, Melbourne (2018).

4. **Contemporary issues in the use of restraint measures with psychiatric patients in Australia.** National Mental Health Summit, Informa Conferences, Sydney (2018).

5. **The SABRE project: Barriers and enablers to the reduction of seclusion and restraint in acute psychiatric inpatient settings.** 6th Qatar International Mental Health Conference, Doha, Qatar (2018).

6. **Supporting mental health nurses towards cultural and clinical change: Facilitating ongoing reduction in the use of seclusion and restraint in mental health settings in Australia** Australian College of Mental Health Nurses Inc (ACMHN). International Conference, Adelaide (2016).

7. **Contemporary issues in restraint in hospitals- between a rock and a hard place Improving hospital security: addressing violence and aggression in hospitals.** Criterion conferences, Sydney (2016).

8. **What's so funny about peace love and understanding?** Northern Territory Branch ACMHN, Darwin (2015).

9. **Risk and possibilities in a complex clinical settings.** New Zealand Conference of Mental Health Nurses, Wellington, New Zealand (2014).

10. **What do we know about restraint?** Disability Services SA Launch of the Restraint Reduction Initiative, Adelaide (2014).

11. **Tensions and contradictions in mental health nursing**. New Zealand Mental Health and Addiction Nurse Education Forum, Hamilton, New Zealand (2010).

12. **Contemporary Issues in Containment in Acute Inpatient wards in Psychiatric Hospitals.** Canberra Regional Health Conference, Canberra Hospital, Canberra (2005).

13. **Tensions & contradictions in the role of the mental health nurse.** The Annual Cunningham Dax Lecture, Victorian Branch, Australian and New Zealand College of Mental Health Nurses (ANZCMHN), Melbourne (2003).

14. **It's mental health nursing Jim but not as we know it!** 28th Annual International Conference of the ANZCMHN, Sydney (2002).

15. **The paradox of seclusion**. The Rozelle Hospital 11th Annual National Winter Symposium, Sydney (2000).

Awards associated with this thesis

1. Journal of Psychiatric and Mental Health Nursing Lifetime Achievement Award (2020).

2. International Mental Health Nursing Research Conference, Best paper presentation 'Fear and blame experienced by mental health nurses in relation to the use of seclusion and restraint' (2018).

3. SA Department of Health and Human Services and Industry Nursing Excellence (Research) Award (2011).

ABBREVIATIONS

ACMHN	Australian College of Mental Health Nurses
AIHW	Australian Institute of Health and Welfare
ANSQHS	Australian National Safety and Quality Health Service Standards
ANZCP	Australian and New Zealand College of Psychiatry
CALHN	Central Adelaide Local Health Network
CCTV	Closed Circuit Television
CRPD	Convention on the Rights of People with Disabilities
DSM	Diagnostic Statistical Manual
ED	Emergency Department
HCR20	Historical, Clinical and Risk Management Tool – 20
NICE	National Institute of Clinical Excellence
PhD PP	PhD by Prior Publication
PRN	Pro re nata (as required)
RCT	Randomised Controlled Trial
RN	Registered Nurse
SECREST NBEDS	Mental Health Seclusion and Restraint National Best Endeavours Data Set
WHO	World Health Organisation
WPA	World Psychiatry Association

GLOSSARY

Challenging behaviour is any behaviour that causes significant distress or danger to the person with a mental illness or others. These behaviours can include extremely agitated behaviour, aggression or violence which have the potential to cause physical or psychological harm to themselves, another person, or to property around them. More recently the term '**behaviours of concern'** has been adapted in many mental health settings as a more respectful acknowledgement of the person's distress.

Chemical restraint refers to the management of acute mental illness that may underlie behaviours of concern (severe agitation, aggression, or violence) through the administration of medication.

Containment refers to the practices that staff use to reduce and manage conflict on acute inpatient wards, and thus includes all restrictive practices.

Mechanical restraint is defined as the application of devices (including belts, harnesses, manacles, sheets, and straps) on a person's body to restrict his or her movement.

Physical Restraint is defined as the application by health care staff of hands-on immobilisation or the physical restriction of a person to prevent the person from harming him/herself or endangering others or to ensure the provision of essential medical treatment.

Restraint and restraint practices refer to the use of physical, mechanical, or chemical means to contain and restrict an individual's freedom and include seclusion.

Restrictive practices include all forms of restraint as described above but also includes involuntary detention under Mental Health Acts, the use of observation in inpatient units and the locking of unit doors so individuals may not leave of their own accord. Contemporary literature on restrictive practices also uses terms such as coercion, control, and containment measures variously and these are referred to in this thesis.

Seclusion refers to the containment of a person, usually alone in a locked room (seclusion room) from which they have no egress.

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CHAPTER ONE
INTRODUCTION

1.1 Introduction

This thesis focusses on the use of restrictive interventions in inpatient units in Australia. This is not a traditional PhD but a PhD by Prior Published Work (PhD PP). Such a PhD requires one year full-time study and includes a number of high-quality publications that form a substantial contribution to knowledge. In this thesis, eight papers are presented in full in Chapter Six. A substantial contextual statement composed of a number of chapters explicates the field of knowledge with current literature. How the publications are linked and the significance of the work and implications for future investigation is critically discussed. This introductory chapter provides the background to the research, provides my own professional motivations, and concludes with the thesis outline and summaries of each chapter.

1.2 Background

Seclusion and restraint persist in a variety of health settings but most commonly in inpatient psychiatric units. Today, seclusion and restraint occur in Emergency Departments (EDs), general medical and surgical units, and child and adolescent services. The discipline of psychiatry has been involved in the use of seclusion and restraint for over two hundred years. These practices have been rationalised over time as legitimate ways to keep patients and staff safe although have been increasingly challenged by health professionals, consumers and consumer advocates (McSherry, 2021a). More recently, efforts to reduce its use have increased internationally and in Australia. Nevertheless, it continues to be commonly used despite calls from the World Health Organisation and psychiatric and mental health nursing bodies for its abolition (ACMHN, 2016; WHO, 2021; WPA, 2020). Some of the reasons for the continuance of seclusion and restraint relate to the difficulties encountered by health services to provide safe alternatives to containment and confinement of patients when they are acutely agitated, aggressive or violent.

Seclusion and restraint practices sit within a larger context of coercion pervasive in mental health settings and treatment. Coercion generally refers to practices of health professionals which contain or control patients in some way (WPA, 2020). Common formal coercive practices include involuntary detention and treatment in mental health settings due to the

perceived harm the individual may pose to themselves or others due to their mental illness. In community mental health settings community treatment orders placed on individuals under a Mental Health Act are used to enforce compulsory treatment (Dawson 2021a) under the premise that the risk to the individual and the community outweighs an individual's right to autonomy. In countries where community mental health services are limited or non-existent, forms of containment and confinement such as pasung (where the person is chained up or confined in a room, crate or chicken shed), are used by families to limit the freedom of movement of the individual (Hidayat et al., 2020). Other formal coercive practices in inpatient settings include forced medication, physical, mechanical and chemical restraint and seclusion. Informal coercive measures are both less overt and visible but include the use of threats to patients if they do not adhere to treatment, increased patient observation, using the interpersonal relationship to influence decision making or restricting food, cigarettes or phone calls (Paradis-Gagne et al., 2021).

Coercion practices have deleterious effects on patients and cause distress to health professionals and families (Paradis-Gagne et al., 2021). Despite this, their use persist and can be understood as an enactment of ongoing discrimination towards people with a mental illness. Such discrimination allows the use of coercive practices that would not be tolerated in other forms of medicine (Laurence, 2003). Discrimination is also recognised as a significant barrier to recovery approaches in mental health care disallowing people to have autonomy in decisions about their care and treatment. United Nation initiatives have called for the abolition of restrictive practices on the basis that they are a violation of human rights (UN, 2008, 2013) but the continuance of such practices points to the significant extent to which coercion is ingrained in the provision of mental health services (McSherry & Maker, 2021b).

The complexities of the issues briefly mentioned here provide the foundation for the published papers in this thesis and are examined in the preceding chapters to Chapter Six which contains the eight published papers. The early chapters are purposively selective in discussing the core elements central to the examination of restrictive practices vis a vis the published papers. This thesis focusses on a number of settings in which seclusion and restraint occur but does not extend to forensic mental health settings as this is beyond the scope of the published papers. The intent of the thesis is to link together a number of papers on inter-related topics about restrictive practices. The first published paper in this thesis examines risk assessment and management as risk underpins restrictive practices. Two

published papers on absconding explore the phenomenon of patients leaving hospital without permission, from the perspective that this behaviour occurs due to conflict between health professionals and patients in some manner, occurring as part of their inpatient experience. Seclusion and restraint are then explored in two published papers examining the perceptions of nursing staff in regard to the reduction and elimination of containment and confinement measures. Two further published papers examine the evidence around chemical restraint as an emerging area of research. The final published paper explores the role of security guards in medical surgical units as part of teams which respond to calls for the management of acutely agitated, aggressive or violent patients. These papers were chosen to provide a rich tapestry of data from which to explore restrictive practices in health settings today and suggest implications for further practice. The next section explores the personal motivations of the author for undertaking this PhD PP.

1.3 A personal perspective

I have always had an interest in nursing research and wrote my first paper as a student nurse undertaking a BSc (Hons), RN, in Nursing at the University of London (Muir-Cochrane, 1984). I undertook my mental health nurse training at the Bethlem and Maudsley Hospitals in the mid 1980's after a developing interest in mental health nursing, which was in my mind more 'mouth on' rather than the 'hands on' of general nursing which I had entered after qualifying as an RN. I was curious and motivated to work with people with mental health problems, to understand peoples' experiences and to become skilled in therapeutic interventions. As a staff nurse in acute mental health units at the Bethlem Hospital in Surrey, we began each shift with verbal warm up games and had a formal weekly group with patients and the entire multi-disciplinary team in attendance. The twice daily ward report had a space for noting the ambience of the ward to indicate to nursing managers whether the ward milieu was settled or tense, and staffing levels were often adjusted to account for patient acuity. At that time, there was a shortage of male mental health nurses, and we would inform male patients of this so if they wished to talk to a male nurse, we would request a male nurse from another ward to come to assist.

When nursing people who were the most severely ill, we used one-to-one practices (one nurse to one patient) and sometimes two nurses to one patient in an intensive care unit. Seclusion was not a part of nursing practice and there were no seclusion rooms in wards. However, we often had to physically hold patients when they were extremely agitated, self-harming or aggressive or violent. Six monthly training for all staff on de-escalation and

physical restraint procedures was mandatory. Emphasis was on encouraging patients to take medication without physically being held down to be injected, so we often physically held patients without giving forced medication, until they calmed; although we also gave medication when patients were being restrained. Debriefing staff and patients about any restraint episode was an expectation of care which was consistently upheld.

I emigrated to Australia in 1988 and by 1989 was working as a mental health nurse in an acute admission unit at Hillcrest Hospital, Adelaide, South Australia, which is now closed. I felt like I had stepped back in time! Patients at risk of absconding were forced to dress in pyjamas as the ward was open (front doors were not locked) and this was my first experience of this coercive practice. On occasion, patients would set off fire alarms which would result in the evacuation of staff and patients. Some patients would use this opportunity to flag a taxi down on the main road outside and leave in their pyjamas.

Extremely acutely unwell patients were transferred to Anderson House, which had two seclusion rooms, and this was my first experience of secluding patients. In those days, seclusion was deemed to be therapeutic, necessary and often used. I was traumatised by my experiences in Anderson House where patients were sometimes belittled and physically manhandled. Labelling acutely psychotic patients' behaviour as 'behavioural' was a common nursing note. One disturbing occasion which sticks in my mind is the dragging a female patient on her heels backwards to a seclusion room as she would not walk to it. This caused excoriation to her skin and the resident social worker who had come to visit the woman was in tears witnessing the sight. Any discussions I had with nursing managers about these damaging and punitive practices were brushed off as 'that's the way things are done here'.

Literature in the 1980's and 1990's commonly referred to patient who did not wish to take medication as 'non-compliant' or 'difficult' (Bener et al., 2013; Koekkoek, et al., 2006); although Bener et al., (2013) refers to the term 'difficult patient' in a relatively recent paper. Those who did not respond to antipsychotics, antidepressants or mood disorder medication were termed 'treatment resistant' (Bhui, 2017) and nursing practices reinforced these stigmatising labels. Contemporary understandings of how acutely ill patients were managed is now recognised as 'sanctuary harm' (Robins et al., 2005), often re-traumatising individuals with a history of sexual abuse, neglect, and domestic violence.

I became first a nurse educator, then a research nurse and finally a lecturer, and my academic career commenced at the University of South Australia in 1991. I was particularly

interested in why patients absconded, why seclusion was used so prolifically and how to improve both the patient's experience of hospitalisation and nursing practices. I undertook a Masters of Nursing Studies with a thesis entitled 'An investigation into nurses' perceptions of secluding patients on closed psychiatric wards' (Muir-Cochrane, 1993), which resulted in my first publications in aspects of seclusion (Muir-Cochrane, 1995; Muir-Cochrane, 1996a; Muir-Cochrane & Harrison, 1996b). My data collection for the thesis encountered many hurdles and I was initially declined approval by the human research ethics committee to interview inpatients and staff, stating the research was not deemed rigorous or significant enough to be carried out. At the intervention of a consultant psychiatrist, I was finally granted ethics approval to interview clinicians about the use of seclusion. Mental health nurses were not used to being involved in research about their practice and were suspicious about my motives, but a number of participants did volunteer to be interviewed. When I published my first research paper in an esteemed refereed journal, the Journal of Advanced Nursing (Muir-Cochrane, 1996a) I thought I had arrived in academe! At that time, very little research was being undertaken by nurse academics in universities or in clinical practice and I wanted to contribute to the literature on mental health nursing practice, particularly in acute inpatient settings.

I embarked on a PhD in 1995 and was overtly aware that it would not be easy to study seclusion in South Australia, given the previous difficulties I had encountered during my master's degree, mentioned above, in researching seclusion in acute inpatient settings. At that time there was only one dedicated service to community mental health nursing, so I researched their role and function as a pragmatic option (Muir-Cochrane, 1998; Muir-Cochrane, 2000; Muir-Cochrane, 2001a).

Over time, I advanced as an academic at the University of South Australia (as a Lecturer, Senior Lecturer and Associate Professor) and at Flinders University as a Professor of Nursing (Mental Health) and now as an Emeritus at the same University. I believe I have made a significant contribution to research about nursing practices in acute mental health care, including seclusion, restraint of all types, locked doors and absconding with forays into other associated areas. I had the great fortune of working with eminent academics including Professor Len Bowers and Professor Alan Simpson at City University and Kings College, London in the UK on studies into coercive practices in mental health nursing and greatly benefitted from these collaborations.

I retired from full time academic work at the end of 2020 and have undertaken a PhD PP for the following reasons. Clearly, the opportunity to undertake a second PhD is a privilege and a personal indulgence, but I feel that I still have something to say about seclusion and restraint and this PhD has afforded me the opportunity to 'wrap up', as it were, a carefully selected number of papers to make a coherent commentary on the state of play in South Australia as an exemplar, and internationally more generally, about practices in acute inpatient units. My research is about restraint and is generally undertaken by mental health nurses, but this is not a nursing PhD per se. My aim is to pull my body of research together and attempt to make some new meanings from it and I have chosen a paper on risk and two on absconding, two on seclusion and restraint, two on chemical restraint and one paper on the role of security guards to provide a synthesis of the depth and breadth of my research. Research into chemical restraint and security guards is now increasing and can be seen as a metaphor of the increasing culture of controlling practices and systems in acute inpatient settings and in the case of security guards, their co-option into these practices.

I wish to demonstrate the importance and significance of the research I have undertaken and to propose what future possibilities there are for the provision of care in acute inpatient units in Australia and overseas. I hope I have achieved this, at least in some part. Individuals who find themselves inpatients in acute mental health services deserve to receive the least restrictive care possible and not to experience trauma or be retraumatised as a result of their experiences of hospitalisation. The collective impact of various forms of restrictive practices as a whole (in the context of the period of hospitalisation) need to be recognised and understood as greater than the sum of individual restraint and seclusion practices which frequently have a profound and enduring negative impact on inpatients. The paradox of providing care in the context of the use of controlling practices remains, in my eyes, both a perennial issue and a wicked problem facing health professionals working in the care of people with an acute mental illness.

As a digital PhD, which will be freely available, I hope that it can assist clinicians and researchers in continuing research in this vital area, particularly as the goal to reduce and eliminate restraint practices continues. If it is used in postgraduate education in mental health and mental health nursing I will be delighted that it is deemed useful to prepare future mental health professionals.

1.4 Thesis overview and structure

1.4.1 Chapter Two Historical, legal, and ethical issues

This chapter provides a brief historical perspective regarding the use of restraint in mental health settings. Legal and ethical issues are examined to draw out the significant controversial issues surrounding restraint internationally. Finally, given the research from the published papers is situated in South Australia, Australian and South Australian regulatory frameworks and policies are discussed.

1.4.2 Chapter Three Safety, risk, restrictive practices, and the consumer perspective

This chapter examines safety and risk as conceptualisations which underpin current care in mental health settings and justify the use of control and containment practices. The diversity of control measures used in mental health inpatient services are then explored to demonstrate the extent of coercion present today. Whilst not all of the control practices discussed in this chapter are explored in the published papers, examination of them here provides a comprehensive illustration of the inherent nature of care and control in psychiatric inpatient units that currently exist.

1.4.3 Chapter Four Contemporary issues in minimising restraint practices

This chapter examines the current evidence regarding global efforts to reduce the use of restraint practices in the Australian context. A selective focus on two core models, namely the Safewards Model (Bowers, 2014a) and the Six Core Strategies to Reduce the Use of Seclusion and Restraint, commonly known as the Six Core Strategies (Huckshorn, 2004), discuss the current state of play concerning the evidence base for their effectiveness in reducing seclusion and restraint and increasing the use of least restrictive practices.

1.4.4 Chapter Five Methodological considerations of the published papers

This chapter discusses the research paradigm adopted for this thesis in regard to the published papers as well as detailing the mixed methodological approaches used in the published papers and associated rationale. In a traditional PhD the methodology is adopted prior to the collection of data. In this thesis, pragmatism as a research paradigm has been retrospectively adopted as a frame in which to consider the published papers which collectively were not originally undertaken as a deliberate sequence of research studies. An

overview of challenges in undertaking research about restrictive practices is also discussed in relation to the published papers.

1.4.5 Chapter Six Published papers

Chapter Six presents eight peer-reviewed publications that are the central focus of this thesis. These have been formally peer reviewed and published prior to submission of this thesis. These publications chronicle research funded projects that collectively contribute to greater understandings of the ongoing challenges regarding the use of restrictive practices. The papers were deliberately chosen to provide a narrative concerning the research on specific topics over time. The first paper situates risk, risk assessment and management as a core concept in the care and control of people with challenging behaviours. Papers two and three detail the dynamics of absconding as a conflict behaviour undertaken by people with a mental illness in response to unmet needs or other concerns whilst an inpatient. Absconding can be understood as a response by inpatients to conflict or being controlled through restriction of their freedom of movement. Papers four and five focus on a national study which explored the perceptions, enablers and barriers understood by mental health nurses relating to the reduction and elimination of restrictive practices. Papers six and seven provide a comprehensive illustration of the use of chemical restraint for behaviours of concern and the issues with lack of definitional clarity of the term. Paper eight examines the role of security guards in the management of aggression and violence, a topic that has received little attention to date in the research literature. Each of the projects described in these publications had the common underlying purpose of exploring how care and control measures are understood and practiced in the management of patients exhibiting acute agitation, aggression, and violence.

1.4.6 Chapter Seven Discussion

This chapter discusses the significance and limitations of the published papers. The Safewards Model is adopted as a useful evidence base from which to explore understandings from the published papers and extend the Safewards Model. The potential for the reduction or elimination of restrictive practices is examined addressing barriers and enablers in this quest.

1.4.7 Chapter Eight Conclusion

This chapter concludes the thesis. The contribution of the published papers in this thesis to existing knowledge is summarised. Reflections on restrictive practices and the quest to

eliminate them are provided with recommendations for future work in restrictive practices. The next section provides details of the published papers in this thesis and grant funding secured.

1.4.8 Publications and associated research funding of papers included in the thesis

RISK

Muir-Cochrane, E., Gerace, A., Mosel, K., Barkway, P., O'Kane, D., Curren, D., & Oster, C. (2011a). Managing risk: Clinical decision making in mental health services. *Issues in Mental Health Nursing, 32*(12), 726-734.

Research funding

Muir-Cochrane, E., & Curren, D. (2009). Managing Risk: clinical decision making in aged care mental health services, Flinders University School of Nursing and Midwifery Competitive Seeding Grant $9,000

ABSCONDING

Muir-Cochrane, E., Oster, C., Grotto, J., Gerace, A., & Jones, J. (2013).The inpatient psychiatric unit as both a safe and unsafe place: Implications for absconding. *International Journal of Mental Health Nursing 22*(4), 304-312.

Muir-Cochrane, E., Muller, A., & Oster, C. (2021a). Absconding: A qualitative perspective of patients leaving inpatient psychiatric care. *International Journal of Mental Health Nursing, 30*(5), 1127-1135.

Research Funding

Muir-Cochrane, E., Barkway, P., & Gerace, A. (2009). An examination of absconding behaviour by psychiatric inpatients within Central Northern Adelaide Health Service, Flinders University Faculty of Health Sciences, School of Nursing & Midwifery Industry Partnership Research Grants $50,000

Muir-Cochrane, E., Gerace, A., & Barkway, P. (2009) An investigation into the role of the nurse in caring for patients at risk of absconding from psychiatric

inpatient units, Nurses Memorial Foundation of S. A. Dr Roger Wurm Scholarship $9,000

Muir-Cochrane, E. (2019). Nurses Memorial Foundation of SA. Absconding: Patients running way from hospital $27,000

SECLUSION AND RESTRAINT

Gerace, A., & Muir-Cochrane, E. (2018). Perceptions of nurses working with psychiatric consumers regarding the elimination of seclusion and restraint in psychiatric inpatient settings and emergency departments: An Australian survey. *International Journal of Mental Health Nursing, 28*(1), 209-225.

Muir-Cochrane, E. C., O'Kane, D., & Oster, C. T. (2018). Fear and blame in mental health nurses' accounts restrictive practices: Implications for the elimination of seclusion and restraint. *International Journal of Mental Health Nursing, 27*(5), 1511-1521.

Research Funding

Muir-Cochrane, E., Gerace, A., & O'Kane, D. (2017) The SABRE project **S**eclusion and **B**arriers to **R**eduction and **E**limination. National Mental Health Commission Australian and New Zealand College of Mental Health Nurses Inc $31,250

CHEMICAL RESTRAINT

Muir-Cochrane, E., Oster, C., Gerace, A., Dawson, S., Damarell, R., & Grimmer, K. (2020a). The effectiveness of chemical restraint in managing acute agitation and aggression: A systematic review of randomized controlled trials. *International Journal of Mental Health Nursing, 29*(2),110-126.

Muir-Cochrane, E., Muller, A., & Oster, C. (2021b). Chemical restraint: A qualitative synthesis review of patient and staff experiences. *Nursing and Health Sciences, 23*(2), 325-336.

Research Funding

Muir-Cochrane, E., Gerace, A., & O'Kane, D. (2015). Chemical Restraint. Flinders University Faculty of Medicine, Nursing and Health Sciences Competitive Research Seeding Grant $16,000

Gerace, A., Muir-Cochrane, E., & O'Kane, D. (2016). A systematic review of chemical restraint Flinders University School of Nursing and Midwifery Start up Grant $5,000

SECURITY GUARDS

Muir-Cochrane, E., Muller, A., Fu, Y., & Oster, C. (2020b). Role of security guards in Code Black events in medical and surgical settings: A retrospective chart audit. *Nursing and Health Sciences, 22(3),* 758-768.

Research Funding

Muir-Cochrane, E., Gerace, A., & O'Kane, D. (2017). An examination of Code Blacks. Flinders University, Faculty of Health Sciences Competitive Research Grant $25,000

Muir-Cochrane, E., Gerace, A., & O'Kane, D. (2017). Challenging behaviours in medical and surgical wards across South Australian Local Area Health Network (SALHN). SAHLN Nursing and Midwifery Research and Education Unit $20,000

1.4.9 A note on language and terminology

People with a mental illness were previously known as psychiatric patients, and in attempts to reduce stigma and discrimination are now renamed 'consumers' (for example, in Australia), 'clients' (in many health settings) or 'service users' (for example, in the UK). In this thesis, I have used the term 'patients' when referring to people who are inpatients in health settings and EDs, as they are often held involuntarily and experience restrictive practices to which they do not wish to be exposed. In sections of the thesis when the experience of people with a mental illness is being discussed from their perspective, I use the term 'consumers' to respectfully acknowledge their lived experience. Since literature discussed in this research is from Asia, Australia, Canada, Europe and the United States of

America (USA), various terms relating to psychiatric inpatients are used accordingly in this thesis, in relation to the terms used by the authors of research papers. Such variation in research literature reflects the varying understandings of restraint and restrictive practices, so I have tried to be faithful to the language used by other researchers.

As health care provision in the inpatient setting has evolved, what was universally referred to as a hospital ward now has a myriad of names. This thesis uses the terms wards and units interchangeably in accordance with the research being discussed. Similarly, restraint practices and restrictive practices are often used interchangeably in legislative, policy and research papers. The definitions provided in the Glossary will be adopted in this thesis and where there is a need to differentiate between restraint and restrictive practices, this is signposted. Definitions of various forms of restraint are used variously in Australian policy and legislation. Given the context of this PhD by PP is South Australia, local definitions will be used.

CHAPTER TWO
HISTORICAL, LEGAL, AND ETHICAL ISSUES ASSOCIATED WITH RESTRAINT AND SECLUSION

2.1 Introduction

This chapter explores a range of issues concerned with restraint in mental health settings. The very long history of the restraint of people deemed to be mentally ill requires a brief historical perspective to situate this thesis. However, this is not a history of mental illness nor psychiatry; rather, it is a lens on restraint practices over time from a Western cultural perspective, given the context of this PhD PP is Australia. Ethical dimensions associated with restraint remain significant elements in the provision of mental health care, while the increasing recognition of the human rights of people with a mental illness is reflected in evolving mental health legislation and jurisdictional policy and standards. The South Australian policy position is used as an exemplar to provide the context for the published papers for the thesis. In this chapter, seclusion and restraint are initially discussed separately to reflect their use historically, at the same time recognising that seclusion is itself a form of restraint. Where the term 'restraint practices' is used, this refers to all forms of restraint (physical, mechanical, chemical and seclusion). Later in the chapter, the term 'restrictive practices' is used to reflect contemporary terminology regarding a wider range of restraint and containment practices used in acute mental health settings today, including locked doors and involuntary detention under Mental Health Acts.

2.2 A brief historical perspective of restraint

> 'Almost all cultures have viewed mental illness as a deviant form, subject to negative social sanctions.'
>
> (Brooks, 2000, p.11-12)

Treatment of the mentally ill has a long history with methods of social and physical control that are now recognised as harsh and cruel (Colaizzi, 2005; Muir-Cochrane, 1993). As far back as the second century AD, Soranus, a Greek scholar, documented the use of seclusion. He described it thus: '(h)ave the patient lie in a moderately light room. The rooms should be perfectly quiet…unadorned by paintings. Do not permit many people… to enter the room and instruct them to correct the patient's aberrations, while giving them a sympathetic hearing' (Wells, 1972, p.410). Soranus also detailed how servants were to

spend time with patients, which does not fit with modern practices of seclusion where patients are not free to leave seclusion, as the door is locked; and interaction between staff and patients is limited (Alty & Mason, 1994; Gibson, 1989).

In the Middle Ages and early modern Europe, people with a disability or mental illness were feared, generally viewed with superstition, seen as 'different' or possessed, and morally judged as unworthy and evil (Clarke, 1975; Porter, 2002). Such individuals were usually cast out, i.e., turned out of their homes, became beggars and many of the 'village idiots' had intellectual disabilities or schizophrenia (Siegel, 1970). Where families took care of their own, individuals were chained at home or placed in a hole which was covered to prevent their egress (Shorter, 1997). The introduction of poor houses in the 17th century for the old, the destitute, those with a disability and homeless individuals, occurred in England as a form of social welfare and social control driven by monarchical and bourgeois reforms of the economic and social orders of the mid 1600's. People with a mental illness were also warehoused in poor houses in increasing numbers until the creation of asylums in the 18th century, as a response to the perceived need to separate the mentally ill from mainstream society. The belief at that time was that a cure to mental illness was possible through care as developments in science medicalised madness (Scull, 1987; Scull, 1993). This period is recognised as the birth of psychiatry with asylums being an instrument of the State to care for and control people with a mental illness. Asylums were often built far away from the general population; they were places where people were subjected to physical controls which included mechanical restraints and whippings (Shorter, 1997). Thus, although a climate of therapeutic optimism underpinned the origin of asylums, control of the inmates foregrounded all aspects of care. Psychiatry in the 18th century introduced so called treatments including herbal remedies, bleeding of veins, application of laxatives, emetics and cold baths and 'hydrotherapy' to purge the person's afflictions. Trephining (making bore holes in the skull) was also common, and such approaches had often fatal consequences for those subjected to them (Alty & Mason, 1992).

The growth of science during the 18th century, coupled with social changes based on the agricultural and industrial revolutions, brought changes in how people with a mental illness were perceived. The period of enlightenment, which also occurred during the eighteenth century, saw the care of people with mental illness becoming more formalised alongside other social reforms (Tardiff, 1984). The period of enlightenment was an intellectual movement with thinkers believing they could create better societies, using reason and

scientific methods. Reformist ideals gained traction in psychiatry with an increasing awareness of the appalling conditions in which patients in asylums languished. Reformists believed that the asylum could be a place of healing, with individuals potentially able to return to society. Phillipe Pinel was a major proponent in the reduction of use of mechanical restraints and containment (although he then introduced the use of straightjackets) and is often reported as the instigator of these reforms termed 'moral treatment', although it was the governor of Bicetre asylum, France, Jean-Baptiste Pussin who effected the removal of shackles in the 1790's (Weiner, 2008). Quakers Tuke in England and Rush in the USA also advocated for similar care approaches (Colaizzi, 2005). Tuke advocated for care which focussed on education, good nutrition, and exercise, with a belief that individuals should be aided to control their behaviour. Nevertheless, other forms of restraint such as straitjackets, physical punishment, coercion chairs and other forms of confinement continued to be commonly used in asylums during this time to control a patient's behaviour. The continuing belief that people with mental illness were violent and dangerous and whose behaviour needed to be contained and controlled has now become embedded in cultural consciousness over the course of hundreds of years (Ion & Beer, 2003).

In the 19th century, physicians became increasingly critical of the use of restraints. In the UK for example, the Lunatic Asylum Act (1842), which was a product of this concern, facilitated the reformation of lunatic asylums to psychiatric hospitals (Tardiff,1984). The Commissioners in Lunacy introduced seclusion as a short-term remedy for people who had uncontrolled, violent, agitated, or aggressive behaviours, and from that time seclusion was regarded as a form of treatment, to be used instead of physical restraint. John Connolly was a physician superintendent in Middlesex County Lunatic Asylum in the UK and abolished the use of restraints but fully supported the use of seclusion, although he acknowledged that seclusion too was a form of restraint (Alty & Mason,1992; Conolly,1856). Seclusion was also used for the observation of suicidal patients in these treatment settings when there were not enough staff (York, 2009). Other physicians continued to debate the appropriateness of the use of physical restraint and seclusion from a libertarian approach, but other methods of confinement such as wet packs and the wrapping of tight sheets were used to avoid mechanical restraint whilst seclusion continued to be used (Colaizzi, 2005). Despite libertarian approaches to the care of the mentally ill adopted by the medical profession, mental illness continued to be perceived as 'moral failure' and as punishment for personal human failings by the general populous, as reflected in the writings of Charles Dickens at that time (Pike, 1995).

2.2.1 Twentieth Century Psychiatry

The 20th century is often referred to as the 'psychiatric century' (Porter, 2002). Psychiatrists focussed on the scientific nature of the treatment of mental illness and classifications of disease concepts were developed (Geraud, 2007). The Diagnostic and Statistical Manual (DSM) of the American Psychiatric Association (APA) was first published in 1952 and, after many revisions, continues to be a predominant tool in the diagnosis of mental illness (Shorter, 2002). Other pharmacological developments early in the 20th century led to a rise in the use of chemical restraint, for example, using opiates, chloral hydrate, bromides, and barbiturates. However, their efficacy was very limited and only resulted in heavy sedation, although this was seen as beneficial to patients (Colaizzi, 2005). The justification for the continued use of forms of restraint lay in the belief that restraint was a form of treatment, thus was therapeutic rather than merely a behaviour management tool, and therefore was also perceived to provide safety to patients and the staff who cared for them (Tardiff, 1984). Despite limited scientific evidence on effectiveness, the assumed knowledge of treatments and practices built up during this period of history have informed a coercive systems approach that is still frequently used in contemporary mental health settings across many countries.

Despite the industrial, technological, social, and political developments of the 21st century, restraint in various forms is commonly employed in acute mental health services, in diverse ways which appear to be societally and culturally driven, related to acceptability or otherwise. Bowers et al. (2004) reported that in the UK, mechanical restraint is not used, whilst seclusion is common; Denmark and the Netherlands use mechanical restraint but not seclusion, and net beds but not seclusion are used in Austria and Russia. In Finland, seclusion and belts are used as restraint where forced medication is seen to be unacceptable to medical and nursing staff (Bowers et al., 2004). This diversity has been recognised by other authors (Pols, 2003) but such a degree of variability across countries has received little attention as to reasons why this is the case (Bowers et al., 2004). It can be hypothesised that societal constructions of mental illness in individual countries drives the type of restraint use, or that professional socialisation of staff influences attitudes towards restraint type use, but this was not proven in research investigating restraint type variations in Europe by Bowers et al. (2004).

In countries where mental health services are undeveloped or non-existent, the restraint of people with mental illness in the community is also common. For example, the use of

‘pasung’ in Indonesia, which refers to the restraint of individuals in outhouses, chicken coops or shackled at home (see Figure 1), continues as it does in many parts of Asia and Africa (Hidayat et al., 2020).

Figure 1. Pasung in Indonesia

Despite research demonstrating that seclusion is not therapeutic (Sailas & Fenton 2000), as recently as 2013, other research has suggested that seclusion and restraint may have potential benefits beyond behavioural control of patients (Pogge et al., 2013) and some mental health staff continue to view seclusion as therapeutic and necessary (van de Merwe et al., 2013). However, there is significant evidence that restraint practices have deleterious effects on patients, that patients have largely negative attitudes towards and experiences of restraint, and that it has no therapeutic value (Groves et al., 2017; Tingleff et al., 2017; van de Merwe et al., 2013). Although there have been biomedical advances in psychiatric treatment of the mentally ill, restraint practices continue to be used today despite these practices being recognised as an ‘embarrassing reality’ and treatment failure (Slemon et al., 2017). The emergent dominant view is that such practices have no place in the treatment of mental illness and contemporary calls are for their reduction and elimination in mental health settings (Australian Health Ministers’ Advisory Council , 2016). The ethical issues and associated controversy surrounding the use of restraint practices on people with a mental illness have been recognised since the birth of psychiatry and are discussed in the next section.

2.2.2 Ethical and legal issues in restraint practices: the paradox of care and control

> 'The basic ethical incongruity associated with seclusion is, on the one hand, the psychiatric ethos of maintaining/increasing personal liberty but on the other hand a dramatic suppressing of freedom'
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> (Morrall & Muir-Cochrane, 2002 p.3).

In the early days of psychiatric care, the control of people with mental illness was rationalised in moral terms, using Jeremy Bentham's principle of utilitarianism (the greatest good for the greatest number) to maintain safety for patients and the community (Bentham, 1781). The French philosopher and historian Michel Foucault made a significant contribution to understanding the nature and exercise of power in historical and contemporary psychiatry, exploring Bentham's work on institutions for the mentally ill. Foucault (1965) focussed on the social structures of organisations as based on power relations between individuals and groups. His genealogy of modern power viewed power as an everyday, socialised, and embodied phenomenon. In his text 'Madness and Civilisation' (1965), he philosophised that knowledge, and in particular psychiatry, were situated within social processes of coercion and discipline. He regarded 'moral treatment' as a pervasive form of power and control using as a core metaphor 'the panopticon' designed by Bentham - a prison that was never built, in which inmates could be always observed with surveillance as an ultimate form of control (Lakritz, 2009). When individuals did not conform to the overt and implicit rules of power in social structures, punishment would be meted out. As the discipline of psychiatry evolved, with the advent of neuropharmacology, coercive practices received more attention, increasingly being viewed as punitive and is discussed in the next section.

The rationalisation by psychiatry that coercion of patients was legitimated due to the need to control and keep individuals safe was challenged over time. The introduction of the first antipsychotics, antidepressants and mood stabilisers in the 1950's had some positive effects on people with a mental illness, increasing criticism of the use of restraints (Muir-Cochrane, 1995). Prior to that, there were no effective medicines for the treatment of depression, bipolar disorder, or schizophrenia. By the 1960's, radical reforms to institutionalised care were proposed by Laing (1964, 1965), Goffman (1961) and Szasz (1961) due to their critiques of psychiatric approaches to the treatment of the mentally ill as well as the concept of madness. These philosophical arguments facilitated a new era of ethical reasoning about control practices in psychiatric hospitals (Muir-Cochrane, 1995). For example, Goffman's text 'Asylums' detailed the sociological and political constructs of psychiatric institutions, interpreting the asylum as a 'total institution', i.e., a closed system which severely isolated

and restricted the everyday lives of patients who were denied both their autonomy and identity. The patient role was articulated as ‘a rather full set of mortifying experiences, restriction of free movement’ and without the ability to live a self-determining life (Goffman, 1961, p.137). Rosenhan (1973) also identified the experiences of psychiatric patients as dehumanising and characterised them as powerless. His research, in which people on the research team feigned mental illness symptomology to gain admission to hospital, revealed that they were labelled as mentally ill despite them exhibiting no symptoms during their admission; all of their consequent ‘normal’ behaviours (such as making notes and now claiming that there were well) were seen by staff through the lens of mental illness. The psychiatric institutional cultural system of care adopted this social construction of patients as objectified and ‘othered’, without capacity and reason. Such discrimination is discussed in the next section.

The term ‘stigma’ was conceptualised by Goffman, as a process based on the social construction of identity (Kleinman & Hall-Clifford, 2009) in which the person with a stigmatised condition such as mental illness is not normal but impaired or imperfect. This attribution discredited an individual, reducing him or her ‘from a whole and usual person, to a tainted, discounted one’ (Goffman, 1963, p.3). For Goffman (1963, p.5), ‘the person with a stigma is not quite human’ and is seen as ‘other’ (Foucault, 1965) and therefore ought to be socially excluded (Kaiser & Miller, 2001). Restraint practices continued to be justified in the context of stigma and were deemed as necessary in the maintenance of the order of the institution, rather than the needs of patients.

Given that restraint practices remove an individual’s freedom, a core ethical issue in mental health care lies in the balance of a person’s autonomy in situations where it is overridden by the need to protect the safety of other patients and staff in psychiatric hospitals. Despite ongoing ethical examination of the appropriateness of restraint practices, the removal of a patient’s autonomy remains an ethical and moral challenge for mental health services that has not yet been overcome (Zheng et al., 2020). This paradox of care and control persists today. The paternalistic principles of beneficence (doing good, maximising benefits) and non-maleficence (do no harm) have been employed to argue that the use of restrictive practices to control a patient’s behaviour (and thus remove their autonomy) is justified to protect the individual from harm to self or others and as such is also beneficial to the patient being exposed to control measures (Haugom et al., 2019; Muir-Cochrane & Holmes, 2001b). This justification is now enshrined in countries where Mental Health Acts exist. The

uncomfortable tension between care and control measures is reflected in the ethical debate that restraint in any form is inimical to the principles of beneficence and non-maleficence and facilitates the violence it is intended to control (Colaizzi, 2005).

A further ethical principle is that of justice, the principle of treating others fairly and equally, balancing burdens and benefits in health care equitably (Muir-Cochrane et al., 2018). In relation to restraint practices, it is difficult to argue that these practices are fair to the individual exposed to them. In a systematic review of ethical challenges in mental health, Hem et al. (2018) suggest that the complexity of contemporary mental health practices is not a dyad of either maintaining a patient's full autonomy or staff using restraint practices; instead, the boundaries between the two are often blurred. Hem et al. (2018) argued that temporarily using control measures offers the opportunity for the patient to regain capacity and autonomy over time, and they reported several studies which support these claims from an ethical perspective (Bennett et al., 1993; Kjellin et al., 1993; Kullgren et al., 1996). Hem et al. (2018) found few studies that explored ethics when investigating coercion in mental health care. They found that a few studies identified justice as an ethical focus while some studies focussed on the moral distress of mental health staff (Austin, 2008; Bigwood & Crowe, 2008). Nevertheless, the overwhelming evidence of patients' experiences of being exposed to restraint practices is largely negative and can be perceived as maleficent (Goulet & Larue, 2018; Hawasawi et al., 2020; Ling et al., 2015; Tingleff et al., 2017).

It remains an important issue for mental health professionals to reflexively explore the ethical challenges of the use of restraint practices. There is a need for a sustained focus on these ethical challenges in mental health care since, as Hem et al. (2018, p.94) point out, mental health legislation and policy have the 'potential to undermine liberty more than any other part of civil law and society'. It has not yet been 'possible to translate philosophical ideals into practical realities' (Colaizzi, 2005, p.37), thus the paradox of care and control remains. Legal and human rights issues are interwoven within this paradox and are discussed in the next section.

2.2.3 Human rights issues, legislation, and policy matters

Sustained political and social action through the Civil Rights Movement in the USA in the 1950's and 1960's resulted in major legislated changes to reduce the discrimination towards certain groups in society, including people of colour and people with a mental illness or disability. As a result, the process of deinstitutionalisation - the closing of large, long stay

hospitals and relocating patients to the community - commenced in the 1960's, although this was not completed in Australia until the mid 1980's. At the same time, the consumer movement emerged drawing attention to the injustices facing people with a mental illness and lobbying for mental health reform. However, while this movement has spotlighted the need to improve patients' human rights, a commensurate reduction in coercive care has not eventuated. The rapid reduction in number of hospital beds within psychiatric care during the last few decades of deinstitutionalisation has brought about a situation where an increasing proportion of inpatients receive coercive care due to serious psychiatric conditions (Chow & Priebe, 2013); often admitted involuntarily, and hospitalised for shorter periods of time than in the past due the intense pressure on acute beds (Allison & Bastiampillai, 2015; Fletcher et al*.,* 2019a). Thus, the rationalisation of the use of restraint practices can be seen to be a response to maintain safety due to the high acuity of patients' illness.

An awareness of the human rights issues regarding the treatment and human violations of the rights of people with a mental illness has now existed for some decades with the WHO declaring such violations as a global emergency (WHO, 2021). During the 1980s and 1990's, there was increasing awareness of poor standards in Australian mental health services and concerns about the infringement of basic rights of people with a mental illness. In the USA, The Courant newspaper reported 142 patient deaths between 1988 and 1998 associated with being secluded or restrained, resulting in legislation mandating the reporting of deaths and an increased focus on reducing restraint use (Altimari, 2006). Widespread calls for significant reform nationally and internationally led to changes in policy but not necessarily approaches to mental health care that respected patients' rights. This led to the Australian Human Rights and Equal Opportunities Commission's (HREOC) National Inquiry into the Human Rights of People with a Mental Illness (The Burdekin Report - Burdekin, 1993) and the implementation of a National Mental Health Strategy in 1992. Key elements of these documents focused on basic human rights of people with a mental illness and the responsibility of mental health services to uphold them in the context of the use of restrictive practices.

The Burdekin report (Burdekin, 1993) was a significant milestone raising awareness about mental illness in Australia. Following a three-year comprehensive investigation, stark and shocking reports from patients who had been exposed to restraint practices, and their families, were published. For the first time in Australia, the report made specific recommendations about the use of seclusion to be employed only as a last resort (Burdekin,

1993). A plethora of mental health reports and strategies followed in Australia which are presented in Table 1.

Table 1. Reports, strategies, and actions regarding the use of restrictive practices in Australia

Year	Report Title	Organisation
2005	Not for service: experiences of injustice and despair in mental health care in Australia	Mental Health Council of Australia
2005	National safety priorities in mental health: a national plan for reducing harm	National Mental Health Working Group
2009	Ending seclusion and restraint in Australian mental health services	National Mental Health Consumer and Carer Forum
2010	National standards for mental health services	Department of Health and Ageing
2012	A contributing life: the 2012 report card on mental health and suicide prevention	National Mental Health Commission
2014	Living well: a strategic plan for mental health in NSW 2014–2024	Mental Health Commission of NSW
2015	A case for change: position paper on seclusion, restraint, and restrictive practices in mental health services	National Mental Health Commission
2016	Minimising the use of seclusion and restraint in people with mental illness: position statement 61	Royal Australian and New Zealand College of Psychiatrists
2016	Seclusion and restraint position statement	Australian College of Mental Health Nurses
2017	National principles to support the goals of eliminating mechanical and physical restraint in mental health services	Restrictive Practice Working Group
2017	National principles for communicating about restrictive practices with consumers and carers	Restrictive Practice Working Group

NSW Health (2017 p.8).

The strategies and principles arising from the above reports refer variously to all forms of restriction on a person's freedom, such as involuntary detention, while others focus on the restraint practices of physical, mechanical, and chemical restraint. Australian policy and

practice documentation creates some confusion by using the terms ‘restraint practices’ and ‘restrictive practices’ interchangeably. In the interests of clarity, from here on, in this thesis the term ‘restrictive practices’ will be used to refer to the breadth of restrictions placed on psychiatric patients. The term ‘restraint practices’ will be used where that is the term adopted in strategies and policies.

In 2005, the Australian Health Ministers agreed to the National Safety Priorities in Mental Health: A National Plan for Reducing Harm, which was part of the National Mental Health Strategy (2003-2008). This was the first time a plan was adopted to reduce harm in mental health settings. One of the four priority areas within the Strategy related to restrictive practices and focussed on the identification, avoidance, and reduction of harm in all environments in mental health care. Since then, the term ‘least restrictive environment’ has become common parlance and refers to a concept which underpins patients being cared for in an environment where the goal of practice is to ensure the least amount of restriction is placed on their freedom of movement and autonomy while maintaining safety for all.

Following the roll-out of the National Mental Health Strategy (2003-2008), the Commonwealth government (2007-2009) funded all Australian jurisdictions as part of the National Beacon Project. This project identified beacon sites as centres of excellence in the reduction of restrictive practices in the care of the mentally ill, adopting the Six Core Strategies for Reducing Seclusion and Restraint (Huckshorn, 2004). These strategies, as outlined in a report prepared for Australia’s National Mental Health Commission (Melbourne Social Equity Institute, 2014, p.13), are:

1. ‘‘Leadership towards organisational change’ – articulating a philosophy of care that embraces seclusion and restraint reduction;

2. ‘Using data to inform practice’ – using data in an empirical, ‘non-punitive’ way to examine and monitor patterns of seclusion and restraint use;

3. ‘Workforce’ – developing procedures, practices and training that are based on knowledge and principles of mental health recovery;

4. ‘Use of seclusion and restraint reduction tools’ – using assessments and resources to individualise aggression prevention;

5. ‘Consumer roles in inpatient settings’ – including consumers, carers and advocates in seclusion and restraint reduction initiatives; and

6. ‘Debriefing techniques’ – conducting an analysis of why seclusion and restraint occurred and evaluating the impacts of these practices on individuals with lived experience’.

The National Seclusion and Restraint Forum was also initiated through the national plan for reducing harm, now called the Towards Eliminating Restrictive Practices Forum, which occurs biennially, last held in 2018. The disciplines of psychiatry and mental health nursing both developed position statements regarding restrictive practice (see Table 1). The Royal Australian and New Zealand College of Psychiatrists (RANZCP) Minimising the Use of Seclusion and Restraint in People with Mental Illness: position statement 61 articulates that restraint measures are an intervention not a therapy and are only to be used in an emergency. Both psychiatry and mental health nursing statements support the use of least restrictive practices wherever possible, and that they ought to only be used as a safety measure and as a last resort, and only when all other interventions have been considered. The Australian College of Mental Health Nurses (ACMHN) Seclusion and Restraint Position Statement (2016) asserted that seclusion and restraint events need to be acknowledged as a failure in care, in order that initiatives to reduce and where possible eliminate restraint practices in mental health settings can be realised. Both statements identified that such practices are harmful, traumatic for patients, families, and health staff alike, and should be reduced and eventually eliminated. The ACMHN continue to advocate that mental health nurses have a crucial role in the provision of quality care in mental health services and call for mental health nurses to take leadership in the facilitation of positive change. Two of the papers included in this PhD PP were funded by the National Mental Health Commission in 2017 (Gerace & Muir-Cochrane, 2018; Muir-Cochrane et al., 2018). These papers made a significant contribution to understandings about the practice of seclusion and restraint from the perspectives of mental health nurses working in acute mental health services and Emergency Departments.

The position statements from psychiatry and mental health nursing support other national initiatives, which include the introduction of the formal collection of data concerned with seclusion and restraint, hitherto not collected nationally nor consistently at jurisdictional level. Consequently, data on seclusion was first collected and reported in 2015 and data concerned with mechanical and physical restraint was reported for the first time in 2018 by the Australian Institute of Health and Welfare (AIHW). However, despite efforts by the Australian Health

Ministers through the Safety and Quality Partnership Standing Committee, data regarding the use of chemical restraint is not yet available due to difficulties in articulating an operational definition for implementation by mental health services. The Beacon Project has not formally been evaluated but local successes have been reported in the reduction of seclusion and restraint (NSW Health, 2017). The documents titled 'The National Principles to Support the Goal of Eliminating Mechanical and Physical Restraint in Mental Health Services' (2016) and 'The National Principles for Communication about Restrictive Practices with Consumers and Carers' (2016) were launched alongside the establishment of the national restraint database to provide a national best practice approach and provided scorecards for all jurisdictions about their use of restrictive measures. However, the principles are not mandatory in Australia, due to the lack of consistency in both state and territory legislation and policy. Such initiatives and directives are not restricted to Australia and the UK but originated in the USA (Huckshorn, 2004), and are increasingly seen in Canada, Europe, and other countries, such as India and the African and Asian continents (Gooding et al., 2018). There are various levels of enforcement, all with the same core aim of reducing harm to patients and reducing or eliminating seclusion and restraint.

Australia has never had a Charter or Bill of Rights and does not have a human rights treaty, unlike many other countries in Europe, Africa, and the USA (McSherry, 2014a). Nevertheless, Australia has formally approved (ratified) a number of international human rights conventions. The most relevant convention to mental health is the Convention on the Rights of Persons with Disabilities (CRPD) which came into effect in 2008, having been adopted by The General Assembly of the United Nations in 2006. Article One of the CRPD identifies persons with disabilities to include 'those who have long term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others' (CRPD, 2006, p.4). Australia also signed the CRPD's Optional Protocol in 2009, which allows individuals to express their concerns to the United Nations Committee on the Rights of Persons with Disabilities if they believe their rights set out in the CRPD have been breached (McSherry, 2014a).

Article 17 of the CPRD (2008) states that all people with a disability have a right to respect for their physical and mental integrity on an equal basis to others. However, there is no detail about what this involves, although McSherry (2008) argued that it may be viewed as restricting practices, including seclusion and restraint. Juan Méndez, the United Nations Special Rapporteur on Torture, has called for a total ban on seclusion and restraint in any setting

where people's liberty was removed, including in psychiatric settings (United Nations Human Rights Council, 2013). While Australia has ratified the CRPD, this does not mean that the Convention is a part of Australian law nor that it is necessarily enforceable in the Australian judicial system (Kiao vs West, 1985) due to existing legal complications (McSherry, 2004). For this to occur, a law needs to be enacted by the Australian Parliament which enshrines the CRPD in domestic law and thus the Convention could be enacted. However, to date this has not occurred, yet the CRPD can potentially influence how courts interpret Australian law (Kampf, 2013).

2.2.4 Mental health legislation and restrictive practices

Laws related to mental health are diverse and inconsistent across Australian jurisdictions. Mental Health Acts across Australia vary in detail regarding the inclusion or omission of definitions of various types of restraint, powers to restrain and seclude, observation, monitoring and examination, external review mechanisms, reporting and recording of events of seclusion and restraint, and the powers of the Chief Psychiatrist (New South Wales Health, 2017). In New South Wales, the regulation of restraint and seclusion is managed through policy directives rather than through mental health legislation (New South Wales Health, 2017). Definitions of seclusion and restraint practices in Australia are varied due to inconsistencies in jurisdictional mental health legislation. Some, but not all of Australia's Mental Health Acts provide details about restrictive practices. For example, Mental Health Acts in South Australia (2009), Western Australia (2014) and Queensland (2016) do make specific reference to the use of restrictive practices. The South Australian Mental Health Act (2009) refers to restrictive practice as including:

> '(a) the use of physical, mechanical or chemical means to restrain the patient; (b) seclusion or the confinement of the patient on his or her own in an area from which he or she cannot leave of his or her own volition' (South Australia Mental Health Act 2009, pp. 8-9)'.

Further disparity in the recognition and legislation of restrictive practices is seen in relation to emotional restraint. Emotional restraint is not yet defined or included in Australian mental health legislation; however, a report by the National Consumer and Carer Forum (2009, p.6) refers to emotional restraint where the 'individual consumer is conditioned to such an extent that there is a loss of confidence in being able to express their views openly and honestly to clinical staff for fear of the consequences'. The Australian Institute of Health and Welfare (AIHW) which collects mandatory reported data on restraint practices, defines seclusion as the confinement of a patient at any time where the person is alone without free exit.

Restraint is defined as the restriction of an individual's freedom of movement by physical and mechanical means (AIHW, 2021). Restraint data, as specified by the Mental Health Seclusion and Restraint National Best Endeavours Data Set (SECREST NBEDS), is collected in two forms: mechanical restraint (the use of belts or straps to restrict a person's movement); and, physical restraint, which refers to the hands-on restriction by health care staff (AIHW, 2021). These are the definitions that mental health services across Australia are required to use to record the incidence of restraint and seclusion providing consistency across jurisdictions.

A further issue relates to the recording of data on restrictive practices. To date, data is only collected from acute specialised mental health hospital service settings as this has been the current focus of national improvement initiatives. However, it is likely that data on restrictive practices in a range of other health settings, including disability and residential aged care services, will be formally collected in the future as a focus on least restrictive practices is strengthened. As previously stated, chemical restraint is not yet defined as there is a lack of agreement about what chemical restraint is and is not (AIHW, 2014). Therefore, such data is not currently collected nationally but is collected in some jurisdictions such as South Australia. For the purposes of this thesis and since the prior publications of the thesis are founded on research in South Australian public health services, definitions prescribed in South Australian mental health services restraint and seclusion standards will be adopted and will be discussed in the next section.

2.2.5 South Australian policy context

In South Australia, in accordance with the national focus on reducing harm since the early 2000's, successive Chief Psychiatrists have focussed on the reduction and, where possible, elimination of restrictive practices. This has been based on the Six Core Strategies for reducing seclusion and restraint (Huckshorn, 2004) discussed earlier. Standards and mental health service policy guidelines were endorsed using these core strategies as a foundation, including the 'Restraint and Seclusion Recording and Reporting Chief Psychiatrist Standards' (2015a) and 'Restraint and Seclusion Application and Observation Chief Psychiatrist Standard' (2015b). Data about the incidence of seclusion commenced collection in 2009 in South Australia, well before national data sets existed in 2014. Data were used to inform mental health units and Emergency Departments to raise awareness of the use of least restrictive care and only use seclusion and restraint as a last resort.

Despite the implementation of the above policy guidelines, in February 2016, family members of a patient at Oakden Older Persons Mental Health Services in South Australia expressed their concern to the Principal Community Visitor regarding alleged overdosing on medication and unexplained bruising on their family member, which resulted in a formal enquiry into the service. An external independent review and final report was undertaken by the state Chief Psychiatrist revealing a horrifying illustration of poor care which included elder abuse, excessive use of seclusion and restraint without mandatory documentation, and what was documented in the nursing notes as 'floor time' (Groves et al., 2017). This referred to the practice of leaving disturbed patients on the floor with no nursing intervention by staff for long periods of time, in some cases. These inhumane practices led to the closure of Oakden in late 2017. The findings of this report were shocking and detailed the systemic failure of care for older people with mental illness. They resulted in a renewed and sustained focus on the lack of adherence to least restrictive practices in mental health care as well as the need to report all incidences of seclusion and restraint.

The use of restrictive practices in South Australia is now guided by the recent implementation of the 2021 Standards entitled 'Restraint and Seclusion Standards: A standard to reduce and eliminate where possible the use of seclusion and restraint applied under the Mental Health Act' (Restraint and Seclusion Chief Psychiatrist Standard and Toolkit, 2021). The Standards have detailed resources and a toolkit offering guidance to the practice, review and monitoring of restraint and seclusion within a least restrictive environment. The definition of seclusion under the above Standards is consistent with the national data collection definition but also includes presence of staff at the seclusion room door to prevent a patient leaving. Definitions of physical and mechanical restraint in the South Australian Standards echo the national data set definition but also refer to the use of sheets, harnesses and manacles used to restrict movement. The Standards detail that the use of beds with cot sides and chairs with tables fitted on their arms are not included except if their explicit use is to prevent freedom of movement. Further, emotional restraint refers to verbal or non-verbal intimidation or coercion to restrict a person's choice of behaviour (Minimising Restrictive Practices in Health Care Chief Psychiatrist Standard and Toolkit, 2021).

Another form of restrictive practice is chemical restraint. Chemical restraint can be defined as the use of drugs to control aggressive, highly agitated behaviour or behaviour posing a risk to self or others and which restricts a person's freedom of movement by causing

sedation or a semi-stuporous state. However, the term is used variously in Australia and overseas causing an ongoing lack of definitional clarity relating to chemical restraint. Its use and the associated concerns in psychiatric care are worthy of detailed explication due to the controversy surrounding this form of restraint when other forms of restraint and their definition are clearly understood by mental health staff. The issues associated with the definition of chemical restraint are discussed in Chapter Three entitled; A wicked problem: Chemical restraint: towards a definition.

2.3 Summary

This chapter has explored historical, ethical, and legal issues associated with the use of seclusion and restraint practices used in the treatment and care of people with a mental illness. Seclusion and restraint have had a long and chequered history and, despite ongoing controversy as well as assertive national and local initiatives to reduce or eliminate these practices, they remain commonly practised. Ethical issues remain unresolved, with the autonomy of patients being overridden where the maintenance of safety for other patients and staff is deemed paramount. The paradoxical relationship between care and control persists today, with the continuance of coercive institutional cultural practices maintained over hundreds of years. Although restraint and seclusion are only to be used as a last resort and when all other strategies have been tried, the associated human rights issues strengthen arguments for the discontinuation of all restrictive practices. The core issue is how to translate such an ideal into a practical reality in the clinical setting. The next chapter explores safety and risk as core concepts in health care delivery and particularly in relation to the care and control of people with a mental illness. In acute mental health settings, the term ‘safety’ has been reconceptualised as facilitating the continuation of control measures.

CHAPTER THREE
SAFETY, RISK, RESTRICTIVE PRACTICES, AND THE CONSUMER EXPERIENCE

3.1 Introduction

This chapter discusses the concepts of safety and risk, viewed as foundational to the provision of contemporary care in mental health settings. The dynamics of how safety has been reconceptualised and operationalised as risk in mental health settings is explored to demonstrate how and why contemporary restrictive practices are employed. Although safety has been established as the cornerstone of care in health settings, patients are now conceptualised as 'risky', presenting threats that need to be forestalled, justifying the use of control measures. The range and nature of such practices used in acute mental health settings are discussed in the context of current research about their efficacy. Locked doors, observational practices and seclusion and restraint are discussed in depth, in relation to the international and Australian literature. Finally, the nature of the experiences of individuals exposed to restrictive practices is examined to emphasise their impact and problematise their ongoing use.

3.2 Safety in mental health care

The WHO (2019) determine that quality mental health care is based on safe, timely, equitable and person-centred delivery of services which respect human rights, and are evidence based. Safety in health care is a multidimensional concept and involves factors such as patient safety, occupational safety and quality improvement (Australian National Safety and Quality Health Service Standards (NHQHS), 2017; Muir-Cochrane, 2020c). Patient safety issues generally include the provision of the best treatment outcomes and the avoidance of harm. Harms can include a lack of protection of patient rights, physical and emotional abuse, mistakes in care and treatment, patient falls, pressure area injuries, environmental hazards, errors in medication management and administration as well as the acquisition of infections whilst in hospital. Occupational safety refers to the provision of a safe and healthy environment for health employees, and involves the identification, prevention and management of hazards. Leadership from management, education and training of staff are intended to operationalise effective occupational safety approaches. Quality improvement underpins the provision of effective, efficient and consistent safe care

which aims to prevent negative patient outcomes, utilising the best available evidence (Australian Commission on Safety and Quality in Health Care, 2017).

Safety in mental health settings involves the protection of people with a mental illness from the above potential harms, but also extends to the reduction of other harms such as suicide and harms to self or others due to aggression, violence and absconding (Slemon et al., 2017). Remarkably, there is limited research on patient safety conducted in inpatient mental health settings (Thibaut et al., 2019). In a review of the literature on safety in acute psychiatric inpatient units, Kanerva et al. (2013) identified organisational management as vital in determining patient safety, through safe care practices, leadership and the promotion of a safe working and residential environment. A more recent systematic review on the topic determined categories which had been researched in acute inpatient care settings (Thibaut et al., 2019). The categories of 'interpersonal violence' and 'coercive interventions' relate to conflict between patients and mental health nurses, and the resulting use of restraint measures were the most frequently researched safety issues. Other issues included 'self-harm', 'unauthorised leave' (absconding) and 'safety concerns' regarding diagnosis, accurate risk assessment and medication errors. The provision of safety measures in the physical environment regarding the removal of potential ligature points, privacy for patients, overcrowding and noise levels were also acknowledged (Thibaut et al., 2019). However, these authors concluded that patient safety was under-researched in acute psychiatric units in comparison to other non-mental health settings and that further research was required to influence quality care through evidence-based clinical research.

The NSQHS (2017) aim to protect the public from harm and maintain a high quality of health care provision through the setting of standards which guide service provision and establish for patients what they can expect from health services. These standards identify that restrictive practices refer to all types of restraint including containment and seclusion, and that such practices ought not be used as punishment or when staffing is inadequate. Specifically, Action 5.35 states, 'Where restraint is clinically necessary to prevent harm, the health service organisation has systems that:

a. Minimise and, where possible, eliminate the use of restraint

b. Govern the use of restraint in accordance with legislation

c. Report use of restraint to the governing body'

(NSQHS, 2017, p.50).

Within the above standards, the effective identification and management of a person's deterioration in their mental state is the mechanism for enhancing safety and minimising the use of restraint. Using deterioration in mental state as a safety measure indicating the need for safety practices in health care is a recent initiative, operationalised through the National Consensus Statement: Essential elements for recognising and responding to deterioration in a person's mental state (2017) in order that evidence-based strategies are employed as part of current and advanced care planning. Tools do exist that assess mental state (the Mental State Examination Scale), to support the prediction of violence (HCR 20, Broset) or triage mental health patients (the Mental Health Triage Tool); however, as Gaskin and Dagley (2018) highlight, there is no existing tool designed specifically for monitoring deterioration in mental state in Australia. These authors conducted a Delphi study with clinicians, consumers and carers and identified the following signs relevant to the assessment of deterioration in mental state:

'**A reported change** - a person, or someone who knows the person well, reports that her or his mental state is changing for the worse.

Distress – a person shows signs of distress, which are evident through observation and conversation.

Loss of touch with reality or consequence of behaviours- a person is losing touch with reality or the consequences of her or his behaviour.

Loss of function – a person is losing her or his ability to think clearly, communicate, or engage in regular activities.

Elevated risk to self, others or property – a person's actions indicate an increased risk to self, others, or property' (Gaskin & Dagley, 2018, p.27).

Knowing the patient well and engaging with them, as well as their significant others, was also deemed essential as baseline information from which to assess and monitor a person's health status. Nevertheless, the current lack of a specifically designed instrument to provide the systematic gathering of core and collateral patient information on a deterioration in mental state presents a significant gap in the potential to provide safe and high-quality care.

Patient safety research on deterioration in the mental state of inpatients has received little attention in mental health settings to date (Sands et al., 2017).

3.2.1 Safety as risk

> 'What used to be called 'needs assessment' in patient care is now reframed as 'risk assessment' in Australia and overseas.'
>
> (Muir-Cochrane & Duxbury, 2017 p. 421).

As previously discussed, one sign of mental state deterioration relates to the risk or harms a person can create within the environment; exemplified by acts such as suicide, self-harm, aggression or violence (Bowers et al., 2010). In mental health settings today, despite a refocusing on deterioration in a patient's mental state, the dominant safety discourse of systems and service providers is focussed on the identification, assessment and management of potential risks caused by patients (Slemon et al., 2017). Conversely, some advocate that the key safety considerations for patients are freedom from discrimination and psychological safety (Delaney & Johnson, 2008). Thus, whereas in the past patient safety referred to the patient's needs and associated care, today the patient is assessed and managed through the risk they present to themselves, others and their environment. Since its introduction, the term 'needs assessment', which included a professional assessment of a person's abilities and symptoms which served to create individualised care plans, has all but vanished from the language of health professionals (Muir-Cochrane & Gerace, 2014). Risk, risk assessment and management of mental health patients are now core features of the provision of care to people with mental illness. The discourse of safety is intertwined with that of risk and highlights the complexities in the provision of safe and effective care in inpatient settings. The next section examines the sociological concept of risk and how it is operationalised as risk assessment in the care and control of people with mental illness.

3.2.2 Risk and risk society

In simple terms, risk refers to the probability or likelihood of an adverse event happening (Muir-Cochrane & Wand, 2005). Societal changes over the last 30 years have seen a global trend in the idea that economic and social risks are the responsibility of individuals, social groups and the general community (Lupton, 1999) with a view to reduce demand on the welfare state regarding health, housing, employment and disability (Muir-Cochrane & Wand, 2005). The concept of a risk society was introduced in the late 1980's by the sociologist Ulrich Beck, with the work of others including Giddens (1991) and Lupton (1999) being influential contributors to the risk discourse critiquing modernity. Modernity refers to both a

historical period and the socio-cultural norms and practices that emerged during the Renaissance of 17th century thought and the 18th century Enlightenment period. Beck defined risk as a social construction created to deal with hazards and insecurities (Beck, 1986, p. 21). This repositioning of risk from previous societal understandings posits that risk is created by decisions, not by chance, danger or hazard (Giddens, 1999; Lupton, 1999). In debates about risk, risk has become a core aspect of human subjectivity, one that is a pervasive, cultural and political concept, which influences contemporary social life (Muir-Cochrane & Wand 2005, p. 2). For Giddens (1999, p. 3), a risk society is a 'society increasingly preoccupied with the future (and with safety) which generates the notion of risk'. Giddens and Beck argued that risks such as natural disasters have always existed, but not necessarily because of human activity. Giddens (1999) proposed a new type of risk, manufactured risk, which is the product of human influence and accordingly can be mitigated by human intervention. Manufactured risks are a product and consequence of increasingly complex social systems and structures (Giddens, 1999), are concerned with the future, and thus are hard to predict. Such risk cannot be eliminated, but can be assessed, controlled or prevented through intervention. Interpretations of risk are dependent on social, political and ethical constructions (Gale et al., 2016). A societal example of this is the perception by the general public that people with mental illness are a danger to society (Morgan, 1998; Szmukler & Rose, 2013) and are risky individuals who need to be controlled to reduce uncertainty.

Zero tolerance of certain behaviours (agitation or aggression) in health settings, resulting in the exclusion and banning of individuals, has occurred as a result of risk society discourse. The zero tolerance concept originated in the United States of America and refers to the lack of tolerance of specific behaviours in society, under any circumstances, for example crime, drug taking and misbehaviour by school children (Sughrue, 2003). Zero tolerance continues to underpin policy, despite a lack of evidence that such a societal approach in health care is effective (Whittington, 2002). Ekberg (2007) argues that, in a risk society, risk is misinterpreted as actual danger, not the possibility of danger and, as such, is a flawed concept because of the unpredictability in assessing a future risk. Risk society discourse is reflected in the operationalisation of risk in mental health settings, which is explored in the next section.

3.2.3 Risk in contemporary mental health care

In relation to mental health care, risk involves uncertainty about the effects of patient behaviour on their own safety or that of others, and usually foregrounds aggression and violence by patients, with associated negative and undesirable consequences. This narrow view of risk situates risk within the individual and not at the institutional level, with a focus on preventing dangerous behaviour (Briner & Manser, 2013). Risk assessment and management are now central considerations across health care organisations, and these practices have re-oriented 'care work' to 'risk work' undertaken by mental health professionals (Flynn, 2002; Gale et al., 2016; Rose, 1998). Woods and Kettles (2013) propose that risk work is the highest profile task for nurses in mental health settings with a perception that all patient risks can be identified and prevented. Aggression and violence in health care settings by both patients and the general public are now core safety issues for health professionals (Muir-Cochrane et al., 2020b). Research has shown that rates of reporting and injuries to staff are increasing, and mental health professionals are at a higher risk of exposure than other health professionals (Bilici et al., 2016, Ridenour et al., 2015, Vaez et al., 2014). Studies have reported the incidence of nurses experiencing violence as high as 80% (Moylan & Cullinan, 2011; Pulsford et al., 2013). Thus, there is an organisational health and safety imperative to protect health professionals, as well as patients. Nevertheless, Chan (2016, p. 209) posits that there has been a misinterpretation of occupational health and safety which has seen individuals being viewed themselves as an occupational hazard. Thus, the dignity and autonomy of the individual is outweighed by the need for the maintenance of safety on inpatient mental health units (McSherry, 2021a). This is reflected in the risk assessment and management practices, adopted within Australian hospitals, towards patients deemed to be aggressive or violent.

Other forms of risk beyond aggression and violence are also directly relevant to patient care and include risk to patients from other patients, risk to patients of neglect, exploitation or abuse, risk of social isolation, unemployment and homelessness, and risk of physical illness. However, these are generally backgrounded in risk assessment where the less common but more dramatic risks of self-harm, aggression and violence in mental health settings are prioritised (Muir-Cochrane & Wand, 2005). Risk assessment tools used in mental health settings focus primarily on risk of harm to self-and/or others, level of impaired functioning, supports available to the patient, history of response to treatment and attitude to and engagement with treatment. High probability risk such as non-concordance with medication are given less attention than other risks due to aggression and violence (Coffey at al., 2016),

the latter needing to be prevented at all costs. Furthermore, a negative attitude towards treatment is often interpreted as lack of insight or unwillingness to engage with mental health services and further reinforces the risky nature of the patient's condition (Dawson et al., 2021a).

The degree of risk a patient is assessed as posing is directly correlated with the amount of control mental health staff will exert over the patient to reduce the risk occurring. Yet, the prediction of risk remains an inexact science (Woods & Kettles, 2013) despite the proliferation of screening, predictive and actuarial-based risk assessment tools. When risk assessments identify 'false positives', individuals are wrongly exposed to restrictive practices which can be very negative experiences for the patient (Szmukler & Rose, 2013). Risk assessment is flawed as it seeks to control patient behaviours in the future, while the accuracy of assessment remains questionable (Rose, 1998). The risk discourse remains problematic because it identifies risk as lying within the patient; a potential threat to be forestalled. When patients are deemed at high risk by mental health staff, they are commonly exposed to a range of restrictive practices. These practices are discussed next.

3.3 Restrictive practices in acute mental health care settings

As described in Chapter Two, restrictive practices have a very long history in the care and management of people with a mental illness and this legacy continues to shape such practices (Sashidharan et al., 2019). Risk and safety discourses have evolved to legitimise practices that exert control and constraint on people hospitalised due to mental illness. These restrictive and coercive practices include locked doors, close observation, seclusion and restraint, surveillance and control measures, such as not permitting leave while an inpatient. The concept of coercion, although described variously in the literature, underpins the use of restrictive practices and is useful to frame the following discussion.

3.3.1 Coercion

Coercion can be defined as the 'action or practices of persuading to do something using force or threats' (Oxford English Dictionary (OED), 2020). Coercive practices, compulsion and constraint are frequently reported in the literature about the treatment of people with a mental illness (Gooding et al., 2020). Compulsion is defined slightly differently to that of coercion as 'the action or state of forcing or being forced to do something: constraint (OED, 2020). As 'risk workers' (Woods & Kettles, 2013), nurses are frequently involved in the use of coercive measures (Martello et al., 2018). Chapter Two examined the use of coercive

practices over time (Goffman, 1961; Szasz, 2009) and this 'historical legacy (Sashidharan et al., 2019) shapes current coercive practices' (Paradis-Gagne et al., 2021, p.2). The concept of coercion is used in the psychiatric literature in several different ways, for example, to mean the use of authority by health staff over individuals (O'Brien & Golding, 2003) or to influence or pressure patients (Garcia-Cabeza et al., 2017), which prevents a clear examination of how coercive practices are understood and researched (Salzman & Erikson, 2015). Further, the research literature uses a range of other terms when referring to coercion, including mandatory interventions and containment measures (Looi et al., 2014) as well as assertive interventions and approaches (Chambers et al., 2015; Price et al., 2018), usefully described by Paradis-Gagne et al. (2021). These authors identify that the concept of coercion has been also used as an adjective by many authors, such as; coercive measures (Salzmnann-Erikson & Erikson, 2015), coercive practices and processes (McKeown et al., 2019), coercive manoeuvres (Ryan & Bowers, 2005) and coercive power (Bradbury et al., 2017). This diversity in terms used to refer to coercion confounds the examination and interpretation of existing research on this topic in acute care settings.

In mental health settings, coercion is generally understood as involving involuntary commitment to care in the community and inpatient settings (Dawson et al., 2021a), as well as restrictive practices and forced treatment, which have recently been referred to as formal coercion (Paradis-Gagne et al., 2021). Garcia-Cabeza et al. (2017) detail informal coercion as a less visible and subtle form of control, including using the relationship with the patient to influence the patient's decisions or actions. Such informal coercion occurs within a differential power relationship in which the patient holds little power. Verbal limit setting, threats and persuasion, the imposition of house rules, restricting patient property, restricting use of mobile phones, ward searches and observation are also identified as forms of informal coercion (Cleary et al., 2018; Hylen et al., 2019; Kalagi et al., 2018).

It is useful to differentiate the use of coercion (restraint or seclusion) in an emergency (self-harm or aggression or violence), as opposed to the use of a Mental Health Act or treatment in a non-emergency, to mitigate the risk a person may pose to themselves or others due to illness, to provide a gradation and taxonomy of coercive measures that can be used to guide further research in this important area of psychiatric care (Paradis-Gagne et al., 2021). Such differentiation would acknowledge that coercion is an everyday occurrence in the existing care of people with a mental illness, unlike the everyday treatment of physical illness (Dawson 2021a).

The negative impact of coercion on patients, health staff and families has increasingly been recognised (Wharewera-Mika et al., 2016), as well as an awareness that coercive practices are both overused and with limited efficacy. Yet, coercion remains a part of everyday practice in mental health settings (World Psychiatric Association, 2020). Reasons why coercive practices remain commonplace include a perception by health staff (and nurses) that coercion is a 'necessary evil' but unavoidable to maintain safety on the ward where there are no suitable alternatives (Perkins et al., 2012; Rose et al., 2015), and that such practices have become normalised (Paradis-Gagne et al., 2021) and accepted by staff as a component of the nature of the work (Jansen et al., 2019). A more focussed analysis of the concept of coercion in mental health settings would be of use to inform policy and clinical practices, with the aim of reducing coercion and increasing the implementation of least restrictive practices. How individuals experience coercion is explored later in this chapter under the heading 'The consumer experience' and understandings about the use of restrictive practices by nurses are examined in Chapter Six. The next section examines the most common restrictive practices currently used in acute inpatient units within Australia and other countries, and the research evidence regarding their efficacy to provide further context for the published papers in this PhD PP.

3.3.2 Locked doors

The practice of locking the exit doors of psychiatric wards and units is generally believed to make psychiatric inpatient units safer and is recognised as a restrictive reaction to the high acuity of patients' illness. (Fletcher et al., 2019b). Despite policy and practice focus on the provision of the least restrictive environment (discussed in Chapter Two), locked wards and units commonly occur in practice (Muir-Cochrane et al., 2012). The practice of locked doors is directly relevant to this thesis, as it is also generally perceived by health staff to reduce absconding (leaving the hospital without formal approval) by psychiatric inpatients. Two of the included papers in this PhD by PP focus on absconding in the South Australian context (Muir-Cochrane et al., 2013; Muir-Cochrane et al., 2021a) and for that reason absconding will not be discussed here in any depth. In Chapter Seven absconding will be framed as a behaviour by patients, in reaction to conflict between staff and patients, due to the imposition of restrictive practices.

The core reason given by health professionals and hospital administrators for the locking of doors is to reduce risk (Nijman et al., 2011). Within this risk frame, reasons for this practice include to keep unwanted visitors out and patients inside, to adhere to legislation and to

maintain control for staff (Haglund et al., 2007). Australian studies have also identified that locked doors release staff from undertaking observations of patients (Cleary et al., 2009; Muir-Cochrane et al., 2012). Door locking policies are generally not legislated but are operationalised at the local level and vary greatly, both within Australia and internationally, with national data being unavailable in Australia. However, data from the UK reveals that the proportion of locked wards has risen over the last decades, resulting in more than 90% locked wards out of all wards visited by the Care Quality Commission (2015, 2016). Thus, the practice of locked ward doors appears to sit uncomfortably against an emphasis on least restrictive practices in acute inpatient settings and can be interpreted as a retrograde step. Nevertheless, in 2013, Queensland Health introduced a locked door policy to prevent patient absconding and reduce the risk of patient harm to themselves and others (Queensland Mental Health Commission, 2013). This decision was widely condemned by the peak bodies of psychiatry and mental health nursing (ACMHN, 2013; RANZCP, 2013) as an administrative convenience, particularly given that the evidence base is weak regarding the relationship between a reduction in absconding, suicide, or self-harm from patients from locked wards (Lang et al; 2010; Nijman et al., 2011; Stewart & Bowers, 2011). Multiple studies report that there is no evidence that locked doors prevent a patient from leaving without permission, and they may find other ways to leave, such as forcing their way out, setting off alarms, or an alternative exit (Muir-Cochrane & Mosel 2008; Muir-Cochrane et al., 2012; van de Merwe et al., 2009).

More recently, researchers in Germany undertook two large studies comparing hospitals which were locked and those unlocked (Huber et al., 2016; Schneeberger, et al., 2017). Hospital wards which were not locked had decreased rates of self-harm or suicide and absconding, while the risk of suicide, self-harm and absconding did not decrease in wards with a locked door policy in place (Huber et al., 2016). Schneeberger et al. (2017) utilised the same data set to explore whether restrictive practices such as seclusion and restraint were increased on open wards (where the front door was open to patients), but found this also not to be the case. Undertaking research into acute inpatient units has challenges due to the methodological and ethical issues, as well as the complex variables involved; and the above studies have been criticised for this reason (Pollmacher et al., 2016). Nevertheless, these findings provide evidence to challenge current beliefs about the efficacy of locked doors in increasing safety for psychiatric inpatients. Although door locking persists in acute psychiatric inpatient settings, in light of a lack of clear evidence of efficacy (Gill et al., 2021),

it can be seen to contribute ‘to dehumanizing and indeed fewer safe environments’ (Slemon et al., 2017, p.6).

3.3.3 Surveillance and observation in acute psychiatric units

The overt monitoring and surveillance of people with a mental illness has a long history (Foucault, 1965) and continues today with face-to-face observation and video surveillance. The use of closed-circuit television (CCTV) in a range of community settings to reduce crime and improve safety is well accepted and commonplace. Similarly, such surveillance occurs in most health settings. However, therapeutic observation through surveillance serves a different purpose. Therapeutic observation is concerned with the deliberate gathering of data about patients to inform the provision of care; it is an active not a passive process, but the meaning and interpretation gained is from the perspective only of the health professional. Conversely, therapeutic engagement activities include sitting and conversing with patients, making assessment on verbal and non-verbal cues and gaining their perspective and cannot be conducted from behind a barrier or via CCTV (Victorian Department of Health Guideline, 2013a). There are many different types of observation used in Australia and these include the following observation practices: constant observation (arms-length) where the nurse is within arm’s length reach of the patient at all times; constant observation (visual) where the patient is within the vision of a nurse at all times; intermittent observation where a nurse engages with the person at specified regular/irregular intervals; and general observation where nurses locate patients during the shift (Victorian Department of Health Guideline, 2013b).

Constant observation is very common in acute units, with up to 50% of all inpatients experiencing periods of constant observation during their admission (Stewart et al., 2010). The level of observation is determined on the assessed risk to the patient and others, and this focus is a response to the risk averse nature of mental health services and community concern when tragedies such as suicide occur (Bowers et al., 2000). Other terms used in the research literature refer to formal observation (Manna, 2010), enhanced observation (Cox et al., 2010), specialling and one-to-one nursing (Bowers et al., 2000), special observation (Duffy, 1995) and close observation (O’Brien & Cole, 2003). As a risk management measure, observation has been criticised as labour intensive, compromising the needs of other patients and a deprivation of liberty for patients (Dodds & Bowles, 2001), although other researchers posit that therapeutic engagement between nurses and patients can co-exist using observational practices (Cleary et al., 2009; McKay et al., 2005).

The recurring theme of all restrictive practices, and present in the use of specific observational practices, is the tension between providing safety and therapeutic engagement to patients and violation of their human rights by removing patients' privacy and dignity (National Institute for Health and Care Excellence, NICE, 2015). However, there are no national standards or guidelines for the practice of observations, and mental health services vary considerably in how they operationalise observation approaches (Bowers et al., 2001).

3.3.3.1 Research into observational practices

Very few studies have evaluated the worth of observational practices, and methodological quality of those studies that do exist is weak; thus, the effectiveness of observational practices has not to date been proven (Manna, 2010). Only one study has produced data on the relationship between formal observation and absconding and aggression (Dodds & Bowles, 2001). In this study, formal observation was ceased and evaluated using outcome measures of absconding, aggression and violence on one ward in the UK. All these measures were reduced, but this study has been criticised for attributing their reduction directly and exclusively to the absence of formal observation. During the study period, the ward experienced a number of other changes including changes to the gender mix of the ward, changes to management staff and a focus on improving the professional culture of nursing staff (Victorian Department of Health, 2013a). Such changes could also have had a strong effect on staff and patient behaviour. Other research found minimal relationships between constant observation and self-harm (Bowers & Simpson, 2007; Bowers et al., 2008; Stewart et al., 2009). Again, these studies have received criticism as they were observational studies, so causation is hard to establish definitively (Victorian Department of Health, 2013a). Two of these papers suggested that self-harm was reduced due to intermittent observation (Bowers & Simpson, 2007; Bowers et al., 2008); however, this could be explained by the effect of other variables which were not measured. Such limited evidence points to the need for rigorous and systematic research designs to evaluate observational practices. As discussed above, in relation to the need for solid methodological research to evaluate the efficacy of locked doors, undertaking research into observational practices is similarly complicated by the ethical challenges of undertaking such research in acute inpatient units. As Gaskin et al. (2007) identify, implementing changes to restrictive practices on acute inpatient units usually requires a range of initiatives to be introduced to effect change, so it is difficult to tease out individual practices as responsible for reductions in patient behaviours such as aggression, violence or absconding.

The inconsistent use of terminology and weak evidence for observational practices raises concerns about how to care effectively for people who are acutely unwell. The foundations of good clinically focussed research to establish the best available evidence-based practice requires shared accepted definitions and consistency of the implementation of observation, and this is an area ripe for future systematic research investigation. Seclusion and restraint often result when less restrictive interventions such as observational practices are ineffective. Research on the efficacy of seclusion and restraint is now discussed.

3.4 Research into seclusion and restraint

In 1978, Gutheil published one of the very first papers on seclusion, proposing that it has a therapeutic effect on patients, but to date this not been proven in empirical research. A basic premise of contemporary clinical care is that the best evidence ought to be applied to any interventions and that they are of benefit to patients (Gupta, 2009). Remarkably, little data is available on the effectiveness of seclusion and restraint (Sailas & Fenton, 2000) or that these methods are safe (Nelstrop et al., 2006). In contrast, there are numerous reports of adverse effects of seclusion and restraint (WHO, 2017). Maker and McSherry (2019) concur, also pointing to violent behaviours often occurring during restrictive interventions. The intention of this section is not to provide an exhaustive review of research into seclusion and restraint, as that is beyond the scope of this thesis, but to synthesise the main research themes on the topic. Given that most of the research literature involves both seclusion and restraint, and that seclusion generally occurs in the context of restraint, they are discussed together.

3.4.1 Risk factors for, and incidence of, the use of seclusion and restraint

Patient diagnoses of schizophrenia, schizoaffective and manic phase of a bipolar disorder are linked to the use of seclusion and restraint (Chieze et al., 2019), with more men than women, more single patients, patients with psychosis and with a higher number of previous hospitalisations being at risk of these restrictive practices (Chiezre et al., 2017; Hotzy et al., 2018; Sivla et al., 2018). Patients diagnosed with a personality disorder or substance abuse are also more likely to be exposed to seclusion and restraint (Hotzy et al., 2018; Gowda, 2018). Other studies found that patients who have been secluded have a longer hospital stay (Mastrogianni et al., 2004; Kallert et al., 2004), and are more likely to be those under an involuntary detention order (Muir-Cochrane & Gerace, 2014).

Methods of calculation of restraint and the data available across difference jurisdictions and countries confound clear comparisons between the international incidence of seclusion and restraint (Bowers, 2000; Kruger et al., 2013). This is also complicated by the definitions used in research, where the term coercion and various forms of restraint and seclusion are referred to individually as well as collectively (Chieze et al., 2019). Nevertheless, the use of seclusion and restraint remains very common in mental health settings as reported in the following studies. Noorthoorn et al. (2015) report rates as high as 23% affecting acute psychiatric inpatients. Martin et al. (2007) report between 7.8% and 17.8% of all patients admitted experienced seclusion, with 6.6% of patients admitted exposed to mechanical restraint in seven Swiss hospitals, and 10.4% of admissions in seven German hospitals respectively. A large European project (Kallert et al., 2004) examined the use of seclusion and restraint and forced treatment across twelve countries. The researchers found rates of between 21% to 59% with Poland, Italy and Greece having the highest rates of seclusion and restraint. Studies in Canada, the US, and Australia have reported rates of seclusion and restraint of between 15-31% of admitted patients over a one- or two-year period (Dumais et al., 20ll; Hendryx et al., 2010; Tunde-Ayinmode & Little, 2004).

Thus, there is huge variation in seclusion and restraint rates across countries, and even within wards in the same hospital (Beghi et al., 2013). In a systematic review of forty-nine studies published between 1990 and 2010, restraint rates were between 3.8–20%, comparable with the more recent work of Noorthoorn et al. (2015). Lepping et al. (2016) found rates across three countries varying between 4.5% and 9.4% with reported rates of seclusion for Wales (2%), Ireland (29%), Germany (49%) and the Netherlands (79%).

As with other research into restrictive practices, the heterogeneity of definitions of seclusion and restraint internationally and methodological weaknesses and bias persist. This reduces opportunities to compare studies and outcomes. Chieze et al. (2019, p.10) reviewed literature published up until 2018 on the efficacy of seclusion and restraint in adult psychiatry, concluding that there was ‘no strong evidence regarding their efficacy’. A number of studies compared restraint or seclusion with the use of forced medication (Guzman-Parra et. al., 2018; Walleston et al., 2008). Other studies examined seclusion only, or restraint only, making comparisons difficult (Fugger et al., 2016; Ishida et al., 2014). Only three randomised controlled trials (RCTs) have been conducted on this topic; however, these studies did not use true allocation (Chieze et al., 2019), showed unclear study designs, and there was a lack of power or discrepancies in the interpretation of results (Huff et al., 2011;

Huff et al., 2012). The small number of RCT's demonstrates the challenges in obtaining useful data to prove clinical effectiveness and benefits of using seclusion and restraint (Chieze et al., 2019).

3.4.2 Negative patient outcomes of seclusion and restraint

Prior to 2005, adverse effects of seclusion and restraint were not acknowledged in policy. In 2005, the Australian National Safety Priorities in Mental Health: A National Plan for Reducing Harm identified the range of adverse effects of seclusion and restraint including 'dehydration, choking, circulatory and skin problems, loss of muscle strength and mobility, pressure sores, incontinence and injury from associated physical/mechanical restraint … and increased psychological distress' (National Mental Health Working Group, 2005, p.17). What follows is a discussion of the negative objective effects of restrictive practices in terms of outcomes. The subjective experiences of the consumer are detailed in a separate section later in this chapter, given they are a core factor in the call for reduction and elimination of restrictive practices. A number of studies have explored a range of negative outcomes of seclusion and restraint (Chieze et al., 2019). Reports of traumatic experiences and post-traumatic stress disorder varies from 25-47% in patient participants (Fugger et al., 2016; Whitecross, et al., 2013) with hallucinations affecting 31-53% of individuals (Palazzolo, 2004; Richardson, 1987) and one study reporting on deep vein thrombosis (Ishida et al., 2014). Length of stay was found to be increased (McLoughlin et al., 2016). Soininen et al. (2013) concluded that restrictive practices had only a short-term negative impact on quality of life, but these findings could also be explained by the diagnoses of patients as a majority had a diagnosis of mood disorder and would be expected to be experiencing a poor quality of life whilst hospitalised. As with other research reported in this chapter, the heterogeneity of the studies makes comparison difficult. Further, a number of studies used both objective and subjective measures. The recent systematic review by Chieze et al. (2019) found that research does suggest deleterious physical and psychological effects of restrictive practices, that therapeutic engagement with patients can reduce the use of coercion and that patient preferences ought to be considered (Chieze et al., 2019, p.1).

The previous sections have detailed the evidence, or lack thereof of, regarding restrictive practices in mental health settings. Chieze et al. (2019) state that everyday clinical practice continues to be guided by tradition, rather than by evidence-based practice and this is supported by others (Bowers & Park, 2001), aligning with previous arguments in this thesis that clinical practices are culturally constructed and are perpetuated within a risk framework.

The next section focusses on the contemporary issues regarding chemical restraint and its definition.

3.5 Chemical restraint

As has been discussed, seclusion, mechanical and physical restraint have clear definitions in policy and practice. However, a definition of chemical restraint eludes definitional clarity. The following section reproduces, in part, an editorial which examined the complexities surrounding the definition of chemical restraint (Muir-Cochrane, 2020d). It has been included as a succinct yet detailed representation of the contemporary issues around the use of medication in the control of severe agitation, aggression and violence and has been edited for relevance to this thesis. This editorial is included verbatim as it explicates the definitional issues with the term chemical restraint and provides guidance about how to understand this practice. The use of chemical restraint is intended as a last resort during an emergency involving the management of challenging behaviour with the aim of calming/sedating consumers.

3.5.1 A wicked problem: Chemical restraint: towards a definition (published editorial excerpt)

‘The use of chemical restraint remains controversial with different understandings of what it is and its role in the care of acutely unwell psychiatric consumers. For many, the term is pejorative with only negative connotations (Currier, 2003); however, restraint of psychiatric consumers continues using medication to manage aggressive and violent behaviour (Hu et al., 2019; Muir-Cochrane et al., 2020a). Here, chemical restraint is discussed in the specific context of its practice with adult consumers of mental health services. There are unique and separate issues relating to the use of chemical restraint in people with a disability, older people in residential care settings and children and adolescents with mental health problems which are outside the scope of this thesis.

Various confounding terms are used or have been used when describing the emergency administration of medication including rapid neuroleptisation, rapid tranquilization, forced medication, chemical sedation and chemical restraint (Fruyt & Demyttenaere, 2004). Rapid neuroleptisation is an outdated term which referred to the once common practice of giving high doses of antipsychotics to eliminate psychosis. Rapid tranquilization refers to calming without sedation (Fruyt & Demyttenaere, 2004). Chemical restraint is the use of psychotropic medication to control severe agitation, or violent behaviours (Nadkarni et al., 2015).

Chemical restraint is generally understood to be the 'assertive administration of emergency medication to adults with aggressive, agitated or violent behaviours with the purpose of quick calming or sedation, diminution of symptoms, and/or to decrease the likelihood of harm to self or others' (Battaglia et al., 2003, p.192). The two definitions of rapid tranquilization and chemical sedation are very similar which increases confusion in discussions in the literature. I suggest that the term rapid tranquilization has generally been replaced by chemical restraint as a response to the increasing awareness of the use of coercive practices with psychiatric consumers. To further complicate the subject, the term urgent sedation is also sometimes used and refers to a level of sedation which minimizes risk of harm to self or others but allows psychiatric assessment within hours (Fruyt & Demyttenaere, 2004). Thus, urgent sedation appears to lie between chemical restraint and rapid tranquilization in terms of the immediacy of sedation, which does not really help clarity in definitions. In practice, I suspect, these nuances are not terribly helpful for clinicians who essentially wish to cease the challenging behaviour of consumers they are presented with and treat the underlying psychiatric or medical condition as soon as possible. Indeed, such lack of clarity in the literature regarding the definition of chemical restraint and the interchangeability of terms such as forced medication (the provision of medication without consent from the consumer) and rapid tranquilization remains and have not served to provide clear insights into this practice. To add to such opaqueness, recent Australian standards report defined therapeutic sedation as 'the use of neuroleptics or anxiolytics (typically) to relieve excessive agitation and allow on-going care' (Knott et al., 2019, p.5).

So, what can we make of all this? First, the use of medication as a method of behavioural control (to induce calm/sedation) is now commonly recognised as chemical restraint, acknowledging that several different terms are used interchangeably in the international literature. Second, chemical restraint is used in an emergency and is intended only to be used as a last resort. Third, if a person accepts oral medication, this is not chemical restraint per se. Currier (2003, p. 60) identified it is 'reasonable to assume that if a patient is given medication intramuscularly due to uncontrolled agitation, aggression or violence, this is involuntary'; but it is then difficult to ascertain if an agitated patient takes oral medication under duress, whether this is a truly voluntary act' (Muir-Cochrane, 2020b pp. 1272-1274).

It remains difficult to clearly separate the therapeutic and non-therapeutic, i.e., coercive uses of medications, but a focus on the nature of the medications being used and what other least restrictive, non-pharmacological interventions have been tried first may be useful in

distinguishing the use of therapeutic medication from chemical restraint World Psychiatric Association (WPA, 2020 p. 4). Further research around the use of chemical restraint, the circumstances in which it occurs and the use of other least restrictive practices prior to chemical restraint is needed to advance the knowledge and evidence base on this restrictive practice. The next section examines consumers' experiences and perceptions of restrictive practices used in acute mental health settings identifying the harm such practices can affect.

3.6 The consumer perspective

> 'My ongoing reoccurrences of madness place me back in environments where I am physically and chemically restrained. This is because I can be upset, confused or angry and restraint is considered the easiest way to work with me. I did not consent to these restrictions. There are other better ways of engaging with me'.
>
> (Anonymous oral communication in Roper et al., 2021).

This section explores the literature concerned with the experience of consumers exposed to restrictive practices. Of note is the lack of research into families and carers' perspectives of seclusion and restraint. Where, their perceptions have been sought from this group, findings have largely been merged with consumers' experiences (see for example Brophy et al., 2016). There is a wealth of literature over many decades about the harms associated with the use of seclusion and restraint, as well as other restrictive practices such as observations and locked doors. It is now widely accepted that seclusion and restraint breach human rights (as discussed in Chapter Two), damage therapeutic relationships with health professionals, and cause psychological trauma to people exposed to these practices (Brophy et al., 2016; Kinner et al., 2017). Mental health nurses' perceptions and experiences of the practice of seclusion are not discussed in this chapter, as two published papers on this topic are presented in Chapter Six. Further, consumer experiences of being subjected to chemical restraint are explored in one published paper of this PhD PP, also in Chapter Six, so are not specifically examined here.

3.6.1 The impact of locked doors and observations on the consumer experience

Consumers have reported that 'the locked door symbolized their outcast status, and an open-door inclusion in the normal everyday world' (Muir- Cochrane et al., 2012, p. 45). Lowered self-esteem, loss of autonomy, increased irritability and lowered satisfaction with treatment have all been associated with locked doors on inpatient units (Bowers et al., 2010; Fletcher et al., 2019b; Muir-Cochrane et al., 2012; Muller et al., 2002). Bowers et al. (2010) found that consumers perceived staff working on wards with locked doors as cold and

controlling, and felt depressed and frustrated, particularly for consumers who were involuntarily held under mental health legislation. Consumers also reported feeling like they were imprisoned hearing the rattling of keys in locks (Adams, 2000; Haglund & von Essen, 2005). Being unaware that the ward door was locked has also been reported with consumers only discovering this when they tried but then could not leave the ward, or by observing nurses opening and locking doors (Muir-Cochrane et al., 2012). Feelings of shame, stigma and mistrust were also reported with one consumer stating, 'There's a security camera and they are pressing a bell and having to wait and then a nurse comes and swipes the card, and you look at the nurse, and so it's just a reminder of the fact that your relative's screws are a bit loose right now. So yes, it's an underlining of the stigma of mental illness' (patient 1, locked ward)' (Muir-Cochrane et al., 2012, p.44). However, Haglund and von Essen (2005) found that, for some consumers, locked doors offered a sense of safety and security from the outside and more time for nurses to engage with them.

As with research into locked doors, relatively little research exists regarding the experiences of consumers being under observations. Consumers reported feeling confined, a lack of privacy and an invasion of their personal space (Cardell & Pitula,1999), and withdrew from interacting with nurses, as they thought they did not wish to engage (Insua-Sumerhays et al., 2018). However, Cardell and Pitula (1999) also reported that, as a consequence of being observed, consumers who were suicidal felt safe and more positive about their ability to overcome feelings of hopelessness. Being observed and interacting with nurses with whom they had a relationship also increased consumers' feelings of safety and a sense of being cared for (Jones et al., 2000). These limited studies emphasise that observational practices remain an undeveloped area of research in acute inpatient settings, from the perspective of the consumer.

3.6.2 Consumers' perspectives on seclusion and restraint

Consumers predominantly perceive seclusion and restraint to be highly coercive, controlling and intrusive interventions which are unnecessary (Allikmets et al., 2020; Muir-Cochrane & Gerace, 2014; Rose et al., 2017; Soininen et al., 2013), although some consumers reported feeling safe in seclusion (Van de Merwe et al., 2013). In a systematic review of consumers' perceptions of restrictive practices, highly negative feelings were expressed by consumers; their predominant wish was to be treated with respect (Tingleff et al., 2017). For consumers, seclusion creates feelings of distress, fear, abandonment, powerlessness, depression, humiliation, anger and upset (Haw et al., 2011; Mayers et al., 2010; van de Merwe et al.,

2013; Wilson et al., 2017; Wynn, 2004). Wilson et al. (2017) reported the experience of restraint as a demonstration of power over consumers. Further, the use of force and removal of clothing associated with seclusion was perceived as punishment (Meehan et al., 2000), with activities of daily living such as toileting, eating and drinking being neglected by staff (Kontio et al, 2012). Consumers have also reported that excessive force was used during physical restraint (Brophy et al., 2016; Haw et al., 2001), with three participants in one study stating they felt ignored by staff prior to being restrained and experienced shame as a consequence of being restrained (Bonner et al., 2002). However, two studies reported that physical restraint and seclusion had a calming effect (Haw et al., 2011; Wynn, 2004). In an integrative review of harms associated with the use of restraint, Cusack et al. (2018) summarised the literature, including the following themes: distress; fear; feeling ignored; control; power; calm and dehumanising conditions, which encompass the consumer experiences discussed above. These themes are supported by a study by Brophy et al. (2016) who identified the following themes: human rights; trauma; control; isolation, dehumanisation and 'othering'; and anti-recovery. Other consequences of restraint have been described as sleep disruptions and nightmares (Knowles et al., 2015; Lanthen et al., 2015; Wynn, 2004). Longer-term consequences reported in the literature on consumers' experiences include poor self-esteem (Hoekstra et al., 2004; Knowles et al., 2015; Sibitz et al., 2011), fears concerned with being in enclosed spaces post seclusion, and fear of being medicated and further restraint (Hoekstra et al., 2004; Meehan et al., 2000, Sibitz et al., 2011). Trauma/re-traumatisation as a theme has also been identified (Cusack et al., 2018), and is discussed in the next section.

3.6.3 Trauma/re-traumatisation

The previous section provided examples of the trauma experienced by consumers when exposed to restrictive practices. Seclusion and restraint are now recognised as also exacerbating trauma experienced within the life-course of the consumer prior to their experience of hospitalisation (Sambrano & Cox, 2013). Studies have reported that between 70% and 90% of consumers of mental health services have experienced trauma prior to exposure to restrictive practices (Mauritz et al., 2013; Varese et al., 2012); thus, there is a significant potential for consumers to be re-traumatised by these practices (Chieze et al., 2019). In other research, consumers recalled revisiting memories of sexual and physical violence from their past (Bonner et al., 2002; Knowles et al., 2015; Wynn, 2004). One study specifically examined the experience of restraint by women with a history of childhood

sexual abuse who had been restrained in inpatient units (Gallop, 1999). Findings illustrated that women felt degraded, terrified, trapped, powerless, abused, and re-traumatised.

Brophy et al. (2016) conducted focus groups with consumers and supporters across three states in Australia regarding seclusion and restraint, finding that participants were concerned about poor care and overuse of seclusion and restraint. One consumer associated seclusion with trauma: 'you go in there seeking help and surviving the traumas in your life, but you end up having to cope with even more trauma. It's pointless' (Brophy et al., 2016, p. 4). Other participants emphasised that the trauma of seclusion and restraint had a negative impact on a person's ability to recover from their mental health problems and damaged their relationship with mental health professionals (Brophy et al., 2016). In that study, consumers also states that there was a lack of resources, poor physical ward environments and an organisational culture of control (Brophy et al., 2016).

Over time, studies have detailed the negative experiences of hospitalization for consumers, conceptualized as sanctuary harm (Frueh et al., 2005; Robins et al., 2005). The literature described in this section supports authors who have called for the term 'sanctuary trauma' to be used to better encompass consumers' experiences of restrictive practices which meet the definition of trauma in the DSM-5 (Cusack et al., 2003; Frueh et al., 2000). Indeed, Ross (2018) has called for an examination of restrictive practices as a form of torture, currently justified in mental health services as regulatory mechanisms. Roper et al. (2021) call for the elimination of restrictive practices given the re-traumatisation and dehumanisation experiences of seclusion and restraint for consumers.

3.7 Summary

This chapter explored notions of safety and risk in health care. Safety as an operational concept involves risk assessment and management, which Beck (1999) believes is an attempt by the institution to control patient behaviour. The risk discourse is problematic as it situates psychiatric inpatients as 'risky' and potentially violent, justifying control measures despite current national initiatives to reduce restrictive practices. The range of restrictive practices and their frequent use in mental health settings can be understood within existing risk-based cultural practices of control that have a long history in the treatment of individuals with a mental illness, and which appear to be intractable. There is a dearth of good quality evidence to justify existing restraint methods. Further, the consumer experience is largely negative, reinforcing the need for the establishment of least restrictive interventions which

improve experiences of hospitalisation and prevent traumatisation for people in the care of mental health services. The next chapter examines current initiatives in reducing restrictive practices in acute inpatient settings and their outcomes.

CHAPTER FOUR
SECLUSION AND RESTRAINT INCIDENCE IN AUSTRALIA AND AN EXAMINATION OF TWO CONTEMPORARY MODELS IN MINIMISING RESTRICTIVE PRACTICES

4.1 Introduction

The first section of this chapter discusses the contemporary incidence of seclusion and restraint practices in the Australian context of efforts to reduce its use. Subsequently, the chapter explores the current use of models specifically designed to reduce the use of restrictive practices on acute inpatient units. This is not an exhaustive exploration of all current initiatives; rather, it is a selective focus on two core models which have some demonstrated evidence. Specifically, the Safewards Model and the Six Core Strategies are examined along with the associated recent research into their effectiveness in acute psychiatric units. Although these interventions have been trialled in other settings such as child and adolescent wards, EDs and forensic services, they are outside of the scope of this thesis, and for that reason are not discussed here. The Safewards Model will be used as a framework in Chapter Seven in order to discuss the findings and implications for future practice and research of the published papers in this thesis.

4.2 Contemporary seclusion and restraint use in Australia

As discussed in Chapter Two, there has been a sustained focus on reducing the incidence of seclusion and restraint in Australian acute mental health settings since 2005. Figure 2 shows an image of a contemporary seclusion room in a metropolitan acute psychiatric inpatient unit in South Australia.

Figure 2. Seclusion room: Royal Adelaide Hospital 2018

Figure 2 is an image of the then, newly designed seclusion room at The Royal Adelaide Hospital in metropolitan South Australia. The room is sparse, cell-like, and uninviting, despite a focus on least restrictive practices in the last two decades in Australia. One of the Six Core Strategies (Huckshorn, 2004) is the collection and analysis of data about seclusion and restraint in order to assist with reduction of their use. Rates of the various types of restraint inform the ability of mental health services and clinicians to make improvements in acute mental health settings as well as allowing comparisons to be made about national variations (Sara, 2021). Nevertheless, as previously mentioned, international comparisons in restrictive practices remain hard to establish due to inconsistent measurement approaches

(Gooding et al., 2018). Australia's data collection systems are maturing and becoming more sophisticated over time, but innovative systems of data collection and improved data literacy by clinical staff are required to support the fundamental clinical practice changes required to implement a range of measures to reduce restrictive practices in acute mental health settings (Sara, 2021).

In Australia, national data on seclusion and restraint rates are requested annually by the Australian Institute of Health and Welfare (AIHW) through the National Safety and Quality Standing Committee (SQPS) and supplied by each jurisdictions relevant Chief Psychiatrist or equivalent. Seclusion data has been collected nationally since 2009, while data collection for both seclusion and restraint only began in 2015. As discussed in Chapter Three, a universally agreed definition for chemical restraint has not been established internationally or nationally so data on the rates of chemical restraint are not available nor reported for all jurisdictions at this time (AIHW, 2021). In Australia, rates of seclusion and restraint are generally based on 1,000 occupied bed days, derived by dividing the number of events or patients per month, by the number of occupied beds as reflected in Figure 3 with rates covering over a decade.

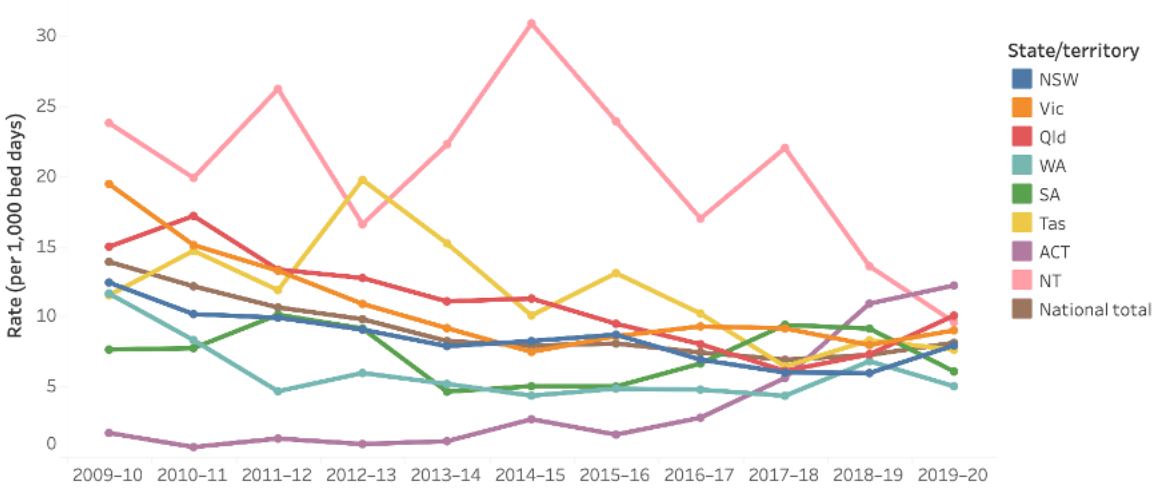

Figure 3. Rate of seclusion events for public sector mental health hospital services, states, and territories, 2009-2010 and 2019-2020 (AIHW, 2021)

Figure 3 demonstrates that seclusion rates nationally have decreased over time, with 8.1 events per 1,000 bed days reported for acute specialised mental health settings in 2019–20, down from 13.9 in 2009–10 (AIHW, 2021). However, rates have increased by 0.2% in the

time period of 2015-2016 to 2019-2020, despite national seclusion reduction initiatives. The numbers of hours of seclusion duration has decreased nationally over time, which can be attributed to policy changes aimed at reducing duration; 4.9 hours was the average seclusion duration in 2019–2020. Victoria continues to have the highest number of hours but also has the biggest reduction over time, from 9.5 hours in 2013-2014 to 5.7 in 2019-2020. Figure 4 shows the varying rates of physical and mechanical restraints across jurisdictions.

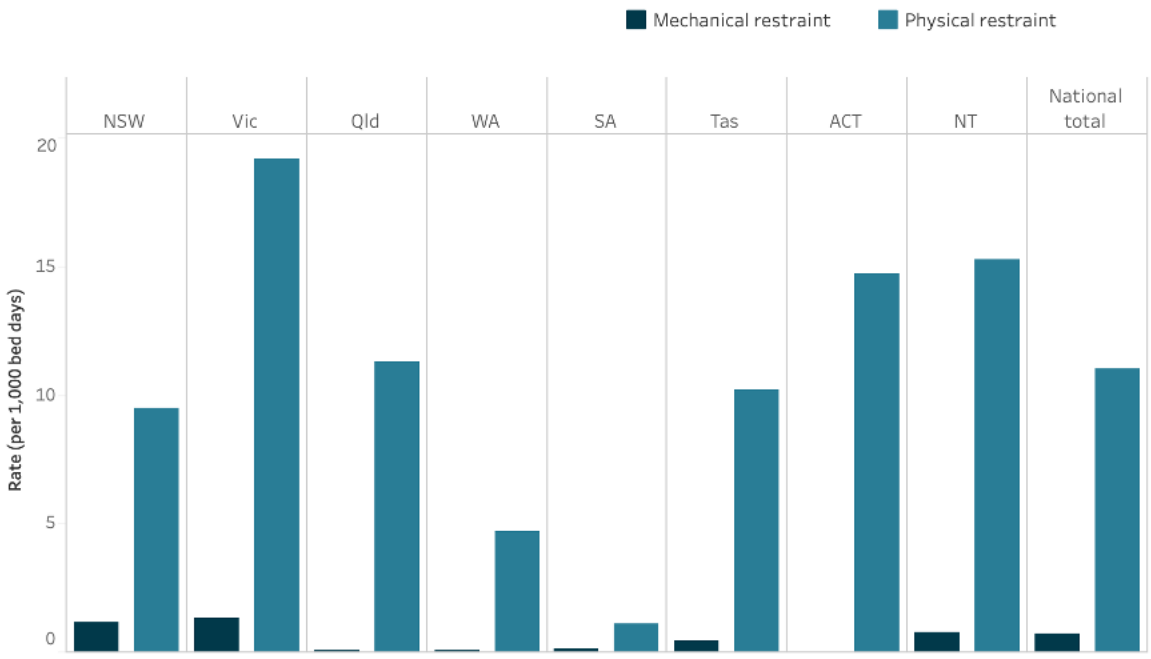

Figure 4. Rate of restraint events for public sector mental health hospital services, states, and territories, 2019-2020 (AIHW, 2021)

Nationally, reported physical restraint events were 11 restraint events per 1,000 bed days and 0.7 mechanical restraint events per 1,000 bed days in the latest published national reporting (2019-2020). Victoria had the highest rate of physical restraint events (19.2 events per 1,000 bed days) and mechanical restraint events (1.3 events per 1,000 bed days) (AIHW, 2021). However, interpretation of this data is constrained by a number of significant factors associated with data collection. Due to the variations in policy and legislation across jurisdictions regarding the definitions of seclusion and restraint, it is likely that restraint events are omitted from data collection, but the number of such omissions is unknown (AIHW 2021). Further, although data is reported at the hospital level, changes in the

groupings of governance of services can affect hospital level data in relation to the number of restraint events.

As can be seen in Figure 4 (above), South Australia has very low rates of restraint in comparison to other states and territories. This is probably due to issues with poor reporting as is discussed in the next section, which focusses on South Australian rates. Other reasons for disparity in rates across jurisdictions include the effect that small changes in the number of seclusion events can have a marked impact on the overall seclusion rate for smaller jurisdictions such as the Australian Capital Territory and the Northern Territory. Single individuals may have experienced seclusion repeatedly during the same admission and thus inflate the overall rate, as episodes are reported as a whole, not at the individual level. Finally, reporting mechanisms across jurisdictions were not historically consistent so reported data may not reflect reality. The varying ranges across jurisdictions also suggest organisational and cultural practice reasons influence incidence. In order to provide the local perspective, the next section provides data concerning seclusion and restraint events in South Australia.

4.2.1 South Australian seclusion and restraint rates

In previous research led by the author of this thesis, Oster et al. (2016) conducted a two-year retrospective audit of restraint and seclusion (containment) events in 18 inpatient psychiatric units across metropolitan South Australia. Containment (seclusion and restraint) events involved a relatively small proportion of patients (10% of patients accounting for nearly 40% of events). Rates of containment varied widely between units. 'The highest rates were in high dependency units, which also accounted for over 90% of patients with the highest percentage of events and hours' (Oster et al., p.183). More males than females experienced containment, with a significantly larger proportion of males experiencing the highest number of hours in containment. 'The overall rates of containment were 8.60 events (3.17 patients) per 1,000 occupied bed days in 2010 and 10.17 events (3.98 patients) per 1,000 occupied bed days in 2011. The majority of events involved seclusion (97%) followed by physical and mechanical restraint' (Oster et al., p.185). More males than females were restrained overall with an average age of patients of 36 years (Oster et al., 2016). In concert with previous studies (Knutzen et al., 2017; Whitehead & Liljeros, 2011), this research demonstrated that a relatively small proportion of patients who were restrained accounted for the largest number of restraint events (Oster et al., 2016). Nevertheless, as with other research into restrictive practices, the heterogeneity of definitions of seclusion and restraint

internationally and methodological weaknesses and bias in research persist, reducing opportunities to compare rates and individual events.

The annual average rate of seclusion per 1,000 bed days in South Australia is currently 6.1 per 1000 bed days, well below the national average of 8.1 (see Figure 4). In South Australia, data discrepancies relating to total incidents have been identified over time with a significant number of incidents entered incorrectly or possibly not entered in the data collection system at all, which are currently being addressed by SA Health. AIHW (2021) reporting of national annual physical and mechanical restraint events show that South Australia is amongst the lowest jurisdiction nationally, as reported in 2019-2020. However, this is likely to be an anomaly as under-reporting and incorrect cataloguing of events has been commonplace. This is because clinicians were not aware nor familiar with the requirements of reporting in regard to how and where the data was to be entered as well as problems with the data entry systems.

Improvements to databases are being facilitated to report this data more accurately. During 2020-2021, the reporting of duration of seclusion and restraint events in minutes is now reported from South Australian data bases. For example, the average duration for all events in South Australia in February 2021 was 122 minutes. In 2018-2019, the national average was 252 minutes. Thus, South Australian mental health services' duration times are much lower, and this is likely the effect of local restraint reduction initiatives with a recent focus on reducing the length of time individuals experience restraint (Restraint and Seclusion Chief Psychiatrist Standard and Toolkit, 2021). However, the accuracy of data collection, and thus reporting as previously described, remains problematic in relation to how rates from jurisdictions nationwide can be compared and interpreted. In the context of the issues with restraint event reporting accuracies, the next sections explore two models designed to reduce the use of restraint in acute psychiatric units.

4.3 The Safewards Model

In 2014, Bowers published a new model of conflict and containment on psychiatric wards. Containment is the term adopted by Bowers in relation to his model and refers to the breadth of restrictive practices used on acute inpatient psychiatric units. The model was derived from a comprehensive literature review regarding the evidence related to conflict and containment and supported by the decades of research by Bowers and his research team, related to all forms of conflict and containment (Bowers, 2014a; Bowers et al., 2014b). This

comprehensive explanatory model (Figure 5) identifies six domains, representative of the key influencing factors related to conflict between nurses and patients and associated restrictive practices. The domains are patient community; patient characteristics; the regulatory framework; the staff team, the physical environment; and outside hospital (Bowers 2014a, p.501). Conflict and containment are at the centre of the model with arrows showing that while conflict can trigger containment, the reverse is also true. The model is represented by rings with flashpoints being innermost, referring to social and psychological events that trigger conflict and containment. The rings, staff and patient modifiers refer to what staff and patients can do to influence conflict and containment. The outer ring details the core features within each of the domains that can trigger conflict and containment.

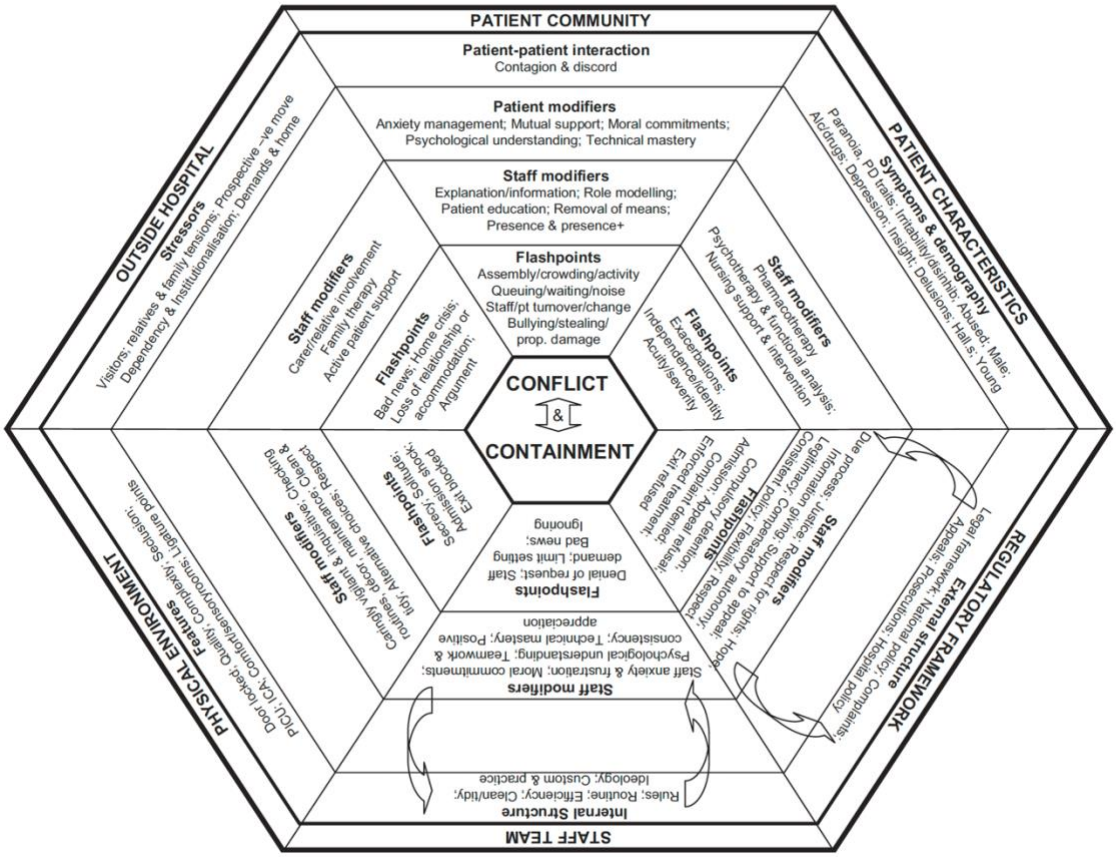

Figure 5. The Safewards Model (full form)

This model is also represented in a simpler form (Figure 6).

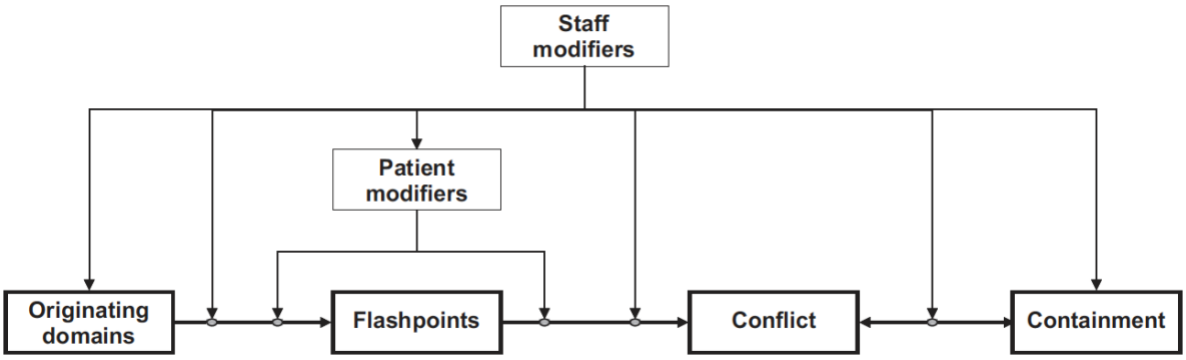

Figure 6. The Safewards Model (simple form)

The above figure is essentially a summary of the factors in the full version of the model, and Bowers (2014a) asserts that this goes some way to explaining why some wards have more conflict and containment than others, since the model places a strong emphasis on the culture of hospital settings. The model comprehensively captures the complexity of interactions between symptoms of mental illness, interactions between staff and patients, the ward environment, and the legal and policy context. The significance of the Safewards Model lies in the pulling together of a diverse range of conflict behaviours to explain containment practices. It is, therefore, more comprehensive than other models of aggression or absconding, for example (Bowers, 2014a, p.504). The Safewards 10 interventions were designed to reduce conflict between staff and patients by addressing the flashpoints identified in the model. Table 2 provides detail about each of the 10 interventions.

Table 2. The 10 Safewards interventions, descriptions and rationale

Intervention	Description	Rationale
1. Clear Mutual Expectations	Clarification of expected behaviours and mutually agreed goals	To generate respect between patients and staff and reduce power imbalances
2.Soft Words	Use of appropriate words and tone in interactions, reduce rules and limits placed on patients	Generate respect and encourage patient and nurse collaboration to reduce potential for flashpoints

3.Talk Down	Use of de-escalation strategies, to problem solve and find solutions together	Reduce use of restrictive practices and lead to positive outcomes
4.Positive Words	Staff make positive balanced statements in handover about patients	Emphasise patients' strengths and provide helpful information to staff
5.Bad News Mitigation	Pre-planning to mitigate the effects of giving news/ information to patients that may be stressful to them	Focussing on the patient experience and stressors can increase therapeutic engagement with patients and reduce potential for flashpoints
6.Know Each Other	Staff and patients share personal interests with each other that are displayed in common areas	Building rapport and trust facilitates a therapeutic relationship
7.Mutual Help Meeting	Regular ward meetings between staff and patients to share common goals and express concerns	Building a community environment to facilitate trust and respect between staff and patients
8.Calm Down Methods	A set of tools and resources that assists patients in using existing coping mechanisms and developing new ones	Encouraging patients to draw on their own coping mechanisms can reduce agitation and distress in a person-centred way
9.Reassurance	Providing reassurance to patients who have experienced or witnessed conflict or containment to address distress	Increases staff awareness of support required for patients during hospitalisation and increases patients' sense of safety and security
10.Discharge Messages	Discharge message from patients who are being discharged encourages the sharing of hope to other patients	The sharing of advice between patients encourages positive attitudes towards treatment hospitalisation, and the future

Adapted from Bowers et al. (2014a, 2015).

4.3.1 Research evidence regarding the Safewards Model

Bowers et al. (2015) conducted a cluster RCT of the Safewards Model across 33 wards in the UK, finding a statistically significant reduction in conflict and containment compared with the control wards, which offered usual care and a health promotion program. A 15% reduction in conflict and 24% decrease in containment was reported across 31 wards in England. However, this study has received criticism from Mustafa (2016) who identified potential flaws in the methodology because of the complex nature of the model and the lack of blinding of assessors. Further, he argued that there was poor exposure to the intervention in the experimental group (38%) in comparison to the control group (90%) (WPA, 2020). Since the RCT by Bowers et al. (2015), there have been no further experimental studies on Safewards, although the model has been implemented internationally in acute psychiatric inpatient units with evaluations giving positive results in term of efficacy (Dickens et al., 2020; Fletcher et al., 2019a).

Safewards evaluation has been conducted in two Australia states. The first study occurred in Victoria (Fletcher et al., 2017) and evaluated the implementation of Safewards in 44 psychiatric units over fifteen months with a comparison group matched by the type of services provided in the units. A reduction of 36% in seclusion was found with no change in seclusion rates in the comparison group. From these findings Fletcher et al. (2017) proposed that Safewards facilitated practice change and reduced the use of seclusion in adult acute psychiatric inpatient units. The second study was in New South Wales and involved a longitudinal pre- and post-test study in one health service with eight metropolitan psychiatric inpatient units, reporting reductions of 23% for conflict and 12% for containment events (Dickens et al., 2020).

Internationally, evaluations of the implementation of the Safewards Model have occurred in Germany and Denmark (Baumgardt et al., 2019; Stensgaard et al. 2018). In the German study, only two units in one hospital were the research site, with both wards reporting reductions in restrictive measures. However, only one unit demonstrated statistical significance in relation to the reduction (Baumgardt et al., 2019). A pre-post study in Denmark evaluated the implementation of Safewards on 26 units with a reduction of 3% in physical restraint and 11% in forced medication. Mechanical restraint is commonly used in acute psychiatric inpatient units and was already reducing prior to the implementation of the model, and stabilised during the intervention period (Stensgaard et al., 2018). To

summarise, the Safewards studies show that there is an association between the interventions and a reduction of conflict and containment on acute psychiatric inpatient units. However, only one RCT conducted by Bowers et al. (2015) has been undertaken to date, indicating a need for further high-quality studies to fully establish the evidence base of this model. The next section examines the evidence regarding the efficacy another model designed to reduce the use of restrictive practices on acute inpatient units, called the Six Core Strategies.

4.4 The Six Core Strategies to Reduce the Use of Seclusion and Restraint

A few studies have examined the Six Core Strategies to Reduce the Use of Seclusion and Restraint, commonly known as the Six Core Strategies (Huckshorn, 2004), in acute psychiatric inpatient settings (Duxbury et al., 2019a; Riahi et al., 2016; Wieman et al., 2014). The strategies were described in Chapter Two and to reiterate briefly, these strategies are: leadership; using data to inform practice; workforce; use of seclusion and restraint reduction tools; consumer roles in inpatient settings; and debriefing techniques. The strategies are built on public harm/harm prevention theory (Huckshorn, 2004). The Six Core Strategies have been implemented in acute psychiatric units in the USA, Australia, and the UK (WPA, 2020).

Three evaluative studies from the USA have been conducted. Blair et al. (2017) undertook a longitudinal, five-year pre-post evaluation of the intervention reporting a reduction in the seclusion rate of 52% and duration of the event by 27%. Wieman et al. (2014) reported a reduction in seclusion events of 17% and reduction in seclusion duration hours of 19%. The authors suggest that although the interventions showed positive results, further research examining fidelity and outcomes was required (Wieman, 2014) In the final USA study, Riahi et al. (2016) found the average length of a mechanical restraint or seclusion incident decreased 38.9% over the 36-month evaluation period.

In Finland, LeBel et al. (2014) published preliminary results of the first cluster randomized controlled study of the Six Core Strategies, which provided evidence that seclusion and restraint episodes decreased as a result of the intervention as well as reporting a reduction in violent incidents by patients. This research informed the methodology of Duxbury et al. (2019b) who, in a UK study, utilised the Six Core Strategies in the ReSTRAIN YOURSELF non-randomised cluster controlled designed study. Positive findings of reductions in restraint

methods of 22% with no changes to restraint rates in the control units were reported. However, restraint rates in the implementation wards had very high baseline rates of restraint and there were difficulties in matching control units to implementation units. The Six Core Strategies appear to have reduced restraint and seclusion in a number of acute psychiatric inpatient units internationally, but no further RCTs have been conducted to substantiate these results.

As discussed in Chapter Three, the diversity of methodologies and associated issues involved in the conduct of research in acute inpatient mental health units as well as the ethical issues in undertaking research with acutely unwell psychiatric inpatients, confounds the strength of evidence for the use of current practices in acute psychiatric inpatient units. This also pertains to both the Safewards and Six Core Strategies approaches. While evidence supports their implementation some have suggested publication bias in that studies with negative results are unlikely to be published (Gooding et al., 2018). Nevertheless, these authors support existing research results as optimistic (Gooding et al., 2018). Further research into initiatives to reduce restrictive practices in acute psychiatric inpatient settings is required to support the growing momentum to provide alternatives to the restraint of individuals with acute mental illness.

4.5 Summary

This chapter has presented Australian and South Australian incidence rates of seclusion and restraint in acute psychiatric units with a discussion of the issues regarding the limitations of interpretation across states and territories. Two models specifically designed to reduce restrictive practices on acute psychiatric units and the growing evidence base regarding their effectiveness have been examined, including in two states in Australia. These models can support the rights of patients in acute psychiatric inpatient units, increase safety for health professionals and those for whom they care, and improve patients' experiences of hospitalisation. Variations in the types and nature of acute psychiatric units, ward designs, and difficulties in controlling variables and establishing fidelity in research about these two models offer a focus for further research examining the interventions associated with these models. The research evidence presented in this chapter provide the landscape in which the papers for this PhD PP are situated. Findings from these publications will be explored in Chapter 7 to demonstrate important insights framing the issues discussed here. The next chapter discusses methodological considerations associated with the eight published papers that form the body of research in this PhD PP.

CHAPTER FIVE
METHODOLOGICAL CONSIDERATIONS

5.1 Introduction

As an academic and applied researcher, this author has undertaken research regarding acute psychiatric care over a significant period of time. Undertaking this PhD PP has allowed the author to examine and critically reflect on the complex issues regarding the use of restrictive practices beyond the content of the published papers and to explore new understandings about the possibilities of care without coercion. The selection of the eight papers as exemplars of the overall body of research in this thesis are chosen for their significance and contribution to understandings about restrictive practices in Australia and internationally. They sit in a larger body of research undertaken by the author of this thesis on restrictive practices undertaken over more than 25 years. This chapter discusses the research paradigm adopted for this thesis in regard to the published papers as well as detailing the mixed methodological approaches used in the published papers and associated rationale. An overview of challenges in undertaking research about restrictive practices is also discussed in relation to individual studies.

5.2 Pragmatism as a research paradigm

In this thesis, pragmatism as a research paradigm has been chosen as the theoretical 'glue' to frame the published papers of this thesis. Pragmatism is a method of inquiry for practically-oriented researchers (Cresswell & Clark, 2011; Maxcy, 2003; Kaushik & Walsh, 2019). This approach suits explorations of restrictive practices and conflict between patients and health professionals, where the purpose of the published papers was this researcher's desire to solve clinical, real world problems and to generate useful knowledge for translational use and value 'in the field' (Feilzer et al., 2010).

Scholars of the philosophy of pragmatism reject the assumption that a single scientific method of enquiry could explain reality and create knowledge (Maxcy, 2003). A fundamental tenet of pragmatist epistemology is that the generation of knowledge is derived from experience. In this way, knowledge and interpretation of the world are socially constructed (Kaushik & Walsh, 2019; Yefimov, 2004). It is the interaction between individual and collective understandings of the world and associated ideas that generates knowledge. Thus, a pragmatic research approach adopts constructivism as a lens for moving from

subjective understandings of a phenomenon to the development of broader interpretive meanings (Cresswell & Clark, 2011).This research paradigm emphasises that a plurality of methods is desirable to investigate phenomena comprehensively. The use of mixed methods and different analytic approaches can therefore sit side by side in research focussing on a specific topic, such as restrictive practices (Feilzer et al., 2010). A key factor in the selection of methods is reflection on the research question and potential results and implications of the research, not the methods themselves; however, the research approach must be robust and fit the topic being investigated (Tashakkori & Teddlie, 2008). In the published papers of this thesis, research methods and modes of analysis were chosen to best examine restrictive practices and conflict between patients and nurses, using approaches that were feasible, realisable and practical given the naturalistic setting of acute health services. Methods reflect the stance of this author as an applied clinical researcher. The next section explores the mix of research methods in the eight published papers and associated reasons for their choice. Qualitative and mixed methods were the predominant methods chosen to align with this pragmatic research paradigm. Table 3 shows the research methods, and the specific data collection and analyses processes undertaken for each study reported in the chosen published papers.

Table 3. Topics, research methods, data collection, and analysis of published papers

Publication	**Methods/data collection**	**Participants/ Setting**	**Analysis**
1. Muir-Cochrane, E., Gerace, A., Mosel, K., Barkway, P., O'Kane, D., & Curren, D., & Oster, C. (2011a). Managing risk: Clinical decision making in mental health services. *Issues in Mental Health Nursing*, *32*(12), 726-734.	Qualitative research Case scenario Semi-structured interviews	15 health professionals from an acute psychiatric admission ward for older people	Qualitative hybrid thematic approach (Boyatzis, 1998)
2. Muir-Cochrane, E., Oster, C., Grotto, J., Gerace, A. & Jones, J., (2013). The inpatient psychiatric unit as both a safe	Qualitative research	12 consumers with previous admission to an	Qualitative thematic analysis

and unsafe place: Implications for absconding. *International Journal of Mental Health Nursing, 22*(4), 304-312.	Semi-structured interviews	inpatient psychiatric unit	(Braun & Clarke, 2006)
3. Muir-Cochrane, E., Muller, A., & Oster, C. (2021a) Absconding: A qualitative perspective of patients leaving inpatient psychiatric care. *International Journal of Mental Health Nursing, 30*(5),1127-1135.	Mixed methods Retrospective chart audit of 995 absconding events	Data from 11 psychiatric wards in a metropolitan city	Qualitative thematic analysis (Braun & Clarke, 2006). Background quantitative data Descriptive statistics
4. Gerace, A., & Muir-Cochrane, E. (2018). Perceptions of nurses working with psychiatric consumers regarding the elimination of seclusion and restraint in psychiatric inpatient settings and emergency departments: An Australian survey. *International Journal of Mental Health Nursing, 28*(1), 209-225.	Quantitative research Online anonymous national survey (Likert scale)	512 nurses from all states and territories in Australia	Descriptive statistics, ANOVA, non-parametric test
5. Muir-Cochrane, E. C., O'Kane, D., & Oster, C.T. (2018). Fear and blame in mental health nurses' accounts restrictive practices: implications for the elimination of seclusion	Qualitative research Focus groups	44 mental health nurses from five states and territories across Australia	Qualitative thematic analysis (Braun & Clarke, 2006)

and restraint. *International Journal of Mental Health Nursing, 2*(5), 1511-1521.	Semi-structured interview guide		
6. Muir-Cochrane, E., Oster, C., Gerace, A., Dawson, S., Damarell, R., & Grimmer, K. (2020a). The effectiveness of chemical restraint in managing acute agitation and aggression: A systematic review of randomised controlled trials. *International Journal of Mental Health Nursing, 29*(2), 110-126.	Quantitative research Systematic review of RCTs	N/A	Systematic review
7. Muir-Cochrane, E., Muller, A., & Oster, C. (2021b). Chemical restraint: A qualitative synthesis review of patient and staff experiences. *Nursing and Health Sciences, 23*(2), 325-336.	Qualitative research Synthesis review	N/A	Thematic synthesis (Thomas & Harden, 2008)
8. Muir-Cochrane, E., Muller, A., Fu, Y., & Oster, C. (2020b). Role of security guards in Code Black events in medical and surgical settings: A retrospective chart audit. *Nursing and Health Sciences, 22*(3), 758-768.	Quantitative research Retrospective chart audit of 1664 code black events	All medical and surgical units across one metropolitan health service	Descriptive quantitative data analysis

The next section describes the individual circumstances and context regarding each of the research studies. The intention is to portray how research comes about and the challenges

of naturalistic research in acute mental health settings, rather than to detail the research itself or findings, as these are provided in full in Chapter Six.

5.4 Risk

This research was the first undertaken by this author on risk at a time when risk assessment and management was introduced by mental health services across Australia as a core component of clinical practice.

Muir-Cochrane, E., Gerace, A., Mosel, K., Barkway, P., O'Kane, D., & Curren, D., & Oster, C. (2011a). Managing risk: Clinical decision making in mental health services, *Issues in Mental Health Nursing, 32*(12), 726-734.

This collaborative research was undertaken after discussions with the then Nursing Director of Aged Care Services in the Adelaide Mental Health Directorate who was interested in exploring the clinical decision-making process and practices of health professionals in an acute aged care mental health setting. Research funding was secured, and the research aims were developed by the research team in collaboration with the Nursing Director of the unit. A case scenario was developed as a tool to facilitate the exploration of how risk was assessed and managed by the clinical team. Case scenarios can generate in-depth, comprehensive understandings of complex issues in a real-life context, and these were used in semi-structured interviews with health professional participants. A Risk Assessment and Management Tool which was established within clinical services acted as a guide to participants during the interviews. Analysis was informed by a hybrid thematic approach as detailed by Boyatzis (1998). Findings were presented to the clinical team and allowed reflection and clinical care improvements in the unit.

5.5 Absconding

The two chosen papers focused on the topic of absconding sit with other research by this author investigating the incidence of absconding in South Australian mental health settings (Mosel et al., 2010; Muir-Cochrane & Mosel, 2008; Muir-Cochrane et al., 2011b). Quantitative research had already been undertaken on this topic internationally and in South Australia but there is limited qualitative research into the phenomenon of absconding (Voss & Bartlett, 2019). Thus, using qualitative methods (thematic analysis using Braun & Clarke, 2006) were chosen to explore the consumer perspective and to examine the written

descriptions of absconding events by nurses. Research funding supported the conduct of the research.

Muir-Cochrane, E., Oster, C., Grotto, J., Gerace, A., & Jones, J. (2013). The inpatient psychiatric unit as both a safe and unsafe place: Implications for absconding. ***International Journal of Mental Health Nursing 22(4),*** **304-312.**

A consumer perspective was the focus of this study on absconding to explore why inpatients behaved in this way during their hospitalisation. Ethical approval to approach current inpatients in acute psychiatric units as research participants was unable to be gained as the University Human Research Ethics Committee deemed consumers a vulnerable group, despite such approvals being given in other countries such as the UK (for example see Bowers et al., 2010). The research culture in acute psychiatric units in South Australia remains in its infancy and support from mental health services to conduct research in acute inpatient psychiatric settings remains weak. Thus, consumers from a not-for-profit mental health consumer support organisation were recruited to take part in semi-structured interviews about their experiences of acute inpatient psychiatric care. To increase theoretical understandings of patients' experiences of hospitalisation and absconding, the concept of 'therapeutic landscapes' was utilised, drawing on health geography (Moon, 2009). This theoretical lens influenced the thematic analysis of the interviews (Braun & Clarke, 2006) providing new understandings about how inpatients experience psychiatric units and their absconding behaviour.

Muir-Cochrane, E., Muller, A., & Oster, C. (2021a). Absconding: A qualitative perspective of patients leaving inpatient psychiatric care. ***International Journal of Mental Health Nursing, 30*****(5), 117-135.**

The then Nursing Director for inpatient mental health services invited the author of this thesis to join the Mental Health Inpatient Quality Committee in 2016 to examine absconding events with a view to improving practices and processes and reduce patients leaving hospital without permission. From there, a research study was developed to interrogate existing absconding records kept by services, and funding was secured to conduct the study. To build on the consumer's experience of absconding and view the issue from an alternative lens, this paper examined the written nursing records of absconding events across eleven psychiatric wards in metropolitan South Australia. Institutional ethics and governance approvals were not permitted for researchers to access patient notes directly or seek patient

permission to do so. Thus, a retrospective chart audit of an absconding dataset was undertaken as a practical method of examining nurses' descriptions of absconding events. Quantitative data was only used to provide a brief background to the qualitative findings as the original dataset was incomplete with a lot of missing entries. This is because patient demographic data is collected in one large patient data base across mental health units and was collected separately from the recording of absconding events which could not be linked electronically. A health employee manually matched data from both data sets for 593 episodes which were then analysed using a thematic analysis approach to identify themes and patterns (Braun & Clarke, 2006). Findings were presented to the Mental Health Inpatient Quality Committee and led to changes in policies and practice aimed to reduce absconding. As far as the authors are aware, this is the largest dataset to be examined in Australia on absconding from nurses' perspectives. The study provides a balance to the existing research evidence of the consumer experience of inpatient units and absconding.

5.6 Nurses' perceptions of seclusion and restraint

The two chosen papers focused on nurses' perceptions of seclusion and restraint extend the body of work by this author on seclusion and restraint (Bowers et al., 2011; Gerace et al., 2014; Gerace et al., 2018; Muir-Cochrane, 1995; Muir-Cochrane, 1996a,1996b; Muir-Cochrane & Holmes, 2001b; Muir-Cochrane et al., 2015; Oster et al., 2016; van de Merwe et al., 2013). This research originated from the motivation of the National Mental Health Commission to explore the barriers to seclusion and restraint reduction in Australia as perceived by nurses. The research was funded by the National Mental Health Commission and administered by the Australian and New Zealand College of Mental Health Nurses Inc. These research papers comprise the two phases of the research project undertaken.

Gerace, A., & Muir-Cochrane, E. (2018). Perceptions of nurses working with psychiatric consumers regarding the elimination of seclusion and restraint in psychiatric inpatient settings and emergency departments: An Australian survey*. International Journal of Mental Health Nursing, 28*(1), 209-225.

A national on-line anonymous survey collected data about nurses' perspectives regarding the elimination of seclusion and restraint. Professional nursing membership organisations sent the survey to their members. A range of existing scales regarding seclusion, restraint and containment were used in the survey. Descriptive statistical analysis was used to develop the findings. This is the largest Australian survey undertaken on this topic and

received significant media attention and keynote invitations to present the research at international conferences in Australia, New Zealand and the UK (see pages ix-xi).

Muir-Cochrane, E. C., O'Kane, D., & Oster, C. T. (2018). Fear and blame in mental health nurses' accounts of restrictive practices: implications for the elimination of seclusion and restraint. *International Journal of Mental Health Nursing, 27*(5),1511-1521.

The second phase of the research involved qualitative investigations of nurses' perspective of restrictive practices. The Australian College of Mental Health Nurses facilitated the recruitment of participants and facilitators of the focus groups using their membership base. Focus groups across Australia, using semi-structured questions across Australia yielded data that was analysed using methods described by Braun and Clarke (2006). Nurses accounts revealed new understandings about their accounts of the use of restrictive practices and findings received media attention and resulted in keynote invitations in Australia and overseas (see pages ix-xi).

5.7 Chemical restraint

As discussed in Chapter Three, definitional issues regarding chemical restraint elude clarity with no consistent definition existing in Australia or internationally (Muir-Cochrane, 2020b). Nevertheless, using medications to calm or sedate agitated or aggressive psychiatric patients is common in acute psychiatric settings and EDs. As previously described regarding barriers to conducting research in acute inpatient settings, it was not possible to undertake investigations into the use of chemical restraint in South Australia in clinical settings as data was neither routinely nor reliably collected at that time. Further, institutional ethics and governance constraints disallow researchers to access patient notes to examine this practice. Thus, the two chosen papers were designed to investigate the efficacy of chemical restraint from differing research perspectives by systematically revising the available international evidence, without using patient data or human participants as a practical way of establishing new understandings. Through this systematic review and a qualitative synthesis review of patient and staff experiences, new knowledge was generated and new research questions raised.

Muir-Cochrane, E., Oster, C., Gerace, A., Dawson, S., Damarell, R., & Grimmer, K. (2019). The effectiveness of chemical restraint in managing acute agitation and

aggression: A systematic review of randomized controlled trials. *International Journal of Mental Health Nursing 29(2),* 110-126.

This systematic review adopted the PRISMA method for examining randomised controlled trials conducted to examine the efficacy of chemical restraint in acute hospital care and psychiatric settings. Results include the lack of clarity in the types of medications administered and inconsistency in studies reporting on this topic raising the need for further investigations to establish the best evidence to guide clinical practice.

Muir-Cochrane, E., Muller, A., & Oster, C. (2021b). Chemical restraint: A qualitative synthesis review of patient and staff experiences. *Nursing and Health Sciences, 23*(2), 325-336.

Little has been written about the experiences of patients in regard to being chemically restrained and it was not possible to interview inpatients in South Australia to gain their perspectives for reasons already stated regarding ethical and governance constraint. Thus, a synthesis of existing research from a qualitative perspective was an appropriate way of garnering the available research on the topic. The review utilised the Qualitative Critical Appraisal Skills Programme (CASP) tool to assess the quality of the evidence (Singh, 2013). This is the first review paper that focusses specifically on the experience of consumers and staff in relation to chemical restraint. The paper extends understandings and raises questions for further research into this common form of restraint within EDs and mental health settings.

5.8 The role of Security Guards

This research emerged from collaborations with a senior mental health clinician who was undertaking staff development and training in least restrictive interventions across a large metropolitan area health network in Adelaide. He was concerned about the high number of code black call outs (security guard and health staff attending incidents of aggression or violence) to medical-surgical units and the role security guards played as part of the team. No research had previously been undertaken about the presence of security guards on medical-surgical units that we could find. Although meetings were convened with the senior managers of the security firm for the health network, this did not realise our original goal of interviewing security guards because the security firm managers did not approve our

research proposal. Nevertheless, funding was secured from the area health network allowing the research to be undertaken and received media attention in South Australia.

Muir-Cochrane, E., Muller, A., Fu, Y., & Oster, C. (2020b). Role of security guards in Code Black events in medical and surgical settings: A retrospective chart audit. ***Nursing and Health Sciences, 22(3),*** **758-768.**

A retrospective chart audit (Barick et al., 2018) was adopted as a well-established approach to explore the logs maintained by security guards in relation to code black events. Ethical approval was swiftly granted but approval of each group of units across three hospitals requiring sign off by multiple individuals resulted in the governance approval taking over a year. As with previous studies, data maintained by health services in separate databases was not able to be electronically linked; hence, it was not possible to provide demographic data about patients to be matched with the security guard logs. Descriptive analysis was undertaken, limited by non-independence in the sample and overlapping of categories within a case that could not be separated (Muir-Cochrane et al., 2020b). This was the first Australian paper to examine the role of security guards in aggressive or violent events in medical and surgical settings. The study received media attention in South Australia.

5.9 Reflections on the research

Using a pragmatist research paradigm to frame the published papers in this thesis has facilitated the researcher to reflect on the limitations of undertaking research in clinical settings in South Australia. The lack of a pre-existing strong and collaborative research culture between clinicians, academics and health services presented barriers to the types of research that could be undertaken and the scope of research projects. Ethical constraints on the research conducted also directed research methods to be practical and feasible. The adoption of mixed methods within a pragmatist framework to investigate specific restrictive practices and absconding has provided a rich and multifactorial description of the topics driven by real-world problems identified through important clinical practice issues. The research undertaken in the eight papers was only possible due to the building of close collaborative working relationships between the research team, senior nursing leaders and professional nursing organisations. Research, and specifically clinically-based research, requires a network of support and a dedicated research team. The researcher aimed to do what was possible in complex circumstances in settings where research was not strongly accepted or embraced by mental health services and where Human Research Ethics

Committees were risk averse, viewing psychiatric inpatients as a highly vulnerable group who could not give consent. A mixed methodological approach has provided new understandings of restrictive practices and absconding and identified directions for future research.

5.10 Summary

This chapter has explored the pragmatist research approach as a frame for the published papers in this thesis. The next chapter presents the eight papers, forming the core research of this PhD PP. The different research studies were not all conducted sequentially but are chosen as exemplars of the significant depth and breadth of the contribution to knowledge on restrictive practices and absconding. The diversity of approaches to data collection, analysis and reporting in the published papers can be considered a strength of the work over time as well as demonstrating a coherence regarding the examination of restrictive practices and absconding.

CHAPTER SIX PUBLICATIONS

6.1 Introduction

This chapter presents the eight publications. I was the lead researcher and principal author of the publications. I made significant contributions to the associated grant applications conceptualisation and research design, data collection analysis, report writing and writing of the publications. Authorship declarations are included in Appendices One to Eight. All papers are reproduced with journal permission. The publications are presented as they were published according to specific journal formatting requirements. Table 4 provides a summary of the papers' contributions to the topics and associated metrics.

Table 4. The publications, their contributions, and metrics

Publication	Area of Contribution	Journal Impact Factor	Citations
Muir-Cochrane, E, Gerace, A, Mosel, K, Barkway, P, O'Kane, D., Curren, D., & Oster, C. (2011a). Managing risk: Clinical decision making in mental health services. *Issues in Mental Health Nursing, (32)*12, 726-734.	Findings illuminated the tensions experienced by staff in risk assessment and management by mental health nurses which involved both managerial and therapeutic approaches to care.	1.15	Scopus 4 Google 29 Altmetrics 11
Muir-Cochrane, E., Oster, C., Grotto, J., Gerace, A., & Jones, J. (2013). The inpatient psychiatric unit as both a safe and unsafe place: Implications for absconding. *International Journal of Mental Health Nursing, 22*(4), 304-312.	Psychiatric consumers perceive inpatient units as safe or unsafe dependent on the individual social and symbolic aspects of the unit. Absconding is a response to feeling unsafe in hospital.	2.383	Scopus 51 Google 80 Altmetrics 13
Muir-Cochrane E., Muller, A., & Oster, C. (2021a). Absconding: A qualitative perspective of patients leaving inpatient psychiatric care. *International Journal of Mental Health Nursing, 30*(5), 1127-1135.	Absconding remains a common event. Patients abscond either when they have usual daily activities to undertake, when they have a negative experience of care, or when they are in conflict with staff.	2.383	Scopus Google Altmetrics 27

Gerace, A., & Muir-Cochrane, E. (2018). Perceptions of nurses working with psychiatric consumers regarding the elimination of seclusion and restraint in psychiatric inpatient settings and emergency departments: An Australian survey. *International Journal of Mental Health Nursing, 28*(1), 209-225.	Nurses view restraint practices as a last resort but they tend to disagree that such practices can be eliminated. Enablers and barriers to restraint reduction are discussed.	2.383	Scopus 21 Google 42 Altmetrics 37
Muir-Cochrane, E. C., O'Kane, D., & Oster, C. T. (2018). Fear and blame in mental health nurses' accounts restrictive practices: implications for the elimination of seclusion and restraint. *International Journal of Mental Health Nursing, 27*(5), 1511-1521.	Nurses have deep concerns about the safety consequences of eliminating seclusion and restraint in acute psychiatric inpatient settings.	2.383	Scopus 33 Google 57 Altmetrics 97
Muir-Cochrane, E., Oster, C., Gerace, A., Dawson, S., Damarell, R., & Grimmer, K. (2020a). The effectiveness of chemical restraint in managing acute agitation and aggression: A systematic review of randomized controlled trials. *International Journal of Mental Health Nursing 29*(2), 110-126.	Chemical restraint is commonly used and RCTs provide little clarity about the superiority of any particular method.	2.383	Scopus 7 Google 13 Altmetrics 27
Muir-Cochrane, E., Muller, A., & Oster, C. (2021b). Chemical restraint: A qualitative synthesis review of patient and staff experiences. *Nursing and Health Sciences, 22*(3), 325-336.	Consumers view chemical restraint as unjustified and a form of violence while staff deem it necessary due to limited alternatives.	1.269	Scopus Google Altmetrics 3
Muir-Cochrane, E., Muller, A., Fu, Y., & Oster, C. (2020b). Role of security guards in Code Black events in medical and surgical settings: A retrospective chart audit. *Nursing and Health Sciences, 22*(3), 758-768.	This is the first study in Australia reporting on the role of security guards in the management of aggression and violence in hospitals.	1.269	Scopus Google Altmetrics 39

6.2 Publication One

Muir-Cochrane, E., Gerace, A., Mosel, K., Barkway, P., O'Kane, D., Curren, D., & Oster, C. (2011a). Managing risk: Clinical decision making in mental health services. *Issues in Mental Health Nursing, 32*(12), 726-734.

Student's contribution to the publication: Research design 80%, data collection and analysis 70%, writing and editing 70%

Abstract

Risk assessment and management is a major component of contemporary mental health practice. Risk assessment in health care exists within contemporary perspectives of managerialism and risk aversive practices in health care. This has led to much discussion about the best approach to assessing possible risks posed by people with mental health problems. In addition, researchers and commentators have expressed concern that clinical practice is being dominated by managerial models of risk management at the expense of meeting the patient's health and social care needs. The purpose of the present study was to investigate the risk assessment practices of a multidisciplinary mental health service. Findings indicate that the mental health professionals drew on both managerial and therapeutic approaches to risk management, integrating these approaches into their clinical practice. Rather than being dominated by managerial concerns regarding risk, the participants demonstrated professional autonomy and concern for the needs of their clients.

Keywords: risk assessment, risk management, mental health, multidisciplinary care team

Introduction

In this paper we report on the findings of a study exploring the risk assessment practices of a multidisciplinary mental health service in Australia. Risk assessment and management are major components of contemporary mental health practice. Risk, described as "the likelihood of an adverse event happening" (Muir-Cochrane & Wand, 2005, p. 5), can include patient aggression (Daffern & Howells, 2009), suicide and self-harm (Thompson, Powis, & Carradice, 2008), absconding (Muir-Cochrane, Mosel, Gerace, Esterman, & Bowers, 2011), substance abuse (Thomson, 1999), and diverse risks such as risk of medical co-morbidity, exploitation, social exclusion, victimisation and poverty (Kelly & McKenna, 2004; Muir-Cochrane, 2006). The increasing importance placed on risk assessment and management is

reflected in both policy and daily care of consumers by health care professionals worldwide (Department of Health, 2007; Oordt, Jobes, Fonseca, & Schmidt, 2009; de Nesnera, & Folks, 2010; Langan, 2010).

The focus on risk in the provision of mental health care arose as a consequence of a complex set of social, political and economic changes. This includes the adoption of market-based principles in the provision of healthcare more generally, with the consequent rise in managerialism during the 1970s and 1980s (Sawyer, 2009; Alaszewski, 2005; Gregory & Holloway, 2005), underpinned by the contemporary framework of a "risk aversive culture" (Cleary, Hunt, Walter, & Robertson, 2009, p. 644). Within this context there is a general perception that all risks can and should be identified and ameliorated. This has led to much discussion about the best approach to assessing the possible risks posed by people with mental health problems to both themselves and others. Within the research literature, the nature of assessment and management is often framed in terms of prediction, particularly the strengths and weaknesses of actuarial and clinical judgement approaches (Dolan & Doyle, 2000; Petrila & Douglas, 2002; Swanson, 2008).

The centrality of a risk management approach to the provision of health care has raised a number of tensions for service providers. Researchers and commentators have expressed concern that clinical practice is being dominated by the managerial model of risk management at the expense of meeting the patient's health and social care needs (Godin, 2004). Furthermore, concerns have been raised about the diminishment of professional discretion and autonomy, and the deskilling of professionals as a result of the introduction of regulatory regimes such as risk management into the health sector (Alaszewski, 2005; McDonald, Postle & Dawson, 2008), while others have found that health professionals are able to interpret and negotiate risk management policies to maintain professional autonomy (Sawyer, 2009; Ruston, 2006). There are also issues associated with potential iatrogenic effects of risk management, such as the risks posed to patients by prescribed medications (Heyman, 2004; Hoyle, 2008; Busfield, 2004).

At the same time, the focus in mental health care on working within a recovery framework (Anthony, 1993; Deegan, 1988) has important implications for risk assessment and management. Policy and service reform to implement the principles of recovery – which focus on the consumer's goals, potential for change and growth, and a transparent and collaborative relationship with health care professionals (Barker & Buchanan-Barker, 2005) - has been identified as important to maintain a recovery focus (Ramon, Healy, & Renouf,

2007; Rickwood, 2005; Substance Abuse and Mental Health Services Administration, 2005), and inherent in such principles is, indeed, the notion of risk:

> '… [recovery] is a complex and multifaceted concept, both a process and an outcome, the features of which include strength, self-agency and hope, interdependency and giving, and systemic effort, which entails risk-taking.' (Ramon, Healy, & Renouf, 2007, p. 119)

The challenge exists, therefore, in the practical implementation of a balance between a focus on the risk a consumer is seen to pose, particularly in areas where risk to others and self is involved, and the development of "a respectful and considered therapeutic relationship [which] assists the patient to achieve a sense of ownership and responsibility for their mental illness, treatment and risk management" (Kelly, Simmons, & Gregory, 2002, p. 208).

Given the issues described above, it is important to explore and understand how clinicians engage in and understand the risk assessment process and manage risk. Godin (2004), for example, found that community mental health nurses in the UK experienced tensions in utilising more explicit and standardised assessment practices alongside clinical judgement and intuition, as well as prioritising certain types of risk such as suicide and self-harm over other potential risks. In a study on mental health nursing assessment, MacNeela, Scott, Treacy, and Hyde (2010) suggested that 'psychiatric nurses' assessment practices are influenced more by experiential, tacit knowledge than by formal decision aids and assessment models" (p. 1298), and proposed that this is at odds with concerns in health care for transparency, accountability, and quality assurance. These researchers also pointed to the importance of examining both cognitive decision-making processes and social and environmental factors.

The purpose of the present study was to investigate the risk assessment practices of a multidisciplinary mental health service. Specifically, the study aimed to: (a) examine the clinical decision-making practices of the mental health service multidisciplinary team in relation to risk assessment of mental health consumers; (b) examine the perceptions, knowledge and attitudes in relation to risk assessment in this service; and (c) explore the barriers and enablers experienced by the multidisciplinary team in relation to effective risk assessment practices.

Method

Participants

Purposeful sampling was used to recruit health professionals working in the acute care and community settings of one mental health service. Participants were required to have worked in the service for at least six months, in order to ensure knowledge and experience of risk assessment and management practices in the service. Recruitment was via a project information sheet distributed to all staff in the mental health division. Participant recruitment continued until data saturation had occurred (Pope, Ziebland, & Mays, 2000), with 15 multidisciplinary health professionals recruited to participate in the study. Table 1 presents participant work experience and demographic details.

Table 1. Participant work and demographic information

Work and demographic factors	**Sample details**
Work setting (acute or community)	Acute (*n*=9), community (*n*=1), acute care and community (*n*=5; although most worked predominantly in one of the two settings)
Participant ages	*n*=12 aged - 40-64 years, *n*=3 aged 25-39 years
Profession	Nurses (*n*=9; 7 mental health trained registered nurses; 2 registered nurses without mental health training); psychiatrists (*n*=2), psychologists (*n*=1), social workers (*n*=2), occupational therapists (*n*=1).
Experience in mental health	*Median*=12 years (*Range*=0.5-35 years)
Years total service in profession	*Median*=12 years (*Range*=0.5-39 years)

Months worked in ward/service	>24 months=7; 18-24=3; 7-12=3; 1-6 months=2

The mental health service

The service consists of an acute admission ward (located within a general hospital) and community mental health services for consumers with mental health problems over 65 years of age. The acute admission ward, though primarily a mental health care ward, can also cater for those consumers with minor physical issues because of its professional skill mix. Formal risk assessments in the acute care ward are required daily/weekly and reviewed weekly by the consultant with the multidisciplinary team on ward rounds. In the community services, case managers are responsible for ensuring risk assessment is undertaken, with formal assessment required every three months.

Procedure

Participants completed a demographic information sheet, read a hypothetical case scenario and completed a risk assessment and management tool. Participants then took part in a semi-structured interview exploring their approach to risk management for the case scenario and in daily practice.

Materials

<u>The case scenario</u>

The case scenario written by the research team described a consumer, ‘Jim’, brought into the emergency department by police after threatening his wife with violence, and detained under mental health legislation to the acute care ward. The purpose of the case scenario was to stimulate participants to think about how they assess and manage risk when using a risk assessment and management tool.

<u>Risk assessment and management tool</u>

The Risk Assessment and Management Tool was based on a tool developed by the Department of Human Services (2002) as an aid for the mental health clinician. The tool is used in the acute care setting – although the community service uses a similar instrument –

and consists of three sections: (a) *Risk history*, (b) *Risk assessment* (documenting individual risks and overall risk) and (c) *Risk management plan.*

Interview schedule

Semi-structured interview questions were developed for two interview phases. The first set of questions related to the participant's completion of the risk assessment and management plan for the case scenario. The second set of questions focused on risk assessment and management in the participant's daily workplace, exploring perceptions and knowledge of risk assessment and management.

Ethical considerations

Ethical approval was obtained from the relevant University and Hospital ethics committees. Participants signed a consent form and were later provided with an opportunity to check transcripts for verification purposes (National Health and Medical Research Council, 2007). One participant declined the use of their interview data, citing that they did not feel that they had articulated satisfactorily their perspectives on risk assessment and management. Due to the small number of staff in the service, participants are not identified by their discipline; although it should be noted that discussion of core themes was similar across professions.

Data analysis

The method of analysis was a hybrid thematic approach utilising the data-driven inductive approach of Boyatzis (1998) in order to reach higher levels of interpretive understanding. The thematic analysis was based on emergent issues from the text, as well as the research questions of the present study in an iterative process. Thematic analysis was used as "a coherent way of organizing or reading some interview material in relation to specific research questions. These readings are organized under thematic headings in ways that attempt to do justice both to the elements of the research question and to the preoccupations of the interviewees" (Burman, 1996, p. 57).

Interview transcripts were divided between research team members, who were responsible for developing preliminary codes and emerging themes for their transcripts. Once the research team had formulated a list of all emergent themes, each researcher read all transcripts and was responsible for coding particular identified themes. The team regularly met to discuss findings, and one researcher read and coded all transcripts and compared

this analysis with those of the individual researchers. Research team members also examined the transcript coding of other team members, using extracts of interviews. In the majority of cases there was agreement on coding, and any differences were discussed and resolved.

The interview transcripts were coded as a whole rather than separate the two phases of the interview in order to provide a coherent picture of the participants' decision-making regarding risk assessment and management. As such, we have not included a detailed analysis of the outcome of participants' application of the tool to the case scenario (the paper reporting these findings is available from the authors). Examples are given in the results section of both where participants spoke specifically of the scenario, and where they focused on their clinical decision making more generally.

Results

When discussing risk assessment and management, the participants drew on two main standpoints: a managerial view and a therapeutic view. The managerial standpoint is characterised by a focus on the risk the consumer poses to others, and incorporates systematised processes and procedures. The therapeutic standpoint is characterised by a focus on risks to the consumer, including risks to dignity, autonomy, consumer rights, and individualised care oriented around the notion of recovery (incorporating the positive benefits of risk for the consumer).

The findings indicate that the mental health professionals integrated these two standpoints into their clinical practice. We argue that rather than being dominated by managerial concerns regarding risk, the participants demonstrated professional autonomy and concern for the needs of their clients. This can be seen in the following discussion of the study themes, namely: Purpose of Risk Assessment, Process of Risk Assessment, Responsibility for Risk Assessment, and Mastery.

Purpose of Risk Assessment

The purpose of risk assessment was identified as keeping the consumer, their family, the community, staff and other consumers safe. As such the participants saw risk assessment and management primarily as "a preventative tool" (Participant 6), although the eradication of risk was seen as an unrealistic goal:

> '… that's what you're aiming to work towards that it's a low risk and that it's managed as best it can be, and that the risks are identified, you can't necessarily get rid of those.' (Participant 4)

This is in part because the focus of assessment is on potential rather than actual risks, which makes it difficult to predict risks with definitive accuracy.

There was a tension in participants' discussion about risk in their day-to-day practice, and about the potential risks posed by the fictional consumer 'Jim' described in the case scenario. In particular, tension was noted between the managerial focus on systems for prevention and ensuring safety versus delivering individualised care mindful of the rights of the consumer, as can be seen in the following comment:

> 'I can't tell you it's black and white, every case has to be judged individually and you treat each patient as an individual, but you obviously have to protect staff, other patients too so you set up systems that will protect people.' (Participant 1)

Clinicians therefore had to balance these competing interests.

Balancing risk prevention and individualised care provides both a philosophical and a practical challenge. This is particularly the case with high risk or detained clients, and potential worst-case scenarios were cited as reasons for hyper vigilance, as can be seen in the following comment about 'Jim':

> '… if we say he only needs hourly sightings but in the meantime he goes and half kills another patient, because we haven't checked on him for 45 minutes, it's a coroner's case.' (Participant 5)

Other participants noted the risk aversive nature of risk assessment and management and highlighted how this could lead to interpreting more in a situation than is warranted by the available evidence, with subsequent negative implications for the consumer.

Process of Risk Assessment

The tensions between managerial and therapeutic standpoints can also be seen in participants' discussion about the process of risk assessment and management. Drawing on a managerial approach, this process is described as a staged, structured, linear and "systematic process" (Participant 1) involving the identification of risk and planning how this will be managed. Identifying risk and establishing goals and specific strategies determined consumer care and were seen as the "building blocks of care" (Participant 5).

By contrast, a therapeutically oriented process was described as non-linear and non-static. For example, a community team member discussed how it was important to be in the moment with the consumer and use all opportunities to assess risk, rather than focus specifically on the linearity implied by the paperwork:

> 'I think some new staff don't necessarily appreciate that, they have their paperwork, correct that bit and go on to the next bit of paper and it's sort of knowing how to do a complete assessment of the situation.' (Participant 4)

Another participant discussed the importance of adapting the management plan to reflect changes in the consumer's condition over time:

> 'I would hate to be thinking there's a risk assessment out there that's still the same, I'd be concerned, it should change.' (Participant 10)

In order to manage the competing emphases of managerial and therapeutic standpoints, the participants generally highlighted the importance of clinical judgement based on experience in the assessment and management of risk. This was evident in the ways in which they drew on various sources of information in their risk assessment.

Information

The risk assessment process described by participants involved the use of diverse information, weighing up multiple interdependent factors to obtain an overall picture of risk. In this way, assessment became a consideration of the interrelationship of multiple potential risks, which can be seen in participants' discussions about 'Jim'. One participant believed that 'Jim's' temper was not "a risk in itself", but that "when it's mixed with a couple of other things … it contributes to the risk" (Participant 1). Risk assessment therefore involved piecing together numerous sources of information (e.g. medical, psychological, observational) and making a judgement about what is or is not relevant in relation to risk.

There were important sources of information that were considered valid by the participants. One of the first avenues was through observation and interaction with the physically present consumer, which occurred over time. Other health professionals, such as the general practitioner and engaged services would be contacted, as well as police and paramedics. Family and carers were identified as a rich source for collateral information and care planning, particularly when they have cared for the client and have knowledge of their history. One mental health nurse identified that information from 'Jim's' family and carers

provide insight into “knowing him with his illness, but [also] knowing him before that” (Participant 6).

The case history of the consumer was discussed at length, particularly the context of the admission, including events prior to hospital presentation. It was deemed important to understand whether issues (e.g. domestic violence) were long-standing or had occurred in relation to illness, as this would have implications for risk, diagnosis, and strategies of care. While several professionals believed that history was very important, it was stressed that aged-related changes through dementia could involve dealing “with something completely new” (Participant 6), even between the current and most recent admission. History of hospitalisation was important for another reason: mainly as “current armoury” (Participant 5) in determining triggers and potential interventions. In general, then, history was to be used carefully and in conjunctions with a range of other information sources:

> ‘It’s just one factor, a person may have no history but then there’s a whole series of circumstances which put the person at acute risk.’ (Participant 14)

Responsibility for Risk Assessment

There were two opposing views regarding who is responsible for risk assessment and management. Risk assessment and management was officially seen as the doctor’s responsibility, with formal risk assessments during the week and at business hours being conducted by a doctor (outside of more regular hours mental health nurses in collaboration with another nurse could conduct the assessment). Participants cited psychiatric knowledge and legal responsibility as the reasons for this. On the other hand, participants felt that it was the responsibility of all staff, and that the best way to come up with a risk management plan is to talk with the other members of the consumer’s care team: “Like five fingers of a hand, work well together” (Participant 5). Professionals often referred to making use of the skills and expertise of other discipline perspectives, but also their own knowledge of the components of consumer care: “… you’ve also got to be a little bit multi-d in yourself I think” (Participant 9).

In practice, collaboration occurred through joint assessments, consulting with other professionals after assessment, and intake referrals and ward rounds involving members of the team. Participants, however, reflected on their own responsibility as case managers or nurses: “ultimately [the doctors are] relying on you … you need to be sure that you’re feeding back the appropriate information” (Participant 4). In this way the nature of shared

accountability became apparent, which could lead to reluctance to be the one who is ultimately responsible for a risk-related decision:

> '… it's so much a blame culture I think as well that nobody wants to be the one to say 'yes, I think that person is safe to be at home'.' (Participant 4)

Participants also drew on therapeutic concerns when considering consumer involvement in decision-making. Almost all participants acknowledged that the role that the consumer played depended on factors such as level of acuity and age-related issues such as dementia. One participant discussed how they would often involve the consumer in risk assessment by communicating the nature of the process and what they had found, stating: "I don't think there's anything to hide" (Participant 9). This transparency was important particularly in the early stages of hospitalisation where procedures and rights (e.g. *Mental Health Act*) are foreign to the consumer, and strategies to reduce risk are often more staff led.

Most participants focused discussion of consumer involvement on *risk management* rather than *assessment*; in most cases, this reflected consumer improvement and a subsequent greater role and responsibility in their management. One participant reflected on a range of notions in addressing whether the consumer can play a role in their risk management:

> 'We encourage [consumer involvement]. I firmly believe that empowering someone to be their own barometer in life is the best …way for recovery, however a lot of our clients really aren't in that situation of being able to do that especially on initial admission, but as time goes on the recovery model is to invite them to participate in their own recovery, their own progress.' (Participant 2)

However, this participant acknowledged that the focus on recovery by individual clinicians might differ: "I really don't know how much each individual nurse does enable the client to be the participant" (Participant 2). Other discussions regarding involving consumers revolved around the practicalities of management rather than consumer goals, and so recovery as a theoretical notion was more often referred to implicitly, rather than explicitly. That being said, issues of risk assessment and management being "about the consumer" (Participant 7) and references to "ownership" (Participant 7), "participating in the whole management" (Participant 6), and "a right to be involved in their own care as much as possible" (Participant 5) were often present.

Although only discussed at length by two participants, a further tension was apparent in regard to the role of consumer choice in risk management and the ability to 'take risks'. One way to navigate this was to for the clinician to take on the role of overseer and be

responsible in an overarching way while still allowing the consumer to take personal responsibility:

> '…certainly as a clinician you feel that you need to oversee the process with your clinical judgement but at the same time you're really endeavouring to get the client…to be as responsible as possible. Let's say in terms of the wording that there's equal responsibility there.' (Participant 14)

Mastery

In the discussions about the knowledge and skills required for conducting clinically sound risk assessment and management we once again see participants drawing on both managerial and therapeutic considerations. Participants highlighted the importance of formal training and development, and in particular training in the use of risk assessment and management tools and orientation to current research. They also discussed informal training, sharing of intuitive knowledge by more experienced staff to support the novice clinician, and incorporation of life skills into the risk assessment:

> 'Instinct, you need to have a lot of instinct…you know you can't learn a lot of things out of a book so therefore life skills and having an awareness of reading body language.' (Participant 2).

This related to the competency of the clinician to complete an assessment and develop a management plan, and included additional skills and attributes such as being motivated, objective, aware, precise, and sensitive and empathic to the needs of the consumer and carers. In this way, the therapeutic relationship was particularly important:

> 'Other people may have individually found a way to have a more collaborative relationship with a client…may just be a personal little way that they do something that is natural to them so therefore they can pass that on to others.' (Participant 2)

While managerial and therapeutic concerns can be seen as conflicting, mastery was generally described as the result of the blending of formal training with more tacit understandings of risk.

Participants also discussed support mechanisms within the multidisciplinary team, particularly documentation and communication. Verbal and written communication between team members was seen as vital in being able to master risk assessment and management effectively: "we need to be on the same page and talk to each other" (Participant 10). This was particularly important given the nature of 24-hour care and the rotation of staff (e.g. both

regular and agency nurses), and staff had a responsibility to use and receive communication mechanisms effectively:

> ‘Other times staff don’t look at them [risk management plans] at all and that causes a problem especially when there’s an incident, you’re answerable…and you go back and look at the risk assessment and no-one’s updated it and no-one’s written anything on it’. (Participant 10)

The risk assessment and management tool was seen as an important way to gather information in a more structured and systematic way, ensuring certain areas were covered. This then leads to risk management considerations:

> ‘I think probably in terms of highlighting crucial areas, key areas and by giving them a score then they can be prioritized … and again it helps staff in that it’s a tool that promotes reflection and analysis of the situation and discussion.’ (Participant 14)

In this way, the tool allowed a “clear short snap of ‘this is the areas we need to look at or work from’” (Participant 14), although some risks might lend themselves more to a score (e.g. harm to self and others) than others (e.g. support, treatment response). The tool could also be used to discuss risk in more concrete terms, showing other professionals what has been documented, and could ensure continuity of care to the extent it was updated and accurate, “like a map” (Participant 3). However, while the risk assessment and management tool was seen as useful in facilitating structure and communication, participants acknowledged the nature of the documentation:

> ‘…they’re an important thing but I think we just need to be very careful what we write on them … I mean these go with the client and go to other places and I think that staff, all staff are thinking before they write things on them.’ (Participant 10)

Another support mechanism related to policy and procedure. Professionals spoke of the structure policy provided “to get a team all on track together” (Participant 13). However, responsive clinical practice was underscored, and the interplay between policy and practice became apparent:

> ‘So policies and procedures can again alert you to important things and important steps to follow, but policies and procedures are always secondary I think to clinical judgement and things such as your intuition and integrity.’ (Participant 14)

Participants highlighted the importance of integrating risk management processes into daily practice and workplace culture, which facilitated the use of risk assessment and management processes, as well as the development of mastery of risk assessment.

Discussion

This study demonstrated that for mental health clinicians, risk assessment and management form a large part of multidisciplinary practice, but also involve a tension between managerial and therapeutic concerns that the clinician must negotiate in their daily care of a consumer. The sample was limited to a small number of health professionals working in a specialised setting and used a single case scenario, but the data collected allowed a rich analysis of the issues involved in risk assessment and management.

Participants described their approach to risk assessment and management as a staged logical and continuous process. This reflects managerial concerns with systematised processes and procedures (Quirion, 2003), including the move away from assessing the physically present patient to looking at records and collateral sources discussed by Godin (2004). However, while the participants in our study discussed the use of collateral information, they also identified the importance of assessing the physically present consumer. Furthermore, the participants acknowledged the complexity and diversity of assessing potential risk factors. Such complexity in analysing information has been found in other nursing research, where, for example, professionals make decisions in both structured and more intuitive ways (Thompson et al., 2009), and not always as normative models – which describe how decisions *ought* to be made, but do not take account of factors such as how much information or time an individual has – would suggest (Littlechild & Hawley, 2009).

Participants conceptualised the underlying purpose of risk assessment as ensuring safety, a perspective which accords well with dominant conceptions of risk assessment (Muir-Cochrane & Wand, 2005). However, this focus on safety had to exist alongside therapeutic engagement and individualised care. A similar tension was reflected in the findings of Bowers et al. (2006), where staff grappled with a balance between control (for example, when management strategies such as increased observation are required) and the wishes of the consumer. In addition, it was found in that study that when an adverse incident did occur, there was increased focus on risk assessment, patient monitoring and ward security. While increased attention to assessment and management would ideally be accompanied by a concomitant decrease in adverse incidents (although this is complex, see Daffern & Howells, 2002; Whittington & Wykes, 1996), there remains the potential for practice to become overly focused on predicting and preventing risk, which is not always possible. Indeed, the participants reflected on challenges regarding this, at times, ‘dual focus’, suggesting that risk

aversion can produce a situation where assessment is opposed to contemporary and mindful health care.

The tension between managerial and therapeutic concerns was also reflected in participants' discussions of responsibility. Professionals believed that consumers should participate in assessment and management and, in this way, a good understanding of the recovery model and notions of self-determination and least restrictive care were evident (WHO, 1996, 2003). However, consumer involvement could be influenced by the nature of the presentation and individual clinician beliefs and practice. In the present study, a number of ways of implementing recovery principles were discussed, including involving consumers directly and giving them responsibility in their management, family and carer involvement, and lesser mentioned factors such as open communication, and acknowledgement of consumer right to take risk. Practices such as discussing with consumers their admission, ward structure and treatment have been identified as important to reducing incidents of absconding and other risk behaviours in acute-care settings (Mosel, Gerace, & Muir-Cochrane, 2010), and as particularly important in facilitating adjustment to care settings for older persons (e.g. Meehan, Robertson, & Vermeer, 2001). More explicit attention to recovery principles may, therefore, be needed. In addition, a particular challenge seemed to exist early in an admission where the clinician may feel particularly responsible for patient safety, and recovery and management were seen as more suitable once the patient moved beyond an initial acutely unwell presentation and passive role (see Davidson, O'Connell, Tondora, Styron, & Kangas, 2006; Thompson, Powis, & Carradice, 2008).

In the present study nurses' perceptions of their role in risk assessment was more active and with professional focus than previous studies (Bishop & Ford-Bruins, 2003). This may relate to a stronger role and expectation of nurse involvement in the multidisciplinary team in this service. However, the primary role of the doctor in formal documentation and a hierarchy of responsibility were also discussed, and analysis revealed that clarification of responsibility (e.g. legal or professional) and shared accountability and establishment of practices consistent with this may be needed. Responsibility concerns did emerge and "the culture of blame of individual professionals which prevents their using their professional judgment" (Littlechild & Hawley, 2009, p. 226) was also apparent. However, while very much aware of legal responsibility and adverse incidents, risk assessment was not discussed solely as a documentation exercise or legal requirement. Instead, it was an important part of clinical practice and a significant part overall assessment. It may be that the integration of risk

assessment and management into practice in the form of admission meetings, hand-over, ward round and before initial home visits, contributed to such a perception.

The tool was seen as important in documentation and analysis of risk, although there was concern in focusing on the tool instead of conducting a fuller assessment. Therefore, a balance between use and not becoming encumbered by the tool was important (Godin, 2004). Both formal and informal training and development was seen to be important to effective risk assessment that balances managerial and therapeutic concerns, with more experienced staff seen as potential resources for young clinicians. Professional development of clinical judgement, analytic and therapeutic skills could be accomplished under supervision and, in this way, responsive and reflective clinical practice was seen to be important in developing risk competency (Alaszewski, 2006).

Conclusion

The present study demonstrated the integration of both managerial and therapeutic concerns into the risk assessment and management practices of acute care and community mental health professionals working in the service. Rather than being dominated by managerial concerns regarding risk, the participants demonstrated professional autonomy and concern for the needs of their clients. The ability of health professionals to maintain autonomous practice despite the increasing dominance of managerialism in contemporary health care has been found in other studies (Sawyer, 2009; Ruston, 2006).

Future research should investigate consumer and carer perspectives on risk assessment and management, and make use of a number of real-life scenarios (or examination of real practices on the ward) to further explore and verify key processes and practices uncovered in this study.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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6.3 Publication Two

Muir-Cochrane, E., Oster, C., Grotto, J., Gerace, A., & Jones, J. (2013). The inpatient psychiatric unit as both a safe and unsafe place: Implications for absconding. *International Journal of Mental Health Nursing 22*(4), 304-312.

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Abstract

Absconding from acute psychiatric in-patient units is a significant issue with serious social, economic and emotional costs. A qualitative study was undertaken to explore the experiences of people (n=12) who had been held involuntarily under the local mental health act in an Australian in-patient psychiatric unit, and who had absconded (or attempted to abscond) during this time. The aim of the study was to explore why people abscond from psychiatric in-patient units, drawing on literature from health geography on the significance of the person-place encounter, and in particular the concept of 'therapeutic landscapes'. The findings show that the in-patient unit is perceived as a safe or unsafe place, dependent on the dialectical relationship between the physical, individual, social, and symbolic aspects of the unit. Consumers absconded when the unit was perceived as unsafe, while forming a therapeutic relationship with staff, familiarity with the unit, a comfortable environment and positive experiences with other consumers all supported perceptions that the unit was safe, decreasing the likelihood of absconding. Findings extend existing work on the person-place encounter within psychiatric in-patient units, and bring new knowledge about the reasons why consumers abscond. Implications for practice are discussed.

Keywords

Absconding; Australia; hospitals, psychiatric; inpatients; qualitative research

Introduction

Mental health care in Australia, as in many countries, is characterised by deinstitutionalisation, where the delivery of care for people with mental health problems has moved from long-stay 'asylums' to community-based care. Where in-patient care is required, this is increasingly delivered within general hospitals with specialist psychiatric units, which remain an important place of care for people with mental health problems (Carr *et al.* 2008).

According to Bowers' (2005) review of the literature, there are seven main reasons for admission to psychiatric in-patient units: being deemed a danger to self or others; psychiatric assessment; medical treatment; having a severe mental disorder; self-care deficits; respite for the carer; and respite for the consumer. Due to pressure on in-patient psychiatric services, only the most severely unwell (often with psychotic disorders) are admitted for treatment. Absconding (leaving the hospital without permission) has been identified as a serious issue, with significant social, economic and emotional costs (Muir-Cochrane & Mosel 2008; Muir-Cochrane *et al.* 2011). According to a review of the literature by Muir-Cochrane and Mosel (2008) absconding rates vary widely internationally with rates between 2.5-34% of all psychiatric admissions, with a recent Australian study citing a rate of 13% (Mosel *et al.* 2010).

There are many reasons for absconding reported in the literature. These include: feeling fearful, isolated, and homesick, being concerned about issues at home, having a lack of insight into the need for hospitalisation, a disturbing ward environment, boredom, poor quality food and lack of privacy (Bowers *et al.* 1999, 2000; S. Carr 2006; Manchester *et al.* 1997; Meehan *et al.*1999; Nurjannah *et al.* 2009). Feeling fearful while in hospital in particular is a phenomenon widely reported by previous studies of consumers' experiences of acute psychiatric units, with evidence of theft of personal property, physical and psychological threats, actual violence and sexual harassment (Jones *et al*. 2010; National Patient Safety Agency 2006; Quirk *et al*. 2004, 2006; Royal College of Psychiatrists 2006).

Jones et al. (2010) interviewed 60 psychiatric in-patients across 60 different psychiatric units in England. The majority of respondents reported feeling safe while in hospital and valued the support from staff and peer support from fellow consumers, yet psychiatric units were also perceived to be 'risky' places with reported incidents of theft, violence, intimidation and bullying, alcohol and drug use. These findings are in keeping with the research of Quirk et al. (2004, 2006) who conducted an ethnographic study of life on the ward in three acute psychiatric units in London. Quirk et al. (2004, 2006) describe the permeability of modern psychiatric units, which contrast with the impermeability of the old asylums. This permeability can be seen in the temporary nature of ward membership, and the maintenance of contact with the outside world, for example resulting in the introduction of illicit substances into the ward environment.

In this paper we explore why people abscond from in-patient psychiatric units, and how this is related to the notion of the psychiatric unit as a 'risky' environment. The analysis is broadly

located within the field of mental health geography (Philo & Wolch 2001; Parr 2000; Wolch & Philo 2000), which is concerned with "how space, place, environment and landscape impact upon people with mental health problems" (Philo 1997, p. 73), and focuses on the meanings and experiential aspects of place, as well as on the ways in which place actively constitutes and shapes individuals and their interactions. In particular, we draw on literature from health geography on 'therapeutic landscapes' to explore the role of the physical, individual, symbolic and social aspects of the psychiatric unit, and how these characteristics can influence patients' decisions whether to abscond from in-patient psychiatric care.

Therapeutic landscapes

The notion of therapeutic landscapes is a central theoretical concept within health geography (Moon 2009). Originally introduced by Gesler (1992), and further developed over the past two decades, the therapeutic landscape concept "provides a framework for analysis of natural and built, social, and symbolic environments as they contribute to healing and well-being in places – broadly termed landscapes" (Williams 2007, p. 2). Early work on therapeutic landscapes tended to focus on the aspects of particular landscapes (such as spas and nature) that were conducive to or associated with healing. In this paper we focus instead on "the relational dynamic of person and place" (Cutchin *et al.* 2010, p. 119), and how this might induce, or even fail to induce, positive benefits for health or well-being (Conradson 2005). The therapeutic landscape approach recognises that "there is a mutually reinforcing and reciprocal relationship between people and place" (Cummins *et al.* 2007, p. 1825).

The formation of therapeutic landscapes is a dynamic process shaped by the dialectical relationship between three major elements of place. These are as follows (using examples from the present study): 'locale' (the setting in which social relations are constituted, such as the psychiatric in-patient unit); 'location' (broader social and economic processes and how they impact upon the provision of mental health care in this locale); and sense of place (the meanings people attach to the psychiatric in-patient unit) (see Burges *et al*. 2007; Poland *et al.* 2005). By focusing on the relational aspects of the person, place and (mental) well-being, the emphasis is on the person-place encounter rather than on the therapeutic landscape as a pre-existing entity (Cutchin *et al.* 2010). From this perspective, the psychiatric in-patient unit is not viewed as intrinsically therapeutic; rather it is in the mutually-constitutive relationship between the individual and the multiple facets of the hospital landscape (physical, social, symbolic) that wellbeing may be experienced.

Therapeutic landscapes have received limited attention within mental health geography, with few studies drawing on this framework. Milligan and Bingley (2007) explored the impact of woodland on young adults' mental well-being. They found that woodland was experienced as both restorative and scary, suggesting that natural environments should not be assumed to be intrinsically therapeutic. Research has also been conducted into the in-patient psychiatric unit as a therapeutic landscape. Curtis, *et al.* (2007), for example, applied this concept to the exploration of aspects of hospital design that are important to the well-being of staff and users. The therapeutic landscape perspective provides a useful framework to understand why consumers abscond, because of its attention to the multiple features of landscapes (physical, social, symbolic, individual) that could impact on absconding behavior (Yamanis 2010).

Methods

Aim

A small-scale qualitative study was undertaken to explore the experiences of people who had been held involuntarily under the local mental health act in an Australian in-patient psychiatric unit and who had absconded or attempted to abscond.

Recruitment

Purposeful sampling was used to recruit consumers of mental health services in a metropolitan city in Australia who had some experience with absconding from an in-patient psychiatric unit (either had successfully absconded, or had tried to abscond). Information about the study was disseminated via flyers placed within a community based, not-for-profit organisation that delivers programs and services to people affected by mental illness. Consumers were invited to contact the researchers if they were interested in participating in a one-on-one in-depth interview to explore their experiences and perceptions of absconding. Recruitment continued until data saturation was reached.

Sample

Twelve (12) consumers agreed to participate in an interview. There were 4 men and 8 women. All consumers had experiences as an in-patient in an acute psychiatric unit (open and closed wards) and had attempted to or succeeded in absconding during their admission. No demographic information was collected as it was thought that this would be too invasive

considering the sensitivity of the questioning, and given the exploratory rather than comparative nature of the study; however, all consumers were over the age of 18.

Data Collection

Interviews were conducted over a six-month period at the premises of the not-for-profit organisation through which consumers were recruited. The interviews were semi-structured with open-ended questions to allow consumers to discuss their experiences of absconding and the reasons why consumers abscond. The interviews were audio recorded with the consent of the consumers and transcribed verbatim. The average length of the interviews was between 20 and 40 minutes.

Ethical considerations

Ethical approval for the study was sought and granted by the relevant university ethics committee. Given the sensitive nature of the topic, consumers were given the opportunity to have a support person present in the interview. Two consumers chose this option. Consumers were informed in the information sheet and at the start of the interview that their participation was voluntary, that they could withdraw from the study at any time without penalty, and that they would not be identified in the interview transcripts or in any reports, publications or presentations arising from the study. All consumers signed a consent form.

Analysis

A thematic analysis method was chosen to allow vigorous analysis through developing concepts, themes and meanings, representing a level of patterned response from the data set (Braun & Clarke 2006). The interview transcripts were analysed following the procedures outlined by Braun and Clarke (2006) using their fifteen-point checklist of criteria for effective thematic analysis. Data were imported into computer software (NVIVO8) where a staged analysis was undertaken by members of the research team, who met to determine initial nodes, which were then sorted into potential categories and finally themes. The categories and themes were developed collectively in analyses workshops with research team members. Member checking of themes was undertaken through return of transcripts for comment with minimal changes made to the findings.

Resultant themes were identified in order to provide information about the individual, social, symbolic and physical aspects of the hospital that impact on absconding. While there were

differences in emphasis between consumers, the themes were discussed by all of the consumers. The overarching theme is the in-patient unit being perceived as a safe or unsafe place, and the impact of individual, social, physical and the symbolic factors on this perception.

Results

The in-patient psychiatric unit was experienced as both a safe and an unsafe place through the intertwined relationship between the individual, physical, social, and symbolic features of the unit. The hospital was viewed as a safe place when it provided sanctuary, a caring, nurturing, therapeutic place where consumers were protected from themselves and others:

> 'So basically I don't like going into the closed ward, but I'm safe…I know that if I'm on the street I'll be hitch-hiking, I'll be jumping into people's cars, I'll be totally at risk.' (Consumer 11)

However, it was when the in-patient psychiatric unit was experienced as unsafe that the consumers were most likely to abscond. In what follows we describe the individual, social, symbolic and physical aspects of the in-patient psychiatric unit and their impact on absconding. While these aspects are presented separately, in fact they operate in a dialectical relationship where each affects the other. In particular, it is through the interaction between the consumer's personal experiences of mental illness, the care provided to them while in hospital, their interactions with other consumers, and symbolic and physical factors associated with the hospital environment that consumers experience the hospital as safe/unsafe.

Individual factors

The interaction between experiencing serious mental illness and the hospital environment impacted on consumers' perceptions of the hospital as a safe place. They described feelings of panic and fear leading to absconding, for example as a result of experiencing hallucinations and paranoia during their admission to an in-patient psychiatric unit:

> 'I absconded during a kind of psychotic panic attack…, I don't really know what it was, but I freaked out because I was hallucinating that there was someone in the room and I couldn't make them go away so I just … ran down the road.' (Consumer 3)

In addition, consumers described the intense fear resulting from admission to hospital when they were in denial about having a mental illness, and therefore confused and frightened about why they were being hospitalised and medicated:

> '… I suppose part of it is denial, it wasn't quite clear what my diagnosis was … so there was a denial there in relation to that … and I'd never been one for confined spaces and hospitals, it just made me feel terrible… I just wanted to get out of there.' (Consumer 6)

While in retrospect the consumers viewed these responses as 'irrational', at the time absconding was a justifiable response to a frightening situation, for example:

> 'All the times that I absconded was based on the same thing but you're not thinking rationally…your first interpretation is…I've got to get the hell out of here, they're after me.' (Consumer 5)

Consumers also on occasion reported a shift in their perception of the unit from unsafe to safe. For example:

> '… I felt safer and I felt more secure, I mean I didn't like being in a lock-up ward but as I got more insight I could recognise that that was probably the best place for me to be.' (Consumer 10)

Thus the meaning of the in-patient psychiatric unit shifts from a frightening space into one that provides sanctuary and respite from the stressors associated with life in the community when experiencing severe mental illness. Consumers also described their experience of hospitalisation as being safe at times and unsafe at others dependent on other factors, discussed below.

Social factors

Here, we describe the in-patient psychiatric unit as a setting for particular social relations, and the impact of these relations on consumers' perceptions of the in-patient psychiatric unit as safe or unsafe.

<u>Interactions with care providers</u>

Consumers described their interactions with care providers as having a significant effect on their perception of the hospital as a safe and therapeutic environment. Negative experiences of care provision contributed to the in-patient psychiatric unit being experienced as an unsafe place. Consumers absconded, or wanted to abscond, because they felt they were not being helped, or that there was no hope that they would get better, if they stayed in the unit:

> Interviewer: Can I ask why you were desperate to get out?
>
> Respondent: Because there was no help whatsoever, none whatsoever. (Consumer 9)

Insufficient communication, a feeling of not being listened to and relationship building was also a factor. One respondent described this lack of communication as follows:

> '… so you kind of sit there and think 'I wonder what they've put in my notes about me today when clearly they haven't spoken to me all day, how can they know how I'm going?'' (Consumer 3)

Another respondent described her experiences of asking to be held involuntarily under the local mental health act, as she could see that her mental health was deteriorating, and being told she could be voluntary (i.e. allowed to leave any time) and therefore feeling unsafe:

> '[If the] doctor says you're fine you can be voluntary then you're not safe. No-one wants to go 'please put me away for my own safety, I want to be detained', … it's up to the doctor and then when you ask that and say 'can I have this?' they think you don't need it…and so I feel often disempowered because no-one listens to me when I'm trying to get help ...' (Consumer 11)

This comment is interesting as it illustrates the interrelationship between contextual factors (being involuntary or voluntary) and consumers' illness experience on the meaning of the hospital space. The lack of an effective therapeutic relationship was identified as a cause of fear, underpinning the desire to abscond.

Consumers felt that often staff were unavailable, too busy or disinterested in making time to address their needs:

> '… you know that you're going to get discharged before you're well enough to actually manage … I guess if you feel like there's no hope or no purpose of you being there it's 'why don't I just go home now and I'll deal with the consequences if I live or die' and you're kind of like 'I don't care'.' (Consumer 3)

However, consumers generally viewed inadequate care provision as relating more to the attitudes of the care providers themselves. This included a lack of respect and treating consumers like children. At the same time, consumers pointed to the possibility of a positive therapeutic relationship preventing absconding:

> '… if they stop being treated the way they are and they get treated like an adult they won't leave, I mean I would stay willingly. If I felt I needed to be detained and they treated me like a human being I would stay.' (Consumer 7)

The above quote is indicative of the impact of the consumers' relationships with staff on their absconding behaviour, and the importance of a therapeutic relationship between staff and consumers.

Interactions with other consumers

Consumers in our study identified feeling fearful of other consumers as a reason for absconding. They described feeling unsafe due to fears of theft and fears for personal safety, including physical violence, bullying and sexual harassment:

> '… also another reason why I've absconded is because, some of the male patients (sic) have been sexually, whatever the word is [harassing]… and I've been scared.' (Consumer 11)

Consumers also described the effect of being with others who are mentally ill on their perceptions of the psychiatric unit as a safe and therapeutic place. They described the unit as "not exactly a happy place to be" where people "do really weird things" (Consumer 11), and this can be frightening and lead to an exacerbation of their own mental ill health. For example, one respondent described seeing someone admitted to the unit who had tried to suicide, and making an association between suicide and being in the psychiatric unit:

> '… and in came an ambulance with one of the fellows who had a day pass, day release, at that stage came back and he was heavily drugged and had his wrists all bandaged up, he'd clearly tried to suicide and that really frightened me, freaked me out and I thought 'hell I'm not going this way', so I took off.' (Consumer 2)

These experiences demonstrate the ways in which the psychiatric unit provides a setting for fearful relationships with other consumers. Furthermore, there is an interconnection between individual factors, such as experiencing severe mental health problems, and social factors, such as the behaviour and experiences of other consumers, which impacts on perceptions of the unit as an unsafe place.

The physical environment

The physical aspects of the psychiatric in-patient unit also had an impact on consumers' experiences of the unit as a safe and therapeutic place. For example, consumers complained about the physical environment of the hospital being too crowded, noisy, too busy, too cold or hot, and ugly, even prison like. Consumers identified that tranquil, calming surrounding (natural surroundings outdoors and the use of colour indoors) were more conducive to healing.

The physical environment of the hospital furthermore provided varying degrees of privacy, which influenced the perception of the hospital as a safe place. In one instance, the respondent felt that allowing too much privacy made the hospital environment unsafe, in that

it offered too many opportunities to abscond and for others to enter the environment who aren't supposed to be there. By contrast, privacy was seen as a positive aspect of the physical environment by another respondent, who identified her room as her "own little sanctuary" (Consumer 12).

The physical aspects of the hospital were also described as affecting consumers' social relationships, with consumers discussing the influence of shared spaces between men and women on their feelings of safety (with women in particular feeling unsafe in communal spaces that are shared with men). The physical environment furthermore had an impact on the relationship between nurses and consumers, with one respondent stating that the positioning of the nurses' station led to the formation of a 'them and us' relationship, in addition to a lack of interaction and communication:

> 'Certainly when I was in that situation it was them and us and … the nursing staff were the enemy … they had the nurses' station in the middle and it was like a garrison and the nurses didn't talk with you at all ....' (Consumer 4)

Symbolic environment

In this section we describe the symbolic aspects of the psychiatric in-patient unit that impacted on consumers' absconding behaviour, particularly in relation to their experiences of a lack of freedom and familiarity/unfamiliarity with the environment.

Lack of freedom

The consumers discussed the symbolic environment of the in-patient psychiatric unit as prison-like, and described the fear associated with feeling like they were "being jailed" (Consumer 4), "marshalled" and "organised" (Consumer 2), and denied autonomy:

> 'Some reasons [for absconding] are probably the feeling of being powerless, to feel that somebody has total control over what you do, when you shower, when you go to bed, when you're allowed out for a smoke has a massive effect on me, massive effect.' (Consumer 7)

Lack of freedom led to feelings of loneliness, isolation and boredom. Consumers identified that not being free to do what they wanted to do or go and see who they wanted to see, in addition to having no structured activities available or access to open areas led to absconding. Boredom had a significant impact on the functioning of the hospital as a therapeutic landscape, and was identified by consumers as exacerbating symptoms and further impacting negatively on the hospital as a safe place:

> '… there's nothing to do… you just smoke cigarettes or think you want to go out and do something.' (Consumer 11)

The hospital as a familiar/unfamiliar environment

The psychiatric in-patient unit was described by most consumers as an unfamiliar environment, alien and strange. Lack of familiarity led to the hospital being experienced as a frightening and uncomfortable place to be, resulting in a desire to abscond. The hospital was generally experienced as unfamiliar (and therefore unsafe); however it could also be experienced as familiar (and therefore safe). Familiarity resulted from knowing the staff and other consumers. Consumers also described feeling safe when hospital routines (what time breakfast is, what time meetings are) were familiar to them. The routine of the unit was perceived and experienced differently. For some it is an aspect of the lack of freedom experienced in the hospital, while for others it is a marker of the safety of the hospital environment.

Discussion

Findings demonstrate that the main reason the consumers absconded from hospital was feeling unsafe in the hospital environment. The findings highlight the importance of individual (illness experience), social (relations with staff and other consumer) and symbolic (freedom and familiarity) aspects in addition to the physical environment (colour, light, space). Providing a safe environment is recognised as being central to the therapeutic milieu of the psychiatric in-patient unit, including the safety of the consumer from harm from themselves and others, and providing a safe place to talk through issues and know that they will be listened to and respected (Hopkins *et al.* 2009). This is also reflective of the refuge/asylum function of the hospital in mental health geography discussed by Curtis *et al.* (2009) and Parr (1999).

Findings identify that consumers' experience of others (nurses and other consumers) influenced their perception of the environment as supportive or otherwise and is supported by Wiersma (2008) in his work on the meaning of place (here hospital) to individuals. Furthermore, feeling safe with other consumers in hospital is a significant issue that has also been identified in other research (Glasby & Lester 2005; Johnson & Delaney 2006; Wood & Pistrang 2004). In this study, consumers felt unsupported and unsafe when staff did not promote a therapeutic environment and this is again supported by research that has

identified that consumers consider safety as an element of the therapeutic interaction (Koivisto *et al.* 2004).

A number of facets contribute to the formation of the hospital as an unsafe place, including experiencing severe mental illness, relationships with staff and consumers, and the physical and symbolic aspects of the hospital environment. While each of these facets can be viewed separately, it is important to understand the ways in which they interconnect in the formation of the hospital as unsafe. Thus the hospital provides the setting for particular social relationships (between staff and consumers, and between consumers themselves), which are impacted by the physical spaces of the hospital (such as the location of the nurses' station and the availability of shared spaces for men and women), and also by the social conditions in which the hospital functions (such as pressure on beds). These relationships are furthermore impacted on by the consumer's illness experiences and their expectations of the care they will receive while in hospital, as well as the symbolic meaning of hospital in terms of the dichotomy between freedom and familiarity. It is through these interconnections that the acute psychiatric unit sometimes failed to provide a therapeutic space for healing and recovery for consumers, resulting in absconding behaviours.

Our analysis of the in-patient psychiatric unit as a therapeutic landscape supports the findings of other research into consumers' experiences by demonstrating that the hospital is not an intrinsically therapeutic place (Jones et al, 2010; Laws, 2009; Quirk et al. 2004, 2006; Shattell *et al.* 2008). Much has been written about the importance of understanding that therapeutic landscapes are context dependent, and that environments are experienced differently by individuals, where what is therapeutic for one person may not be so for another (Gesler 2005; Milligan & Bingley 2007). This is certainly the case with our study, where the consumers discussed changing perceptions of the hospital landscape as safe/unsafe depending on the personal context of their illness experience, and the social, physical and symbolic context. The consumers also discussed changes in the meaning of the hospital over time as they came to better understand their illness and with the increasing familiarity of the hospital landscape.

Understanding the relationship between the hospital as a safe place and absconding has important implications for practice. The interconnection between the personal, social, physical and symbolic aspects of the hospital landscape provides a number of avenues for improving consumers' perceptions of the hospital as a safe place in which to recover. According to Curtis *et al.* (2007), hospital planners and designers most often attend to the

physical aspects of the hospital while neglecting the social and symbolic aspects. The authors therefore recommend attention be paid to these aspects in order to ensure that the psychiatric hospital functions as a therapeutic landscape. A similar point can be made with regard to absconding. As our study suggests, ensuring that the psychiatric in-patient unit is experienced as therapeutic has the potential to reduce the incidence of absconding. Feeling safe in the therapeutic interaction with staff in the psychiatric in-patient unit is a significant element of consumers' person-place encounter; another is the importance of feeling safe in relation to interactions with other consumers. Consumers' feelings of safety reduced the need to attempt to abscond.

There are a number of recommendations for practice emergent from this study. The first relates to the centrality of the therapeutic relationship between staff and consumers, and the importance of achieving mutual respect, talking to consumers on an equal footing (Curtis *et al.* 2007), and recognising the legitimacy of the fear inspired by the interaction between the illness experience and the hospital environment (Gilburt *et al.* 2008). Ordinary communication with consumers, showing interest, being with and being there for, getting to know consumers and giving information are all possible ways mental health nurses can engage usefully with those in their care (Cleary *et al.* 2012). Mental health nurses can seek out information from patients to establish any potential risk of absconding and associated reasons, and address issues to reduce an absconding event. When a consumer returns to an in-patient unit post an absconding event, sensitive engagement with the consumer can address the reason behind the abscond to inform future individualised care.

Heightened awareness by mental health nurses of the potential impact (positively and negatively) of consumers on each other's experiences of hospitalisation, management of the ward milieu and seeking information from consumers about how they feel in the environment can open communication to prevent or at least reduce the likelihood of a consumer absconding. Part of this relationship also involves the provision of a secure environment where consumers can feel safe, which would involve actively addressing the impact of other consumers (such as through the provision of separate communal spaces for women and men) and ensuring a balance between adequate supervision and privacy. Manipulation of the physical space of the acute in-patient unit can be achieved by providing quiet areas and use of sensory modulation (Chalmers *et al.* 2012) as well as maximising opportunities for consumers to have access to physical exercise, open space and fresh air. This study has furthermore highlighted the importance of providing meaningful activity to reduce boredom.

The provision of a range of diversional and educational programs and activities to consumers is required to reduce consideration of wishing to leave hospital.

Limitations of the study

The study is limited in that it is a small-scale, exploratory study involving a self-selecting group recalling past experiences of absconding. The study is furthermore geographically limited to the Australian acute in-patient landscape. Nevertheless, the findings from this study echo other international research and extend understandings about why consumers abscond from in-patient units and how absconding events may be reduced.

Conclusion

In this paper we have explored the impact of the person-place encounter on absconding from the in-patient psychiatric unit. Absconding is an event that can have serious consequences for consumers and others. Understanding why people abscond can provide valuable information to assist hospitals in keeping consumers safe. By adopting a therapeutic landscapes approach, we have been able to demonstrate the impact of the interrelationship between the individual, social, physical and symbolic aspects of the space of the in-patient psychiatric unit landscape on absconding. Awareness of these aspects can assist mental health nurses provide individualised care to facilitate a positive consumer experience and reduce the incidence of absconding.

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6.4 Publication Three

Muir-Cochrane E., Muller, A., & Oster, C. (2021a). Absconding: A qualitative perspective of patients leaving inpatient psychiatric care. *International Journal of Mental Health Nursing, 30*(5), 117-1135.

Student's contribution to the publication: Research design 80%, data collection and analysis 70%, writing and editing 70%.

Abstract

Absconding from inpatient psychiatric care is a complex problem with significant and broad ranging effects for patients, staff, family/carers, and the broader community. Absconding includes leaving the ward without permission and failing to return from leave at an agreed time. This study is a retrospective chart audit of a dataset of absconding events from 11 psychiatric wards in a metropolitan Australian city. The dataset included both quantitative and qualitative data. The focus of this study is analysis of the qualitative data documenting what happened during events, with quantitative data provided to contextualise the qualitative analysis. A total of 995 absconding events by 488 patients were reported between January 2016 and June 2018, representing a rate of 1.6 per 100 admissions. Two themes were identified in the qualitative analysis. 'Having things to do' encompassed opportunistic absconding and volitional absconding. 'Something changed' represented predisposing events that affected the absconding behaviour, such as being stepped down in care (moving from a more acute to a less acute psychiatric unit), receiving bad news, or interpersonal conflict either between patients or between nursing staff and patients. Results highlight the importance of harm minimisation strategies to reduce the incidence of absconding.

Key words: Absconding; psychiatric care; qualitative

Introduction

Absconding from psychiatric care, defined as "patients being absent from the ward without official permission" (Stewart & Bowers 2010, p.2), is an ongoing problem worldwide (Mezey et al. 2015). Absconding includes leaving the ward without permission as well as failing to return from leave at an agreed time. It is a complex problem with significant and broad ranging effects for patients, staff, family/carers, and the broader community. Four key areas of risk have been associated with absconding, namely: (1) risk of suicide and self-harm; (2)

risk of aggression and violence toward others; (3) risk of self-neglect or death; and (4) loss of confidence in the service or reputational damage to the organisation (James & Maude 2015).

There can be serious effects for patient including suicide and self-harm, as well as violence to others (National Confidential Inquiry into Suicide and Homicide 2015). Even where there is minimal harm, patient treatment is interrupted. Nurses spend a lot of time on absconding-associated paperwork and informing the police, taking them away from direct patient care. The worry experienced by nursing and allied health staff about the welfare of the patient is also an issue (Gerace et al. 2015). A qualitative understanding of patients being absent from psychiatric care without official permission would add depth to our understanding of this phenomenon and support efforts to mitigate the risks associated with absconding.

Background

International rates of absconding from psychiatric care vary widely between 2.5% and 34% of all psychiatric admissions (Gerace et al. 2015, Muir-Cochrane & Mosel 2008) or between 1.43 and 46.89 events per 100 admissions (Stewart & Bowers 2010). In Australia, rates of absconding for involuntary patients have been reported as 12.09% (17.22 incidents per 100 involuntary admissions) (Gerace et al. 2015), 13.33% (Mosel et al. 2010), and 20.82% (Muir-Cochrane et al. 2011). One study of mixed voluntary and involuntary patients reported a rate of 15.7% (Carr et al. 2008).

Increased rates of absconding have been associated with a number of patient characteristics, including being younger (<40 years), male, admitted as an involuntary patient, and having a diagnosis of personality disorder or schizophrenia (Stewart & Bowers 2010). An Australian study reported Aboriginal and Torres Strait Islanders patients having higher odds of absconding than Caucasian patients (Gerace et al. 2015).

Absconding patients are generally missing for short periods of time (one day or less) (Stewart & Bowers 2010). Studies generally report that patients are less likely to abscond in the morning, with some evidence of a correspondence between absconding and shift changes. Absconding is also more common over the weekend and during warmer months (Stewart & Bowers 2011).

Despite the above trends, our understanding of absconding is hampered by variations in definitions of “absconding” and “absconders”, in legal frameworks between countries and

regions around admission to psychiatric care, and in recording of incidents (Voss & Bartlett 2019). Studies furthermore vary as to whether they include both voluntary and involuntary patients (Stewart & Bowers 2010). Reference to a voluntary patient as an absconder is clouded by the nature of their admission status but is generally understood to refer to the person leaving the ward without notice, without permission, or not returning from approved leave at a prearranged time.

International research into absconding from acute inpatient psychiatric care has predominantly focused on involuntary patients, and Australia is no exception (Muir-Cochrane & Mosel 2009, Mosel et al 2010; Muir-Cochrane et al. 2011, Gerace et al. 2015). These variations, in addition to legislative and policy changes at the local level, highlight the need for ongoing research to inform efforts to reduce absconding.

Research into absconding from inpatient psychiatric care has furthermore tended to focus on the quantitative nature of absconding, such as patient characteristics. While this body of research offers important insight into absconding events, there is limited research exploring absconding from a qualitative perspective (Voss & Bartlett 2019). Such research provides an emerging understanding of patients' reasons for absconding. In a recent systematic review of eight qualitative studies, Voss and Bartlett identified absconding as a means of seeking freedom, with patients absconding to "find relief, to regain power and control over their lives and/or to address unmet needs" (2019, p. 1).

A rich source of data to inform our understanding of absconding is the qualitative data found in the reporting of absconding events. Martin et al. (2018), for example, examined the narrative in the documentation of absconding by 33 forensic inpatients. The focus was on exploring the motivations behind absconding. They identified the following motivations: goal-directed, frustration/boredom, symptomatic/disorganised, and accidental. Mezey et al. (2015) analysed the motivations of 47 patients who absconded from forensic units using verbatim or reported patient comments. Motives included: family worries; wanting freedom, drink, or drugs; and dissatisfaction with aspects of treatment. In the study reported here we provide new insights into the descriptive nature of absconding by including data on absconding by both voluntary and involuntary patients from a large Australian dataset of 995 absconding events.

METHOD

This study was conducted by three researchers with an interest in improving the patient's experience of hospitalisation. The first author is a Credentialled Mental Health Nurse and senior academic. The second and third authors are researchers with no experience in mental health settings. None of the authors work in mental health settings.

Aim

The study aimed to explore the nature of absconding events reported between January 2016 and June 2018 from the qualitative data provided by nursing staff in an institutional inpatient discharge database. The rate of absconding and characteristics of absconding patients is briefly summarised to provide context to the qualitive data.

Setting and design

This study is a retrospective chart audit of qualitative descriptions of absconding by voluntary and involuntary patients from 11 psychiatric wards in a metropolitan city in Australia, between January 2016 and June 2018.

Data collection

Quantitative data

The data reflects incidents of absconding that occurred among voluntarily and involuntarily hospitalised inpatients over two-and-a-half years (29 months). It was extracted by management staff from the institutional inpatient discharge databases, anonymised, and aggregated for analysis. The resulting Excel spreadsheet database contained 995 records of absconding events, with 593 full records and 402 partial records. The reason for partial records was because information on patient demographics and diagnosis, among other information, is recorded in one large patient database, the Community Based Information System (CBIS), that is separate and distinct to the absconding database, with no opportunity to combine the data electronically. We secured 593 full anonymised records with a health employee individually matching data from the two separate databases into one absconding dataset. The organisation did not have the resources to match the complete dataset.

Qualitative data collection

The qualitative data captured in the full absconding dataset (n=995) provided details in columns where nursing staff entered free text regarding the nature of the absconding event and the circumstances around it. The narrative was recorded in three columns: 'What happened?'; 'What was the outcome of the incident/event?'; and 'Incident manager's summary'. The absconding data set was completed by nursing staff as part of organisational operational reporting. Representation of consumer views is not provided in this data and thus the data only represents the perspective of nursing staff.

Ethical approval

Approval for data access was obtained from the state public health service. Ethical approval was obtained from the metropolitan local area health network ethics committee (HREC/18/271) and reciprocal approval gained from the Flinders University Social and Behavioural Research Ethics Committee.

Data analysis

Quantitative

Data were exported from Microsoft Excel spreadsheets to IBM SPSS version 25. Rates of absconding were calculated per 100 admissions following Bowers (2000), comprising the number of incidents per month divided by the number of patients in the ward per month (based on a 97% bed occupancy rate), multiplied by 100. The data was also summarised descriptively to describe absconding events and patient characteristics.

Qualitative

The narrative information reported in the dataset was analysed using qualitative thematic analysis, as per Martin et al. (2018) and Mezey et al. (2015). We used the thematic analysis phases described by Braun and Clarke (2006). The records were independently read by two of the authors to gain familiarity with the data. The two authors then independently generated preliminary codes, with all authors meeting to collate the codes into potential themes relating to the reasons for absconding. Finally, the authors collapsed the reasons into two major themes as discussed below.

Results

The rate of absconding

A total of 995 absconding events by 488 patients were reported between January 2016 and June 2018, representing a rate of 1.6 per 100 admissions. Of the 488 patients who absconded, 65% did so once, 15% had two absconds, and nearly 20% had three or more absconds. Most absconding events (91.7% n= 912) were Unapproved Leave (Mental Health Act). Three wards were permanently locked, and two absconding events occurred from these wards. All other wards were designated 'open' wards with the potential to be locked for safety reasons.

Looking at the partial records (N=593) in which demographic information was available, the age range of absconding patients varied, with an average age of 36 years. Gender was a medium predictor of absconding, with more events by males (64%, n=382) than by females (36%, n=211) over the study time period. Indigenous Australians accounted for 24% of the sum of absconding events. The majority (79.3%, n = 470) of absconding patients had a diagnosis of schizophrenia or other primary psychotic disorders. In the majority (93%, n=549) of events, absconders were admitted involuntarily.

Most absconding events occurred between 2pm and 10pm. More events occurred on Fridays and Saturdays, and the fewest were on Sundays. The majority (54.8%, n = 227) of absconds were for less than one day with a median duration of 12 hours. In terms of the outcome of the abscond, the majority (84%, n = 834) had no harm and 12% (n = 121) had a near miss, with a small number having a harmful outcome (4%, n = 40).

The qualitative nature of absconding events

The following reasons were identified for individuals to abscond: Opportunistic – the person saw an opportunity to abscond; Volitional – staff reported that the person made a conscious decision to leave; Bad news/conflict – absconding was seen to occur after receiving bad news or as a result of conflict on the ward; Stepped down – absconding was described as occurring in the context of being stepped down to a lower level of care. Table 1 shows the codes and number of events associated with each code.

Table 1. Summary of qualitative codes

Reason	Frequency N (%)
Volitional	724 (67.2%)
Opportunistic	257 (23.9%)
Bad news/conflict	63 (5.8%)
Stepped down	28 (2.6%)
Total*	1077

* Total number of reasons exceed the number of records as some events have more than one reason coded

The codes were collapsed into two interpretive themes: 'Having things to do' and 'Something changed'.

Having things to do

This theme encapsulates volitional and opportunistic (saw a chance to leave the service and took it) reasons for leaving. 'Having things to do' relates to nurse reporting of patients making an active choice to leave the hospital unit or elude staff when out of hospital accompanied by staff. Volitional and opportunistic reasons represent the bulk of reasons for absconding (see Table 1). Reasons for leaving could be both opportunistic (took the opportunity while on leave not to return; failure to return from leave) and volitional (there was a clear decision to leave the unit to do something, see someone, or attend to an everyday activity of meaning for the individual).

<u>Volitional absconding</u>

Volitional absconding represents nurse reporting that patients made a conscious decision to leave hospital for a specific purpose. While there was insufficient data to explore more broadly the destination of patients when absconding, examples of volitional absconding are as follows:

> 'Patient absconded from the ward at 1400hrs, self-presented at 1800hrs stating she went shopping to be normal. Counselled regarding restrictions of ITO and what this means.'

> 'Consumer was concerned about her cat and how much she had to pay daily to RSPCA, hence left ward.'

> ‘Client did not return from overnight leave. Notified unit staff at 1840 that he was in the city and was about to catch a bus back to -------. Before catching a bus ----- received a phone call from a female friend who informed him that it was her birthday. He subsequently went to her home to celebrate. Initially---- did not answer his phone, client contacted by nursing staff at 2345 and informed staff that he was staying near his mother’s house with a friend.’

In the documentations below, it is not clear what the rationale for leaving was, but nurses reported that the patients left frequently and self-presented back without incident:

> ‘Patient noted to be missing from ward at hourly check. Client is well known to inpatient services and has an extensive history of absconding. Sister was advised of absence. Poor insight is a part of this client’s presentation. Client returned to ward before 2000hrs on that day. On questioning he would not disclose where he had been only to say he had been outside. He presented settled in behaviour on return and self-presented for 2000hrs medication round with nil issues.’

> ‘The consumer had a number of incidents of leaving the unit without the knowledge of staff or seeking leave of his detention. When he was noted to be missing staff appropriately instigated a search of the local area and then commenced a missing person’s report. The consumer returned to the unit later that day.’

The following excerpt describes a nurse’s report of verbalisation by the patient about how they were feeling about being in hospital prior to leaving the ward:

> ‘Consumer was last sighted at 12pm. Prior to this consumer reported that he didn't want to be in the unit anymore but reassured nurse that he would stay. MIND worker arrived at unit and could not locate consumer, MIND worker spoke with consumer at 1215 and he reported that he was with a friend but did not specify where. Author contacted father at 1315. Spoke with father at 1410 and consumer had been in contact with his mother and was at ---- Rd going to a friend’s house’.

Patients were also reported as taking advantage of low levels of security and containment when they wished to leave the unit:

> ‘Patient last seen at 1630 in communal area. Observed to be wearing a hoddie jumper heading towards the courtyard. Staff searched area and found a chair against the fence in courtyard’.

In a very few cases, where there was a higher level of security, patients still managed to bypass the security guard on duty at the front door of the unit, in one case by stating they were allowed to leave the unit and on another by disguising themselves with a sunhat and glasses. As the following extract shows, even with a specific nurse in close proximity to a patient, absconding can still occur:

> ‘She has been specialled due to high risk of suicide, however she attempted to run away from the ward area, special nurse has done their best to stop her, but failed eventually.’

It was not uncommon for patients to decline to say what they had been doing or that they became irritable and angry at the inquiry on their return.

Opportunistic absconding

Opportunistic absconding represents situations where nurses described patients seeing an opportunity to abscond and taking it. For example, individuals (with an escort) on leave for medical/ dentist/ financial appointments using that as an opportunity to elude nursing staff. Patients who had been given permission to leave the ward to go to smoke cigarettes were sometimes described as using this as an opportunity to leave when not under any, or limited, monitoring:

> 'Client on approved leave with CSI worker, went to toilet and failed to return. Believed to have exited via other door.'
>
> 'Client absconded from escorted outpatient dental appointment at the -------- Dental Hospital @ 1300 today.'
>
> 'Patient permitted 5-minute ground leave, failed to return at agreed time. Missing persons implemented. Patient self-presented to (----hospital), stated he impulsively thought he would go home and check on his mum.'

Pushing past or sneaking past staff when the ward front door was opened to allow patients, staff (e.g., cleaners), or visitors in or out of the ward was also described as being used as an opportunity to leave. On one reported occasion when the ambulance door was opened prior to psychiatric intensive care (PICU) staff arriving, the patient ran away. Rarely, the fire alarm was set off so that exit doors would open or the alarm provided a diversion for an egress.

Nurses reported that the most common place to go after leaving hospital without permission was home or to parents (for example, 'stated had gone to see mum as was worried about her'), or to other family or a friend's house. Other reasons reported were 'to buy food, do my washing', 'see or check on pets', 'to go and socialise', 'go to a party', 'go to the pub for dinner and a few beers', and in a relatively few cases, 'to gamble or to access drugs'.

On many occasions, absconding events required the involvement of police, family and often the general public in returning the patient to safety as the following examples describe:

> 'The consumer was returned to ----- by police three days later - he was found to be walking along the ----- Freeway.'
>
> 'Staff member returning from lunch found the client leaving the hospital grounds, client unable to be convinced to return. Last seen headed towards ------St. Missing person's

> commenced. Police contacted. Local shop staff found him confused and called ambulance services. Returned to ward.'

Once off the ward, patients often exceeded the designated return time, sometimes ringing to negotiate to return later or having family or friends do the same, or being returned by police and deemed to be at significant personal risk. On rare occasions, patients returned with sharp items such as a knife which was the removed or, in one case, a substantial amount of cash of their own which was then secured.

Something changed

The theme 'Something changed' represents nurse reporting of events that affected the absconding behaviour such as stepping down in care, receiving bad news, or interpersonal conflict between patients or between nursing staff and patients.

Bad news

Results show that the receipt of bad news was a negative experience and recognised by nurses as a trigger for some patients to abscond. Bad news included being informed that their involuntary status was being extended, that their period of detention had been extended after a care review, that they had tested positive for non-prescription drugs, or that they were denied leave from the hospital (to see parents for example). For example:

> 'Patient was confronted re use of illicit substances given changes to behaviour this shift. She admitted use of ICE yesterday when told we would drug test her. Subsequently she reported feeling guilty and left the unit.'

A further trigger was receiving upsetting news about their physical health (such as being informed of a diagnosis of Hepatitis C) or about a change in medication (such as being informed they were to start on a depot medication). Some patients left because 'they were told they couldn't see their Doctor' or 'was refused money to get a taxi to go and see their GP'. Similarly, according to nurses, not being allowed to leave the ward for a cigarette could result in the person leaving because their request was denied, as the following excerpts describe:

> 'Pt came down from --- PICU to ---- Acute at 11:30am, resting in room, pt. requested to have smoke, nurse told him you have to be on the ward for 2hrs before going out for smoke.'

In the above case, the patient was moving from a higher acuity unit to a lower one (step down) and reportedly left due to his request being denied.

> ‘Review by consultant… ground leave denied. Patient became aggressive and ran from the ward. Code black. security checked CCTV and noted that she was near the ------- building. Client of concern record, Missing persons implemented.’

Conflict

Conflict was seen as a further trigger for absconding. Nurses’ descriptions of patients’ emotional states in circumstances of conflict included the following descriptions of patients: ‘angry and upset’, ‘swearing and shouting’, ‘psychotic’, ‘suicidal’, ‘delusional paranoid behaviour and conversation’, ‘unwell’ and ‘disorganised’. In the next example the patient was described as very upset about a change to medication:

> ‘Patient absconded from the ward following commencement of depot. When told depot is going ahead patient became verbally loud, more irritable and bolted off the ward.’

Step down: changes to care

In other circumstances absconding occurred in the context of the patient being stepped down to a lower level of care, usually from a higher acuity unit to one with less restrictions due to the patient being assessed as having improved. For example:

> ‘Hotel service staff were entering the unit (closed) via main door. Consumer who had been transferred back from open unit pushed past her and absconded.’

> ‘Female consumer absconded whilst on unescorted leave - as part of transition to an open setting.’

Nurses described how patients on an inpatient treatment order sometimes left the hospital because they were not aware that they could not leave, or were unaware that they needed approval or thought they had become a voluntary patient after the treatment order had been lifted. Nursing staff frequently documented ‘counselled the client about the ITO’ when the person returned to the unit.

Discussion

The absconding rate of 1.6 per 100 admissions is at the lower end of the international rates of between 1.43 and 46.89 events per 100 admissions reported by Steward and Bowers (2010), perhaps reflective of the inclusion of both voluntary and involuntary admissions. Overall, the results are reflective of the broader literature on absconding in relation to the characteristics of absconding patients and events.

Consistent with the broader absconding literature, absconding patients are generally missing for short periods of time (less than one day, with a median duration of 12 hours) (Gerace et al. 2015, Stewart & Bowers 2010). Our study focussed on absconding events/patients only, without including a comparison of non-absconding patients. However, looking at demographic characteristics of absconding patients, the results are reflective of the broader trends identified in the literature that associate absconding with being younger, male, admitted as an involuntary patient, and having a diagnosis of personality disorder or schizophrenia (Stewart & Bowers 2010). Consistent with Australian research by Gerace et al. (2015) reporting Aboriginal and Torres Strait Islander (ATSI) patients having higher odds of absconding than Caucasian patients, our study found ATSI patients accounted for around a quarter (24%) of all absconding incidents. Clearly, a culturally focussed approach to the care of Indigenous Australians is required, although there has been little research into absconding by this group since 2010 (Mosel et al. 2010). Multiple absconds were relatively common in the dataset. Consistent with Gerace et al. (2015), many absconders did so more than once (34% in our study; 25% in the earlier study). Nearly 20% had three or more absconds and 15% had two absconds.

Reasons for absconding reported in the literature are complex and multifaceted (James & Maude 2015). Our study supports previous literature in finding that while there is some association with psychiatric symptomatology, patients often provide rational reasons for absconding (Brumbles & Meister 2013, Muir-Cochrane & Mosel 2008). The qualitative data provided useful perspectives on patients' reasons for leaving hospital to carry out every day, normal activities, despite being acutely unwell. It is therefore important for nursing staff to recognise such behaviours as normal and expected and accommodate the needs of hospitalised patients as far as possible, particularly when their status is involuntary. Other studies have also identified that absconding behaviour is a way of seeking freedom, to regain power and control over their lives, and address unmet needs (Vos & Bartlett 2019). Our findings both support the findings from Vos and Bartlett's (2019) systematic review of patients' experiences of absconding and extend them by identifying the 'everydayness' and normality of what patients wish to achieve and the natural human desire for agency in their lives.

In both 'volitional' and 'opportunistic' absconding, descriptions by nurses illustrate such agency as described by Voss and Bartlett (2019) and demonstrate some level of planning and personal responsibility. Further, our findings illuminate pragmatism both in patients'

volitional leaving of the ward without approval and also in their return to the ward when they had completed specific activities or tasks. This can be interpreted as both an autonomous act but also as a means of maintaining a personal sense of safety.

In the theme ‘something changed’, nurses’ descriptions document the distress of patients and illness-related experiences as well as some rationality about their decisions to leave (e.g., feeling guilty about a positive non-prescription drug test). Conflict between patients and staff is recognised as a precipitator of patients leaving the ward in these findings and it is useful to also understand absconding within the context of patients being involuntarily held under mental health legislation and experiencing frustration about the removal of their freedom. As such, awareness by nursing and medical staff about being held involuntarily potentially being a precursive factor for future conflict could facilitate proactive interventions, such as closer engagement and person-centred care planning with patients.

There remains a tension between nurses’ need to care for and maintain safety by restricting patients’ behaviour and movements on acute inpatient wards. Other research has reported patients experiences of being unsafe as associated with absconding (Muir-Cochrane et al. 2013). Their findings detail the significance of a therapeutic landscape, where safety is perceived when patients have positive experiences of their illness, social relations with staff and other patients, and a sense of freedom and familiarity.

The findings in our study also detail the time and energy expended in conducting searches and providing documentation, informing the authorities, and contacting and liaising with friends and family, which has been reported in other studies (Martin & Thomas 2014). Martin and Thomas’ (2014) study focussed on narratives of police officers and revealed the need for closer and timely communication about patients when they returned to hospital or were found, that could enable better collaboration and ensure timely patient care.

As well as enhanced communication between services and hospital staff, our study revealed the need for communication and engagement between nurses and patients in relation to their attitudes regarding hospitalisation. Knowing the patient, their preferences, and potential frustrations about hospitalisation could facilitate person centred care to reduce potential conflict and the preparedness of patients to leave hospital without approval. Providing patients with specific information about their involuntary status and what that means in practical terms can reduce confusion when patients leave without informing staff, causing concern and worry for nursing staff (Muir-Cochrane et al. 2012). Person-centred care also

means that nurses would enquire about the responsibilities and commitments patients normally have outside hospital and be able to mitigate the risks associated with the involuntary hospitalisation (Voss & Bartlett 2019). Such care requires a genuine commitment to shared decision making between patients and staff, one that is to date only seen in a limited manner in policy and practice protocol documentation (Slade 2017, Voss & Bartlett 2019).

There are also practical evidence-based non-restrictive interventions that can be implemented locally to reduce not only absconding, but also increase engagement and reduce conflict. The Safewards Model (Bowers 2014) was developed to respond to the various forms of conflict and containment in mental health settings, including absconding. It incorporates a package of simple interventions to make mental health wards more person-centred and has been successfully adopted and evaluated in hospitals worldwide (Fletcher et al. 2019a). For mental health nurses working in inpatient settings where the model has not yet been employed, this offers a logical first step to reducing absconding. Harm minimisation strategies to reduce the incidence of absconding include shared decision-making, close engagement and getting to know the patient, bad news mitigation to reduce conflict, and using soft words and reframing of potential flashpoints to avoid and reduce conflict and frustration by patients.

Reducing harm to patients while hospitalised and reducing the potential for absconding requires the adoption of a comprehensive programme that includes intensive nursing and peer support, facilitating the involvement of carers and family where appropriate, structured ward activities to reduce boredom, and encouraging patients to stay connected with their supports out of hospital (Fletcher et al. 2019c). A recovery-oriented framework to care is vital to facilitate least restrictive environments in inpatient care and minimise absconding (Fletcher et al. 2019b, 2019c; McKenna et al. 2014).

Limitations of the study

Incompleteness of data and lack of data management prevents accurate data mining and examination to provide insights into care practices and areas for clinical improvement. Compatibility in data sharing across patient data management at a state and Australian level more broadly are vital to comprehensively illustrate the incidence and nature of absconding behaviour by patients from psychiatric inpatient wards, identify risk factors, and provide improvements in clinical care to reduce the occurrence of absconding. We did not compare

the absconding behaviour of voluntary and involuntary patients and such investigation may be useful in establishing practices for specific groups, nor did we explore gender differences in patients who left without permission.

Another limitation is that the qualitative data reflects the perspectives of nursing staff on what occurred during the absconding events. Further research asking patients directly about their experiences of absconding is needed.

Relevance for clinical practice

Findings from this study illuminate the demographics of people who abscond. Furthermore, qualitative data provides illustration of the reasons for absconding, what happens after people abscond and the role of nursing staff and police. Having such an understanding of these dynamics facilitates clinicians to review current practices regarding absconding events and focus on engagement with patients about their attitude to hospitalisation and willingness to remain in care.

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6.5 Publication Four

Gerace, A., & Muir-Cochrane, E. (2018). Perceptions of nurses working with psychiatric consumers regarding the elimination of seclusion and restraint in psychiatric inpatient settings and emergency departments: An Australian survey. *International Journal of Mental Health Nursing, (28)*1, 209-225.

Student's contribution to the publication: Research design 50%, data collection and analysis 50%, writing and editing 50%.

ABSTRACT

Seclusion and restraint continue to be used across psychiatric inpatient and emergency settings, despite calls for elimination and demonstrated efficacy of reduction initiatives. This study investigated nurses' perceptions regarding reducing and eliminating the use of these containment methods with psychiatric consumers. Nurses (n = 512) across Australia completed an online survey examining their views on the possibility of elimination of seclusion, physical restraint, and mechanical restraint as well as perceptions of these practices and factors influencing their use. Nurses reported working in units where physical restraint, seclusion, and, to a lesser extent, mechanical restraint were used. These were viewed as necessary last resort methods to maintain staff and consumer safety, and nurses tended to disagree that containment methods could be eliminated from practice. Seclusion was considered significantly more favourably than mechanical restraint with the elimination of mechanical restraint seen as more of a possibility than seclusion or physical restraint. Respondents accepted that use of these methods was deleterious to relationships with consumers. They also felt that containment use was a function of a lack of resources. Factors perceived to reduce the likelihood of seclusion/restraint included empathy and rapport between staff and consumers and utilizing trauma-informed care principles. Nurses were faced with threatening situations and felt only moderately safe at work, but believed they were able to use their clinical skills to maintain safety. The study suggests that initiatives at multiple levels are needed to help nurses to maintain safety and move towards realizing directives to reduce and, where possible, eliminate restraint use.

KEY WORDS: acute inpatient units, emergency departments, mechanical restraint, physical restraint, psychiatric consumers, seclusion.

INTRODUCTION

Seclusion and restraint—restricting a consumer's movement using environmental, physical, or mechanical means—are containment methods used with psychiatric consumers in inpatient settings and emergency departments (EDs) to prevent and manage the risk of harm because of behaviours such as aggression, violence, and self-injury. These containment practices have been identified as involving deleterious physical and psychological effects for consumers and staff, and complex legal and ethical issues are associated with their use (McSherry 2017; Muir-Cochrane & Gerace, 2014). In Australia and internationally, there have been continued calls to reduce and move towards elimination of these coercive practices (Department of Health, 2008; National Mental Health Consumer & Carer Forum, 2009; Substance Abuse and Mental Health Services Administration, 2017; The Royal Australian and New Zealand College of Psychiatrists, 2016).

Reduction in seclusion and restraint use has been documented in Australia (Australian Institute of Health and Welfare, 2018). However, seclusion, physical, and mechanical restraint remain relatively common practices, with recent studies highlighting concerning factors such as the use of these practices multiple times with the same consumers (Oster *et al.* 2016) or for prolonged periods of time (McKenna *et al.*, 1996). This highlights an urgent need to better understand the use of these practices and experiences of staff working with mental health consumers in inpatient settings and EDs.

This study reports the results of a survey of the perceptions and attitudes of nurses working with psychiatric consumers in Australia regarding the current use of seclusion and restraint, and their perceptions regarding elimination of such practices in inpatient psychiatric settings and EDs in Australia.

Background

The agenda in Australia and other countries to reduce and eliminate seclusion and restraint is reflected in several key government and policy directives and clinical initiatives, particularly over the last decade. The National Mental Health Consumer & Carer Forum (2009) posits that seclusion and restraint are 'not evidence-based therapeutic interventions', that they are 'commonly associated with human rights abuse', that they 'cause short and long term emotional damage to consumers', and that they 'highlight a failure in care and treatment when they are used' (p. 7). The Australian College of Mental Health Nurses

(ACMHN) also published a Seclusion and Restraint Position Statement in 2016. This position statement sees restrictive practices (included also is chemical restraint) as last resort methods that should only be implemented with consideration of least restrictive care and implemented by trained mental health nurses and staff. The statement stresses the need to respect consumer dignity, engage in culturally appropriate care, meet consumer physical needs while they are secluded/restrained, and enact and discontinue practices with adherence to legal requirements. At a wider level, the policy statement stresses the need for research into alternatives to restrictive practice use and safe consumer management, as well as practice change (e.g. organizational culture, individual attitudes, leadership, staff training). Ultimately, it is the position of the ACMHN that seclusion and restraint use 'be reduced and ultimately ended' (Australian College of Mental Health Nurses, 2016, p. 4). Recently, the World Health Organization (2017) proposed Quality Rights training initiatives on ending seclusion and restraint use. While seclusion and restraint are covered in less depth in the recently released Australian Fifth National Mental Health and Suicide Prevention Plan (Department of Health, 2017), seclusion is included as a practice to be addressed and monitored, and as one of the 24 key performance indicators under the domain of striving for 'less avoidable harm' in mental health care.

Evidence-based initiatives, such as seclusion and restraint reduction programmes that use the Six Core Strategies for Reducing Seclusion and Restraint Use (Huckshorn 2004) and the Safewards model (Bowers 2014), have demonstrated positive effects. A systematic review of seclusion/restraint reduction programmes, most of which involved use of the six core strategies, concluded that 'evidence argues in favor of programs that reduce SR use, without impacting the safety of health care providers' (Goulet *et al.* 2017, p. 145), although which specific components were most effective was difficult to discern. In the case of Safewards, a UK cluster randomized controlled trial (Bowers *et al.* 2015) reported a 26.4% reduction in containment events; in Australia, a pre–post study reported a 36% reduction in seclusion following a roll-out of the programme in Victoria (Fletcher *et al.* 2017). For such interventions, research is needed to evaluate whether reductions at study sites have been maintained, as well as whether substitute containment practices are used (see Noorthoorn *et al.* 2016). Despite the demonstrated efficacy of reduction initiatives, seclusion and restraint continue to be used worldwide with psychiatric consumers. For example, in a recent study of four European countries, Lepping *et al.* (2016) reported rates of between 4.5% (Southwest Germany) and 9.4% (the Netherlands) of consumers experiencing seclusion/restraint, with differences in rates according to the setting (e.g. forensic). Recently

released national data of seclusion, physical restraint, and mechanical restraint in Australian public sector acute mental health hospital services for 2016–2017 revealed rates of 7.4, 8.3, and 0.9 events per 1000 bed days, respectively, with some- times significant variations between states and territories (Australian Institute of Health and Welfare, 2018). For seclusion, there was a modest national reduction of 6.7% in events from 2012–2013 to 2016–2017.

While reduction is a positive step towards ensuring consumer-focused care, health professionals demonstrate resistance to complete elimination of restraint and seclusion. In a large Australian study of health professionals, consumers, and carers, health professionals could identify the harms of seclusion and restraint. However, they were less likely than consumers or carers to believe it was desirable to eliminate the practices (Kinner *et al.* 2017). Similarly, in a qualitative study of staff and consumers' views of restraint, an overarching theme involved restraint being seen as 'a necessary evil' (Wilson *et al.* 2017b, p. 503). Barriers to elimination in other qualitative studies included fear and perceptions of a lack of alternative methods to maintain safety; staff who were less experienced or lacked training in mental health; problematic staff–consumer relationships (e.g. not meeting or insensitive responding to consumer needs); and the physical environments of units (e.g. noise or lack of low-stimulation spaces) not being conducive to reducing irritation and aggression (Muir-Cochrane et al. 2015, 2018).

However, we know comparatively little at a wider level regarding the perceptions and attitudes of nurses towards containment practices, experiences of using the methods, thoughts regarding their elimination, and barriers but also enablers to elimination. Changes in consumer profiles such as increased acuity and, particularly in EDs, increases in presentations of substance- affected consumers reflect an urgent need to investigate what factors drive attitudes towards seclusion and restraint reduction and elimination. This study was conducted to investigate specifically these factors.

METHOD

Design

The study involved the delivery of an online anonymous survey through the SurveyMonkey (SurveyMonkey Inc., San Mateo, CA, USA) platform to nurses working with psychiatric consumers to investigate their perceptions regarding the use of seclusion, physical restraint,

and mechanical restraint. Definitions used in the survey were as follows: seclusion as the 'deliberate confinement of the consumer alone in a room or area from which free exit is prevented'; physical restraint as 'hands-on immobilisation, holding the consumer or restriction of the consumer's freedom of movement by staff'; and mechanical restraint as 'restricting a consumer's freedom of movement with devices such as jackets, belts, cuffs, and soft shackles'.

Respondents were recruited through the member- ships of the Australian College of Mental Health Nurses (ACMHN), the Australian College of Nursing (ACN), and the Australian Nursing and Midwifery Federation (ANMF). Details of the research project were made available to members of these groups through their email distribution lists (for ACMHN and ACN members), websites, social media platforms (e.g. Twitter and Face- book pages), newsletters, and local branches (for ANMF members). Information provided to members consisted of a short description of the project and the URL to access the survey. Nurses working in an Australian psychiatric inpatient unit or ED were eligible to participate. The survey was available from 7 April to 25 May 2017. Ethical approval for the study was granted by the Flinders University Social and Behavioural Research Ethics Committee (approval number: 7588).

Data collection

The survey comprised several sections examining respondent perceptions of the use of containment methods (seclusion, physical restraint, and mechanical restraint), more general workplace experiences, and demographic questions.

Individual items in the survey were either drawn from previously designed measures of attitudes to seclusion, restraint, and working practices with psychiatric consumers or specifically written for the project. As analysis largely involved examination of answers to individual items, modifications to existing measures and response scales were deemed appropriate. Items were completed using a 5-point Likert-type response scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), with the 5- point Likert-type response scale for items measuring the likelihood of seclusion/physical restraint/mechanical restraint use ranging from 1 (*Very unlikely S/PR/MR will be used*) to 5 (*Very likely S/PR/MR will be used*).

Measures

Involvement in seclusion and restraint

Participants were asked (yes/no) if they had ever been involved in the use of (1) seclusion, (2) physical restraint, and (3) mechanical restraint.

General perceptions of containment

Perceptions of containment (i.e. not specific to any one of the three methods investigated) were examined using specifically written items based on the literature (Mann-Poll *et al.* 2011, 2013; Wilson *et al.* 2017b) and items from/adapted from two measures: Staff Attitude to Coercion Scale (SACS; Husum *et al.* 2008), which measures nurses' perceptions regarding seclusion and restraint use, including the extent to which these practices prevent dangerous situations, are necessary, and can be reduced; and the Seclusion and Restraint Experience Questionnaire (SREQ; Korkeila *et al.* 2016), which measures nurses' emotions towards and experiences of use of seclusion/restraint, and perceptions of ethical/practical implications of their use. This section comprised 23 items.

Perceptions of specific containment methods

Specific perceptions of each containment method were examined separately using the seclusion, physical restraint, and mechanical restraint sections of the Attitudes to Containment Methods Questionnaire (Bowers *et al.*, 2004). This measure examines nurses' attitudes towards specific containment methods such as perceived efficacy, safety, and acceptability. For each containment method, respondents indicate their agreement with six items. Total scores for each section can range between 6 and 30, where higher scores indicate more positive attitudes towards the use of the specific containment method. Internal consistency reliabilities (Cronbach's alpha) in this study were all high: seclusion $a = 0.91$; physical restraint $a = 0.88$; mechanical restraint $a = 0.92$.

Use of seclusion and restraint in respondents' workplaces and potential for elimination

Respondents were asked whether each containment method was used in their unit and, if so, to what extent they believed the method could be eliminated. Experiences of seclusion/restraint use in workplaces, including perceptions regarding overuse, alternatives to minimize use, and reasons for use were measured using a total of 11 items, some

from/adapted from the Seclusion and Restraint Experience Questionnaire (SREQ; Korkeila *et al.* 2016) and others developed based on literature review.

Researcher-devised items based on literature review (Boumans *et al.* 2012; Mann-Poll *et al.* 2011) and our own previous research (e.g. Oster *et al.* 2016) measured respondents' perceptions regarding whether consumer behaviours and characteristics (e.g. aggression and violence; 17 items) and unit/staff factors (e.g. lack of adequate staffing, feeling inadequately skilled for duties; 38 items) made it more or less likely that seclusion and restraint would be used; for unit/staff factors, several items were from/adapted from the Mental Health Professionals Stress Scale (Cushway *et al.* 1996) and one item from the Essen Climate Evaluation Schema (Schalast *et al.* 2008).

Confidence in managing consumer aggression and potentially dangerous situations

As seclusion and restraint are containment methods used to manage potentially dangerous behaviour and maintain safety on a unit, respondents were asked about their confidence in working with aggressive consumers, practising de-escalation, and maintaining safety on the unit. Nurses' perceptions of safety in their work- place and confidence in unit procedures regarding managing aggression were measured using adapted items (and one additional item adapted from Schalast *et al.* 2008) from the 7-item Confidence in Managing Inpatient Aggression Questionnaire (Martin & Daffern 2006), which measures confidence in dealing with consumers who are aggressive, maintaining safety, and using seclusion/restraint if needed.

Data analysis

Data were analysed using IBM SPSS Statistics for Windows, version 23.0 (IBM Corp., Armonk, NY, USA). Of 533 complete responses, data were removed if respondents indicated they worked outside of Australia or solely in a service that was not an inpatient unit or emergency department. This resulted in the removal of 21 respondents. Data were then coded for subsequent statistical analysis.

Descriptive statistics (frequencies, means, standard deviations, medians, and ranges) are used to describe participant perceptions regarding the use of seclusion and restraint in inpatient and ED settings and to examine perceptions and attitudes regarding the potential for elimination. As only the Bowers *et al.* (2004) seclusion, physical restraint, and mechanical restraint measures were used in their entirety, examination of responses to

individual items in each section of the sur- vey is undertaken. This was seen to be more useful to understanding nurses' attitudes rather than summing individual items into total scales and reporting only these total scores. For the Bowers *et al.* (2004) measures, total scores were calculated and one-way repeated measures ANOVA was used to examine whether there were statistically significant differences in attitudes towards seclusion, physical restraint, and mechanical restraint. The Friedman test, a nonparametric test suitable for ordinal data, was used to determine whether there were statistically significant differences in respondents' beliefs regarding the potential for elimination of seclusion, physical restraint, and mechanical restraint for respondents who worked in units where all three methods used. To assess the nature of these differences, Wilcoxon signed- rank tests were performed. A Bonferroni correction was applied to the level of significance based on the number of comparisons ($P = 0.017$). Wilcoxon signed-rank tests were also used to examine differences in beliefs regarding elimination for respondents working in units using at least two of the methods. Effect sizes (r) were calculated to investigate the magnitude of observed effects, with $r = 0.10$ indicating a small effect; $r = 0.30$ a medium effect; and $r = 0.50$ a large effect size (Cohen 1992; Field 2014).

RESULTS

Survey respondent demographics

The sample consisted of 512 nurses, equivalent to approximately 2.46% of the mental health nursing workforce (Australian Institute of Health and Welfare, 2016). There were 368 female respondents (71.9%), 141 male respondents (27.5%), and three respondents who identified as 'other' (0.6%). Mean age ($n = 509$) of respondents was 47.73 years (SD = 11.54, *range* = 21– 72 years).

Nearly 90% of the sample were registered nurses (RNs; $n = 460$, 89.84%), with 72.17% ($n = 332$) of these either having qualifications in mental health nursing ($n = 258$) or being a credentialed mental health nurse ($n = 74$).The remaining respondents were solely registered in mental health ($n = 30$, 5.86% of the sample), enrolled nurses ($n = 17$, 3.32%), or another type of nurse ($n = 5$).

Over 60% of respondents ($n = 322$, 62.89%) indicated that their highest level of education was completion of a postgraduate degree, the most common being a Master's degree ($n = 150$), followed by other post- graduate qualifications such as a postgraduate diploma ($n =$

164) and PhD/doctorate (*n* = 8, 1.56%). Approximately 20% (*n* = 109, 21.29%) of respondents indicated that their highest level of qualification was a Bachelor degree, with the remainder of the sample indicating another qualification such as hospital-based training (*n* = 34, 6.64%), diploma (*n* = 23, 4.49%) or advanced diploma (*n* = 14, 2.73%), and other qualifications (*n* = 10, 1.95%).

Respondents were experienced clinicians, having worked in nursing practice for a median of 18 years, with their experience ranging from 3 months to 54 years (*n* = 509). Seventy-three (14.34%) had 5 years or less experience in nursing.

Respondent unit details

All Australian states and territories were represented in the survey, with the largest numbers of respondents working in Queensland (*n* = 127, 24.8%), followed by New South Wales (*n* = 120, 23.4%), South Australia (*n* = 103, 20.1%), Victoria (*n* = 101, 19.7%), Western Australia (*n* = 30, 5.86%), Tasmania (*n* = 12, 2.34%), Australian Capital Territory (*n* = 12, 2.34%), and Northern Territory (*n* = 7, 1.37%).

Approximately 60% of respondents practised in a capital city (*n* = 307, 59.96%) and 20.51% worked in a noncapital city metropolitan area (>100 000 population; *n* = 105). A further 92 respondents worked in a rural area (17.97%), and four respondents each worked in a remote zone or reported an ‘other’ location.

Over 70% of respondents either worked in an acute adult psychiatric inpatient unit (*n* = 257, 50.20%) or an emergency department (*n* = 110, 21.48%). Table 1 presents current area of work of respondents. Respondents had worked in their current unit for a median of 5 years (*range* = 3 weeks-32 years; *n* = 506).

Respondents predominantly worked in a clinical role (*n* = 411, 80.27%), with 63 (12.30%) working in management, 28 (5.47%) in education, four in administration (0.78%), and six (1.17%) in an ‘other’ role.

Involvement in seclusion and restraint

Over 95% of respondents had been involved in the use of seclusion (95.31%, *n* = 488) and physical restraint (96.48%, *n* = 494), with less involvement in mechanical restraint (63.48%, *n* = 325).

General perceptions of containment

Respondents' evaluations of all three containment methods as a whole (referred to as S/PR/MR) are presented in Table 2.

Respondents expressed a need for the use of seclusion, physical restraint, and mechanical restraint. They believed that S/PR/MR use was necessary to maintain safety (Item 8) and protection (Item 7). While they strongly believed that S/PR/MR be used only after all alternative methods had been tried (Item 1) and that it was not difficult to find alternative methods (Item 4), a containment-free environment was not strongly endorsed. Respondents moderately agreed that 'it will always be necessary to use S/PR/MR' (Item 22) with 46.29% of respondents indicating that they 'agreed' or 'strongly agreed' with this statement; 31.05% neither agreeing nor disagreeing with the statement; and 22.66% indicating that they 'disagreed' or 'strongly disagreed' with the need for continual use of containment.

Respondents were aware of the harms associated with containment method use, including potential damage to the therapeutic relationship (Item 9) and violation of consumer autonomy (Item 6). At the same time, respondents reported similar levels of agreement with other items that tapped perceptions that containment methods 'may represent care and protection' (Item 11) or prevent 'the development of a dangerous situation' (Item 13).

Respondents did not find it difficult to decide when to enact S/PR/MR (Item 4). In terms of underlying reasons for seclusion or restraint use, respondents tended to somewhat agree that scarce resources lead to increased use of S/PR/MR (Item 18) and that more time and personal contact with consumers could help reduce the use of these methods (Item 20).

Table 1: *Respondents' workplaces*

Work area	*n* (%)
Acute adult psychiatric inpatient unit	275 (50.20%)
Emergency department	110 (21.48%)
Child and adolescent psychiatric inpatient unit	31 (6.05%)

Forensic acute unit	22 (4.30%)
Psychiatric intensive care unit	15 (2.93%)
Forensic rehabilitation unit	15 (2.93%)
Older person's psychiatric inpatient/assessment unit	14 (2.73%)
High dependency psychiatric unit	11 (2.15%)
Rehabilitation psychiatric unit	9 (1.76%)
Intermediate care psychiatric unit	6 (1.17%)
Short-stay psychiatric emergency unit/Clinical decision unit	5 (0.98%)
Emergency extended care psychiatric unit	3 (0.59%)
Mother and baby unit	3 (0.59%)
Older person's psychiatric rehabilitation unit	3 (0.59%)
Rural short-stay acute psychiatric unit	2 (0.39%)
Secure extended care unit	2 (0.39%)
Eating disorders unit	1 (0.20%)
Other	3 (0.59%)

Perceptions of specific containment methods

Table 3 presents the means and standard deviations for the items measuring specific perceptions of seclusion, physical restraint, and mechanical restraint and their perceived safety, effectiveness, and acceptability. There was a significant effect of type of containment method on attitudes, $F(1.86, 951.04) = 153.30$, $P < 0.001$. Post hoc tests revealed that seclusion was perceived more favourably than physical restraint or mechanical restraint (both $P < 0.001$) and that physical restraint was perceived more favourably than mechanical restraint ($P < 0.001$). It should be noted, however, that mean scores for all methods were towards the mid- range of possible scores, indicating mixed perceptions of seclusion, physical restraint, and mechanical restraint.

Seclusion and restraint in respondents' workplaces and potential for elimination

Most respondents indicated that physical restraint was used in their unit (*n* = 474, 92.58%), followed by seclusion (*n* = 422, 82.42%). Fewer (*n* = 195, 38.09%) reported that mechanical restraint was used in their unit. Respondents differed in how many methods were used on their individual units, with 144 (28.13%) indicating that *all three methods* were used while 19 (3.71%) indicated that *none* of the methods were used on their unit. Table 4 presents the different combinations of use of the three methods. Examining the set- tings where the most respondents worked, over 90% of respondents from acute adult psychiatric inpatient units reported that their units used seclusion (*n* = 239, 93.00%) and physical restraint (*n* = 238, 92.61%). Over 95% of respondents for EDs reported us of physical restraint (*n* = 105, 95.45%), with almost 60% (*n* = 64. 58.18%) reporting the use of seclusion. Over 75% of ED respondents (*n* = 84, 76.36%), but less than 30% (*n* = 75, 29.18%) of acute adult psychiatric inpatient unit respondents reported use of mechanical restraint.

Of 31 respondents from a child and adolescent psychiatric inpatient unit, physical restraint (*n* = 30) and seclusion (*n* = 29) were reported to be used in their units, but rarely mechanical restraint (*n* = 1). Of 22 respondents who worked in forensic acute units, 21 indicated seclusion use, 20 the use of physical restraint, and 8 the use of mechanical restraint. Respondents who indicated that a method was used in their workplace largely disagreed that the method could be eliminated, with the elimination of mechanical restraint seen as more of a possibility (*M* = 2.43, SD = 1.28) than seclusion (*M* = 2.31, SD = 1.25) and physical restraint (*M* = 2.12, SD = 1.11).

For respondents who reported that all three methods were used on their units, there was a statistically significant difference in beliefs regarding elimination depending on containment method, $v^2(144) = 37.70$, $P < 0.001$. Respondents were significantly *more likely* to agree that mechanical restraint (*M* = 2.51, SD = 1.31) could be eliminated compared to either seclusion (*M* = 2.08, SD = 1.24), *T* = 441, *P* < 0.001, *r* = -0.26, or physical restraint (*M* = 2.01, SD = 1.18), *T* = 218.50, *P* < 0.001, *r* = -0.28. There was no statistically significant difference in beliefs regarding elimination of seclusion versus physical restraint.

There were statistically significant differences in beliefs regarding potential for elimination for those respondents who indicated seclusion and physical restraint (but not mechanical restraint) were used on their units, *T* = 592.50, *P* < 0.001, *r* = -0.20. In this case, respondents were more likely to believe that seclusion (*M* = 2.45, SD = 1.25) rather than

physical restraint (*M* = 2.20, SD = 1.08) could be eliminated from their units, Finally, there were significant differences between beliefs in elimination for respondents working in units that used physical and mechanical restraint (but not seclusion), *T* = 13.50, *P* < 0.01, *r* = -0.27, with greater agreement that mechanical restraint (*M* = 2.20, SD = 1.15) rather than physical restraint (*M* = 1.80, SD = 0.76) could be eliminated from respondent units.

Table 2: ***General perceptions of containment methods***

Item	Strongly disagree *n* (%)	Disagree *n* (%)	Neither disagree nor agree *n* (%)	Agree *n* (%)	Strongly agree *n* (%)	*M* (SD)
(1) All alternative methods should be tried before using S/PR/MR	12 (2.34%)	9 (1.76%)	13 (2.54%)	109 (21.29%)	369 (72.07%)	4.59 (0.83)
(2) Alternative methods cannot totally replace the use of S/PR/MR	30 (5.86%)	51 (9.96%)	60 (11.72%)	213 (41.6%)	158 (30.86%)	3.81 (1.15)
(3) I feel uncertain about how S/PR/MR affects the consumer	102 (19.92%)	235 (45.90%)	83 (16.2%)	75 (14.65%)	17 (3.32%)	2.36 (1.06)
(4) It is difficult to decide when to seclude or Restrain	81 (15.82%)	246 (48.05%)	68 (13.28%)	96 (18.72%)	21 (4.10%)	2.47 (1.09)
(5) It is difficult to find alternative methods to S/PR/MR	82 (16.02%)	181 (35.35%)	82 (16.02%)	130 (25.39%)	37 (7.23%)	2.72 (1.21)
(6) S/PR/MR violates the autonomy of the Consumer	22 (4.30%)	67 (13.09%)	110 (21.48%)	193 (37.70%)	120 (23.44%)	3.62 (1.10)
(7) Use of S/PR/MR is necessary as protection in dangerous situations	11 (2.15%)	22 (4.30%)	72 (14.06%)	199 (38.87)	208 (40.63%)	4.11 (0.95)
(8) For safety reasons S/PR/MR must sometimes be used	0 (0%)	25 (4.88%)	27 (5.27%)	228 (44.53%)	232 (45.31%)	4.30 (0.78)
(9) Use of S/PR/MR can harm the therapeutic relationship	13 (2.54%)	57 (11.13%)	59 (11.52%)	210 (41.02)	173 (33.79)	3.92 (1.06)
(10) Use of S/PR/MR is a declaration of failure on the part of the treating team	176 (34.38%)	180 (35.16%)	74 (14.45%)	52 (10.16%)	30 (5.86%)	2.18 (1.18)
(11) S/PR/MR may represent care and Protection	27 (5.27%)	54 (10.55%)	86 (16.80%)	231 (45.12%)	114 (22.27%)	3.69 (1.09)
(12) More S/PR/MR should be used in the management of disturbed consumers	135 (26.37%)	181 (35.35%)	133 (25.98%)	33 (6.45%)	30 (5.86%)	2.30 (1.10)
(13) S/PR/MR may prevent the development of a dangerous situation	14 (2.73%)	60 (11.72%)	70 (13.67%)	256 (50.00%)	112 (21.88%)	3.77 (1.01)
(14) S/PR/MR violates the consumer's Integrity	28 (5.47%)	93 (18.16%)	154 (30.08%)	166 (32.42%)	71 (31.87%)	3.31 (1.09)
(15) For severely ill consumers S/PR/MR may ensure safety	21 (4.10%)	33 (6.45%)	65 (12.70%)	258 (50.39%)	135 (26.37%)	3.80 (1.00)
(16) Use of S/PR/MR is necessary towards	20 (3.91%)	58 (11.33%)	118 (23.05%)	181 (35.35%)	135 (26.37%)	3.69 (1.10)

dangerous and aggressive consumers						
(17) Too much S/PR/MR is used in consumer Care	58 (11.33%)	152 (29.69%)	140 (27.34%)	87 (16.99%)	75 (14.65%)	2.93 (1.23)
(18) Scarce resources lead to more use of S/PR/MR	22(5.47%)	79 (15.43%)	67 (13.09%)	179 (34.96%)	159 (31.05%)	3.71 (1.21)
(19) Security guards are necessary in S/PR/MR	77 (15.04%)	128 (25.00%)	93 (18.16%)	108 (21.09%)	106 (20.70%)	3.07 (1.37)
(20) S/PR/MR could be reduced, given more time and personal contact with consumers	19 (3.71%)	62 (12.11%)	94 (18.36%)	163 (31.84%)	174 (33.98%)	3.80 (1.14)
(21) S/PR/MR should not be used at all	200 (39.06%)	153 (29.88%)	94 (18.36%)	36 (7.03%)	29 (5.66%)	2.10 (1.16)
(22) It will always be necessary to use S/PR/MR	37 (7.23%)	79 (15.43%)	159 (31.05%)	147 (28.71%)	90 (17.58%)	3.34 (1.15)
(23) Seclusion is a ‘necessary evil’	51 (9.96%)	74 (14.45%)	139 (27.15%)	174 (33.98%)	74 (14.45%)	3.29 (1.18)

Table 3: ***Perceptions of specific containment methods (Attitudes to Containment Methods Questionnaire; Bowers*** **et al.** ***2004)***

Item	Seclusion *M* (SD)	Physical Restraint *M* (SD)	Mechanical restraint *M* (SD)
(1) … respects consumers' dignity	2.73 (1.19)	2.42 (1.05)	1.98 (0.98)
(2) … is safe for the staff who use it	2.98 (1.56)	2.41 (1.07)	2.80 (1.15)
(3) … is safe for the consumers who is subject to it	3.03 (1.62)	2.55 (1.08)	2.57 (1.67)
(4) Overall, … is acceptable	3.27 (1.16)	3.13 (1.12)	2.53 (1.18)
(5) Overall, … is effective	3.35 (1.08)	3.24 (1.06)	2.80 (1.18)
(6) I would be prepared to use …	3.87 (1.00)	3.68 (1.01)	2.85 (1.27)
Total M (SD)	19.24 (5.60)	17.42 (5.08)	15.55 (5.89)

There was adaptation of item wording for consistency with other parts of the survey.

Table 5 presents respondents' perceptions of containment methods at their specific unit or ED (*n* = 493, excluding those who indicated that *no* containment methods were used in their service). Respondents tended to disagree that S/PR/MR was used too often (Item 1) or that alternative methods were not sufficiently employed to minimize S/PR/MR use (Item 2). They also were more likely to disagree that there were conflicts between attempts to eliminate S/PR/MR and organizational policy (Item 5), or that practice on their units was at odds with guidelines related to S/PR/MR practice (Item 4). Respondents indicated that there were differences in opinion between unit staff regarding the use of S/PR/MR about the use of S/PR/MR on their unit (Item 8) or feel pressure to use S/PR/MR (Item 7).

Perceived consumer behaviours and unit factors influencing seclusion and restraint use

Respondents were asked to consider consumer behavioural factors (Table 6) and unit factors (Table 7) that they believed to increase or decrease the likelihood that containment

measures will be used in their individual unit. The behaviours considered most likely to be involved in seclusion or restraint were actual physical aggression and violence, with 54.16% of respondents indicating that it is 'very likely S/PR/MR will be used'. Other behaviours that made it more likely for seclusion and restraint as intervention strategies were damage to property and consumers being intoxicated (alcohol or drugs). Respondents also believed previous seclusion or restraint could predict current S/PR/MR use.

In contrast to physical aggression, respondents thought it very unlikely that verbal aggression would result in seclusion or restraint use, with 45.44% of respondents believing it was 'very unlikely S/PR/MR will be used'. Respondents also believed that disorientation (*M* = 1.96, SD = 0.93) or consumers being new to the unit (*M* = 1.85, SD = 0.90) were unlikely to lead to S/PR/MR use. For unit factors, respondents believed that it was more likely that S/PR/MR would occur in units with lack of adequate staffing (Items 3 and 14), lack of good staff role models (Item 9), poor management or super- vision (Item 12), poor physical environment (Item 17), and when there were too many consumers on the unit (Item 11). At an individual level, feeling inadequately skilled for working with acutely ill consumers was seen to make it more likely containment would be used (Item 10).

Factors that were seen to make it unlikely that S/ PR/MR would be used were those that stressed nurse–consumer rapport (Item 26), knowing consumers' histories well (Item 37), staff communicating and working well together (Items 27–29), empathy for consumers (Items 30–31), and using trauma-informed care principles (Item 35).

Table 4: ***Types of containment methods used at specific workplace unit***

Type(s) of containment used	*N*
Seclusion and physical restraint	260 (50.78%)
Seclusion, physical restraint, mechanical restraint	144 (28.13%)
Physical and mechanical restraint	49 (9.57%)
Physical restraint only	21 (4.10%)
Seclusion only	17 (3.32%)
Seclusion and mechanical restraint	1 (0.20%)

Mechanical restraint only	1 (0.20%)
None	19 (3.71%)

Confidence in managing consumer aggression and potentially dangerous situations

Table 8 presents respondents' perceptions of safety and confidence in managing aggression on their units. Respondents indicated that there was potential for threatening situations to occur on their unit (Item 7). Despite this, respondents were confident in their abilities to handle consumer aggression or hostility (Item 1). When specifically asked about the use of containment methods, nearly 85% (*n* = 435, 84.96%) 'agreed' or 'strongly agreed' with the statement 'I am able to con- tribute to the seclusion or restraint of an aggressive consumer' (Item 4). Overall, respondents indicated that they felt moderately safe in their workplaces, although 21.88% of respondents 'strongly disagreed' or 'dis- agreed' that they felt safe. Respondents were also some- what more confident in their own abilities to maintain safety (Item 5) than those of their colleagues (Item 6).

Table 5: ***Perceptions of use of containment methods at specific workplace unit***

Item	Strongly disagree *n* (%)	Disagree *n* (%)	Neither disagree nor agree *n* (%)	Agree *n* (%)	Stronglyagree *n* (%)	*M* (SD)
(1) S/PR/MR are used too often in my unit	114 (23.12%)	197 (39.96%)	67 (13.59%)	74 (15.01%)	41 (8.32%)	2.45 (1.23)
(2) Alternatives to minimize the use of S/PR/ MR have not been used as much as possible in my unit	92 (18.66%)	174 (35.29%)	54 (10.95%)	109 (22.11%)	64 (12.98%)	2.75 (1.34)
(3) There are different opinions about the need to use S/PR/MR in my unit	26 (5.27%)	71 (14.40%)	67 (13.59%)	236 (47.87%)	93 (18.86%)	3.61 (1.11)
(4) The guidelines related to S/PR/MR practices are not followed in my unit	127 (25.76%)	209 (42.39%)	68 (13.79%)	65 (13.18%)	24 (4.87%)	2.29 (1.13)
(5) Organisational policy conflicts with attempts to eliminate S/PR/MR in my unit	70 (14.20%)	186 (37.73%)	127 (25.76%)	86 (17.44%)	24 (4.87%)	2.61 (1.08)
(6) Some nurses in my unit are more willing to use S/PR/MR than others	24 (4.87%)	60 (12.17%)	64 (12.98%)	227 (46.04%)	118 (23.94%)	3.72 (1.10)
(7) I feel pressure to use S/PR/MR in my Unit	150 (30.43%)	202 (40.97%)	64 (12.98%)	60 (12.17%)	17 (3.45%)	2.17 (1.10)
(8) I have misgivings regarding S/PR/MR use in my unit	92 (18.66%)	185 (37.53%)	93 (18.86%)	88 (17.85%)	35 (7.10%)	2.57 (1.18)
(9) I don't question the use of S/PR/MR in my unit	118 (23.94%)	247 (50.10%)	72 (14.60%)	37 (7.51%)	19 (3.85%)	2.17 (1.00)
(10) S/PR/MR can't be reduced without compromising safety in my unit	66 (13.39%)	159 (32.25%)	99 (20.08%)	94 (19.07%)	75 (15.21%)	2.90 (1.29)
(11) S/PR/MR can be reduced in my unit	35 (7.10%)	104 (21.10%)	124 (25.15%)	147 (29.82%)	83 (16.84%)	3.28 (1.18)

Items 1–4, 6 from/adapted from Korkeila *et al.* (2016).

Table 6: ***Consumer behavioural factors influencing the use of containment methods***

Item	Very unlikely S/PR/MR will be used *n* (%)	Unlikely S/PR/MR will be used *n* (%)	Neither unlikely nor likely *n* (%)	Likely S/PR/MR will be used *n* (%)	Very likely S/PR/MR will be used *n* (%)	*M* (SD)
(1) Verbal aggression	224 (45.44%)	162 (32.86%)	62 (12.58%)	35 (7.10%)	10 (2.03%)	1.87 (1.02)
(2) Threats of physical aggression	53 (10.75%)	140 (28.40%)	112 (22.72%)	158 (32.05%)	30 (6.09%)	2.94 (1.13)
(3) Actual physical aggression/violence	0 (0%)	13 (2.64%)	23 (4.67%)	190 (38.54%)	267 (54.16%)	4.44 (0.71)
(4) Absconding (attempts or actual)	131 (26.57%)	134 (27.18%)	93 (18.86%)	108 (21.91%)	27 (5.48%)	2.53 (1.25)
(5) Intrusive behaviour	145 (29.41%)	189 (38.34%)	90 (18.26%)	65 (13.18%)	4 (0.81%)	2.18 (1.02)
(6) Attempted suicide and/or self-harm	122 (24.75%)	129 (26.17%)	94 (19.07%)	100 (20.28%)	48 (9.74%)	2.64 (1.31)
(7) Damage to property	48 (9.74%)	90 (18.26%)	115 (23.33%)	173 (35.09%)	67 (13.59%)	3.25 (1.19)
(8) Disruptive behaviour	95 (19.27%)	170 (34.48%)	104 (21.10%)	108 (21.91%)	16 (3.25%)	2.55 (1.13)
(9) Impulsive behaviour	89 (18.05%)	163 (33.06%)	153 (31.03%)	78 (15.82%)	10 (2.03%)	2.51 (1.03)
(10) Agitation	92 (18.66%)	185 (37.73%)	117 (23.73%)	83 (16.84%)	16 (3.25%)	2.48 (1.08)
(11) Disorientation	176 (35.70%)	199 (40.37%)	82 (16.63%)	32 (6.49%)	4 (0.81%)	1.96 (0.93)
(12) Consumer is intoxicated (alcohol and/ or drugs)	98 (19.88%)	116 (23.53%)	143 (29.01%)	86 (17.44%)	50 (10.14%)	2.74 (1.24)
(13) Consumer is withdrawing from alcohol or methamphetamines	116 (23.53%)	137 (27.79%)	120 (24.34%)	81 (16.43%)	39 (7.91%)	2.57 (1.23)
(14) Consumer is new to the unit	220 (44.62%)	149 (30.22%)	102 (20.69%)	44 (4.46%)	0 (0%)	1.85 (0.90)
(15) Consumer is under an involuntary admission order	165 (33.47%)	132 (26.77%)	117 (23.73%)	64 (12.98%)	15 (3.04%)	2.25 (1.14)
(16) Consumer has previously been secluded or physically/mechanically Restrained	99 (20.08%)	118 (23.94%)	156 (31.64%)	97 (19.68%)	23 (4.67%)	2.65 (1.14)
(17) Staff cannot communicate effectively with the consumer	127 (25.76%)	135 (27.38%)	124 (25.15%)	79 (16.02%)	29 (5.68%)	2.48 (1.20)

Table 7: ***Unit factors influencing the use of containment method***

Item	Very unlikely S/PR/MR will be used *n* (%)	Unlikely S/PR/MR will be used *n* (%)	Neither unlikely nor likely *n* (%)	Likely S/PR/MR willbe used *n* (%)	Very likely S/PR/MR will be used *n* (%)	*M* (SD)
(1) Lack of support from management	76 (15.42%)	92 (18.66%)	162 (32.86%)	118 (23.94%)	45 (9.13%)	2.93 (1.19)
(2) Conflict with other professionals	89 (18.05%)	118 (23.94%)	173 (35.09%)	89 (18.05%)	24 (4.87%)	2.68 (1.11)
(3) Lack of adequate staffing	47 (9.53%)	64 (12.98%)	100 (20.28%)	208 (42.19%)	74 (15.01%)	3.40 (1.17)
(4) Lack of trust/confidence in colleagues	68 (13.79%)	101 (20.49%)	157 (31.85%)	125 (25.35%)	42 (8.52%)	2.94 (1.16)
(5) Feeling inadequately skilled for dealing with emotional needs of consumers	80 (16.23%)	107 (21.70%)	128 (25.96%)	130 (26.37%)	48 (9.74%)	2.92 (1.23)
(6) Conflicting roles with other Professionals	93 (18.86%)	117 (23.73%)	174 (35.29%)	86 (17.44%)	23 (4.67%)	2.65 (1.11)
(7) Uncertainty about own capabilities	95 (19.27%)	132 (26.77%)	147 (29.82%)	93 (18.86%)	26 (5.27%)	2.64 (1.15)
(8) Not enough time to complete all tasks Satisfactory	112 (22.72%)	115 (23.33%)	138 (27.99%)	93 (18.86%)	35 (7.10%)	2.64 (1.22)
(9) Lack of good staff role models	68 (13.79%)	72 (14.60%)	125 (25.35%)	160 (32.45%)	68 (13.79%)	3.18 (1.24)
(10) Feeling inadequately skilled for working with acutely ill consumers	75 (15.21%)	87 (17.65%)	116 (23.53%)	162 (32.86%)	53 (10.75%)	3.06 (1.24)
(11) Too many consumers on the unit	80 (16.23%)	84 (17.04%)	128 (25.96%)	138 (27.99%)	63 (12.78%)	3.04 (1.27)
(12) Poor management or supervision	62 (12.58%)	78 (15.82%)	136 (27.59%)	160 (32.45%)	57 (11.56%)	3.15 (1.20)
(13) Lack of clinical supervision	76 (15.42%)	91 (18.46%)	148 (30.02%)	127 (25.76%)	51 (10.34%)	2.97 (1.21)
(14) Lack of adequate staff in a potentially dangerous environment	38 (7.71%)	41 (8.32%)	86 (17.44%)	197 (39.96%)	131 (26.57%)	3.69 (1.17)
(15) Working long hours/shifts	92 (18.66%)	93 (18.86%)	179 (36.31%)	86 (17.44%)	43 (8.72%)	2.79 (1.19)
(16) Presence of security guards in the unit	112 (22.72%)	127 (25.76%)	155 (31.44%)	70 (14.20%)	29 (5.88%)	2.55 (1.16)
(17) Poor physical environment	71 (14.40%)	66 (13.39%)	128 (25.96%)	169 (34.28%)	59 (11.97%)	3.16 (1.23)
(18) Noise in the unit	85 (17.24%)	95 (19.27%)	138 (27.99%)	148 (30.02%)	27 (5.48%)	2.87 (1.18)
(19) Lack of guards in the unit	109 (22.11%)	131 (26.57%)	162 (32.86%)	69 (14.00%)	22 (4.46%)	2.52 (1.11)
(20) Overcrowding in the unit	93 (18.86%)	82 (16.63%)	128 (25.96%)	150 (30.43%)	40 (8.11%)	2.92 (1.24)
(21) Lack of privacy in the unit	95 (19.27%)	108 (21.91%)	168 (34.08%)	94 (19.07%)	28 (5.68%)	2.70 (1.15)
(22) Staff fear of consumers	55 (11.16%)	63 (12.78%)	96 (19.47%)	189 (38.34%)	90 (18.26%)	3.40 (1.24)
(23) Too many rules on the unit	89 (18.05%)	108 (21.91%)	172 (34.89%)	94 (19.07%)	30 (6.09%)	2.73 (1.14)
(24) Formal training in S/PR/MR use	96 (19.47%)	172 (34.89%)	165 (33.47%)	41 (8.32%)	19 (3.85%)	2.42 (1.02)
(25) Positive ward/unit culture	155 (31.44%)	205 (41.58%)	106 (21.50%)	21 (4.26%)	6 (1.22%)	2.02 (0.90)
(26) Being able to build rapport with the	213 (43.20%)	207 (41.99%)	57 (11.56%)	16 (3.25%)	0 (0%)	1.75 (0.78)

Consumer						
(27) Good communication and flow of information at work	187 (37.93%)	185 (37.53%)	100 (20.28%)	21 (4.26%)	0 (0%)	1.91 (0.86)
(28) Multidisciplinary team works well Together	172 (34.89%)	207 (41.99%)	95 (19.27%)	19 (3.85%)	0 (0%)	1.92 (0.83)
(29) Good communication between staff	173 (35.09%)	204 (41.38%)	98 (19.88%)	18 (3.65%)	0 (0%)	1.92 (0.85)
(30) Taking the consumer's perspective and experiencing empathy	183 (37.12%)	181 (36.71%)	113 (22.92%)	16 (3.25%)	0 (0%)	1.92 (0.85)
(31) Compassion toward the consumer	187 (37.93%)	172 (34.89%)	120 (24.34%)	14 (2.84%)	0 (0%)	1.92 (0.86)
(32) Emotional support from colleagues	155 (31.44%)	179 (36.31%)	138 (27.99%)	21 (4.26%)	0 (0%)	2.05 (0.87)
(33) Keeping professional/clinical skills up to date	159 (32.25%)	188 (38.13%)	124 (25.15%)	22 (4.46%)	0 (0%)	2.02 (0.87)
(34) Clear organisational structure and Policies	143 (29.01%)	178 (36.11%)	148 (30.02%)	20 (4.06%)	4 (0.81%)	2.12 (0.90)
(35) Using a trauma-informed approach to the consumer	173 (35.09%)	182 (36.92%)	119 (24.14%)	19 (3.85%)	0 (0%)	1.97 (0.86)
(36) Taking a recovery-oriented approach to the consumer	168 (34.08%)	164 (33.27%)	140 (28.40%)	15 (3.04%)	6 (1.22%)	2.04 (0.93)
(37) Staff who know consumers and their personal histories well	186 (37.73%)	200 (40.57%)	83 (16.84%)	24 (4.87%)	0 (0%)	1.89 (0.85)
(38) Having/using an individualized consumer care plan	151 (30.63%)	185 (37.53%)	139 (28.19%)	18 (3.65%)	0 (0%)	2.05 (0.86)

Items 1–3, 5–8, 10–12, 15, 17, 27–28, 32–34 from/adapted from Cushway et al. Tyler (1996); Item 37 adapted from Schalast *et al.* (2008).

Table 8: ***Respondent confidence in managing consumer aggression and maintaining safety***

Item	Strongly disagree *n* (%)	Disagree *n* (%)	Neither disagree nor agree *n* (%)	Agree *n* (%)	Strongly agree *n* (%)	*M* (SD)
(1) I am confident in my ability to work with hostile or aggressive consumers	0 (0%)	34 (6.64%)	40 (7.81%)	279 (54.49%)	159 (31.05%)	4.10 (0.80)
(2) I feel safe around aggressive Consumers	35 (6.84%)	125 (24.41%)	133 (25.98%)	168 (32.81%)	51 (9.96%)	3.15 (1.11)
(3) I am able de-escalate an aggressive Consumer	0 (0%)	13 (2.54%)	91 (17.77%)	298 (58.20%)	110 (21.48%)	3.99 (0.70)
(4) I am able to contribute to the seclusion or restraint of an aggressive Consumer	0 (0%)	28 (5.47%)	49 (9.57%)	302 (58.98%)	133 (25.98%)	4.05 (0.76)
(5) I am able to maintain my own safety in the presence of an aggressive consumer	0 (0%)	27 (5.27%)	74 (14.45%)	300 (58.59%)	111 (21.68%)	3.97 (0.76)
(6) I am confident in my colleagues' ability to maintain safety and manage an aggressive consumer	20 (3.91%)	116 (22.66%)	147 (28.71%)	176 (34.38%)	53 (10.35%)	3.24 (1.04)
(7) Really threatening situations can occur in my unit	0 (0%)	13 (2.54%)	15 (2.93%)	157 (30.66%)	327 (63.87%)	4.56 (0.68)
(8) I feel safe in my unit	30 (5.86%)	82 (16.02%)	139 (27.15%)	200 (39.06%)	61 (11.91%)	3.35 (1.07)

Items 1–6, 8 from/adapted from Martin and Daffern (2006); Item 7 adapted from Schalast *et al.* (2008).

DISCUSSION

This is the largest study of its size to date in Australia on nurses' perceptions and experiences of seclusion and restraint. Overall, respondents believed that complete elimination of seclusion, physical restraint, and mechanical restraint were not possible. However, respondents identified a number of factors that were likely to help or hinder efforts to reduce, and, where possible, eliminate seclusion and restraint use.

Findings demonstrate that most nurses had been involved in seclusion, physical restraint, and, to a lesser degree, mechanical restraint, confirming existing clinical practice with mental health consumers. The necessity of restraint was supported in the context of dangerous situations, albeit as a last resort to protect consumers and staff (Kinner *et al.* 2017). Of interest is the spread of opinion and ambivalence regarding whether the use of containment methods will always be necessary, with 31.05% of respondents unsure about the need for continued containment methods use, 22.66% disagreeing with their continued use, and 46.29% agreeing that they will always be necessary. This spread in perceptions may be associated with the availability of appropriate less restrictive alternatives and deserves further examination as to reasons (Muir- Cochrane *et al.* 2015). Respondents accepted that seclusion and restraint use were deleterious to their relationships with consumers, as other research has supported (Mohr *et al.* 2003). They also felt that containment use was a function of a lack of resources and could be reduced with more consumer contact. These findings add to the body of research identifying that nurses struggle with the dichotomy between care and control, but see safety as the primary motivation for use of restrictive methods (Riahi *et al.* 2016). It is important to note, however, that the systematic review by Goulet *et al.* (2017) found that 'aggression and injury rates do not increase following implementation of an SR reduction program' (p. 145).

Findings here reveal that nurses do not have difficulty in making decisions about the use of containment methods. Furthermore, nurses in this study do not perceive the use of containment as a failure on the part of the treating team, which is an important finding given critiques from some stakeholders who see restraint in such a light (Melbourne Social Equity Institute 2014). However, feeling not sufficiently skilled in caring for acutely ill consumers was seen to increase the likelihood of the use of containment measures, and so it is important to consider whether lack of difficulty in deciding to use containment is driven by a decision regarding this being the most appropriate intervention, or whether further training is needed in managing conflict and utilizing alternatives.

Most nurses indicated that physical restraint and seclusion were used in their units, with mechanical restraint less commonly adopted. Nurses perceived seclusion and physical restraint to be more effective, dignified for consumers, and acceptable than mechanical restraint, although seclusion was seen to be the most favourable form of containment. This may be due to the possibility of staff and consumer injuries during physical restraint and the ageing workforce of mental health nurses. It may also relate to perceptions regarding the most suitable of three methods, all for which there was moderate but not strong acceptance. While previous research suggests that mechanical restraint is amongst containment methods with the least approval by psychiatric inpatients and staff, different types of observation (e.g. intermittent observation), transfer/ placement in another area (e.g. PICU transfer, time- out), or PRN medication are considered more favourable than seclusion or physical restraint (Whittington et al., 2009). Nurses did not believe that seclusion, physical restraint, or mechanical restraint could be eliminated, but had more support for the elimination of mechanical restraint. This is, perhaps, not surprising as mechanical restraint was used least in respondents' units. Nurses did not feel containment methods were used excessively in their own units or that such use was outside of organizational policy, stating that alter- native methods were used as much as possible. How- ever, information was not collected as to the nature of these alternative methods or if this finding reflects respondents' perceptions that seclusion and restraint were used when other methods had not resolved risk of harm (i.e. a last resort). Other research indicates that perceptions of the lack of availability of alternative methods influence reluctance to stop using seclusion and restraint, with a 'dichotomy' apparent between recommendations in reports/policy and clinical practice (Muir-Cochrane et al. 2015, p. 113).

Respondents believed physical aggression and violence, consumer intoxication, and damage to property would increase the likelihood of the use of seclusion and restraint, which is consistent with both organizational policy and the current literature (Oster *et al.* 2016). Regarding substance use, health professionals working in ED departments with crystal methamphetamine (ICE) users describe their care as 'challenging; at times distressing, and highly complex' and that that their care is 'resource-intensive and the unpredictable behaviours that accompany ICE use meant that multiple staff were often needed' (Cleary *et al.* 2017, p. 35). Mental health assessment to determine whether there are mental health issues warranting admission to a mental health facility was also seen to be problematic while the consumer was intoxicated. This highlights some of the complexity regarding the use of seclusion and restraint with these consumers.

The findings demonstrate that nurses did not believe that seclusion and restraint were likely to be used for consumers new to the unit. This contrasts with the literature, with seclusion/restraint use and other incidents, such as consumers under inpatient treatment orders leaving units without permission, occurring early in admission (Bullock *et al.* 2014; Gerace *et al.* 2015). It is important to note that except for cases of aggression and violence, nurses did not strongly believe that many consumer factors would likely lead to containment use. The reasons for these perspectives are unclear but may be a function of nurses in the study presenting an 'ideal' answer rather than what happens in practice.

Staff and unit factors influencing containment have received sustained attention in the literature (Pollard *et al.* 2007), and this study cites lack of good (staff) role models, inadequately trained staff, overcrowded units, and lack of management and supervision as key issues. Conversely, nurse–consumer engagement, effective communication, and trauma-informed care approaches were seen to be facilitators to a least restrictive environment, also consistent with recent work (Gaynes et al,. 2016). Indeed, these findings are reflected in reduction initiatives, with both strong leadership and workforce development, the latter stressing staff education and the fostering of recovery and trauma-informed care, identified as two of the six core strategies for reducing seclusion and restraint use (Huckshorn, 2004; National Mental Health Commission 2015).

While nurses felt somewhat safe at work, they believed that threatening situations on their units were common, with 21.88% of respondents feeling unsafe at work and 31.25% feeling unsafe around aggressive consumers. These are important findings for stakeholders to consider in attempts to reduce containment. Feelings of lack of safety are unlikely to be conducive to least restrictive and quality de-escalation processes of care. Furthermore, staff were more confident in their own abilities than those of their colleagues. This may suggest that educational preparation is not uniform across nursing groups or disciplines regarding containment method (and alternate methods) use. However, this may reflect disparities in judgements of one's own practice and actual practice. This should also be considered along with the finding that respondents felt that their colleagues differed in beliefs regarding the need for containment practices and willingness to use the methods. In a study of perceptions of mental illness, Reavley and Jorm (2011) explained beliefs that one's personal attitudes towards mental illness differ from public perceptions with reference to the social psychological concept of pluralistic ignorance, 'where most people erroneously perceive that they have different attitudes to the majority' (p. 1092). This may result in colleagues who

actually have similar private attitudes towards containment (e.g. reluctance to use) believing that others hold more favourable views, resulting in acceptance of containment becoming the norm on the unit (see Prentice & Miller 1996).

Unit culture factors can be usefully examined using the recent work of Bowers *et al.* (2017), where it was demonstrated that wards without seclusion were less likely to use manual (physical) restraint, indicating a cultural unit effect regarding perceptions of containment. However, units without designated seclusion rooms used more rapid tranquillization and used a side room to contain consumers. Hence, there is no evidence to date that removing seclusion rooms results in overall reductions in containment, but that substitute containment occurs. Evidence for substitute containment is seen in work by Noorthoorn *et al.* (2016), where seclusion was decreased but forced medication increased. This is significant in any consideration of elimination of seclusion rooms so that changes do not merely result in changing one form of restraint for another, potentially equally unpalatable one. Studies of consumer preferences for particular coercive interventions if deemed necessary are mixed, where less invasive procedures such as one-to-one observation are seen as preferable to seclusion, physical, or mechanical restraint (Krieger *et al.* 2018). However, comparisons between methods such as seclusion and forced medication indicate that while individual consumers may prefer one to the other, they identify significant negative impacts of the use of either method (Veltkamp *et al.* 2008).

This present study identified perceived facilitators of containment elimination involving trauma-informed care principles, empathic nurse–consumer interaction, and collaborative staff relationships. Indeed, empathy involving perspective taking and concern has been identified as a means to defuse conflict between staff and consumers (Gerace *et al.* 2018), with unit conflict linked to the use of containment methods (Bowers 2014). Within the six core strategies and other interventions for pre- venting containment use, safety plans are included as a potential way to prevent distress and promote self-control and the use of individualized de-escalation strategies (Huckshorn 2004; Lewis *et al.* 2009). Such plans incorporate consumer preferences and take account of experiences such as previous trauma (Krieger *et al.* 2018). Safety plans have been demonstrated as effective in reducing the use of seclusion and restraint (Lewis *et al.* 2009), and in a Delphi study, experts identified the need for further research into patient-centred approaches and consumer-driven safety planning (Dewa *et al.* 2018). Within Australian contexts, researchers have similarly identified the need for research into trauma-informed care in inpatient settings (Wilson *et al.*

2017a), and this seems a promising avenue to promoting alternative strategies to seclusion and restraint.

Limitations

The sample was large but does represent a small proportion of nurses working in mental health. There were also smaller numbers of respondents in units other than acute adult and emergency departments, as well as fewer respondents from rural and remote areas. It is possible that nurses who chose to participate differ from those who viewed study information and declined participation, and participation depended on nurses seeing the study listed through the professional organizations used for recruitment. Future studies could utilize 'champions' within health services to promote the study. However, this should be used carefully to avoid respondent perceptions of coercion to participate. Respondents were relatively more experienced in nursing. While the respondent group can be deemed representative of the national population of mental health nurses in terms of sex, age, qualification, work role, and geographical location (Australian Institute of Health and Welfare, 2016), the research indicates that age and experience are important to understanding staff members' attitudes to use of specific methods of containment (Whittington *et al.* 2009). Examining the perceptions of the younger members of the workforce is, therefore, important to understand reduction efforts moving forward.

In the present study, it was also not possible to obtain actual benchmarks such as rates of seclusion/restraint in a respondent's unit to compare to their perceptions of overuse, effectiveness, and so on. Respondents were not asked to indicate how recently they had used containment methods, or whether they had received any recent education (undergraduate or continuing education) about alternatives to containment use. While the anonymous nature of the survey reduces the risk of social desirability bias, it is possible that with a sensitive topic such as the use of seclusion and restraint, respondents may report attitudes they perceive to be more acceptable. Finally, other containment methods, such as chemical restraint, as well as the nature of the use of de-escalation or availability of other strategies (e.g. sensory approaches, environmental modifications to units) in individual workplaces, need to be considered.

CONCLUSION

In spite of calls for the reduction and elimination of seclusion, physical restraint, and mechanical restraint reflected at the policy or research level, these practices are still used in Australia and nurses hold mixed beliefs regarding their elimination. Nurses do not necessarily see the practices as favourable, but necessary for maintaining a safe work environment. Unless factors that have been identified as making elimination or at least

significant reduction possible, such as those reflected in the six core strategies (Huckshorn 2004), are implemented at an organizational level, and nurses are pro- vided with what they consider viable alternatives to their use, reduction, and, indeed, elimination are likely to be very problematic. This survey provides a large snapshot of nurses' perceptions of containment use and seclusion and restraint practices in Australia. In this way, the survey provides data to inform practice, which has been identified as a necessity to containment reduction and elimination efforts (Mann-Poll *et al.* 2015).

RELEVANCE FOR CLINICAL PRACTICE

The focus of any seclusion/restraint reduction and elimination efforts should be not only on removing barriers that perpetuate their use, but also on enablers towards containment reduction and, where possible, elimination. At a wider level, the present findings highlight the importance to seclusion and restraint reduction and elimination efforts of strong clinical leadership, sufficient staff numbers and resources, consideration of the appropriateness of the physical unit environment, and appropriate resources for the use of alternative methods to seclusion and restraint that maintain staff and consumer safety. In addition, a focus on trauma-informed care, empathic relating to consumers, training/education of staff, and team collaboration and cohesion are essential to reduction efforts. Attitudes towards elimination of containment methods were mixed, and so underlying all of these interventions should be a focus on challenging attitudes to containment as a means to prevent increases in injury rates (Goulet *et al.* 2017) and increasing staff reflection and communication regarding their individual attitudes towards seclusion/restraint and prevailing norms on their units.

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6.6 Publication Five

Muir-Cochrane, E. C., O'Kane, D., & Oster, C. T. (2018). Fear and blame in mental health nurses' accounts restrictive practices: implications for the elimination of seclusion and restraint. *International Journal of Mental Health Nursing, 2*(5), 1511-1521.

Student's contribution to the publication: Research design 100%, data collection and analysis 80%,writing and editing 80%.

Abstract

Restrictive practices continue to be used in mental health care despite increasing recognition of their harms and an international effort to reduce, and ultimately eliminate their use. The aim of this qualitative study was to explore mental health nurses' views of the potential elimination of these practices. Nine focus groups were conducted with forty-four mental health nurses across Australia, and the data analysed using thematic analysis. Overall the nurses expressed significant fear about the potential elimination of restrictive practices and saw themselves as being blamed for both the use of these practices and the consequences should they be eliminated. Findings detail the conflicts facing staff in balancing the need for ward safety for everyone present while at the same time providing person-centred care. Nurses described the changing role of the mental health nurse in acute settings, being more focussed on risk assessment and medication while at the same time attempting to practise in trauma informed person-centred ways. The impact on ward safety with increasing acuity of consumers plus the presence of forensic consumers and those affected by methamphetamine was emphasised. Change initiatives need to consider nurses' deep concerns about the consequences of eliminating all forms of control measures in hospitals and respond to the symptoms and behaviours consumers present with and associated unpredictable and concerning behaviours. Attempts to eliminate restrictive practices should therefore be carefully considered and come with a clear articulation of alternatives to ensure the safety of consumers, visitors, and staff.

Key Words

Seclusion, restrictive intervention, restraint, mental health nursing

Introduction

Restrictive practices such as seclusion and restraint are used in healthcare settings, such as psychiatric inpatient units and emergency departments (EDs), to manage consumers who are aggressive or violent. However, the use of these measures has negative consequences for consumers and staff (Victorian Government Department of Health, 2013), such as re-traumatising consumers with histories of existing trauma (Hammer et al. 2011) and damaging the therapeutic relationship between consumers and health professionals (Theodoridou et al. 2012). Consequently, there has been an international drive towards reducing and, ultimately, eliminating the use of these practices (LeBel et al. 2014).

A number of programs have been implemented worldwide, demonstrating success in reducing the rates and duration of seclusion and restraint events (Hernandez et al. 2017; LeBel et al. 2014; Madan et al. 2014; Victorian Government Department of Health, 2013; Fletcher et al. 2017; Wieman et al. 2014). Importantly, research has also reported that reduction in the use of restrictive practices does not lead to an increase in assaults (Smith et al. 2015). Building on these successes, the Restrictive Practice Working Group of the Australian Health Ministers' Advisory Council developed the 'National Principles to Support the Goal of Eliminating Mechanical and Physical Restraint in Mental Health Services' (2016) as the next logical step towards eliminating restrictive practices in Australia.

Despite overwhelming support for reducing and eliminating the use of seclusion and restraint, and the success of reduction programs, these practices continue to be used in mental health care (Allan et al. 2017; Bowers et al. 2017; Bullock et al. 2014; Gerace et al. 2014; Muir-Cochrane et al. 2014; Oster et al. 2016; Te Pou o te Whakaaro Nui, 2017). Mental health nurses play a central role in the provision of mental health care and as such represent the staff that are most likely to use seclusion and restraint (NMHCCF, 2009). Understanding nurses' views of seclusion and restraint, and in particular on the potential for these practices to be eliminated, is therefore essential (Mann-Poll et al. 2015).

Background

Consumers and carers, while at times identifying some benefit to restrictive practices, predominantly express negative perceptions of seclusion and restraint use and are unlikely to view these interventions as therapeutic (Brophy et al. 2016; Kinner et al. 2017). Nurses

express a range of views about seclusion and restraint: from unease and avoidance, through to accepting that the use of the intervention is necessary and even therapeutic (Goethals et al. 2011; Happell & Koehn 2011; Maguire et al. 2012). Overall, while there is support for a reduction in the use of seclusion and restraint, the majority of mental health professionals defend the continued use of some form of restrictive practice in regard to the management of violence and aggression (Happell & Harrow 2010; Kinner et al. 2017), viewing these practices as a 'necessary evil', to be used as a last resort (Wilson et al. 2017).

There has been little research exploring the views of mental health nurses in Australia regarding the elimination of restrictive measures. This is a significant gap because research from other countries likely reflects different "cultural, procedural and health-care practices" (Wilson et al. 2017, p. 501) that affect both the use of seclusion and restraint, and the potential for these practices to be eliminated. Furthermore, research tends to focus on nurses' attitudes towards the use of seclusion and restraint, and their views of reducing the use of these practices. Little is known about nurses' views on *eliminating* seclusion and restraint use in mental health care, aside from one recent Australian national survey of consumers, carers, and health professionals, reporting mixed views about the desirability and feasibility of elimination, particularly on the part of health professionals (Kinner et al. 2017). With the move towards eliminating restrictive practices, it is important to understand nurses' views given the key role they play in both the use of seclusion and restraint, and in the development and implementation of strategies to reduce or eliminate their use.

In the present study we report on the findings of a study investigating mental health nurses' perceptions and attitudes regarding barriers and enablers to eliminating seclusion and restraint in inpatient psychiatric settings and emergency departments (EDs) in Australia.

Method

Design

This was a qualitative, descriptive study using focus groups to interview mental health nurses about their views and experiences. Participants were recruited using an email membership list for the Australian College of Mental Health Nurses, who had funded the study. Potential participants were provided with information about the study and the date, time, and location in which the focus group would be conducted in their locality, and asked to RSVP their attendance. Written consent was sought from all participants. The total number

of participants was forty-four. Unfortunately, only 45% of participants (n=20) participants provided demographic information (summarised in Table 1). This is a limitation of the study. Flinders University human research ethics committee approved the study.

Table 1. Demographics*

Demographic	**n (%)**
Gender	
Female	11 (55%)
Male	9 (45%)
Age range	
25-34	1 (5%)
35-44	1 (5%)
45-54	9 (45%)
55-64	7 (35%)
65-74	2 (10%)
Highest Level of Education	
Diploma	3 (15%)
Bachelor's Degree	4 (20%)
Master's Degree	8 (40%)
PhD	2 (10%)
Other	3 (15%)
Type of Nurse	
Registered Nurse (RN)	3 (15%)
RN with mental health qualifications/ credentials	16 (80%)
Nurse Practitioner	1 (5%)
Years Worked in Nursing (mean)	30

Years Worked in Mental Health Practice Settings (mean)	21
Current Area of Work	
Acute Inpatient Ward/Unit	7 (35%)
Accident and Emergency	1 (5%)
Psychiatric ICU	1 (5%)
Education	4 (20%)
Community Mental Health	5 (25%)
Unit encompasses multiple areas	1 (5%)
Management	1 (5%)
Years in Current Position (mean)	5 years and 9 months
Predominant Role	
Clinical	10 (50%)
Management	3 (15%)
Education	7 (35%)
Geographic Location	
Metropolitan	10 (50%)
Regional	5 (25%)
Rural	5 (25%)

*****Demographic information was provided by n=20 participants

Data collection

Nine focus groups were conducted in five Australian states and territories (New South Wales, Northern Territory, Victoria, Western Australia, and the Australian Capital Territory), with between three and twelve participants per group. The focus groups were conducted in capital cities and in two regional locations in 2017. A semi-structured interview guide was used exploring nurses' general attitudes to seclusion and restraint, and barriers and

enablers to the reduction and elimination of seclusion and restraint in their workplace. All facilitators had previous experience in running focus groups and in the conduct of research. A written facilitator guide was prepared and included details about the specific aspects of the focus group, ground rules, as well as the structured interview guide with questions and sub-questions (Table 2). Facilitators also participated in a group teleconference, which guided them through the structure and format of the focus groups. Focus groups were audiotaped and transcribed verbatim with a duration between 70-105 minutes.

Table 2. Focus group questions

Area of Focus	**Questions**
Why did you come today and what do you think you will get out of participating in the focus group discussion?	
General attitudes to seclusion and restraint (S/R)	What are your general thoughts about the use of S/R in mental health units?
	Is it possible to practice without *seclusion*? If not why not?
	Is it possible to practice without the use of *restraint*? If not why not?
	Is it possible to practice without the use of *mechanical restraint*? If not why not?
	Is the training provided to you in regard to containment measures adequate? If not Why not?
Trauma Informed Care/Recovery based care on acute units	What training and education have you had that addresses Trauma Informed Care and Recovery based practice?
	Can you describe what that training was?
	To what extent are you able to utilise it in the clinical environment?
Barriers to the reduction of S/R	What are the main barriers to the reduction of *seclusion* on your unit?
	What are the main barriers to the reduction of *restraint* on your unit?

	Out of those, what are the barriers that can be addressed?
	What are other factors?
	How can these factors be managed (reduced, changed etc.)?
De-escalation skills	What training and education have you had that addressed de-escalation skills?
	Can you describe what that training was?
	To what extent are you able to utilise it in the clinical environment?
Strategies for the reduction of S/R	What strategies/activities have helped reduce the use of *restraint* on your unit?
	What alternative to the use of *restraint* would work, what experience do you have with these alternatives?
Early intervention	What early intervention or prevention of aggression initiatives have been initiated in your health service to support reduction of restrictive interventions? How successful have these been?
If there was one thing you could change about the use of restraint and seclusion in your workplace/in general what would it be?	
Are there certain types of units where the use of restraint can be/cannot be totally eliminated?	

Analysis

Focus groups were analysed using thematic analysis as described by Braun and Clarke (2006). Thematic analysis is used to identify patterns across the data set and was undertaken in this study to report the “meanings and the reality of participants” (Braun & Clarke 2006, p. 81). The process began with familiarisation with the data, with the authors reading through the transcripts and making notes about possible codes. The authors then met to discuss their initial ideas and finalise the codes. One of the authors then coded the

transcripts, using the online software Dedoose (Version 7.6, 2017) to manage the coding process, and then collated the codes into potential themes. All authors discussed the emerging themes and agreed on the final themes.

Results

> 'That's my big fear, is that they will just [say] 'alright this is what we're going to do' [ban the use of seclusion and restraint] and you're left standing there thinking 'what are we going to do now?' That's a big fear of mine for the staff and patients.' (FG 4)

This analysis presents a discussion of Australian mental health nurses' views on the potential to eliminate the use of seclusion and restraint in mental health care. The quote above exemplifies the fears expressed by nurses regarding the potential elimination of restrictive practices. Overall, nurses believed seclusion and restraint use could not be eliminated altogether while still maintaining a safe environment:

> '[I]s it possible to practise without restraint? … in certain sections in mental health I'm going to have to say no, it's not possible because when you're dealing with human cognition and someone's not in touch with reality, no amount of de-escalation and no amount of therapeutic input is going to make the situation safe.' (FG 5)

Hence nurses' fears that should these practices be eliminated they will be left without the means to keep themselves and others safe, and ultimately be blamed for their actions:

> 'I've been a psychiatric nurse for a long time. It's a difficult job and not getting any easier. It's very hard work. We don't get enough support and it feels a general movement to seclusion in Australia as terrible things, avoid at all costs. Somehow you're a failure as a nurse if it happens.' (FG 2)

This perspective can be understood in relation to the following themes identified in the focus groups:

- The role of the nurse
- The complex and changing nature of the work environment
- Elimination of seclusion/restraint

The role of the nurse

Person-centred care was described as a key tenet of nursing practice, referred to either directly (e.g., "putting the client at the centre", FG 5), or indirectly in reference to person-centred practices, such as: developing rapport, focussing on the needs of the person,

partnership, being empathic and respectful, provision of one-to-one nursing, and continuity of care. Restrictive practices were seen as contrary to the principles of person-centred care: "… the client isn't at the centre of care when they're getting restrained" (FG5). However, there was conflict within the nursing role with nurses expected to both provide person-centred care and be responsible for the safety of all consumers, staff, and visitors:

> '… you've got a duty of care to 30 people or human rights for one.' (FG5)

In attempting to balance these roles, nurses erred on the side of caution; "it's always about safety" (FG2).

Nurses described the use of seclusion and restraint as justifiable to maintain safety in situations where a consumer was being violent and/or aggressive, within a context where they are used as a last resort:

> 'I believe it's necessary, but as a last resort, in certain situations, for the safety of staff that have to work with people and also patients sometimes are that unwell that they need the containment for a brief period, to allow other things, medications, that sort of stuff, to take effect. But there seems to be a general push to removing that... But I think there is still some space for some restrictive interventions if it has to be done.' (FG2)

> 'I think staff that work in mental health services and the emergency and hospital environments are exposed to higher levels of risk of aggression than the general community. I think staff need a way to safely prevent assaults against themselves and other consumers. I think there are times when restraint is required.' (FG3)

Overall nurses expressed the view that where seclusion and restraint had been used, they were necessary, a "good call" (FG3). Participants described the use of restrictive practices in negative terms when being overused or used unnecessarily, e.g., when a consumer refuses their oral medication, for minor acts of aggression such as throwing tissues, or when restrictive practices were "not the last choice" (FG1).

Despite the overall view of seclusion and restraint as reflecting the role of the nurse in maintaining a safe environment, these practices were described as traumatic (both physically and emotionally) to consumers and staff:

> Sadly, sometimes we're left with little other option but I think the majority of the staff are very aware of the trauma that [seclusion and restraint] does sort of tend to inflict on people. (FG6)

Recognising the trauma caused by seclusion and restraint meant that nurses acknowledged the need for these practices to be reduced. Further, nurses recognised the importance of trauma informed care approaches for people with mental health problems and were well

versed in their use. However, the complex and changing nature of the environment in which nurses work provided an imperative to continue to have these practices available to them in order for safety to be maintained. This fuelled their fears that seclusion and restraint would be eliminated.

The complex and changing nature of the work environment

A number of aspects of nurses' work environments influenced their views on the potential for seclusion and restraint to be eliminated. This included the changing nature of nurses' work, the nature of presentations to EDs and acute inpatient units, staff-related issues, the physical environment, resourcing, and support. Together these form the backdrop of nursing practice in which seclusion and restraint are seen as necessary tools to support nursing practice.

The changing nature of nurses' work

Focus group participants described nursing work as having undergone significant change, resulting in a shifting focus towards risk adversity – "We're too overrun by risk" (FG1). Risk adversity was understood to underpin the legislative and policy contexts in which nurses work, and in which seclusion and restraint occur:

> 'I think it [risk adversity] paralyses our decision making or the decision making of clinicians anyway. …I think it feeds more restrictive practices.' (FG1)

Balancing this risk adversity with providing person-centred care was difficult for nurses, particularly with the growing trend for nurses to have less time and capacity to provide such care for mental health consumers. Mental health nurses were described as having a heavy workload, particularly with regard to paperwork and work not directly related to consumer care, limiting the time available to engage directly with consumers:

> '… if you've got highly trained staff that are confident to spend time deescalating - 45 minutes, two hours, whatever - and not be feeling pushed for time with other constraints of the workload, then people are less likely to utilise seclusion because they're able to spend more time using other methods.' (FG3)

Related to this is the narrowing of nurses' roles to administering medication and doing paperwork:

> '… the skills of the nursing staff [are] restricted now to giving out the pills, doing the IMs [intramuscular medication] and the admissions and all of that paperwork.' (FG1)

The nature of presentation to EDs and acute inpatient units

In addition to changes to nurses' work, participants described changes to mental health presentations that affected their ability to practise in an environment free of restrictive practices. In particular, the number of consumers who are substance (principally crystalline methamphetamine: 'ice') affected was seen to have increased significantly in recent years. Participants described these consumers as unpredictable and often aggressive, as exacerbating aggressive behaviour in other consumers, and also as resistant to efforts at de-escalation. Increasing numbers of consumers from correctional and forensic services was also raised as an issue of concern:

> 'I think we can certainly go a long way to reduce the numbers, the times and the rates but to wipe it out altogether I'm unsure if that's possible at this point. I think acute mental health especially has changed a lot in the public sector when we receive a lot of police admissions from the watch-house and people on 'ice'.' (FG6)

Nurses also identified higher levels of acuity in the current population of mental health consumers, due to a range of factors such as inadequate management in the community, pressures relating to the relatively small number of beds available, and inadequate medication management:

> 'I guess your patient acuity is a real issue. … I've got somebody who is fabulously unwell, acutely unwell, threatening – there's usually some sort of act of violence – it's pretty hard to respond in any other way.' (FG3)

Staff-related issues

Working in an environment of high consumer acuity and complexity necessitates a stable workforce of adequate numbers of skilled nurses working together to provide person-centred care. Factors such as inadequate staffing levels, high levels of staff turnover, inadequate skill mix (particularly on weekends), the casualisation of nursing staff positions, and the lack of nurses trained and experienced in the field of mental health nursing, were therefore described as increasing the likelihood of seclusion and restraint:

> 'If something is starting and you can see it, you need to get over there quickly and intervene, and manage it and de-escalate that whole situation. But if you're busy here with somebody, and there's nobody there, there's no staff. Or you know that nurse over there's got a bad back. That one there's about to retire, and that one there's a new graduate.' (FG7)

Inadequate or infrequent education and ongoing training could also result in the use of restrictive measures where staff were seen to lack empathy and understanding of the distress of consumers, “One of the barriers [to the reduction/elimination of seclusion/restraint] I think is people not being able to see the perspective of others” (FG1). Related to this was the issue of staff burnout:

> ‘If you’re in the job and you have reached some level of burnout, and perhaps you are dismissive of clients or any of those sorts of things - and clients will pick up on this immediately - and that can cause escalation and that also concerns the heck out of me.’ (FG3)

A further staff-related barrier was fear:

> ‘… a staff member can be hit or assaulted. The rest of the staff are very fearful ... So it’s that adrenalin that takes place, it’s also the fear factor.’ (FG6)

> ‘This was a particular issue with an ageing workforce of nurses who participants saw as less able to “deal with very physical situations and the injuries that come with them”’ (FG7).

Security staff also increasingly play a part in seclusion and restraint; “So the clinical picture has changed because of acuity that you talked about before and now there’s actually security or extra personnel onsite to help keep things settled” (FG5). Security staff were often seen as a negative addition to the ward, particularly because they are not clinicians, and their practices are not person-centred. The availability of security staff might also mean nurses are less likely to use their skills to de-escalate or intervene early to manage risk, trusting in security staff to manage any situation that might arise. To some participants in this study however, the presence of security staff on the ward was seen as reassuring to nurses given the acuity and complexity of mental health consumers.

<u>The physical environment</u>

Staff and consumers clearly play an important part in seclusion and restraint events, but so does the physical environment in which restrictive practices occur:

> ‘In the emergency department this is a huge thing, because we're actually talking about an environment that is so not good for our clients. It’s so busy. It’s so over-stimulated. There are so many places to go, and people generally don’t feel safe in a busy, crowded, well-lit environment.’ (FG4)

> ‘Well they’re the most unwell people in south-west Queensland and there’s eight of them locked in a very small area, it’s a recipe for disaster.’ (FG6)

While an indoor environment that is cramped, dark, and with lots of corners and hidden spaces can be a fuelling ground for aggression and violence, therapeutic spaces designed specifically to facilitate communication, engagement, and healing were frequently discussed as key to eliminating the need for restrictive practices. Outdoor spaces were also seen as important to allow consumers to move around and benefit from the sensory input a well-designed therapeutic environment can provide. However, changing these physical spaces was seen as resource intensive and unlikely to occur:

> 'I really think … [with the] push towards a non-secluding organisation. But I've often sat there and thought well, … what resources are you going to give us and what redesign of the building are you going to give us?' (FG5)

Resourcing

Many of the aspects of nurses' work environment that affect their ability to practise in a person-centred way were described as resulting from a lack of resources. These include the number of beds available, the connected issues of brief admissions and short length of stay, ineffective early intervention in the community, lack of substance use/forensic mental health services, and inadequate staffing. For example, one participant discussed access to clinicians and long waiting times as "the biggest features that we see that contributes to aggression in the emergency department" (FG4). Another commented: "I just feel that sometimes we're constrained by the budget rather than constrained by best practice" (FG5).

Support

The final element of nurses' work environment is the extent to which there is support for eliminating seclusion and restraint. Support within the ward culture, from managers/leaders and from other nurses, was seen as vital in eliminating restrictive practices. Overall, however, the participants reported little support for them to practise in a less restrictive way. For example, participants discussed the negative effect of ward culture where nurses might enter into an environment where seclusion and restraint are routinely practised as the first option (rather than as a last resort) and where any efforts to change practise are strenuously resisted, resulting in new staff falling into line with existing practise:

> 'The nursing culture … impacts hugely on new staff coming into that environment and you find yourself getting wrapped up in that, 'oh this is the way we do it'. It's very hard to … extricate yourself from that ...' (FG4)

Linked to this was support from management, where managers who are supportive of efforts to change practice can improve ward culture and work towards less restricted practice:

> ‘That culture comes, generally speaking, right from the top - that unit leadership and particularly when you’ve got a lot of casual staff … so you need someone to keep tabs on that sort of thing.’ (FG3)

However, nurses more commonly reported a lack of management support, particularly with regard to embedding person-centred care (and related models of Recovery and trauma informed care) into practice:

> ‘So I think that’s where it often falls down. … you can go to some fantastic conferences in the world on trauma informed care and the consumer movement and that - but if - yeah, I think it requires services to actually be in the process of moving their philosophy and open to new ways of working.’ (FG5)

The elimination of seclusion and restraint

While participants saw the importance of person-centred care and reducing or eliminating the use of restrictive practices, there was an overall sense of fear that restrictive practices will be eliminated and nurses will be left with no mechanism by which to keep consumers, visitors, and staff safe. This was expressed through the use of frightening stories of what nurses had heard has happened where these practices have been reduced, and discussions about trauma to staff and other consumers from exposure to violence/aggression:

> ‘… what they’ve done is they’ve removed something and they’ve not replaced it with any other form of practice or intervention. Therefore, the number of assaults on staff has risen exponentially to the staff being knocked out, to staff being unconscious, broken [bones].’ (FG4)

> ‘But we had somebody admitted at our hospital who went into seclusion, very high risk. The team that was on at a certain point during that seclusion fairly early on decided he didn’t meet the criteria that they believed. He was let out of seclusion and he killed someone. ... That just raises a whole range of issues about sometimes people are secluded because they are very dangerous ...’ (FG2)

As discussed previously, the nurses generally did not think that restrictive practices could be eliminated completely. While some practices might be eliminated in some units, this was seen to involve either moving particular consumers to another environment where restrictive practices can be used – “export the problem” (Focus Group 3) - or replacing one form of restriction for another, particularly through the use of chemical restraint:

> Facilitator: … there’s increasing pressure to reduce all of these practices, to eliminate them.
>
> Female: It’s unrealistic though. It’s … completely unrealistic.
>
> Male: Well no, they can enforce it. But all it means is we are sedating people to the point – I’m seeing patients sedated to the point where they’ll soil themselves. But that’s okay, because we’ve not secluded them.

> Female: Yeah, and that's it. It's chemical restraint or it's physical restraint. (FG3)

Given these fears, and the barriers identified in relation to the complex and changing nature of the work environment in which nurses practise, participants felt that any attempts to eliminate restrictive practices should be gradual, consultative, and come with a clear articulation of alternatives to ensure the safety of consumers, visitors, and staff. Currently, however, the nurses feel they are trapped between the policy imperative and the imperative for nurses to protect themselves and others, with nurses ultimately being "the scapegoats of the system" (FG7) and blamed when restrictive practices do occur:

> '… this reducing seclusion seems to be nursing business for some reason and only nursing business. It seems to be a reflection of nursing care if someone is secluded or not secluded.' (FG5)

> 'I feel very strongly that there's a perception sometimes that nurses are doing the wrong thing when they're restraining and secluding people and I feel very strongly that nurses are not doing anything illegal and there are times where that's legitimate.' (FG5)

This interconnection of fear and blame ultimately undermines the imperative to eliminate seclusion and restraint in mental health care.

Discussion

This study demonstrates that mental health nurses were deeply concerned and fearful about how they could manage aggressive or violent behaviour without restrictive measures, and the potential for being blamed when adverse events do occur. Australian and international efforts towards the ongoing reduction and potential elimination of seclusion and restraint remain strong, yet safety issues are paramount in inpatient services. The conflict between providing person-centred care and the use of restrictive measures to manage risk is a significant issue emergent from these findings, recognised in other studies (Kinner et al. 2017; Wijnveld & Crowe 2010) and in particular as creating moral distress in nurses (Larsen & Terkelsen 2014). Indeed, Slemon et al. (2017) suggest that the risk management culture itself gives rise to and legitimises restrictive practices. While there is a body of work about the nature of mental health care and the complexity of nurses' roles and attitudes to restrictive measures (Bowers 2010; Bowers 2014; Muir-Cochrane 2000; Muir-Cochrane & Duxbury 2017; Van Der Merwe et al. 2013) this is the first time nurses' concerns have been articulated as fear and blame about the potential elimination of containment measures.

Perceptions of fear and blame by nurses in this study were also highlighted within the context of increasing patient acuity and the nature of presentations to EDs and acute

inpatient units. As discussed in previous research (Carlson & Hall 2014), the nurses did not feel confident that they had sufficient support, resources, environment, nor adequately prepared workforce to maintain safety should seclusion and restraint be completely eliminated. A particular issue for these nurses was the effect of crystalline methamphetamine ('ice') use on restrictive practice. This concern is reflected in a recent Australian study that found an association between 'ice' use and restrictive interventions in an acute adult inpatient mental health unit (McKenna et al. 2017).

The built environment was also described as not conducive to a least restrictive environment. Lack of indoor and outdoor space, poor unit design, lack of natural light and overcrowding are all barriers to quality care and recognised as such in the literature (Pollard et al. 2007). Further, the presence of security guards both offered safety for staff but was also perceived to increase the likelihood of seclusion and restraint. Thus, environment remains a significant factor in initiatives to reduce or eliminate restrictive practice.

Concerns about increasing aggression towards staff by consumers illustrated in this study is supported by research indicating that approximately 40% of consumers display aggression in some form (Bowers et al. 2011; Jackson et al 2014), although other research indicates restraint reduction is not necessarily associated with an increase in aggression (Smith et al. 2015). Further, existing research draws attention to the incidence of posttraumatic stress in nurses working in acute psychiatric inpatient settings being about 10% (Jacobowitz, 2013). In short, working in acute inpatient units and EDs is stressful. Any consideration of reduction initiatives therefore requires attention to the wellbeing of both consumers and mental health nurses.

Mental health nurses' accounts of fear and blame highlight the need for policies aimed at reducing or eliminating restrictive practices to 'take account of wide-ranging strategies to deal with aggression, including the provision of appropriate education and support and addressing ethical and workplace cultural issues associated with these practices' (Muir-Cochrane et al. 2015, p.109). There is also increasing evidence of the usefulness of trauma informed care in both acute inpatient and ED settings (Hall et al. 2016) and this can serve to guide educational and training packages and facilitate the necessary cultural changes required for restraint reduction to eventuate.

According to a recent systematic review of seclusion and restraint reduction programs in mental health (Goulet et al. 2017), the main components in successfully and safely reducing

restrictive measures were leadership, training, post-seclusion/restraint review, consumer involvement, prevention tools, and the therapeutic environment, all of which fall within the six core strategies of restraint reduction (Huckshorn 2004). However, caution is proposed as recent research found that closing seclusion rooms did not result in an overall reduction in containment practices (Bowes et al. 2017), as suggested by nurses in our study. The practise of seclusion and physical restraint is recognised as 'nursing business' with mixed views about how much involvement occurs from other members of the multi-disciplinary team. To reduce feelings of blame and failure, it is furthermore vital that a multidisciplinary approach is harnessed in any initiatives to ensure that all health professionals are adequately prepared to practise in a person-centred, trauma informed framework embracing least restrictive practice principles.

Conclusion

This is a significant Australian study of mental health nurses' understandings of the issues concerning them within the current context of measures to reduce and ultimately eliminate the use of seclusion and restraint. Findings demonstrate the complexity of the issues articulating the fear and blame experienced by mental health nurses. This highlights the need for a reasoned and comprehensive approach to further initiatives to facilitate least restrictive inpatient care. Understanding the changing nature of the work mental health nurses undertake in EDs and inpatient settings as well as the environmental constraints on care will enhance ongoing measures to provide the best possible care for acutely unwell consumers with the judicious and minimal use of seclusion and restraint.

Relevance for clinical practice

This research provides new insights into the acuity of mental health consumers when in hospital and the challenges facing mental health nurses when attempting to practise in a least restrictive manner. Education, training, and multilevel organisational interventions are required to achieve the goals of least restrictive care. Change initiatives need to take into account nurses' deep concerns about the consequences of eliminating all forms of control measures in hospitals and respond to the symptoms and behaviours consumers present with and associated unpredictable and concerning behaviours. Attempts to eliminate restrictive practices should be carefully considered and come with a clear articulation of alternatives to ensure the safety of consumers, visitors, and staff.

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6.7 Publication Six

Muir-Cochrane, E., Oster, C., Gerace, A., Dawson, S., Damarell, R., & Grimmer, K. (2020). The effectiveness of chemical restraint in managing acute agitation and aggression: A systematic review of randomized controlled trials. *International Journal of Mental Health Nursing, 29*(2), 110-126.

Student's contribution to the publication: Research design 60%, data collection and analysis 60%, writing and editing 70%.

Abstract

One approach to manage people with behaviours of concern including agitated or aggressive behaviours in health care settings is through the use of fast-acting medication, called chemical restraint. Such management often needs to be delivered in crisis situations to patients who are at risk of harm to themselves or others. This paper summarises the available evidence on the effectiveness and safety of chemical restraint from 21 randomised controlled trials (RCTs) involving 3,788 patients. The RCTs were of moderate to high quality and were conducted in pre-hospital, hospital emergency department, or ward settings. Drugs used in chemical restraint included olanzapine, haloperidol, droperidol, risperidol, flunitrazepam, midazolam, promethazine, ziprasidone, sodium valproate, or lorazepam. There was limited comparability between studies in drug choice, combination, dose, method of administration (oral, intramuscular, or intravenous drip), or timing of repeat administrations. There were 31 outcome measures, which were inconsistently reported. They included subjective measures of behaviours, direct measures of treatment effect (time to calm; time to sleep), indirect measures of agitation (staff or patient injuries, duration of agitative or aggressive episodes, subsequent violent episodes), and adverse events. The most common were time to calm and adverse events. There was little clarity about the superiority of any chemical method of managing behaviours of concern exhibited by patients in Emergency Departments or acute mental health settings. Not only is more targeted research essential, but best practice recommendations for such situations requires integrating expert input into the current evidence base.

Key words: Aggression, agitation, chemical restraint, restraint, systematic review

Introduction

Chemical restraint, also known as rapid tranquilisation, is the use of psychotropic medication to control severe agitation, or violent behaviours (Nadkarni et al. 2015). It is generally understood to be the *"assertive administration of emergency medication to adults with aggressive, agitated or violent behaviours with the purpose of quick calming or sedation, diminution of symptoms, and/or to decrease the likelihood of harm to self or others"* (Battagila et al. 2003, p.192). It may be administered in conjunction with physical restraint to induce a state of calm for people whose level of aggression poses a threat to themselves or others, and which cannot be reduced by less invasive means (NICE guideline 2015).

Chemical restraint is most commonly used in prehospital settings, emergency departments (EDs), or acute psychiatric inpatient settings (Battaglia 2005). The practice is generally accepted as not being treatment, but rather to defuse acute symptoms in emergency situations and provide a safe space in which a diagnosis and treatment plan can then be determined (DHS Tasmania 2017). Consequently, chemical restraint can be lifesaving (Mott et al. 2005). However, it is acknowledged that medications given as chemical restraint may have more than the effect of controlling challenging behaviours, and that these medications may also begin to treat symptoms of the underlying condition. Chemical restraint can furthermore be experienced as a violation of integrity and cause psychological discomfort (Haglund et al. 2003).

A search of international clinical practice guideline repositories found no evidence-based recommendations to inform the use by frontline clinicians of chemical restraint for management of severe agitation, aggression, or violent behaviours. Our recent systematic review of any literature on chemical restraint published since 1996 identified 33 potentially-relevant systematic reviews (SRs) of primary studies (Authors 2019). Only nine SRs included primary papers which all specifically noted that medications had been administered without consent (Aguilera-Serrano et al. 2018; Goulet et al. 2017; Jarrett et al. 2008; Laiho et al 2013; Luciano et al 2014; Newton-Howes et al. 2011; Steinert et al. 2010; Tingleff et al. 2017; Weiland et al. 2017). None of these SRs reported on the effectiveness of medications. The remaining SRs all included primary papers in which people had provided consent, or not, for administration of medication for uncontrolled behaviours. Thus, these papers variably reported on emergency management, or treatment, of psychiatric disorders (Authors 2019). There is therefore no current SR of literature dealing with the effectiveness of chemical restraint delivered to non-consenting adults to control violent behaviours or extreme agitation, and no guidance to front-line clinicians about current best practices.

Aims

This review was informed by a previous investigation undertaken by the lead researcher with patients and carers about their understanding of, and concerns with, chemical restraint (Author 2016). The review aimed to describe current best evidence that could be adopted by front-line clinicians, such as nurses and doctors, when delivering and monitoring patients during chemical restraint for crisis management of non-consenting patients with behaviours of concern such as acute agitation, aggression, or violence.

Research question: *What is the effectiveness and safety of chemical restraint delivered by any route of administration (i.e. oral, Intramuscular (IM) or Intravenous (IV)), to manage non-consenting adults with behaviours of concern such as severe agitation, aggression, and violence?* For the purpose of this review, the Battagila et al. (2003) definition of chemical restraint (see above) was applied.

Methods

The present review reports on randomised controlled trials (RCTs) that examined the effectiveness of medications used for chemical restraint in the management of acute agitation or aggression in acute hospital care, psychiatric or general hospital intensive care, EDs, or pre-hospital services. The RCTs were identified as a subset of the studies identified in a large systematic review on chemical restraint (Authors 2019). Systematic reviews identified in the large review were used only as a source of RCTs for this study. The different study designs identified in the review were classified using the National Health and Medical Research Council hierarchy of evidence (Merlin et al. 2009) (Level II=RCTs; Level III-1=prospective observational comparative studies; Level III-2=cross-sectional observational studies; Level III-3=retrospective studies; Level IV=opinion, case studies). The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement (Moher et al. 2009) was used to guide the methods for both the parent systematic review and subset reported here.

Search strategy and study selection

The parent dataset (Authors 2019) was collated to address a broad study question regarding available evidence on chemical restraint and involved a search of the databases PsycINFO, CINAHL, MEDLINE/PubMed, and Google Scholar. The search sought literature published since 1996 to ensure that changes over time in contemporary mental health practice could

be examined. The search start date reflected findings in Jarrett et al.'s (2008) study of chemical restraint in acute care from 1980-2008 where only four papers were published pre-1996. Index and MeSH search terms were determined in consultation with a university liaison librarian and included chemical restraint, forced medication, coerced medication, intramuscular medication, rapid tranquilisation, restraint, mental health, psychiatric, emergency department, and variants/other terms identified in a preliminary review of the literature. Two independent reviewers screened the search results for eligibility.

To be included in the parent dataset, articles were required to: (i) be peer-reviewed literature published in English reporting on the use of chemical restraint for non-consenting adults (with mental health diagnoses and/or substance abuse issues) exhibiting acute agitation, aggression and/or violent behaviours in acute hospital care, psychiatric or general hospital intensive care, emergency departments, or pre-hospital services; (ii) articles of any research design were included in the parent dataset, with only systematic reviews and randomised controlled trials addressing the effectiveness and safety of chemical restraint included in this analysis.

Studies were excluded if they were: (i) published prior to 1996; (ii) short conference abstracts or non-peer-reviewed literature; or (iii) unavailable in English. Studies were also excluded if they reported on populations with specific contextual and/or health issues for which general chemical restraint recommendations may not be relevant (children or adolescents < 18 years; patients with dementia, neurological diseases, or surgical and medical conditions; or patients in prison settings). Literature was also excluded if it was reported that subjects consented to administration of medications, or where medications were delivered specifically to treat agitation or aggression.

Reference lists of sourced articles were examined, and the primary literature contained within all included systematic reviews was scrutinised for RCTs not identified in the search. Studies were assessed for risk of bias by two independent reviewers using the Joanna Briggs Institute (JBI) RCT quality checklist (2014). The checklist contains 13 items for assessing risk of bias in the studies, assessed by answering yes (Y), no (No) or unsure (U) against each item. The number of compliant items is summed, and the total reported. JBI do not provide guidance on an appropriate score to determine degrees of risk of bias, with varying approaches used by researchers (see e.g., Belay et al. 2019; Starbird et al. 2019). In this study we determined a cut off score for low risk of bias as papers with 10+ (>75%) compliant items. Non-compliant items were described.

Data extraction and synthesis

Data was extracted (as relevant) on study design, country of research, participant numbers and characteristics, site of research, year(s) in which research occurred, study purpose, definition of chemical restraint (if provided), reasons for chemical restraint, non-chemical constraint comparators, methods of administration, dosages and timing of intervention delivery, measures of outcome, summary information on baseline and post-test outcome measures, information on homogeneity at baseline between study arms, summary measures of effectiveness, and adverse events. The intention was to undertake a meta-analysis if two or more studies reported on similar patient populations, interventions, and outcomes. However, there was no consistency in use of outcome measures. Moreover, even if the same outcome measure was reported in two or more studies, it was rarely reported using the same summary statistics, or measured over the same time frame. This precluded meta-analysis and effectiveness of interventions is therefore reported descriptively.

Results

The literature inclusion flowchart for the larger systematic review is reported in Figure 1, where the different types of study designs are indicated by the NHMRC hierarchy of evidence (Merlin et al 2009). There were 462 potentially-relevant articles of all research hierarchies, including 33 systematic reviews (SRs) of primary research, and one umbrella review of four SRs. There were 19 SRs that synthesised evidence for different chemical restraint interventions, whose reference lists were searched for additional RCTs. In sum, 21 relevant RCTs were identified. Details on the excluded studies are from the authors by request.

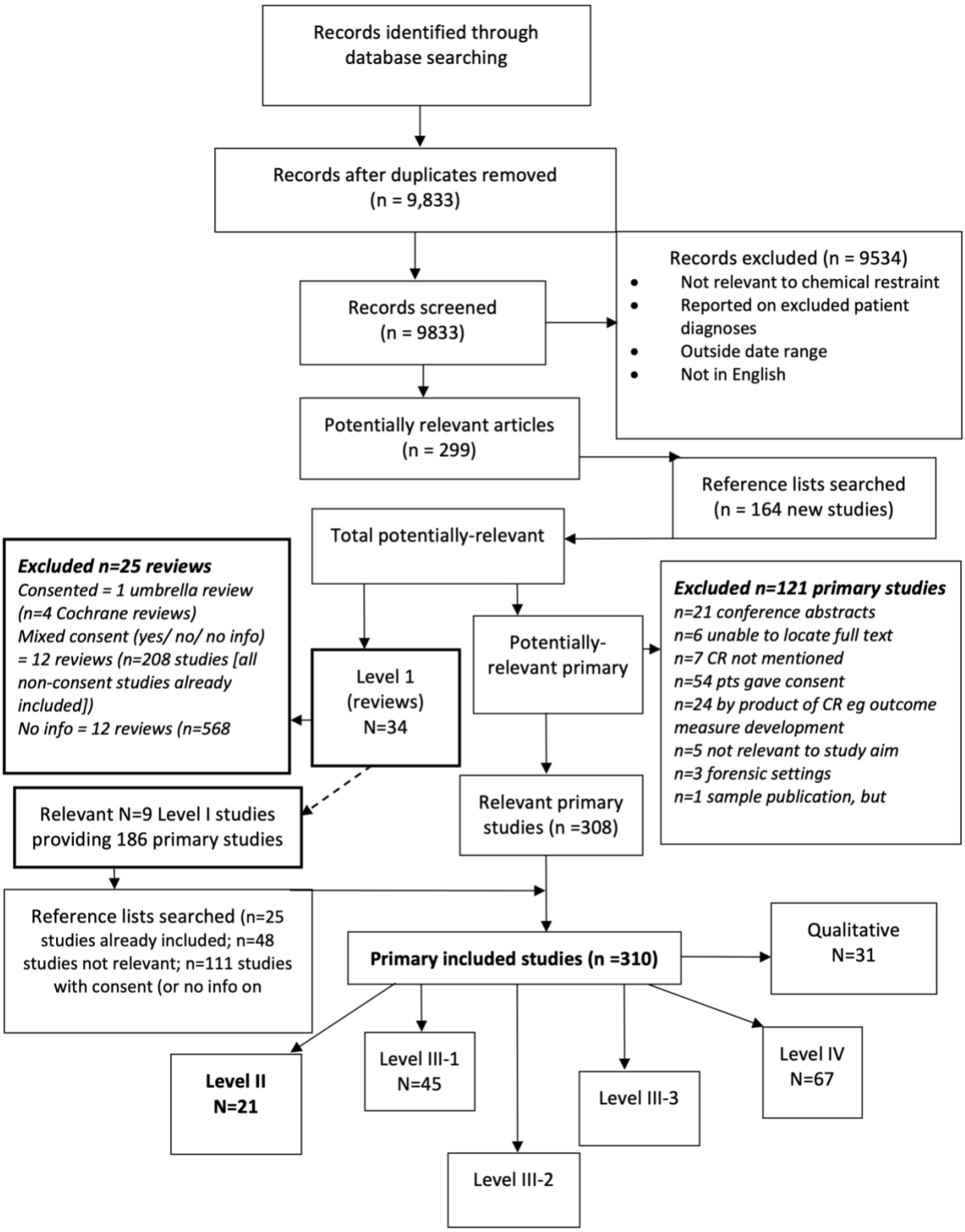

Figure 1. PRISMA flow diagram for the larger systematic review (Level II=RCTs; Level III-1=prospective observational comparative studies; Level III-2=cross-sectional observational studies; Level III-3=retrospective studies; Level IV=opinion, case studies; RCT inclusions in bold)

The 21 included RCTs were conducted from 1997 to 2017 in nine countries: USA (n = 5), Australia (n = 5), Brazil (n = 4), India (n = 2), and one each from the United Kingdom, Iran, Israel, the Netherlands, and Switzerland. Study data was on average 2.8 years old (Standard Deviation (SD) 2.1) at time of publication (calculated as the difference from publication date to date of data collection, as cited in each paper). The studies reported, in total, on 51 treatment arms testing 3,788 patients. One study (Yap et al. 2017) reported on a subset of 92 patients, which had already been included in the Taylor et al. (2016) dataset of 361 patients; thus, the Yap et al. (2017) sample was not counted twice.

Study settings included pre-hospital (n = 2), psychiatric emergency departments (n = 8), general hospital emergency departments (EDs) (n = 8), psychiatric intensive care units (PICU) (n = 2), and acute psychiatric units (n = 1). The psychiatric conditions underlying agitated and aggressive behaviours were variably described. The lack of a diagnoses in EDs was linked to staff capacity in that setting to assign a diagnosis. Control of symptoms was the primary aim in EDs in order to make decisions about whether to hospitalise people for diagnosis and treatment after aggression had subsided.

There was low risk of bias in 19 RCTs (scoring at least 75% of possible total 13 items). The remaining two studies had moderate to high risk of bias with scores of 9/13 (Georgieva et al. (2013), acute psychiatric ward, n = 659 patients) and 8/13 (Isenberg & Jacobs (2015), pre-hospital, n = 10 patients). The RCT total quality scores (out of 13) are reported in Table 1. The areas of least certainty identified during critical appraisal were how randomisation to treatment groups had occurred, and whether (or how) patients and clinicians were blinded to treatment administration. Only five studies (Asadollahi et al. 2015; Calver et al. 2015; Isbister et al. 2010; Knott et al. 2006; Taylor et al. 2016) reported on the reference population as well as the number enrolled in the study; all others reported only on the number enrolled in the study. There were few drop outs because of study purpose and the timing of outcome assessment (outlined in Table 2); however approximately 6% overall was lost from the studies because of errors in randomisation, being found *post hoc* to be ineligible for the study, or because patients had been previously enrolled into another longer term trial and were thus on medications which made them ineligible for the chemical restraint trial. There was no evidence in any RCT that patients had been involved in study design or reporting. The included RCTs are summarised in Table 1.

Table 1. Summary of RCTs (organised by setting)

Author (year) Country	Site	Analysed sample	Method	Outcome measure	Quality	Purpose	Results
Rosen et al. (1997) USA	Pre-hospital	46 combative patients with head trauma, medical conditions or psychiatric illness	IV	Agitation scale	13/13	Evaluate the effect of droperidol in managing combative patients (cf saline placebo) in pre-hospital situations	IV administration of 2-4mg droperidol was a significantly better management option than saline placebo for combative behaviours
Isenberg & Jacobs (2015) USA	Pre-hospital	10 violent agitated patients	IM	Adverse physiological events Richmond Agitation & Sedation Scale	8/13	Evaluate efficacy of midazolam or haloperidol in sedating agitated pts	IM administration of midazolam and haloperidol is equally effective for sedating an agitated patient in the prehospital setting. Midazolam appears to have a faster onset of action, as evidenced by the shorter time required to achieve a RASS score of less than +1 in the patients who received midazolam. Haloperidol offers an alternative option for the sedation of an agitated patient

Foster et al. (1997) USA	Psychiatric ED	37 acutely agitated patients	IM or oral	Brief Psychiatric Rating Scale (BPRS) Clinical Global Impressions (CGI) Length of Stay (LoS) ≥2/52	12/13	Compare neuroleptics with benzodiazepine for RT (administered orally or IM every 30 mins for 4 hours)	Oral or IM administrations of haloperidol or lorazepam had similar outcomes on producing rapid tranquilisation. However lorazepam had less likelihood of producing side effects
Bieniek et al. (1998) USA	Psychiatric ED	20 acutely agitated patients	IM	CGI Overt Aggression Scale (OAS) VAS for agitation	13/13	Compare utility of lorazepam with combined haloperidol and lorazepam, to control acutely agitated behaviour	IM lorazepam combined with haloperidol was significantly better at calming aggression and agitation, than IM lorazepam alone
Alexander et al. (2004) India	Psychiatric ED	200 acutely agitated and violent patients	IM	Adverse physiological events Akathesia scale CGI-Improvement CGI-Severity	12/13	Compare interventions for controlling agitation and violence in people with serious psychiatric disorders	IM haloperidol combined with promethazine acted more quickly, but no more effectively, than IM lorazepam in inducing calm or sleep for acutely agitated and violent patients

				Simpson Argus Scale Time to calm/ sedation			
Baldacara et al. (2011) Brazil	Psychiatric ED	150 agitated and aggressive patients with psychotic or bipolar disorders	IM	OAS Overt Agitation Severity Scale (OASS) Ramsey Sedation Scale (RSS)	13/13	Compare effectiveness of olanzapine, ziprasidone, or haloperidol (combined with midazolam or promethazine) in calming agitation and aggression	IM olanzapine, ziprasidone and haloperidol (alone, or combined with promethazine, or midazolam) were all effective in reducing agitation and aggression within 12 hours. However haloperidol plus midazolam had the worst results in terms of unalleviated aggression, and the highest percentage of people with adverse events
Huf et al. (2007) Brazil	Psychiatric ED	316 acutely agitated patients	IM	Adverse physiological events LoS ≥2/52 Time to sedation	13/13	Compare speed of tranquilisation and safety of haloperidol administered alone or with promethazine	IM haloperidol combined with promethazine, was significantly more effective than IM haloperidol alone in producing RT within 20 mins, whilst minimizing side effects

				Use of additional sedation			
Mantovani et al. (2013) Brazil	Psychiatric ED	100 patients with psychomotor agitation	IM	Agitation-Calmness Evaluating Scale (ACES) Adverse physiological events Positive & Negative Symptoms Scale (PANSS)	13/13	Test efficacy and safety of four IM low dose antipsychotics for RT of psychomotor agitation	Low dose IM haloperidol combined with midazolam, and low dose IM olanzapine, were more effective than low dose IM haloperidol & promethazine or low dose IM ziprasidone, in reducing agitation without incurring adverse events for people with acute psychomotor agitation
Raveendran et al. (2007) India	Psychiatric ED	300 patients with agitation or aggression from mental illness	IM	% sedated in set time period Adverse physiological events Further coercive incidents Further violent episodes	13/13	Examine IM haloperidol & promethazine vs olanzapine for RT	IM haloperidol combined with promethazine and IM olanzapine were both effective than in producing RT within 15 mins, and neither incurred notable adverse events. More people treated with olanzapine needed additional sedation within four hours to maintain tranquilisation

				Use of additional sedation			
TREC (2003) Brazil	Psychiatric ED	301 patients with aggression or agitation	IM	% sedated in set time period Adverse physiological events Further coercive incidents Further violent episodes LoS ≥2/52 Use of additional sedation	13/13	Compare IM midazolam or IM haloperidol & promethazine for RT	Both IM haloperidol & lorazepam, and IM midazolam, were effective in producing rapid tranquilisation, however midazolam affected significantly more patients within 20 mins than haloperidol-lorazepam. Adverse events were rare for both treatment administrations
Asadollahi et al. (2015) Iran	ED	160 acutely agitated or violent patients	IV vs IM	Agitated Behavior Scale (ABS) ACES PANNS-Excited Component	10/13	Compare efficacy of valproate versus haloperidol in decreasing agitation level of affected pts	Both IM haloperidol and IV sodium valproate were effective in controlling behavior within 30 minutes. IM haloperidol acted faster than IV sodium valproate,

							however IV sodium valproate was safer
Chan et al. (2013) Australia	ED	336 agitated patients	IV	% sedated in set time period Adverse physiological events Sedation scale Time to calm/ sedation	13/13	determine efficacy and safety of droperidol or olanzapine as adjunct to midazolam	IV droperidol and IV olanzapine as adjuncts to IV midazolam were both more effective, and decreased the time to adequate sedation, compared with IV midazolam alone
Knott et al. (2006) Australia	ED	153 acutely agitated patients	IV	% sedated in set time period Adverse physiological events Further violent episodes N. drugs adms to calm	13/13	Compare midazolam and droperidol for time to sedation and adverse events	IV midazolam and IM droperidol were equally effective in achieving sedation in 10 mins. More patients receiving midazolam were sedated within the first five minutes but more of these patients needed airways support, as well as further sedation at 60 mins (Knott 2006). IV droperidol may be a safer option

Isbister et al. (2010) Australia	ED	91 patients with violent behaviours	IM	% sedated in set time period Akathesia scale Further violent episodes Patient injuries Simpson-Argus Scale Staff injuries Time to calm/ sedation Use of additional sedation	13/13	Determine whether droperidol, midazolam or a combination is more effective for sedation	IM droperidol is a safer and quicker option to sedate violent and aggressive patients than IM midazolam. There was no additional benefit in using the combination IM administration of droperidol and midazolam
Martel et al. (2005) USA	ED	144 acutely agitated patients	IM	Altered Mental State (AMS) Oxygen saturations Physiology	13/13	Compare efficacy of sedation, need for rescue sedation, respiratory depression, complications of drugs to reduce acute undifferentiated agitation	IM midazolam and droperidol were faster acting and more effective than ziprasidone. Fewer patients given IM droperidol or IM ziprasidone required rescue medication to achieve adequate sedation, compared with midazolam. Ziprasidone delayed

							onset of adequate sedation the most. Respiratory distress was experienced by significantly more IM midazolam patients than the patients given the other drugs
Taylor et al. (2016) UK	ED	361 acutely agitated patients	IV	% sedated in set time period Adverse physiological events Time to calm/ sedation	13/13	Determine most efficacious of IV bolus for sedation, of midazolam and droperidol, OR droperidol OR olanzapine	IV administration of combined midazolam and droperidol produced significantly greater numbers of patients who were sedated within 10 minutes, compared with IV droperidol alone, or IV olanzopine alone. Considering the patients who were not adequately sedated in 10 minutes, the combined drug administration also required fewer additional doses to achieve sedation
Yap et al. (2017) Australia	Psychiatric Intensive	92 agitated/ aggressive patients on meth-amphetamines	IV	% sedated in set time period Adverse physiological events	13/13	Examine the efficacy and safety of midazolam-droperidol versus droperidol, and midazolam-droperidol versus olanzapine for	Subset of Taylor 2016: IV administration of combined midazolam and droperidol produced significantly greater

	Care Unit (PICU)			Time to calm/ sedation		methamphetamine-related acute agitation.	numbers of patients who were sedated within 10 minutes, compared with IV droperidol alone, or IV olanzopine alone. Considering the patients who were not adequately sedated in 10 minutes, the combined drug administration also required fewer additional doses to achieve sedation
Calver et al. (2015) Australia	PICU	206 patients with aggressive behaviours	IM	% sedated in set time period Adverse physiological events Akathesia scale Patient injuries Simpson-Argus Scale Staff injuries	13/13	Compare IM droperidol with IM haloperidol for effectiveness and safety for sedation for acute behavioural disturbance	IV administration of IM haloperidol (10mg) or IM droperidol (10mg) had similar effects in sedating patients with acute behavioural disorders, however the haloperidol arm was safer

				Time to calm/ sedation Use of additional sedation			
Georgieva et al. (2013) Holland	Acute psychiatric ward	520 agitated and aggressive patients	Oral (if refused, IM)	PANNS	9/13	Evaluate whether seclusion or chemical restraints reduced aggression, where IM administration of chemical restraint was first choice of Rx	First choice involuntary use of IM medication, compared with first choice seclusion, did not reduce coercive events or use of seclusion to manage patients with aggressive or violent behaviours
Walther et al. (2014) Switzerland	Acute psychiatric ward	30 severely agitated patients with schizophrenia spectrum disorders	Oral	Time to calm/ sedation	10/13	Investigate efficacy of oral haloperidol, risperidone and olanzapine in reducing severe agitation over first 96 hours after admission	Effects of rapid oral tranquilisation (within two hours of first medication administration) and reduced psychotic agitation over a five day period were similar for oral haloperidol (15mg), oral olanzapine (20mg) and oral risperidone (2-6mg)
Dorevitch et al. (1999) Israel	IP	28 actively psychotic patients with acute agitation	IM	BPRS CGI	12/13	Examine the efficacy of IM flunirazepine compared with IM haloperidol to control aggression and / or agitation	IM flunitrazepam (1mg) and IM haloperidol (5mg) had similar effects on reducing aggression

	CGI-I Further coercive incidents OAS Seclusion Time to calm/ sedation	within 90 minutes of administration

Key: ED = Emergency Department; IP = inpatient; PICU=psychiatric intensive care unit; psych=psychiatric; IM=intramuscular injection; IV=intravenous administration

Effectiveness of pharmacological interventions

All included RCTs shared a common purpose to test the effectiveness of pharmacological interventions for rapid, safe chemical restraint / rapid tranquilisation for people with uncontrolled agitation, aggression, or violence, who posed a danger to themselves and/or others. In line with the inclusion criteria, all RCTs overtly reported that patients were unable to provide informed consent at the time of drug administration, and that chemical restraint was administered under duress to prevent injury to the patient or others. The rapidity of anticipated effect was highlighted by the timing of measurement of outcome.

Table 2 outlines the timing of measurement of effect over the included studies. Data was extracted from Walther et al. (2014) only for the rapid tranquilisation aspect of the study. In this study, once patients were well enough to provide informed consent, subsequent administration of medicines was for treatment, not behavioural control. Data was subsequently collected over 96 hours to assess the effectiveness of repeated sedation on symptoms of mental illness, agitation, aggression, and violence.

Table 2. Timing of measurement of effect

5-10mins	**20mins**	**30mins**	**1.5 hrs**	**2 hrs**	**3 hrs**	**4 hrs**	**12 hrs**
Rosen et al. (1997)	TREC (2003)	Asadollahi et al. (2015)	Mantovani et al. (2013)	Huf et al. (2007)	Bieniek et al. (1998)	Raveendran et al. (2007)	Baldacara et al. (2011)
Isenberg & Jacobs (2005)	Isbister et al. (2010)	Foster et al. (1997)		Martel et al. (2005)		Alexander et al. (2004)	
Knott et al. (2006)				Calver et al. (2015)			
Taylor et al. (2016)				Dorevitch et al. (1999)			
Yap et al. (2017)				Walther et al. (2014)			
Chan et al. (2013)							

Note: Georgieva et al. (2013) did not provide relevant information

Interventions

In total the 21 RCTs reported on 51 treatment arms.

The comparator arms were placebo or non-pharmacological interventions. Two studies reported on placebo arms (Rosen et al. (1997) reported using intravenous administration (IV) saline in a pre-hospital study, and Chan et al. (2013) reported on an IV saline drip in an ED study). Georgieva et al. (2013) used seclusion as a comparator.

Chemical restraint interventions: All but two studies (Georgieva et al. 2013; Rosen et al. 1997) compared two or more chemical restraint arms, largely testing equivalence hypotheses. Thirteen studies tested chemical restraint administered via intramuscular injection (IM), two studies tested chemical restraint administered in two ways (orally or IM), one study tested oral chemical restraint only, and five studies tested intravenous administration (IV). Chemical restraint (tested alone, or in combination) comprised olanzapine, haloperidol, droperidol, risperidol, flunitrazepam, midazolam, ziprasidone, sodium valproate, and lorazepam. The most commonly-tested individual chemical restraints were droperidol and haloperidol (eight study arms each), followed by olanzapine, or haloperidol combined with promethazine (seven study arms each). There was limited comparability between studies in chemical restraint choice, dose, method of administration, or timing of repeat administrations. Table 3 reports on the study interventions (chemical restraint, dosage, method of administration), and the follow-up period for measurement of effect.

Table 3. Study interventions and follow-up

	Alexander	Asadollahi	Baldacara	Bieniek	Calver	Chan	Dorevitch	Foster	Georgieva	Huf	Isbister	Isenberg	Knott	Mantovani	Martel	Raveendran	Rosen	Taylor	TREC	Walther	Yap
Method of administration	IM	IM	IM	IM	IM	IV	IM	IM or oral	Oral (if refused, IM)	IM	IM	IM	IV	IM	IM	IM	IV	IV	IM	Oral	IV
Follow-up period	*up to 4 hrs*	*30 mins*	*up to 12 hrs*	*3 hrs*	*2 hrs*		*2 hrs*	*every 30 min for 4 hrs*	*Not stated*	*120 min*	*Time to calm*	*every 5 min*	*5 & 10 min*	*90 min*	*up to 120 min*	*up to 240 min*	*10 min*	*10 min*	*20 min*	*2hrs*	*10 min*
Olanzapine			10 mg			5mg								10 mg		10 mg		10mg		20mg daily	10mg
Droperidol					10 mg	5mg					10mg		5mg every 5 mins		5mg		5mg	10mg			10mg
Risperidol																				2-6mg daily	
Haloperidol		5mg	5 mg		10 mg		5mg	5mg		5mg		5mg if < 65 yrs, 2.5 mg if 65+ yrs								15mg daily	

Haloperidol & Lorazapam		5mg & 2mg												
Haloperidol & Midazolam		5 mg & 15 mg									2.5 mg & 7.5 mg			
Haloperidol & Promethazine	10 mg & 25-50 mg mix	5 mg & 50 mg			Oral: 10mg & 100mg OR if IM: 5mg & 50mg	5mg & up to 50 mg					2.5 mg & 25 mg	10 mg & 25 or 50 mg	5-10 mg & 50 mg	
Flunitrazepam				1 mg										
Midazolam			2.5mg for<50 kgs, 5mg for>50 kgs				10mg	5mg if < 65 yrs, 2.5 mg if 65+ yrs	5 mg every 5 mins	5mg			15 mg	
Droperidol & Midazolam							50mg & 5mg					5mg & 5mg		5mg & 5mg
Lorazepam	4mg	2mg		2mg	Oral: 2.5-5mg OR IM: 2.5-5mg									

Ziprasidone		20 mg				10 mg	20mg
Sodium Valproate	20mg/kg						
Saline placebo			Not stated				5mg
Seclusion				Isolation			

Key: IM=intramuscular; IV=intravenous administration; hrs=hours; admins=administrations

Outcome measures: Outcomes varied, and included subjective clinician measures of aggression and agitation, aggressive incidents or injuries, objective measures of sedation, adverse events, physiological measures, and service delivery measures. The need for additional sedation to achieve the chosen outcome measure was collected and reported in 20/21 RCTs. Adverse events (AE) were also reported in 20/21 studies, with 19 studies describing the AEs collected. There was no standard way of measuring or reporting AEs (see Table 4). The frequency of AE differed between studies (ranging from 0% (Bieniek et al. 1998, Dorevitch et al. 1999, Isenberg & Jacobs 2015, Rosen et al. 1997) to 38.1% (Asodollahi et al. 2015)).

Table 4. Reporting need for additional sedation, description of adverse events (AE), and percentage of total subjects reporting AE

Setting	Author, Year	Additional sedation	Adverse events (AE) description	% AE in total sample
Pre-hospital	Rosen 1997	Y	Not described	0
Pre-hospital	Isenberg 2015	Y	Need for intubation Time between the start of the Q wave and the end of the T wave in the heart's electrical cycle (QT interval) greater than 500 milliseconds Cardiac arrhythmias Time until the patient was awake for discharge	0
Psych ED	Foster 1997	Y	Blood pressure changes Extreme sedation	13.5
Psych ED	Bieniek 1998	Y	Adverse events not specified	0
Psych ED	TREC Group 2003	Y	Severe adverse events not specified	0.8
Psych ED	Alexander 2004	Y	Simpson-Angus extrapyramidal side effects rating scale Barnes Akathisia Scale	1.0

			Other adverse effects (esp dystonia)	
Psych ED	Huf 2007	Y	As defined by the frontline clinicians	3.8
Psych ED	Raveendran 2007	Y	Simpson–Angus extrapyramidal side effects rating scale, Barnes akathisia scale, dystonia	1.3
Psych ED	Baldacara 2011	Y	Akathisia, dystonic reactions, amnesia, respiratory depression, paradoxical reactions and confusion and neuroleptic malignant syndrome	8.7
Psych ED	Mantovani 2013	Y	Ugvalg Klinisk Undersgelser Side Effects Scale	31.0
ED	Martel 2005	Y	hypotension, seizures, dystonia, akathisia, dysrhythmia (QTprolongation and torsades de pointes)	14.6
ED	Knott 2006	Y	Active airway management (eg, jaw thrust, oral or nasal airway), assistance with ventilation (eg, bag and mask), oxygen required for documented desaturation below 90%, systolic blood pressure less than 90 mm Hg, documented arrhythmia, dystonic reaction, seizure, vomiting, or aspiration of stomach contents.	13.7
ED	Isbister 2010	Y	respiratory depression requiring intubation, arrhythmias including torsades des pointes, extrapyramidal adverse effects requiring administration of benztropine, anaphylaxis, or any other major serious unexpected effect	13.2
ED	Chan 2013	Y	Airway obstruction, Oxygen desaturation, Hypotension§ Arrhythmia Decreased Glasgow Coma Scale	11.6

ED	Asodollahi 2015	Y	Cardiac problems, intense sedative effect, extrapyramidal symptoms, (EPS) (dystonia and akathisia), and anticholinergic side effects deep sedation	38.1
ED	Taylor 2016	Y	Airway compromise, oxygen desaturation, hypotension, extrapyramidal events	19.5
ED	Yap 2017++	Y	Airway compromise, oxygen desaturation, hypotension, extrapyramidal events	16.3
PICU	Dorevitch 1999	Y	acute extrapyramidal events	0
PICU	Georgieva et al. (2013)	Not reported	Not reported	
PICU	Walther 2014	Y	Motor adverse events measured by BARS, SAS and AIMS	Not reported
PICU	Calver 2015	Y	Respiratory rate less than 12 breaths/min; systolic blood pressure less than 90mmHg; heart rate less than 60 beats/min; oxygen saturation less than 90%; presence of extrapyramidal side-effects	3.1

++subset of Taylor (2016)

While the general purpose of all RCTs was to manage uncontrolled agitation, aggression, and/or violent behaviours in crisis situations (See Table 1), end-points were variably expressed as calm, sedation, or a specified amount of change on a subjective aggression measure. Calm and sedation were variably assessed as different states of arousability, or as a category in a subjective sedation outcome measure. Considering outcome measures associated with sedation, the most common measure (in 11 studies) was ‘time to calm’ although the state of ‘calm’ was variably described, and the next most common measure was the percentage of people sedated within a time period (usually 5 or 10 minutes; n = 8 studies).

Synthesis of results

The overall results of the intervention arms are summarised in Table 5, in terms of comparative effectiveness between intervention arms (irrespective of the measure of outcome) and (if relevant) speed of effectiveness. This table also reports on AEs. Blank cells indicate non-reporting of AEs in separate study arms. The Georgieva et al. (2013) study was not included in Table 5 because it did not measure effect or speed of treatment, or AEs.

Table 5. Synthesis of results

Setting	Author (year)	Measure of control of agitation, aggression or violent behaviours		Minimise adverse events
Pre-hospital	Rosen et al. (1997)	Effect	**IV 2-4mg DPD** ↑ saline	
	Isenberg & Jacobs (2015)	Time to act	**IM MDZ 5 mg ↑ IM HPL 5 mg**	**IM MDZ ↔ IM HPL**
	Isenberg & Jacobs (2015)	Time to normalise	**IM HPL ↑ IM MDZ**	
Psychiatric ED	Foster et al. (1997)	Effect	**Oral or IM 5mg HPL ↔ IM or oral 2mg LZM**	**LZP** ↑ HPL
	Bieniek et al. (1998)	Effect	**IM 5mg HPL & 2mg LZP** ↑ IM 2mg LZP	**IM HPL & LZP ↔ IM LZP**
	TREC (2003)	Speed	**IM 15mg MDZ ↑** IM 5-10mg HPL & 50mg LZP	**IM HPL & LZP ↔ IM MDZ**
	TREC (2003)	Effect	**IM 5-10mg HPL & 50mg LZP ↔ IM 15mg MDZ**	

	Alexander et al. (2004)	Effect	**IM 10mg HPL & 25-50mg PMZ ↔ IM 4mg LZP**	
	Huf et al. (2007)	Speed	**IM 5mg HPL & (up to) 50mg PMZ** ↑ IM 5mg HPL	**IM HPL & PMZ** ↑ IM HPL
	Huf et al. (2007)	Effect	**IM 5mg HPL & (up to) 50mg PMZ ↔ IM 5mg HPL**	
	Raveendran et al. (2007)	Effect	**IM 10mg HPL & 25-50mg PMZ ↔ IM 10mg OLZ**	**IM HPL & PMZ** ↑ IM OLZ
	Baldacara et al. (2011)	Effect	**IM 5mg HPL ↔ IM 5mg HPL & 50mg PMZ ↔ IM 5mg HPL & 15mg MDZ ↔ IM 10mg OLZ ↔ IM 20mg ZSD**	**(IM HPL ↔ IM HPL & PMZ ↔ IM OLZ ↔ IM ZSD)** ↑ IM HPL & MDZ
	Mantovani et al. (2013)	Effect	**(IM 2.5mg HPL & 7.5mg MDZ ↔ IM 10mg OLZ)**↑ (IM 2.5mg HPL & 25mg PMZ ↔ IM 10mg ZSD)	(**IM HPL & MDZ ↔ IM OLZ**) ↑ (IM HPL & PMZ ↔ IM ZSD)

	Richards et al. (1998)	Time to act	**IV 2.5-5mg DPD** ↑ IV 2.5-5mg HPL	
ED	Chan et al. (2013)	Time to act	**(IV DRP 5mg & MDZ 2.5mg ↔ IV OLZ 5mg & MDZ 2.5 mg)**↑IV MDZ 2.5mg& saline	IM DRD 5mg & MDZ 2.5mg ↔ IM OLZ 5mg & MDZ 2.5 mg ↔ MDZ 2.5mg
	Martel et al. (2005)	Time to act	**(IM 5mg MDZ ↔ IM 5mg DPD)** ↑IM 20mg ZSD	**(IM DPD ↔IM ZSD)** ↑IM MDZ
	Martel et al. (2005)	Effect	**(IM 5mg MDZ ↔ IM 5mg DPD)** ↑IM 20mg ZSD	
	Knott et al. (2006)	Time to act	**IV 5mg/5mins MDZ ↔ IV 5mg/5mins DPD**	**IV DPD** ↑IV MDZ
	Knott et al. (2006)	Effect	**IV 5mg/5mins MDZ ↔ IV 5mg/5mins DPD**	
	Isbister et al. (2010)	Time to act	**IM 10mg DPD** ↑IM 10mg MDZ alone or IM 5mg DPD & 5mg MDZ	**IM DPD** ↑IM MDZ alone or IM PD & MDZ

	Isbister et al. (2010)	Effect	**IM 10mg DPD** ↑IM 10mg MDZ alone or IM 5mg DPD & 5mg MDZ	
	Asadollahi et al. (2015)	Time to act	**IM 5mg HPD** ↑IV 20mg/kg NaV	**IV NaV ↑** IM HPD
	Asadollahi et al. (2015)	Effect	**IM 5mg HPD** ↔IV 20mg/kg NaV	
	Taylor et al. (2016(	Time to act	**IV 5mg MDZ & 5mg DPD** ↑ (IV 10mg DPD or IV 10mg OLZ)	**IV MDZ & DPD** ↑ (IV DPD or IV OLZ)
	Taylor et al. (2016)	Effect	**IV 5mg MDZ & 5mg DPD** ↑ (IV 10mg DPD or IV 10mg OLZ)	
Psychiatric Intensive Care Unit (PICU)	Yap et al. (2017)	Time to act	**IV 5mg MDZ & 5mg DPD** ↑ (IV 10mg DPD or IV 10mg OLZ)	**IV MDZ & DPD** ↑ (IV DPD or IV OLZ)
	Yap et al. (2017)	Effect	**IV 5mg MDZ & 5mg DPD** ↑ (IV 10mg DPD or IV 10mg OLZ)	

	Calver et al. (2015)	Time to act	**IM 10mg HPL** ↔ **IM 10mg DPD**	**IM HPL** ↑ IM DPD
	Calver et al. (2015)	Effect	**IM 10mg HPL** ↔ **IM 10mg DPD**	
Acute psychiatric ward	Walther et al. (2014)	Time to act	**oral 15mg HPL** ↔ **oral 20mg OLZ** ↔ **oral 2-6mg RPD**	
	Walther et al. (2014)	Effect	**oral 15mg HPL** ↔ **oral 20mg OLZ** ↔ **oral 2-6mg RPD**	
	Dorevitch et al. (1999)	Time to act	**IM 1mg FZM** ↔ **IM 5mg HPL**	
	Dorevitch et al. (1999)	Effect	**IM 1mg FZM** ↔ **IM 5mg HPL**	

Key: The bolded drugs highlight significant within arm differences, and all treatments within brackets produced similar outcomes. The symbol ↑ indicates a significantly better treatment outcome (effect or speed of effect), and the symbol ↔ indicates is equivalence.

The drug names are shortened haloperidol (HPL); olanzapine (OLZ); droperidol (DPD); promethazine (PMZ); lorazepam (LZP); ziprasidone (ZSD); midazolam (MDZ); risperidone (RPD); sodium valproate (NaV); flunitrazepam (FZM).

Considering the many methods of chemical restraint, haloperidol was the most common choice (alone or combined with other drugs). Chemical restraint of any type can be safely administered by IV with a significant calming effect observed within 10 mins of drug administration. Oral and IV drug administrations of chemical restraint appear to be as effective as IM drug delivery. Only two studies compared chemical restraint with non-pharmacological interventions (saline (Rosen 1997); seclusion Georgieva (2013)). Because of the equivocality comparisons in the remaining studies, it was not possible to determine whether one drug was more effective than any other. Midazolam appeared to act more quickly than any other drug to control symptoms, but its effect was shorter lasting (e.g. 30 minutes). Midazolam also appears to incur more adverse events than other drugs (such as heavy sedation, reduced arousability, or respiratory depression). There was inconclusive benefit of combining drugs to enhance speed or size of effect on agitation, aggression, or violence, although the combination of midazolam and droperidol was reported as more effective in terms of rapid sedation for patients with methamphetamine-related acute agitation, than droperidol or olanzapine alone (Yap et al. 2017).

Discussion

This paper provides the first systematic review of randomised controlled trials (RCTs) reporting on any form of chemical restraint, for non-consenting people with uncontrolled aggression, violence or agitation from psychiatric disorders and/or substance abuse issues. It provides the first comprehensive guidance that we are aware of, to front line clinicians regarding choice of drug for rapid tranquilisation. The need to maintain safety for all concerned when caring for people with behaviours of concern, such as aggression or agitation that may lead to harm, is of foremost concern for health professionals. This systematic review of the effectiveness and safety of chemical restraint details findings from 21 RCTs designed specifically to test the efficacy of chemical restraint in acute psychiatric circumstances. While the trials demonstrate that the drugs tested (alone or in combination) generally rapidly reduce the symptoms of concern, this review of 22 years of research highlights the ongoing lack of consensus regarding best practice.

Lack of clarity in outcome measures regarding the endpoint of treatment made it difficult to combine findings from the RCTs. For instance, 11 papers reported on objective measures of success such as time to calm or sedation, and eight papers reported on the percentage of patients achieving calm or sedation within a specific time period. However, calm is a different state to sedation, and occurs prior to sedation, and Garriga et al. (2016)

recommend that chemical restraint ideally should calm and not over sedate. The majority of papers (15/21) reflected pre-hospital and emergency department settings, and not surprisingly, these papers focused on time to control symptoms or the percentage of patients whose aggression, agitation, or violence was controlled within specific time periods (5-10 minutes). Given chemical restraint is administered *"with the purpose of quick calming or sedation, diminution of symptoms, and/or to decrease the likelihood of harm to self or others"* (Battagila et al. 2003, p.192), these outcomes appeared to be more appropriate and useful for frontline clinicians than was available from subjective outcome measures.

Despite the range of outcome measures used, and the range of drugs, dosages, and methods of administration, control over aggression, agitation, or violence can be gained quickly once drugs are administered. The heterogeneity of interventions and outcome measures precluded meta-analysis, however it appeared that haloperidol or droperidol (alone or in combination with other drugs) were common, safe, and effective choices compared with other options.

From the included studies, it was not possible to establish the most effective or safe drug (or dose of drug), or administration route, for chemical restraint. All but two of the RCTs reported on equivocality trials of different types, combinations and/or doses of drugs, and thus could only indicate whether one intervention improved the chosen outcome measures compared to others. Of the two studies that compared chemical restraint with non-pharmacological interventions, chemical restraint appeared to be more effective in terms of speed and reduction of symptoms. The common finding of adverse events for most forms of chemical restraint highlights the importance that chemical restraint be used as a measure of last resort in managing behaviours of concern (Garriga et al. 2016). This supports the need for close monitoring of chemically restrained patients. The medical monitoring of patients in EDs is evident in RCTs compared with recent evidence reporting little documentation of side effect monitoring in adult psychiatric inpatient units (Hu et al. 2019).

For a clearer picture to be developed of best practice chemical restraint administration, it seems that agreement should be sought on standard protocols for drug choice, dose, and method of administration for crisis-management of challenging behaviours, as well as a standard battery of outcome measures. Further, the individual experience of any form of restraint is well recognised as traumatising and anti-therapeutic (Brophy et al. 2016). Research undertaken by Georgieva et al. (2012) found that patient preferences in regard to different forms of restraint were defined by previous experiences; those who had not been

previously restrained and those that had experienced seclusion and chemical restraint together preferred to be medicated in an emergency. Patient preference regarding various forms of restraint is thus an important consideration to reduce the trauma experienced and preferences could be indicated through safety plans and advanced directives. However, this may be hard to operationalise in emergency situations where patients may be at risk of harm to self or others.

As with all systematic reviews of the literature, while we attempted to apply as comprehensive a search strategy as possible, there remains the potential that relevant RCTs were not identified. Moreover, the exclusion of unpublished literature potentially introduced bias by excluding potentially relevant studies. However, we believe that at this point in time we have produced the most comprehensive compilation of literature in this area, sufficient to provide guidance to front line clinicians when making choices about chemical restraint options.

Conclusion

Our review demonstrates sustained interest over 22 years in the best ways to crisis manage psychiatric patients with challenging behaviours presenting to healthcare settings, when non-consenting chemical restraint is indicated. While there is a sizeable, good quality body of RCT evidence regarding chemical restraint practices from around the world, the interventions, outcome measures, and findings are heterogenous and preclude more than simple description. On the current evidence base from RCTs, frontline clinicians could be advised to use haloperidol (alone or in combination with lorazepam or midazolam) delivered via IV, oral or IM methods, to safely, speedily, and effectively control agitated, aggressive, and violent behaviours.

Relevance for clinical practice

Use of chemical restraint as a last resort intervention can be required to maintain the safety of patients and staff. Side effects monitoring by nurses and other clinical staff and physical observations and documentation are vital to ensure the health status of patients who have been chemically restrained. Clinicians need to be up to date about the latest evidence regarding medications and have specific protocols for the use of chemical restraint.

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6.8 Publication Seven

Muir-Cochrane, E., Muller, A. & Oster, C. (2021b). Chemical restraint: A qualitative synthesis review of patient and staff experiences. Nursing and Health Sciences, 23(2), 325-336.

Student's contribution to the publication: Research design 80%, data collection and analysis 70%, writing and editing 75%.

ABSTRACT

With an imperative to reduce or eliminate the use of coercive practices in mental health care it is important to understand the experience of service users and staff. This review aimed to synthesise qualitative studies, published between 1996 and 2020, reporting on mental health service users' and staff's experiences of chemical restraint. The databases PsycINFO, CINAHL, MEDLINE, Embase, Emcare, Web of Science, and Scopus were searched. Three analytic themes were identified from 17 included articles, synthesising the experiences of service users and staff. These included: 'Unjustified vs Justified', 'Violence vs Necessity', and 'Reflecting back: Positives and Negatives'. Service users viewed chemical restraint as an unjustified response to 'behaviours of concern' and experienced it as a violent act with negative outcomes, although some saw it as necessary in retrospect and preferred it to other forms of coercion. Staff generally viewed it as a justified response to 'behaviours of concern' and experienced it as appropriate within the constraints of staff numbers and limited alternatives. These findings identify nuances not apparent in the literature, which has generally conflated all forms of coercive practices.

Key words: Chemical Restraint, Forced Medication, Involuntary Medication, Qualitative Synthesis, Psychiatric, Coercive Practices

INTRODUCTION

The use of coercive practices (including seclusion and physical, mechanical and chemical restraint) is commonplace in the 'management' of 'behaviours of concern' in mental health settings, with these practices often being used in combination (Gerace & Muir-Cochrane, 2019). Behaviours of concern include extreme agitation, violence, aggression, and self-harm. It is recognised that these behaviours result from the complex interplay between the service user and the physical, social, and political environment of mental health settings (Brophy, Roper, Hamilton, Tellez, & McSherry, 2016; Gerace & Muir-Cochrane, 2019; Holmes, Rudge, Perron, & St. Pierre, 2013; McKeown et al., 2020).

There is an international imperative to reduce or eliminate the use of coercive practices, including chemical restraint, in mental health care. Chemical restraint (the use of medication as a form of restraint) occurs in various settings, including pre-hospital situations such as during ambulance call outs, as well as in emergency departments, acute psychiatric inpatient units, or psychiatric intensive care units (Isbister, 2017; Taylor et al., 2016; Wilhelm, Schacht, & Wagner, 2008; Zun, Wilson, & Nordstrom, 2017; Zun, 2018). While there has been sustained focus on other forms of restraint, chemical restraint has received less attention. This study provides new understandings for mental health nursing by synthesising the international qualitative literature on chemical restraint in mental health settings.

BACKGROUND

There is definitional opaqueness in regard to the term chemical restraint, which is often used interchangeably with terms such as rapid tranquillisation, forced sedation, and forced medication (Muir-Cochrane, 2020). It is generally understood to be the "assertive administration of emergency medication to adults with aggressive, agitated or violent behaviours with the purpose of quick calming or sedation, diminution of symptoms, and/or to decrease the likelihood of harm to self or others" (Battaglia, Lindborg, Alaka, Meehan, & Wright, 2003, p.192). Chemical restraint involves the use of two different forms of medication usually administered conjointly. First, neuroleptics for the treatment of symptoms of mental illness and second, anxiolytics to induce calm, generally given in an emergency when a person's behaviour is considered to be out of control and the person is assessed as being a harm to self or others.

Much of our understanding of chemical restraint comes from quantitative research exploring the prevalence, risk factors, effectiveness, and medication types used in chemical restraint. In a recent project covering 22 years of research into chemical restraint the authors conducted a systematic review of quantitative research (PROSPERO registration CRD 42017055258). A total of 311 primary studies were identified, conducted in acute psychiatric wards, general psychiatric wards, and general hospital emergency departments (EDs). A meta-synthesis of 48 retrospective audits found prevalence of chemical restraint to be 7.4% of service users admitted to these settings (Authors, 2020a). An analysis of 21 randomised controlled trials found that a number of drugs were used in chemical restraint, yet there was a lack of clarity in the superiority of any chemical method of restraint (Authors, 2020b). Across the body of literature, we identified tensions between using chemical restraint without

producing adverse events, decision-making about when this form of restraint was needed, and finding a balance between respecting dignity while ensuring the safety of staff and service users (Authors, 2020c). Lack of homogeneity of samples across studies was also an issue (Authors, 2020d).

An important consideration when examining coercive practices such as chemical restraint is the experience of service users and staff explored through qualitative research. Understanding these experiences would provide important evidence to inform the care of service users and provide support for nursing and other staff. Previous qualitative research on coercive practices reports overwhelmingly negative experiences of service users and staff (Cusack, McAndrew, Cusack, & Warne, 2016, Kinner et al., 2017), while being justified by staff to maintain safety for service users, staff, and visitors (Brophy et al., 2016; Gerace & Muir-Cochrane, 2019; Kinner et al., 2017). Research furthermore reports nurses feel fear and blame associated with restraint (Bigwood & Crowe, 2008, Muir-Cochrane, O'Kane & Oster, 2018).

There is a tendency for qualitative research of the experience of coercive practices to 'bundle up' these practices into one phenomenon rather than exploring these practices individually. For example, Hawsawi, Power, Zugai, and Jackson (2020) conducted a qualitative literature review of nurses' and service users' shared experiences of seclusion and restraint. Shared experiences included disruption in care and in the therapeutic relationship and shared negative effects. From nurses' perspectives, the experience encompassed an absence of less coercive alternatives while service users reported feeling overpowered, humiliated and punished.

The 'bundling' of coercive practices in the research literature is likely because in order for seclusion to occur physical restraint may be involved, thus exploring an experience of seclusion is also usually an experience of some other kind of restraint. Similarly, chemical restraint is often experienced in the context of physical and/or mechanical restraint. Yet chemical restraint is arguably a qualitatively different experience to physical restraint, mechanical restraint or seclusion, and it is therefore important to explore these experiences separately. While previous reviews of qualitative studies of seclusion have been reported (Askew, Fisher, & Beazley, 2019), no previous systematic reviews focusing on the experiences of chemical restraint were identified. To that end, we conducted a systematic review and thematic synthesis of qualitative studies to specifically explore the experiences of service users and the range of staff involved in chemical restraint. Given the continuing use

of chemical restraint it is important to understand the phenomenon of this practice in order to provide new understanding and potential implications for future care.

AIM

This qualitative synthesis review aimed to synthesise qualitative studies, published between 1996 and 2020, reporting on mental health service users' and staff's experiences of chemical restraint in mental health settings.

METHODS

This study was conducted by two researchers with an interest in exploring the practice and experiences of coercion in mental health care. The first author is a Credentialled Mental Health Nurse and senior academic. The second author is a researcher with no experience in mental health settings.

Literature search

The databases PsycINFO, CINAHL, MEDLINE, Embase, Emcare, Web of Science, and Scopus were searched from 1st January 1996 to 16th March 2020 to ensure we captured literature reflecting contemporary mental health practices. We consulted with a university liaison librarian to determine the index and MeSH search terms. These included chemical restraint, forced medication, coerced medication, intramuscular medication, rapid tranquilisation, restraint, mental health, psychiatric, emergency department, and variants of these, with further terms included that were identified in a preliminary review of the literature (see Appendix 1).

Data evaluation

Inclusion and exclusion criteria

To be eligible for inclusion the articles had to report on qualitative peer-reviewed research, published in English, capturing adult service user and/or staff experiences of chemical restraint. Settings included inpatient and outpatient mental health settings and emergency departments (EDs). As stated earlier, we defined chemical restraint as the "assertive administration of emergency medication to adults with aggressive, agitated or violent behaviours with the purpose of quick calming or sedation, diminution of symptoms, and/or to decrease the likelihood of harm to self or others" (Battagila et al. 2003, p.192). Through the

assessment process we encountered significant difficulties in determining whether or not articles were exploring chemical restraint. This was particularly the case with regard to articles using the term ‘forced medication’. This term was used to describe forced medication in the context of emergency management of ‘behaviours of concern’, forced medication for treatment purposes, with some articles including experiences of forced medication in the context of both the management of ‘behaviours of concern’ and treatment. Only those articles explicitly referencing forced medication in the context of **‘behaviours of concern’** were included, in accordance that the definition of chemical restraint we used refers to behavioural management and not treatment. Two independent reviewers screened the search results for eligibility. Reference lists of included articles were screened for any articles not identified in the literature search.

Critical appraisal

Included articles were critically appraised by two independent reviewers using the Qualitative Critical Appraisal Skills Programme (CASP) tool (Singh, 2013), with any disagreements resolved through discussion. The CASP checklist includes ten questions relating to validity, study results and applicability of results, answered ‘Yes’, ‘No’ or ‘Can’t Tell’.

Data analysis

Results of the included qualitative studies were analysed using Thomas and Harden’s (2008) Thematic Synthesis. Given the tendency to conflate multiple forms of restraint when exploring experiences of service users and staff, we began by extracting data explicitly related to chemical restraint (as per Askew et al. (2019) in their synthesis of data related to seclusion) and copying and pasting this into a word document. At times it was unclear whether the data related to chemical or other restraints. In these situations, we opted for an inclusive approach to ensure a sufficiency of data for subsequent analysis.

Data extracted from the articles was in the form of information presented in the results sections of the included articles, including participant quotes where available. Following data extraction, we synthesised the data by progressing through three stages. First, we coded the data line by line. Descriptive themes were then developed, followed by inductive thematic analysis. The authors independently coded the data and then met to discuss the development of descriptive and inductive themes.

RESULTS

Summary of included studies

The PRISMA flow chart (Figure 1) shows the results of the searching and assessment processes. Following these processes, 17 articles were included in the thematic synthesis. The majority of the articles discussed the experience of chemical restraint in the context of other forms of restraint, with only three articles focusing on chemical restraint (Mayers, Keet, Winkler, & Flisher, 2010; Vuckovich & Artinian, 2005; Yap et al., 2017).

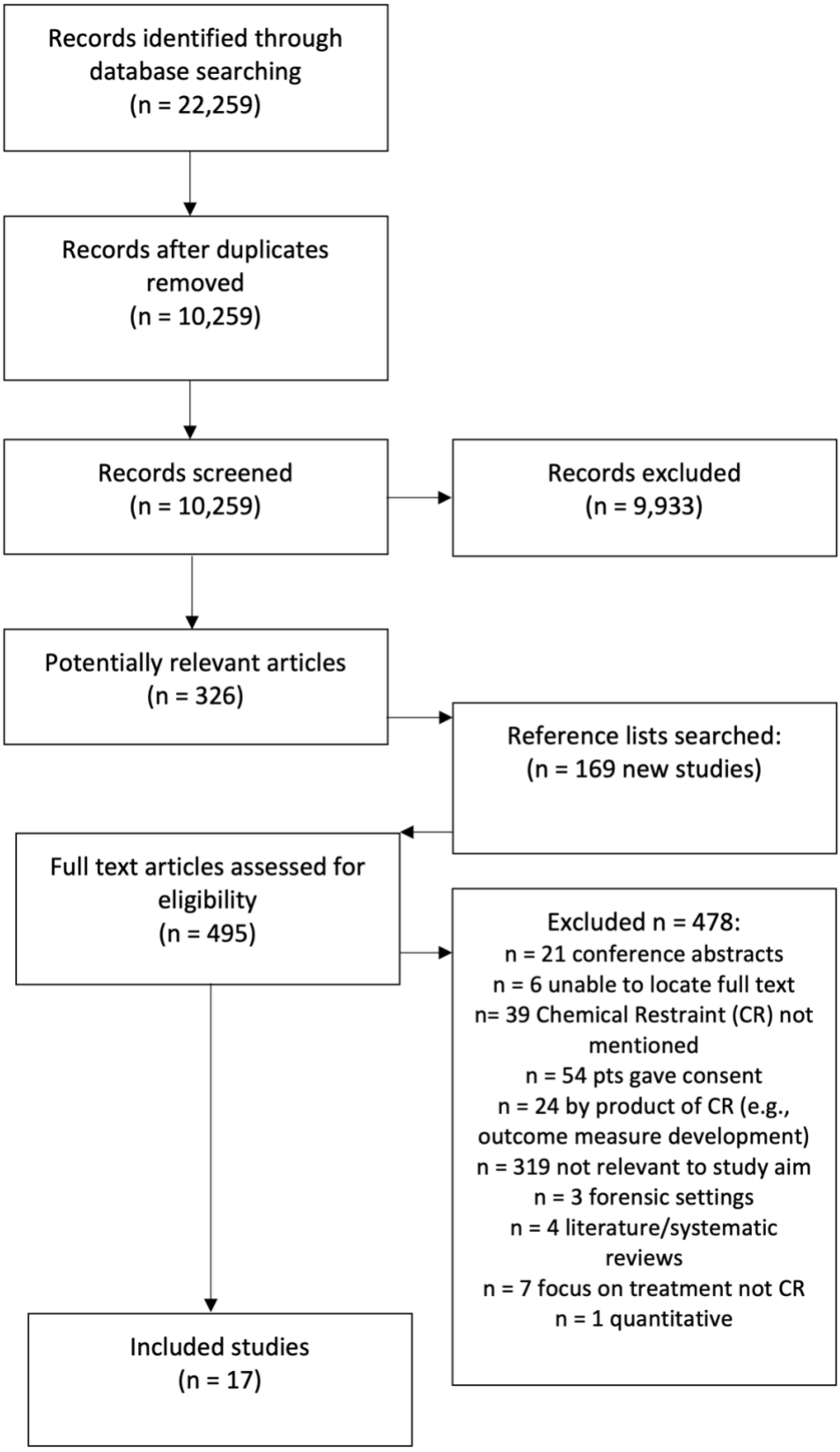

Figure 1. PRISMA diagram

Articles are summarised in Table 1. A number of terms were used to describe the phenomenon, mainly forced medication (mentioned in 7 articles) and chemical restraint (mentioned in 6 articles), as well as sedation (n=3 articles), pharmacological restraint (n=2), rapid tranquillisation (n=2), coerced medication (n=1), forced injection (n=1), and sedative medications (n=1). The majority (n=10) focused on the experience of service users followed by nurses (n=3), with the other articles focusing on the experience of physicians (n=1), ward-based clinical staff (n=1), both service users and nurses (n=1), and one article focused on the experience of security guards. Settings were mainly psychiatric inpatient units (n=15) with one study conducted in the ED and one in a psychiatric intensive care unit.

Results of the critical appraisal are presented in Table 2. The studies were generally well-conducted. One area where there was consistent lack of clarity in the presentation of results related to Question 6, 'Has the relationship between researcher and participants been adequately considered?'. Given that there are clear imbalances of power between staff and service users in the use of chemical restraint, and the potential for research participants to be less open in their responses to questions posed by researchers who are closely aligned to (or part of) the system in which chemical restraint is sanctioned, Table 1 includes a description of the relationship between researcher(s) and participant(s) for each included study. This information was either explicitly stated in the articles or extrapolated from the information provided.

Table 1. Summary of included articles

First author, Date	Country	Population	Setting	Aim	Chemical Restraint nomenclature	Relationship between researcher(s) and participants	Data collection	Method of analysis
Chambers et al., 2014	UK	19 detained service users	Psychiatric inpatient	To report on the experiences of detained mental health services users	Chemical restraint	Participants were interviewed by either a service user researcher or a clinical psychologist, all of which were members of the research team	Semi-structured interviews	Thematic analysis
Duxbury, 1999	UK	34 mental health nurses & 32 general nurses	Psychiatric inpatient & acute general setting	To explore similarities and differences in nurses' experience of service user aggression	Chemical restraint Sedation	The relationship is unclear	Critical incident technique	Content analysis

Gallop et al., 1999	Canada	10 inpatient women who have a history of childhood sexual abuse	Psychiatric inpatient	To explore the experiences of women who were hospitalised in psychiatric settings, restrained, and given forced medication	Forced medication	The relationship is unclear	Semi-structured interviews	Content analysis
Johnston & Kilty, 2016	Canada	8 security guards	Psychiatric inpatient	To explore (1) How do private security guards neutralise and perceive their role in perpetrating violence by using force and publishment against 'unruly' psychiatric service users?; (2) How do guards feel about their status in relation to other key actors in hospital settings such as nurses, service users and other guards?	Chemical restraint	The research is a former security guard and participants were the researcher's former colleagues	Semi-structured interviews	Not stated
Katsakou et al., 2012	UK	59 involuntary service users	Psychiatric inpatient	To explore involuntary service users' retrospective views on why their hospitalisation was right or wrong	Forced medication	The research team included service users (involved in the design, data	Semi-structured interviews	Grounded Theory and thematic analysis

						collection, and analysis) as well as those with a background in psychiatry, psychology, sociology and nursing		
Kuosmanen et al., 2007	Finland	51 service users	Psychiatric inpatient	To find out whether service user had experienced deprivation of their liberty during psychiatric hospitalization and to explore their views about it	Forced medication	The data were collected by four psychiatric nurses who were not working in the recruitment setting	Semi-structured interviews	Inductive content analysis
Ling et al., 2015	Canada	55 service users	Psychiatric inpatient	To examine debriefing data to understand experiences before, during, and after a restraint (seclusion, chemical, and physical) event from the	Chemical restraint	Qualitative data was obtained from a Restraint event Client Debriefing and	Debriefing data	Thematic analysis

				perspective of service users		Comments Form, completed by staff in the setting		
Looi et al., 2015	Sweden	19 service users	Psychiatric inpatient	To describe how people who self-harm perceive alternatives to coercive measures in relation to actual experiences of psychiatric care	Coerced medication	No relationship between the researchers and participants (data collected via an anonymous self-report)	Written self-report	Qualitative content analysis
Mayers et al., 2010	South Africa	16 service users	Psychiatric inpatient	To explore the perceptions and experiences of service users who have been exposed to sedation, seclusion and restraint	Sedation Chemical restraint Pharmacological restraint	The research team comprised service users, service providers and academic researchers	Focus group	Thematic analysis

Olofsson et al., 1999	Sweden	10 physicians	Psychiatric inpatient	To explore physicians' experiences with using coercion	Chemical restraint Forced injection	No relationship between the researchers (academics) and participants	Semi-structured interviews	Thematic content analysis
Price et al., 2018	UK	20 ward-based clinical staff	Psychiatric inpatient	To explore staff perspectives on factors influencing the success or failure of de-escalation techniques for the management of violence and aggression in mental health settings	Forced medication	The interviewer was a registered mental health nurse	Semi-structured interviews	Framework analysis
Rose et al., 2015	UK	37 service users; 48 nurses	Psychiatric inpatient	Experiences and perceptions of life in acute mental health settings	Forced medication Rapid tranquillisation	The service user focus groups were facilitated by people service user researchers: the nurse focus groups were facilitated by	Focus group	Thematic analysis

						nurse researchers		
Salzmann-Erikson et al., 2008	Sweden	18 nurses	Psychiatric intensive care units (PICUs)	To describe the core characteristics of a PICU in Sweden and to describe the care activities provided for service users admitted to the PICUs	Rapid tranquillisation Sedative medications	The relationship is unclear	Critical incident technique	Content analysis
Sibitz et al., 2011	Austria	15 involuntary service users	Psychiatric inpatient	To establish a typology of coercion perspectives and styles of integration into life stories	Forced medication	It is stated that the interviews were undertaken by a researcher with previous relationship to the participants	Semi-structured interviews	Thematic analysis
Vuckovich & Artinian, 2005	USA	17 psychiatric nurses	Psychiatric inpatient	To explore psychiatric nurses' experiences of administering medication to	Forced medication	The relationship is unclear	Semi-structured interviews	Grounded theory

				involuntary psychiatric service users				
Wynn, 2004	Norway	12 psychiatric inpatients	Psychiatric inpatient	To explore service users' experiences regarding restraint	Pharmacological restraint	The relationship is unclear	Semi-structured interviews	Grounded theory
Yap et al., 2017	Australia	13 service users	Emergency Department	To explore service users' perceptions and experiences of sedation during behavioural emergencies	Sedation	It is stated that the interviewer was not involved in the clinical care of participants	Semi-structured interviews	Thematic analysis

Table 2. Critical appraisal of articles

First author, Date	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**	**Q10**
Chambers et al., 2014	Y*	Y	Y	Y	Y	Y	Y	Y	Y	Y
Duxbury, 1999	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Gallop et al, 1999	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Johnston & Kilty, 2016	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Katsakou et al, 2012	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Kuosmanen et al, 2007	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ling et al, 2015	Y	Y	Y	Y	Y	N	?	Y	Y	Y

Looi et al, 2015	Y	Y	Y	Y	Y	N	Y	Y	Y	Y
Mayers et al, 2010	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Olofsson et al, 1999	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Price et al, 2018	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Rose et al, 2015	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Salzmann-Erikson et al, 2008	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Sibitz et al, 2011	Y	Y	Y	Y	Y	?	Y	Y	Y	Y

Vuckovich & Artinian, 2005	N	Y	?	?	Y	?	?	Y	Y	Y
Wynn, 2004	Y	Y	Y	Y	Y	?	Y	Y	Y	Y
Yap et al, 2017	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

*Y = Yes; N = ? = Can't Tell

Thematic synthesis

Three analytic themes were identified synthesising the experiences of service users and staff. These included: 'Unjustified vs Justified', 'Violence vs Necessity', and 'Reflecting back: Positives and Negatives'. The experiences of service users and staff in relation to these themes are discussed below. Chemical restraint was generally experienced with other forms of coercion, particularly physical restraint and sometimes mechanical restraint. Hence the data presented below often includes discussion of chemical restraint in the context of others forms of restraint. This is discussed further in study limitations. Note that while authors variously use the terms 'patient', 'consumer', or 'service user', we have used the term 'service user' throughout except when quoting directly from sources that use a different term.

Unjustified vs Justified

This theme relates to how service users and staff viewed the antecedent behaviours and the response (chemical restraint). Antecedents to chemical restraint were 'behaviours of concern', particularly violence and aggression. Service users generally reported these behaviours as an understandable response to their situation or the environment resulting from an escalation in the situation leading to chemical restraint. For example:

> One of the main reasons given by patient participants for behaviour that might elicit restraint or forced medication was that users were cooped up in the ward and not allowed to go outside and get fresh air. (Rose, Evans, Laker, & Wykes, 2015, p. 93)

> 'I was feeling really bad being in the hospital. ... she was a patient from another hospital . . . started blasting me how she didn't understand how women who had children could be suicidal. I just lost it. ... I threw my tray . . . went to my room and right away they called the doctor…' (service user quote in Gallop, McCay, Guha & Khan, 1999, p. 407)

In contrast, staff viewed service user 'behaviours of concern' as sudden and unreasonable, such as Salzman-Erikson, Lutzen, Ivarsson, and Eriksson's (2008) discussion of 'The dramatic admission' and 'Escalating behaviour'.

These perspectives of antecedents to chemical restraint informed how service users and staff viewed the response, i.e., chemical restraint. From a service user perspective, chemical restraint was viewed as unjustified and at times as punishment and a mechanism for keeping them quiet. For example:

> Sedation was perceived more as a mechanism for keeping service users quiet, and less for therapeutic reasons. In particular, haloperidol was feared due to the side effects experienced.

> This medication has been given a colloquial name by those who have had this prescribed for them and is known as the 'Hou jou bek pil' [keep your mouth shut pill]: 'You know that tablet is like a sjambok [whip], it punishes you and the side effects are very severe.' (Mayers et al., 2010, p. 68)

Service users in Looi, Angstrom, and Savenstedt's (2015, p. 98) study furthermore described feeling "as though the staff wanted to provoke frustration to justify the use of coercive measures". A contrasting perspective was provided in Yap et al.'s (2017) exploration of sedation during behavioural emergencies in the ED context. Service users here viewed chemical restraint as an appropriate response to 'behaviours of concern' in this environment.

Staff reported chemical restraint as a justified response to service users' sudden and unreasonable behaviour. A key justification for the use of chemical restraint was one of safety, that is, maintaining the safety of service users, visitors, and staff by quickly suppressing violence and aggression. Nurses in Rose et al.'s (2015) study saw chemical restraint as "a legitimate response to violence" (p. 93) and furthermore saw service user violence/aggression as at times being a deliberate act on behalf of service users and "a tool to express their resentment at their situation on the ward" (p. 94). Vuckovich and Artinian (2005, p. 370) explained: "The process of justifying coercion allows a nurse to engage in behavior generally disapproved of while retaining a self-image of a 'good' nurse". In the studies of physicians (Olofsson, Jacobsson, Gilje, & Norberg, 1999) and security guards (Johnson & Kilty, 2016), service user behaviour was also seen as a justification for chemical restraint.

Violence vs Necessity

A further contrast between the views of service users and staff relates to the experience of chemical restraint itself. The experience of chemical restraint for service users was that it was a violent act leading to feelings of fear, humiliation, and powerlessness. This is particularly in the context of being held down, having clothing "ripped off" (Gallop et al., 1999, p. 411), and being injected by men. Service user quotes reported in the included studies demonstrate the extent to which chemical restraint was experienced as a violent and fearful act by service users, including:

> 'jump on you with a needle'; 'pound on you with the needle' (Rose et al. 2015, p. 94)

> 'helpless and vulnerable'; 'felt like I was being raped'; 'These four attendants or nurses . . . all male . . . about six feet tall but I just kicked and screamed . . . and I kicked them in the shins . . . and they threw me down on the bed, on my face, and they restrained me and they injected me'. (Gallop et al. 1999, pp. 407; 410)

> 'I thought I was going to die' (Katsakou et al. 2012, p. 1173)

> 'three men come and they stuck a needle in my ass' (Kuosmanen, Hatonen, Malkavaara, Kylma, & Valimaki, 2007, p. 602)

> ‘I had only one thought in my head … and that was to defend myself against them … and they were five men’ (Wynn 2004, p. 131)

Service users viewed chemical restraint as “an unnecessary exercise of power” (Kuosmanen et al., 2007, p. 602) and described the need for other responses, in particular early intervention through engagement and de-escalation strategies. Service users in Yap et al.’s study (2017, p. 961), who saw chemical restraint as a justified response, also described experiencing fear - “But I feel scared ‘cause I don’t know why I had to be put to sleep. How did I end up here?” – and highlighted the need for information and debriefing following chemical restraint.

Despite recognition that chemical restraint was not an ideal response, and should only be used as a last resort, staff overwhelmingly experienced a lack of choice with regard to chemical restraint. For example, Olofsson et al. (1999, p. 204) reported physicians using words such as “being forced” and “not having any choice”, given the need to maintain the safety of service users and staff.

Managing ‘behaviour of concern’ was furthermore described as “a nursing responsibility” (Duxbury, 1999, p. 112). Nurses described chemical restraint and other forms of coercion as resulting from “lack of non-pharmacological skill in managing aggressive behaviour; fear of contagion of aggression to other service users, and an inability to tolerate lengthy periods of aggression and uncertainty through inadequate regulation of fear responses” in addition to poorly resourced environments (Price, Baker, Bee, & Lovell, 2018, p. 204). In the studies of physicians and security guards, lack of choice was expressed in terms of needing to meet the needs and expectations of nurses. For example, physicians in Olofsson et al. (1999, p. 205) described: “It was one of those situations in which I felt strong pressure from the nursing staff to medicate” and “I felt rather pressed by the nursing staff”. A security guard in Johnson and Kilty’s (2016, p. 189) study stated: “Some nurses are like ‘No, no we don’t even want you to talk to him we want to hold him down and medicate’”.

Reflecting back: Positives and Negatives

The final theme, reflecting back, relates to views of the outcomes of chemical restraint. Overall, service users described negative outcomes of chemical restraint, with this practice leading to exacerbation of trauma, flashbacks, negative side effects, and loss of trust. Gallop et al. (1999, p. 411) reported chemical restraint “did not make any participant feel safe, and none found it helpful”.

However, some service users did identify positive aspects of chemical restraint. For example, for service users in Rose et al. (2015, p. 94), “coercion was sometimes perceived as an appropriate staff response to other violent service users”. Furthermore, when reflecting back on different types

of coercive practices, chemical restraint was described by service users in Mayers et al. (2010, p. 68) as “the containment option causing the least distress, and was also perceived to best respect the service users’ human rights”. Wynn (2004, p. 132) stated: “Seven of the patients had received pharmacological restraint while subjected to physical restraint, but gave the impression that this intervention was overshadowed by the use of physical restraint”.

Nurses and other staff similarly viewed chemical restraint as a negative experience for service users, yet in reflecting back highlighted positive outcomes. For example, nurses in Salzmann-Erikson et al. (2008, pp. 101-102) described the outcome of restraint as successful treatment and discharge:

> ‘The patient is admitted to ward 77 [the PICU]. The patient becomes violent and is physically restrained at the ward and given an injection [. . .]. When the patient is no longer violent, the patient can be a transferred to another ward or discharged.’

Similarly, Johnson and Kilty (2016, p. 177) noted security guards “claimed that these practices benefit the patients more than it hurts them”.

DISCUSSION

These findings extend understandings of the experiences of service users and staff specifically regarding the use of chemical restraint with people with a mental illness. It is important to separate out the act of chemical restraint from other forms of restraint and associated service user experiences in order to understand individual restraint phenomena. Such understandings can inform future practice and build a robust evidence base to facilitate high quality care in a least restrictive environment.

The dichotomy of findings between service users and staff, whereby the majority of service users see chemical restraint as unnecessary and unjustified with staff viewing it in the opposite sense, is a salient reminder of the seriousness of the event amidst the body of evidence that service users find the total experience of hospitalisation as traumatising (Robins, Sauvageot, Cusack, Suffoletta-Maierle, & Frueh, 2005) and chemical restraint, dehumanising. This is recognised as sanctuary harm, the negative experience of care by service users in mental health services when in mental health distress. The negative effect of the environment on the incidence of aggression also contributed to the use of chemical restraint and this is supported by other research on restrictive measures (Brophy et al., 2016; Gerace & Muir-Cochrane, 2019).

The experience of service users finding the chemical restraint event as sudden and unreasonable could perhaps be explained by the service users’ illness and escalating agitation or aggression,

prompting staff to intervene swiftly in the interests of safety for all concerned. Alternatively, such reporting of experiences is likely to mean that the rapid escalation of restraint was deemed inappropriate by service users and viewed as an act of violence. Indeed, there exists a body of work on institutional violence in psychiatric settings and the differences between service users and staff perspectives (Holmes, Rudge, Perron, & St. Pierre, 2013), arguing in some cases that violence is bred into mental health practices through risk culture and normalisation of restrictive practices such as chemical restraint as vital for service user and staff safety.

Our findings on chemical restraint also strongly concur with other research that has explored the experiences of nurses and service users regarding other forms of coercive practice, where both nurses and service users see coercion as negative but it is justified by nurses due to the imperative to maintain safety for all concerned (Brophy et al., 2016; Gerace & Muir-Cochrane, 2019; Kinner et al., 2017). The finding of chemical restraint being viewed as a nursing responsibility resonates with previous work indicating nurses experience fear and blame in relation to coercive practices in mental health care (Muir-Cochrane et al., 2018). Our finding regarding chemical restraint as 'unjustified versus justified' is supported by other research exploring ward culture in the context of restraint minimisation in health care (McKeown et al., 2020). This work identified legitimation as a "crucial discursive practice in the context of staff reliance upon coercion" (McKeown et al., 2020, p. 449), detailing the environment and lack of meaningful activities negatively affecting service user care. These authors suggest the need for the adoption of trauma informed care as an alternative supportive legitimacy.

Some service users perceived chemical restraint as causing the least distress of all forms of coercion, presumably because once medication was administered, they experienced calm and sedation. Some also acknowledged that it was necessary and appropriate, particularly in the ED context and when applied to other service users. This aspect of the findings adds to the minimal literature on chemical restraint and suggests that involving service users in decisions about their own plan of care when acutely unwell, regarding their preferred choice of restraint, if and when necessary could provide at least some autonomy to the individual in care. However, a recent systematic review on seclusion and restraint suggested that seclusion appeared to be more acceptable in comparison to forced medication (Chieze, Hurst, Kaiser, & Sentissi, 2019) suggesting a need for further examination of acceptability of differing restrictive measures.

Our previous work on the quantitative research on chemical restraint showed the lack of heterogeneity in studies (in terms of the diversity of methods and settings) limiting the drawing of clear conclusions; so too is the case for studies on the most effective interventions to reduce aggressive behaviours and coercive measures (Vakiparta, Suominen, Paavilainen, & Kylmä,

2019). Without such homogeneity in future research, moves towards a restraint free environment for service users will remain elusive. The continuing use of chemical restraint indicates a requirement for the education and training needs of staff in the pharmacokinetics and pharmacodynamics of the medications prescribed and the necessary ongoing medical monitoring, and this has received scant attention in the literature to date.

In EDs, restrictive interventions usually occur under a duty of care framework and associated legislation with clinical governance regarding the use of least restrictive practices (Knott et al., 2020). Further, in acute psychiatric units, service users ought to receive trauma informed and recovery-oriented care (Hawsawi et al., 2020). Yet it seems from this research that this is not necessarily the service user experience. Indeed, a recent Australian study of current clinical practices for managing behavioural emergencies within Victorian public hospital EDs specifically acknowledges the deficit in care for the majority of service users presenting to EDs (Knott et al., 2020). Further research is needed to explore the possibilities of shared agreed interventions between nurses and service users to minimise negative experiences of chemical restraint.

The range of terms used to describe chemical restraint reinforces the continuing confusion and lack of clarity about what chemical restraint is. The interchangeability of terms such as forced medication and rapid tranquilisation and reference to the use of chemical restraint when it is given as pro re nata (PRN) or named as therapeutic sedation is a barrier to homogeneity in research studies (Knott, Gerdtz, Daniel, Dearie, & Holsheimer, 2014). This points to the need for uniform understanding internationally and standardisation in definition that will allow research findings to be compared more usefully than is currently the case.

Limitations

This study was limited by the lack of published qualitative studies that focus solely on the experience of chemical restraint, outside of the context of other coercive practices. Furthermore, given the power imbalances present in mental health settings, the lack of transparency in reporting the relationship between researcher and participants across many of the studies has the potential to limit the validity of the data reporting on experiences of chemical restraint. The data was limited to studies written in English and therefore data from studies in other languages might have been missed. A further limitation relates to the inability, at times, to separate out whether the data related to chemical or other restraints. This qualitative synthesis, like all qualitative research, is furthermore limited in terms of generalisability.

Conclusion

In the context of an increasing focus and amount of literature available about the use of chemical restraint, this paper brings together for the first time, we believe, the qualitative research on the experiences from the perspectives of service users and staff, specific to chemical restraint. Results provide important insights for clinicians and researchers about the ongoing disconnect of the nature of experiences from both parties amid the context of the risk and safety imperative of health services that promote coercive practices (albeit as a last resort). Findings also demonstrate the need for focussed qualitative research on chemical restraint that is carried out separately and distinct from other coercive practices. Furthermore, there is a need for future research in this area to be from more diverse settings and to address power imbalances more explicitly.

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6.9 Publication Eight

Muir-Cochrane, E., Muller, A., Fu, Y., & Oster, C. (2020b). Role of security guards in Code Black events in medical and surgical settings: A retrospective chart audit. *Nursing and Health Sciences, 22*(3), 758-768.

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Abstract

The prevalence of security guards in healthcare settings is growing worldwide and there is a need to explore and understand their role and actions to inform policy and training and support least restrictive practices in healthcare. The aim of this study was to conduct a retrospective chart audit of security guard logs to investigate security guard involvement in Code Blacks, called in emergency situations of personal threats including patient and/or visitor violence, in medical and surgical wards in a large metropolitan health network in South Australia. Security guards attended 1,664 Code Blacks (0.63% of admissions) over the 2.5-year study period. Events were more frequently reported in medical than surgical wards. The most common reasons for security guard attendance were patients threatening/harming staff and patients threatening/harming themselves. The most frequent security guard actions were 'Attend only/standby', 'Physical restraint', and 'Patient located and returned to the ward'. The most frequent outcomes were physical restraint, chemical restraint, and de-escalation respectively. Results highlight the imperative that health services maintain and increase efforts to support least restrictive practice through policy directives and staff training.

Key words: Restraint, security guard, tertiary care centres, violence

Introduction

Workplace violence in healthcare settings is an international problem, with negative effects for healthcare workers and patients and economic implications for organisations (Beattie, Griffiths, Inness & Morphet, 2018; Hills & Joyce, 2013; Morphet, Griffiths, Beattie, Velasquez Reyes & Innes, 2018). Due to an increase in violence in healthcare, the use of security guards in response to challenging behaviours in healthcare settings is also becoming increasingly prevalent worldwide (Gillespie, gates, Miller & Howard, 2012; Mitra et al., 2018). In Australian hospitals, a key role of security guards is as part of an emergency response team, working alongside clinical staff

responding to Code Black events (designated ‘Code Grey’ in some settings). Code Blacks are called in emergency situations of personal threats including patient and/or visitor violence.

With the increasing presence and involvement of security guards in healthcare settings in Australia and internationally, it is important to explore what role security guards play in managing challenging behaviour in these settings to inform policy and training. Existing research has predominantly focused on security guards within the Emergency Department (ED) context, yet their role in the general wards in the hospital setting remains largely unexplored.

Background

There is significant concern about levels of violence and aggression in health care settings (Schablon et al., 2012; Zeh, Schablon, Wohlert, Richter & Nienhaus, 2009). A recent systematic review and meta-analysis reported “one in five health care professionals experienced workplace physical violence perpetrated by patients or visitors worldwide annually” (Li, Li, Qiu & Xiao, 2019, p. 1). Rates of patient and visitor perpetrated violence on hospital workers is reported as 22-90% for verbal abuse, 12-64% for physical threats, and 2-32% for assaults (Pompeii et al., 2013). In a recent survey of medical-surgical nurses, almost 90% of respondents reported emotional violence experienced in the last 12 months, with nearly 60% reporting physical violence from patients and/or their families (Havaei & MacPhee, 2020).

Security guards are a key element of occupational violence and aggression prevention and management programs in healthcare worldwide (Mahalleh, Khoshknab, Rahguy, Arsalani & Akbar, 2019; Morken & Johansen, 2013; Morphet et al., 2018; Partridge & Affleck, 2017; Peek-Asa et al., 2007). In a review of the literature on violence in the ED setting, research reported around 50% of EDs had security personnel present, with security provisions in the United States (US) generally reported as greater than in the United Kingdom (UK) (Stirling, Higgins & Cooke, 2001). A more recent study in the UK reported an increase in the use of security personnel in Irish psychiatric hospitals between 2008 and 2012 (Shannon, Devitt & Murphy, 2015).

The presence of security personnel is generally viewed positively by health professionals. Health professionals in EDs in particular report the need for security guards to be present in these settings (Copeland & Henry, 2017; Gillespie et al., 2012); no research was identified on views of security guards being present in medical or surgical settings. An Australian study identified that having security guards in the ED, who are a visible presence and who respond quickly to incidences of verbal abuse and physical assault, helped staff to feel safe (Partridge & Affleck, 2017). Conversely, in a review of the literature on perpetrator, worker, and workplace characteristics of violence in

hospital settings, the lack of security guards, in addition to the lack of assistance provided by security guards who are present, have been identified as factors associated with patient and visitor perpetrated violence (Pompeii et al., 2013).

Despite staff feeling safer with security guards being present, the link between security presence and episodes of violence and aggression is not established. While there appears to be a correlation between beliefs about the adequacy of security measures and perceived safety, there is little evidence that the presence of security guards relates to lower rates of violence-related injury to staff (Blando, O'Hagan, Casteel, Nocera & Peek-Asa, 2013; Gerberich et al., 2005). The need for security guards to have adequate training in managing aggressive and violent patients has also been identified (Copeland & Henry, 2017; Gillespie et al., 2012; Mitra et al., 2018), particularly given that "hospital security is significantly different from any other security role" (Anderson, 2019, p. 11).

Concerns have also been raised about the effect of the growing security guard presence in health care settings on patients. For example, in a study of manual restraint in 136 acute psychiatric wards in England, Bowers, Van Der Merwe, Paterson, and Stewart (2012) reported an association between access to security guards and increased restraint use. In a discussion of trauma-informed care in primary medical settings, Hamberger, Barry, and Franco (2019) discussed the potential triggering effect of security guards on vulnerable patients with a history of abuse.

The issue of power differentials between security guards and patients have furthermore been identified. Browne et al. (2016), for example, raised concerns about power differentials with Indigenous clients. In their Canadian study of evidence-based strategies for enhancing health care equity with Indigenous populations, they found some clinics "explicitly decided not to staff waiting rooms with security guards" (p. 9). In a qualitive study of security guards working in the psychiatric units of two Canadian hospitals, Johnston and Kilty (2016) note the "intimidating and coercive gendered power relations" (p. 193) between security guards and adult female patients.

Least restrictive practices are encouraged in all health settings to reduce the harmful consequences of restraint and to provide high quality person-centred care without force. Nevertheless, the incidence of aggression and violence in inpatient settings has increased (WHO, 2017). For that reason, security guards are present in areas such as EDs and form members of the teams (Code Black) to respond to aggressive or violent events. While the use of non-health professionals in the management of behaviours of concern is problematic to clinicians and researchers, security guards are now a common feature in all hospital settings in Australia. It is important, therefore, to understand the role of security guards to inform policy and training needs

(Muir-Cochrane & Musker, 2015). This includes the need to understand the role of security guards in Code Black events, emergency situations of personal threats including patient and/or visitor violence, in hospital settings.

In Australia, research into the role of security guards in Code Black (as noted earlier, these are sometimes designated Code Grey) events has used data from security logs to explore patient characteristic and event outcomes (Downes, Healy, Page, Bryant & Isbister, 2009; Hopper, Babl, Stewart & Woo, 2012; Nikathil et al., 2018). The work by Mitra et al. (2018) in the ED setting was the only study that characterised security responses to workplace violence, defined as staff being "abused, threatened, or assaulted in circumstances related to their work" (p. 2). The study drew on the same data set as that of Nikathil et al. (2018). There were 1,853 violent episodes (committed by 1,224 patients) requiring security presence. Of these, 144 (7.8%) were managed by security personnel without physical interventions, with most cases (92%) requiring physical and/or chemical restraint.

In another study of security logs and medical records, this time in the children's hospital setting, Hopper et al. (2012) explored aggression management using an aggression management team (Code Grey), including security guards. They identified 104 Code Grey incidents over the 14-month data collection period, 75 of which involved patients and 29 involved visitors. For patients, aggression management by the team was in the form of verbal de-escalation (56/75 events), physical restraint (34/75), sedation (23/75), and mechanical restraint (15/75). Verbal de-escalation occurred in 17/29 cases involving visitors and 10/29 visitors left or were removed. In a US study of the use of security officers on inpatient psychiatric units (Lawrence, Perez-Coste, Arkow, Applebaum, & Dixon, 2018), 'threats to persons' was the most common reason for security involvement with the most common intervention being intramuscular antipsychotic injections (chemical restraint).

Research on Code Black events and security guard involvement has tended to focus on the ED and mental health settings (Downes et al., 2009; Lawrence et al., 2018; Mitra et al., 2018; Nikathil et al., 2018), with less focus on medical and surgical wards. As Williamson et al. (2014) point out, research in these settings does not necessarily translate to general inpatient settings. In order to address this knowledge gap, this Australian study investigated security guard involvement in Code Black events in medical and surgical wards as documented in security logs.

Methods

Aims

The aims of this study were to explore:

- The number of Code Black events requiring security guard presence
- The reason(s) for security guard presence
- The actions of security guards during Code Black events
- The outcomes of the events in which security guards were involved.

Design and Setting

Retrospective chart audits are a well-established, widely used approach to exploring and understanding processes and outcomes in health care (Barick et al., 2018). A 2.5-year retrospective audit (from 1 January 2016 to 30 June 2018) was conducted of security guard logs of Code Black events in medical and surgical wards in a large metropolitan health network in South Australia, comprising three hospitals.

Security guards are on site 24/7 and undertake a range of roles such as site access, controlling pedestrian and vehicular traffic, carrying out random patrols, acting on and reporting incidents that could jeopardise the safety or security of patients, staff and assets, among other roles. They also participate in the Emergency Response Team, including participating in Code Blacks. Code Black teams are comprised of two security guards, two nursing staff, two patient services assistants, one allied health staff, and a doctor. Security guards take direction from the clinical lead of the Code Black team in attendance. The Code Black teamwork with the primary treating team to control an aggressive or violent situation and to provide least restrictive clinical interventions to manage the situation.

Security guards are required to have completed an accredited security training course from a Registered Training Organisation. The nature of these courses varies among jurisdictions in Australia. In addition, all health personnel and security guards working in the public sector undertake state (South Australia) wide aggression training, the ‘Management of Actual or Potential Aggression Foundation program’, with a focus on de-escalation and safety in controlling aggressive or violent situations.

Data Collection

The security log collects data about incidences requiring security guard presence in a central pool of data for the health network, entered into the system by one of the attending security guards. For the purposes of this study, variables of interest related only to Code Black events in the Medicine, Cardiac and Critical Care Services Directorate (medical wards) and Surgical and Perioperative Medicine Directorates (surgical wards). Security log data was received from the hospital in de-identified form. Most variables used in this study were recorded in the security log in dedicated drop-down menus. In addition, the free-text information under 'What happened' was read and coded by the researchers to form the variable 'Security guard actions', which describes the actions undertaken by security guards (see Table 1). Note that we separated 'chemical restraint delivered orally' from chemical restraint outcomes as the former method of administration suggests at least *some* level of consent from the patient (although arguably there is still coercion with the presence of security guards) and chemical restraint involves the compulsory administration of medication to manage an unsafe situation (Hu, Muir-Cochrane, Oster, & Gerace, 2018).

Table 1. Variables from security log

Drop-down menu options	**Coded from free text entry**
Date of incident	Security guard actions:**
Time of Incident	Attend only/standby
Directorate:	Physical Restraint
Medicine, Cardiac and Critical Care Services	Patient located :returned to ward
Surgical and Perioperative Medicine	Stood down on arrival
Reason for incident:*	Mechanical Restraint
Patient threatening/ harming other person	Security officers applied force
Patient threatening/ harming staff	Searched for a person of interest
Self-harm (actual or threatened)	Escorted a person from the premises
Non-patient threatening/ harming other person	De-escalation
Non-patient threatening/ harming staff	Escorted a patient - transferral
Illegal Occupancy/Trespass	Unknown
Incident outcome:**	No security involvement

Physical restraint	Searched a person or possessions
De-escalation	Notified Police
Chemical restraint	
Chemical restraint (oral)	
Escorted to ward – security	
Unknown	
Mechanical Restraint	
Treatment administered	
Escorted to ward – staff	
Returned to ward – own	
Police attendance	
Escorted from premises	
Patient transfer complete	
Person unable to be located	
Absconded (under order)	
Patient left site	
Security guard injury	
Visitor left ward	
Patient injury	

* Only one reason is able to be selected

** Multiple selections/codes are possible

Information on the number of admissions to the wards over the relevant time period was collected in order to analyse the percentage of admissions to which security guards attended for Code Black events. The number of admissions to the wards over this period of time was 264,790. No information on bed numbers, nor separate data on admissions to medical and surgical wards, was available due to significant changes in hospital wards during this time with wards closing, new ones opening, wards being renamed, and some being merged.

Ethical Approval

Ethical approval was obtained from the Southern Adelaide Clinical Human Research Ethics Committee (number 124.18) and reciprocal approval provided by Flinders University Social and Behavioural Research Ethics Committee.

Data Analysis

Data were analysed using IBM SPSS Statistics version 22 (Armonk, NY, USA). Descriptive analyses (frequency, percentage) were conducted to describe the variables. Rates were calculated as number of events divided by total number of admissions.

A descriptive data analysis approach was undertaken. A number of issues prevented further statistical analysis. The first was non-independence in the sample, and possible multicollinearity from inter-association, and these violate the assumptions of many statistical tests. In our dataset, one event often resulted in a number of responses and outcomes, thus there was an overlapping of categories within a case which could not be separated. Also, the differences in frequency, including very low numbers in many categories, made it difficult to undertake statistical analysis. Therefore it was decided that descriptive statistics provided sufficient information for understanding and interpretation.

Results

Number of Code Black events requiring security guard presence

A total of 1,664 Code Black events involving security staff were reported between 1 January 2016 and 30 June 2018, representing 0.63% of admissions to the wards over that time period. There were 619 (37.2%) events in 2016, 739 (44.4%) in 2017, and 306 (18.4%) in the first half of 2018. Events were more frequently reported in the medical wards (n = 1,149; 69% of all events) than surgical wards (n = 515; 31%).

The timing of the security guard events shows a constant base level of activity, day or night. However, there is a steady gradual increase from the 10:00-10:59 timeslot onwards, peaking at 18:00-18:59, when the number doubles in comparison to the lowest timeslot. Thereafter, a steady gradual decline occurs, with the exception of a brief rise at the 0:00-0:59 timeslot. A stable period of minimum activity occurs between the 2:00-2:59 to 7:00-7:59 timeslots (see Figure 1).

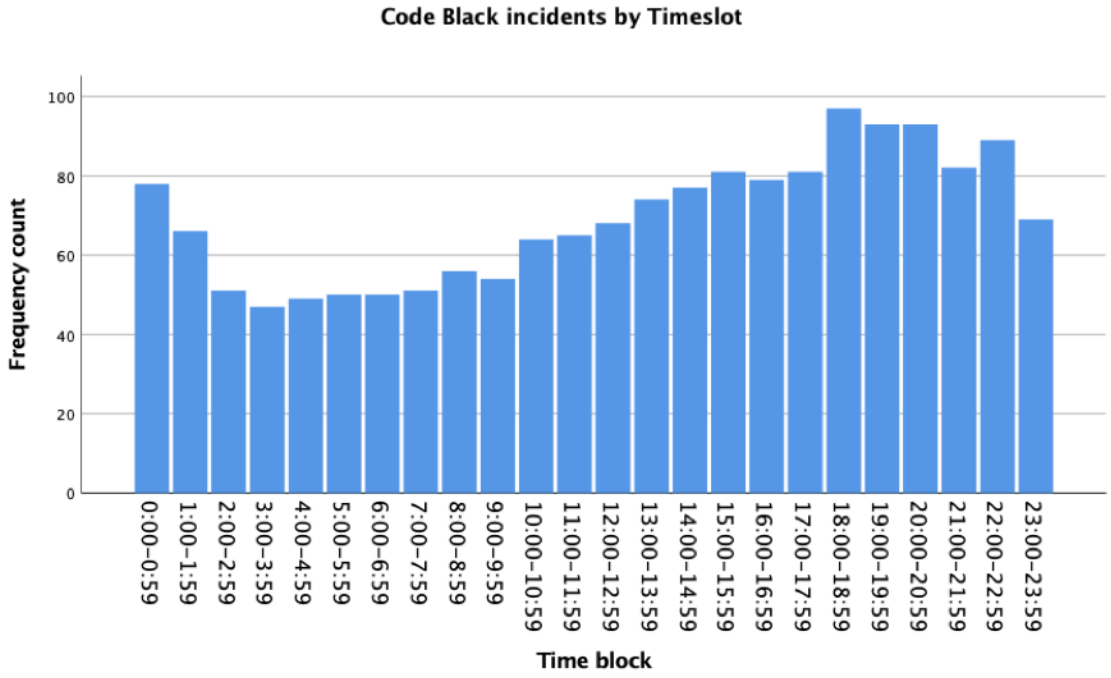

Figure 1. Code Black incidents for each hourly timeslot

Reason(s) for security guard presence

Reasons for security guard attendance during Code Blacks are reported in Table 2, showing the most common reasons were 'Patient threatening/harming staff' (58.4%, n = 972) and 'Self harm (actual or threatened)' (34%, n = 566). Events predominantly involved patients rather than visitors to the wards (97.5%, n = 1623). Both medical and surgical wards had similar patterns of distribution for the reason why a Code Black was called, with a slightly higher proportion of 'Patient threatening/harming staff' in the medical wards and 'Self harm (actual or threatened)' in the surgical wards (see Table 3).

Table 2. Reasons for security guard attendance

Reasons	N	Percent
Patient threatening/harming staff	972	58.4%
Self-harm (actual or threatened)	566	34.0%
Patient threatening/harming other person	85	5.1%
Non-patient threatening/harming staff	31	1.9%
Non-patient threatening/harming other person	7	0.4%

Illegal Occupancy/Trespass	3	0.2%
Total	**1664**	**100.0%**

Table 3. Proportion of reasons for security guard presence by ward area

Reason	**Medical wards** **n (%)**	**Surgical wards** **n (%)**
Patient threatening/ harming staff	683 (59.4%)	289 (56.1%)
Self-harm (actual or threatened)	382 (33.2%)	184 (35.7%)
Patient threatening/ harming other person	55 (4.8%)	30 (5.8%)
Non-patient threatening/ harming staff	23 (2.0%)	8 (1.6%)
Non-patient threatening/ harming other person	4 (0.3%)	3 (0.6%)
Illegal Occupancy/Trespass	2 (0.2%)	1 (0.2%)

Security guard actions

The frequency of the range of security guard actions, when attending Code Black events, is reported in Table 4 (Note: the total 1898 reflects multiple actions for events). The most frequent actions were ‘attend only/standby’ (42.4% of events, n = 705), ‘physical restraint’ (35.3%, n = 588), and ‘patient located and returned to the ward’ (13.2%, n = 219). Interestingly, de-escalation as a security guard action was 0.8% of events (n=13), despite security having no direct involvement nor a prescribed role in such actions during aggressive or violent incidents.

Table 4. Security guard actions

Security Guard Actions	**N**	**Percent**	**Percent of Events**
Attend only/standby	705	37.1%	42.4%
Physical Restraint	588	31.0%	35.3%

Patient located and returned to the ward	219	11.5%	13.2%
Stood down on arrival	172	9.1%	10.3%
Mechanical Restraint	95	5.0%	5.7%
Security officers applied force	55	2.9%	3.3%
Searched for a person of interest	16	0.8%	1.0%
Escorted a person from the premises	15	0.8%	0.9%
De-escalation	13	0.7%	0.8%
Escorted a patient – transferral	11	0.6%	0.7%
Unknown	3	0.2%	0.2%
No security involvement	2	0.1%	0.1%
Searched a person or their possessions	2	0.1%	0.1%
Notified Police	2	0.1%	0.1%
Totals	**1898**	**100.0%**	**114.1%**

There was more than one security guard action recorded in 14% of the cases. The most commonly reported multiple actions were ‘Physical restraint + Patient located and returned to the ward’ (n = 86), ‘Physical restraint + Mechanical restraint’ (n = 86), and ‘Physical restraint + Security officers applied force’ (n = 55). In 10.3% (n = 172) of events, security guards were stood down on arrival.

The two main reasons for security guard attendance at Code Black events were patients threatening or harming staff, and patients threatening or harming themselves, so we explored the distribution of these reasons in relation to the actions undertaken by security guards. Table 5 shows the proportions of Security Guard Actions by Reasons, revealing a higher proportion of ‘Attend only/standby’ actions in response to patients threatening or harming themselves and ‘Physical restraint’ actions in response to patients threatening or harming staff.

Table 5. Proportion of security guard actions by the two main reasons

	Patient threatening/ harming staff	**Self-harm (actual or threatened)**
Action	**n (%)**	**N (%)**

Attend only/standby	361 (37.1%)	288 (50.9%)
Physical Restraint	413 (42.5%)	141 (24.9%)
Patient located and returned to the ward	135 (13.9%)	70 (12.4%)
Stood down on arrival	90 (9.3%)	60 (12.4%)
Mechanical Restraint	75 (7.7%)	16 (2.8%)
Security officers applied force	44 (4.5%)	3 (0.5%)
Escorted a person from the premises	5 (0.5%)	4 (0.7%)
De-escalation	6 (0.6%)	2 (0.4%)
Searched for a person of interest	5 (0.5%)	8 (1.4%)
Escorted a patient - transferral	7 (0.7%)	4 (0.7%)
Unknown	1 (0.1%)	1 (0.2%)
No security involvement	2 (0.2%)	0 (0.0%)
Searched a person or their possessions	1 (0.1%)	0 (0.0%)
Notified Police	0 (0.0%)	0 (0.0%)

Table 6 shows similar distributions of security guard actions among medical and surgical wards, with a slightly higher proportion of ‘Attend only/standby’ actions in the surgical wards and a slightly higher proportion of ‘Physical restraint’ and ‘Patient located and returned to the ward’ in medical wards.

Table 6. Proportion of security guard actions by ward area

Action	**Medical wards n (%)**	**Surgical wards n (%)**
Attend only/standby	466 (40.6%)	239 (46.4%)
Physical Restraint	428 (37.2%)	160 (31.1%)

Patient located and returned to the ward	166 (14.4%)	53 (10.3%)
Stood down on arrival	117 (10.2%)	55 (10.7%)
Mechanical Restraint	63 (5.5%)	32 (6.2%)
Security officers applied force	44 (3.8%)	11 (2.1%)
Searched for a person of interest	9 (0.8%)	7 (1.4%)
Escorted a person from the premises	8 (0.7%)	7 (1.4%)
De-escalation	8 (0.7%)	5 (1.0%)
Escorted a patient - transferral	8 (0.7%)	3 (0.6%)
Unknown	3 (0.3%)	0 (0.0%)
No security involvement	2 (0.2%)	0 (0.0%)
Searched a person or their possessions	2 (0.2%)	0 (0.0%)
Notified Police	1 (0.1%)	1 (0.2%)

Incident outcomes

The frequencies for incident outcomes are reported in Table 7 (Note: the total 2,342 reflects multiple outcomes for events). The most frequent outcomes were ‘Physical restraint’ (36.0% of events, n = 598) and ‘De-escalation’ (33.2%, n = 552), followed by ‘Chemical restraint’ (30.2%, n = 502). Chemical restraint delivered orally comprised a further n = 91 (5.5%) outcomes, and 15.3% of all chemical restraints combined (n = 593). There was often more than one outcome for each event. The most commonly reported multiple outcomes were ‘Physical restraint + Chemical restraint’ (n = 401), ‘Physical restraint + Mechanical restraint’ (n = 90), and ‘Physical restraint + Escorted to ward – by security’ (n = 84).

Table 7. Incident outcomes

Incident Outcomes Frequencies	N	Percent by outcome distribution	Percent by outcome (multiple outcomes)
Physical restraint	598	25.5%	36.0%
De-escalation	552	23.6%	33.2%
Chemical restraint	502	21.4%	30.2%
Escorted to ward - security	209	8.9%	12.6%
Unknown	105	4.5%	6.3%
Mechanical Restraint	99	4.2%	6.0%
Chemical restraint (oral)	91	3.9%	5.5%
Treatment administered	49	2.1%	2.9%
Escorted to ward - staff	40	1.7%	2.4%
Returned to ward - own	23	1.0%	1.4%
Police attendance	19	0.8%	1.1%
Escorted from premises	14	0.6%	0.8%
Patient transfer complete	12	0.5%	0.7%
Person unable to be located	9	0.4%	0.5%
Absconded (under order)	7	0.3%	0.4%
Patient left site	5	0.2%	0.3%
Security guard injury	4	0.2%	0.2%
Visitor left ward	2	0.1%	0.1%
Patient injury	2	0.1%	0.1%
Totals	**2342**	**100.0%**	**140.8%**

With the main reasons for security guard attendance at Code Black events being either the patients threatening or harming staff, or the patients threatening or harming themselves, we explored whether these different reasons were related to different outcomes. Table 8 shows the

proportions of incident outcomes according to reason, revealing a higher proportion of physical and chemical restraint for patients threatening or harming staff, and de-escalation for patients threatening or harming themselves. There was also a slightly higher proportion of oral chemical restraint for patients threatening or harming themselves, and of mechanical restraint for patients threatening or harming staff.

Table 8. Proportion of outcomes by the two main reasons

Outcome	**Patient threatening/ harming staff** **n (%)**	**Self-harm (actual or threatened)** **n (%)**
Physical restraint	419 (43.1%)	145 (25.6%)
Chemical restraint	358 (36.8%)	108 (19.1%)
Chemical restraint (oral)	45 (4.6%)	43 (7.6%)
De-escalation	285 (29.3%)	222 (39.2%)
Escorted to ward – security	128 (13.2%)	66 (11.7%)
Mechanical Restraint	78 (8.0%)	17 (3.0%)
Unknown	51 (5.2%)	43 (7.6%)
Treatment administered	14 (2.5%)	21 (3.7%)
Escorted to ward – staff	13 (1.3%)	24 (4.2%)
Returned to ward – own	13 (1.3%)	10 (1.8%)
Escorted from premises	5 (0.5%)	4 (0.7%)
Police attendance	16 (1.6%)	2 (0.4%)
Patient transfer complete	7 (0.7%)	5 (0.9%)
Person unable to be located	5 (0.5%)	2 (0.4%)
Absconded (under order)	2 (0.2%)	4 (0.7%)
Patient left site	3 (0.3%)	2 (0.4%)

Security guard injury	4 (0.4%)	0 (0.0%)
Patient injury	2 (0.2%)	0 (0.0%)
Visitor left ward	0 (0.0%)	0 (0.0%)

We examined if outcomes were distributed differently in medical and surgical wards. Table 9 shows similar proportions for both areas, with a slightly higher proportion of 'Physical restraint' and 'Chemical restraint' in medical wards and a slightly higher proportion of 'De-escalation' in surgical wards. While there was only a small number of events involving police attendance overall (n=19), there was a slightly higher proportion of these events in surgical wards. In terms of the outcome of being escorted to the ward by security, a slightly higher proportion of these events were in medical wards.

Table 9. Proportion of outcomes by ward area

Outcome	**Medical wards n (%)**	**Surgical wards n (%)**
Physical restraint	435 (37.9%)	163 (31.7%)
Chemical restraint	369 (32.1%)	133 (25.8%)
Chemical restraint (oral)	61 (5.3%)	30 (5.8%)
De-escalation	367 (31.9%)	185 (35.9%)
Escorted to ward - security	156 (13.6%)	53 (10.3%)
Unknown	71 (6.2%)	34 (6.6%)
Mechanical Restraint	63 (5.5%)	36 (7.0%)
Treatment administered	32 (2.8%)	17 (3.3%)
Escorted to ward - staff	28 (2.4%)	12 (2.3%)
Returned to ward - own	15 (1.3%)	8 (1.6%)
Escorted from premises	7 (0.6%)	7 (1.4%)
Patient transfer complete	9 (0.8%)	3 (0.6%)
Person unable to be located	6 (0.5%)	3 (0.6%)

Police attendance	5 (0.4%)	14 (2.7%)
Patient left site	4 (0.3%)	1 (0.2%)
Absconded (under order)	3 (0.3%)	4 (0.8%)
Security guard injury	3 (0.3%)	1 (0.2%)
Patient injury	2 (0.2%)	0 (0.0%)
Visitor left ward	1 (0.1%)	1 (0.2%)

Discussion

This is the only study that we know of reporting the role of security guards in Code Black events outside of the context of EDs or mental health wards in Australia and internationally. Security guards attended 1,664 code black events in medical and surgical wards over the 2.5-year study period, representing 0.63% of admissions to the wards over that time. This is fewer than the number reported in a recent Australian study in the ED context, where 1,853 episodes were attended to by security guards over a 2-year period (Mitra et al., 2018), although the authors did not determine events as a proportion of admissions.

While there was variation in the timing of events, doubling between 18:00-19:59, there was a clear need for support at any time day or night. It is not clear from the data we collected why this time of day is significant, but we can suggest that mealtimes, medication rounds, and visiting times may contribute to heightened activity on the ward affecting patient behaviours (Hu et al., 2018). Time of day for the call of Code Blacks on medical and surgical wards requires further examination to establish causative factors and thus to identify solutions. Security guards were more likely to be called to medical than surgical wards. While we were unable to ascertain number of admissions for medical versus surgical wards, anecdotally there are more admissions to medical wards, which would explain these differences. Our data did not provide details of patient diagnosis so we are unable to explore this further in this study. However, these findings indicate the need for specific strategies to encourage early recognition and settling of agitated patients and assessment and monitoring of patients in these wards who are likely to have unique and individual needs.

The main reasons for security guard involvement in Code Black events were patients threatening or harming staff, and patients threatening or harming themselves. Nearly 60% of events involved a Code Black being called for threats or actual harm to staff. With high rates of violence and aggression experienced by staff in health care settings (Li et al., 2019), this study suggests

security guards played an important role in protecting staff in these situations. It is not known from the security logs in what way patients threatened or harmed themselves, and the nature of these harms deserves further investigation so that specific de-escalation interventions could be developed and implemented.

Security guards undertook a number of roles in responding to Code Black events in the medical and surgical wards. In 42.4% of Code Black events, the Code Black team attended only or were on standby which could be interpreted as a 'show of force' by the team, resulting in a de-escalation of the situation. Security guards are readily identifiable in their uniforms to patients who are likely to feel intimidated by their presence, causing them to reduce their aggressive behaviour (Gerace et al., 2018). Importantly, the use of attendance without intervention needs to be also seen in the context of the potential traumatic nature of the event for patients and the need to practice in a trauma informed manner (Muskett, 2014). In around 10% of security guard calls, guards were stood down on arrival, indicating staff were able to resolve the issues prior to security guard attendance, suggesting initiatives are needed to aid staff to make informed decisions about the timing of calling for assistance, thus further reducing potential trauma for patients.

Over a third of events involved security guards applying physical restraint, with physical restraint being more prevalent in events where patients were threatening/harming staff as opposed to threatening/harming themselves. This highlights the importance of security guards being adequately trained in the safe and effective restraint of patients in a hospital setting (Copeland & Henry, 2017; Gillespie et al., 2012; Mitra et al., 2018). A further role of security guards in medical and surgical wards was in locating patients who had left their ward/bed and escorting them back.

It is of interest and concern that in a very small number of events security guards are documenting their actions as 'de-escalation' despite this action not being part of their scope of practice in health settings. It may be that the documentation is incorrect and that de-escalation was an outcome of the incident but was entered as an action of security staff. This suggests a need for further investigation about the reasons why documentation has occurred in this way to identify areas requiring improved education and communication.

In Mitra et al.'s (2018) study of security interventions in the ED, most cases (92%) involved physical and/or chemical restraint to control the situation. The situation was quite different in our study of medical and surgical wards, where in around a third of events (33.2%) the situation was de-escalated. Restraints were also common outcomes for these events, with 36% involving physical restraint and 35.7% involving chemical restraint. The reporting of oral chemical restraint might indicate that with earlier intervention with the use of "pro re nata" (PRN), or "as needed",

medication or other de-escalation strategies, the Code Black event may have been able to be avoided. Chemical restraint is defined by the Australian National Safety and Quality Partnerships (SQPS) as:

> … the administration of medication in an emergency situation and on an involuntary basis to control the behaviour of a person to prevent the person from harming him/herself or endangering others.

However, it is not known whether security guards were able to properly assess this outcome, perhaps confusing oral chemical restraint with administration of PRN medication.

There was a higher proportion of physical and chemical restraint for patients threatening or harming staff, and de-escalation for patients threatening or harming themselves. Australia, like other countries, is committed to least restrictive practice in health care (Government of South Australia, 2019). Our findings can be interpreted to mean that increased restriction of patients is justified when the safety of staff is at risk and staff feel confident using de-escalation as a least restrictive intervention when patients are at risk to themselves. As this is a new area of enquiry regarding the involvement of security guards, further work on rates and the nature of incidents is required to gain a comprehensive illustration of how aggression and violence is being managed in general wards across Australia. Least restrictive environments and health care delivery in trauma informed ways are benchmarks for best practice and can significantly inform how to care for people who are distressed, aggressive, and violent in general health settings

Limitations

As with all retrospective chart reviews, the limitations of this study include incomplete documentation, variants in the quality of the information recorded by different individuals, difficulty interpreting information found in the documents, and difficulty establishing cause and effect (Gearing, Mian, Barber & Ickowicz, 2006). The security staff enter data on each Code Black incident rather than each individual patient, and so it was not possible to identify multiple incidents by individual patients, nor was information collected on patient demographics. We did not match incident data to patient data collected in other hospitals systems because the focus of this study was the role of security guards. The logs were completed by security guards who do not have the clinical skills to determine factors such as the reasons for security guard presence or the nature of outcomes such as chemical restraint. Overall, there is a lack of clinical information in the security logs. Lack of patient level information limits understanding of the context of security guard presence, such as patient age and the extent of delirium and dementia.

Conclusion

Code Black events, while less common than in the emergency department context, do occur in medical and surgical wards. Understanding the actions of security guards in emergency situations of personal threats including patient and/or visitor violence can inform policy and education for security guards in health care settings. This study provides a description of the role of security guards in Code Black events in the medical and surgical wards of a local area health network in South Australia, highlighting their primary role as a key member of the Code Black team to manage patient violence and aggression in this context. As with any research reporting data from checklists, it is not possible provide a complex picture of the nature of the security guards' role in these events. However, security guard involvement in physically restraining patients in medical and surgical wards highlights the need for further research to inform policy and training to support least restrictive practices and trauma informed care for hospitalised patients.

Relevance for Clinical Practice

A recent Australian report on security in New South Wales hospitals notes “a clear lack of understanding of the powers and responsibilities of security officers” (Anderson, 2019, p. 8). With the increasing presence and involvement of security guards in interacting with patients in health care settings, and security guard involvement in physical restraint of potentially vulnerable patients, there is a need for clear roles and responsibilities in addition to minimum standards for security guards (Anderson, 2019; Mitra et al., 2018). Furthermore, security guards need to be adequately trained to work in this unique environment (Mitra et al., 2018). We concur with Anderson’s (2019, p. 15) proposal that a security guard license Class should be “created specifically for hospital security” specifying “competencies and training applicable to the hospital security role”. The role and function of security guards and the specific nature of their role relationship with clinical staff is an important area deserving attention in the context of least restrictive care for patients when in hospital. Security log data needs to be monitored and high rates of physical and chemical restraint addressed.

In our analysis it was not possible to identify whether there were significant differences in the use of security guards in different units. Further research investigating rates on different medical and surgical units as well as staff perceptions of risk and association of this with the use of security guards is of merit. Also, examining characteristics of patients associated with code black calls can illuminate causative factors for the calling of the Code Black, which in turn can assist the use of alternative and less restrictive care measures. Final implications from this study include the need for further investigations into the nature of the work of security guards in the management of

aggression and violence and the most appropriate scope of practice for their involvement in care in hospital settings.

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6.10 Summary

This chapter has presented the eight publications in full. Figure 5 details the contribution of the papers to the literature in the regarding risk, absconding, seclusion and restraint, chemical restraint, and the role of security guards. The risk paper examines the tensions staff experience in balancing managerial and therapeutic approaches to care in the context of risk assessment and management. The absconding papers illuminate how consumers experience inpatient units as both safe and unsafe dependent on how therapeutic they perceive the environment to be and how this affects their decision to abscond. Further, that absconding is a behaviour enacted when inpatients are acutely unwell, when they experience bad news but also when they have everyday activities to attend to. The seclusion and restraint papers portray the perceptions of nurses that they do think that such practices can be reduced but not completely eliminated as they believe they have no alternative to maintain safety on the ward. Additionally that nurses experience both blame and fear about their use of restrictive practices. The papers on chemical restraint identify that while chemical restraint is commonly used, there remains a lack of clarity about its' efficacy and the superiority of individual methods. The final paper on security guards examines the role of security guards in medical surgical units in the management of acute agitation, aggression and violence and raises suggestions for further examination of their role in acute inpatient care.

As a whole these findings provide new understandings about risk, absconding, seclusion, restraint, chemical restraint, and the role of security guards and the interplay of the complexities of caring for acutely unwell inpatients. The next chapter critically analyses the contribution and significance of this body of work in the context of research and theoretical understandings of the use of restrictive practices in the care of people exhibiting acute agitation, aggression, or violence. What is now known as a consequences of the contribution of these studies, and what is still to be better understood is detailed in the following chapter using the domains and elements of the Safewards model to situate the body of research of the published papers.

CHAPTER SEVEN
DISCUSSION

7.1 Introduction

Each of the papers presented in the previous chapter deal with conflict and/or containment in specific ways and explore the complex issues relating to the use of restrictive measures in inpatient settings. The findings will not be reiterated in this chapter except in relation to discussing their significance, limitations, and implications for practice. The overall purpose of this chapter is to bring the meanings from the individual published papers together using the Safewards Model to explore richer understandings of the use of restrictive practices in inpatient settings.

The published papers did not use the Safewards Model to guide the research, thus not all aspects of the model are relevant to the discussion. The Safewards Model is adopted here as a useful evidence-based framework to extend new understandings from the published papers and add to this model of conflict and containment. How the findings from the published papers support and extend the Safewards Model with new understandings about conflict and containment are discussed. The discussion is a selective rather than an exhaustive review of the issues raised by the published papers in the context of the domains of the Safewards Model. Barriers and enablers to the potential for the reduction or elimination of restrictive practices are explored. Finally, areas for further development of the Safewards Model are identified. The next section discusses the significance and limitations of the published papers.

7.2 The significance and limitations of the published papers

7.2.1 Overview

The published papers both individually and collectively have made a significant contribution to the Australian and international literature on various aspects of conflict and containment within inpatient settings. Prior to this work, research in Australia on these topics was relatively nascent and the papers extend knowledge and understandings about risk, restraint and seclusion, and absconding. The topics in the most recent papers on chemical restraint and the role of security guards have not to date been explored in Australia nor extensively overseas, thus providing important findings to lead the development of further research questions in the future.

7.2.2 Risk Assessment

This published paper (Muir-Cochrane et al., 2011a) explored risk assessment in older persons' acute psychiatric units and demonstrated that health professionals perceived that they integrated therapeutic and management concerns into risk assessment practices, and they understood the existing tension between such concerns. Findings revealed that staff acknowledged the need for patients to be allowed to take risks, that open communication between staff, patients and carers was important, and explaining ward structures and routines to patients facilitated good mutual engagement. This paper drilled down into the complexities of risk assessment and clinical judgement in providing new understandings of risk assessment practices not previously reported. Staff expressed awareness of the dual focus of risk and safety in risk assessment and the challenges this could bring to using least restrictive practices. The need for staff mastery in assessment and the importance of ongoing training and professional development revealed in these findings had not been delineated in previous research at that time. Findings raise questions about how the maintenance of safety can be balanced with risk assessment in the care of older patients in psychiatric settings.

Limitations of the study include the small sample size and potential non-generalisability of findings to other older persons or adult mental health acute inpatient units. A further limitation is that consumer and carer perspectives were not included in regard to risk assessment.

7.2.3 Absconding

These papers extended quantitative work that the researcher had conducted previously regarding the incidence of absconding, revealing that it was a common event for people involuntarily held under the Mental Health Act. Their significance lies in their provision of new understandings on the perspectives of patients regarding reasons for absconding. The first published paper (Muir-Cochrane et al., 2013) was innovative in utilising the notion of therapeutic landscapes to conceptualise how patients understood their experiences of hospitalisation and their decisions to abscond. Patients felt both safe and unsafe in hospital dependant on individual, social, physical, and symbolic aspects of the ward. Negative experiences of the ward environment and relationships with staff and other patients led patients to feel unsafe and likely to abscond. The latest absconding paper (Muir-Cochrane et al., 2021a) extends knowledge significantly in illustrating that patients absconded because they had everyday things to do or needed contact with friends or family. These findings suggest agency on the part of patients, acting autonomously in ways to keep themselves emotionally and/or physically safe. Patients also left the ward when they were acutely unwell, experienced bad news, or were in conflict of some kind with other patients or staff. The

richness of these findings provides a representation of the phenomenon of absconding not previously described in the international research literature.

Limitations of the research include the exploratory nature of the first study with a small, self-selecting sample size of patients. Limitations of the second study relate to the incompleteness of data in this retrospective audit, being unable to match absconding events with patient demographics in the complete data set. A further limitation is that findings report on what was documented by nurses in written records and this may not accurately nor fully represent patients' perspectives.

7.2.4 Seclusion and Restraint

Previously, the researcher had undertaken studies into the use and nurses' perceptions of seclusion and restraint, from a largely quantitative perspective with some qualitative work on a small scale. The published papers in this thesis report on the largest study to date in Australia, which explored nurses' perceptions and experiences of seclusion and restraint in the context of elimination of their use. The quantitative seclusion and restraint paper (Gerace & Muir-Cochrane, 2018) reported that nurses did not feel safe at work and viewed seclusion and restraint as necessary last resort methods. This study revealed for the first time that nurses felt that it might be achievable to eliminate mechanical restraint, but that seclusion and physical restraint were necessary and could not be eliminated, given that they frequently faced threatening situations at work.

The qualitative seclusion and restraint paper (Muir-Cochrane et al., 2021b) provided new perspectives from nurses about the potential elimination of seclusion and restraint. The strong concerns expressed by nurses about the consequences of elimination of seclusion and restraint, feeling fear and blame, had not been reported in the literature previously. Nurses expressed fear about not having seclusion and restraint available to manage aggressive and violent patients. They also expressed feeling blamed when staff or patients were injured if they had not used seclusion or restraint. Nurses identified the focus of care being on risk assessment and medication rather than individualised person-centred care and that this change in role was recognised as a consequence of the risk management culture in mental health services, as also detailed in the risk assessment paper in this published thesis. Increased acuity of patients and patients under the influence of methamphetamines were identified as contributing to unsafe working environments. The ward environment was also perceived as not fit for purpose, reducing opportunities for quality care. Findings raise questions about the viability of calls for the elimination of restraint and seclusion with

high patient acuity and how the use of least restrictive measures can be increased in EDs and mental health settings.

Limitations of the research included that the focus was on nurses' perceptions and did not include the perspectives of other health disciplines, nor patients or carers and family members. While the sample size was large, only a small proportion of nurses were working in mental health specifically. It is also possible that participants reported what they perceive to be more acceptable attitudes in the context of an anonymous survey. Chemical restraint was not explored due to the definitional issues surrounding its use. Finally, de-escalation was not investigated as a strategy to reduce the use of seclusion and restraint.

7.2.5 Chemical Restraint

The first paper (Muir-Cochrane et al., 2020a) is significant in that it summarises the available evidence of the efficacy and safety of chemical restraint in all RCTs conducted to date on this topic. Findings demonstrate that the overall treatment effectiveness of the administration of various medications in EDs and acute psychiatric units to manage aggressive or violent behaviour is unclear. Comparisons between the type of chemical restraint, mode of administration, and the timing of repeated administration are difficult to ascertain. Despite the heterogeneity of studies in this review, haloperidol or droperidol appear to be safe and effective choices, used alone or in combination with other medications such as benzodiazepines. Although 31 outcome measures were identified, including time to calm/sleep, they were inconsistently reported. This paper shows that the current evidence base is weak and that more research is required to establish best practice in the use of chemical restraint.

The second paper (Muir-Cochrane et al., 2021b) qualitatively syntheses the existing evidence of service user and staff experiences of chemical restraint specifically, for the first time. Service users perceived chemical restraint to be a form of violence and generally unjustified. Staff experiences differed, identifying the disjuncture in experiences between the two groups, believing chemical restraint was justified and necessary. The importance of these findings lies in the nuances identified across the studies informing current practices of the specific use of chemical restraint. Up to this point, the experiences and perceptions regarding chemical restraint were conflated with other forms of restrictive practices.

Limitations include that the published papers are both reviews and therefore have examined the existing evidence, rather than developing findings from original research. Nevertheless, the findings are significant in their contemporary nature for providing interpretations of the current state

of play regarding the use of chemical restraint internationally and the attendant issues surrounding its use.

7.2.6 Security Guards

The role of security guards in adult inpatient services has been largely neglected, with most research emergent from forensic settings. This is the first study in Australia and internationally to report on the role of security guards in medical and surgical wards. It provides insights into their role and function in the management of aggression and violence in these settings. Findings illuminate the incidence of 'code blacks' as well as their outcomes in terms of the administration of chemical restraint and the use of physical and mechanical restraint to control patient behaviour. More de-escalation was used in surgical wards, while more chemical and physical restraint was used in medical wards, although the reasons for this are not clear. Threats or harm to staff resulted in the use of more oral chemical restraint than other forms of restraint, while patient threats or actual harm to self resulted in the use of more mechanical restraint.

Security guards' actions were most frequently reported as 'attend only' or 'stand by' followed by physical restraint and taking patients back to their ward. Security guards may be called to wards by staff to demonstrate a show of force to patients, but this needs to be investigated further. Findings demonstrate that security guards play a significant role in the management of aggression and violence by patients and in protecting staff. However, their use of terms such as chemical restraint in their documentation raises questions about their ability to differentiate the use of PRN medication and chemical restraint for which they have received neither education nor training. In a small number of reports, security guards documented their use of de-escalation strategies despite this not being within the scope of their prescribed role in hospital settings. These findings raise further questions about the role, function, and scope of practice of security guards across a range of settings where patients exhibit self-harming, or aggressive and violent behaviours.

Limitations of the study include the incompleteness of data so that only total numbers of events, rather than individual rates per patient were reported, and associated demographics could not be linked up. The demographics of the security guards and years of experiences were not collected. Also, differences in the roles of security guards on different wards could not be established.

7.3 Summary of published papers and significance

Taken together, the published papers have demonstrated significance in their contribution to the Australian and international research literature and to new understandings of the complexity of issues surrounding restrictive practices in inpatient services. Findings from the published papers have extended knowledge about the phenomenon of absconding, the emerging role of security

guards in health care settings, and the circumstances in which chemical restraint is used. Further, the published papers on seclusion illuminate the complex interplay of factors nurses and health professionals are faced with in managing aggressive and violent behaviour in inpatient settings, and the constraints they face in using least restrictive practices. The various contexts of older persons' acute mental health services, medical and surgical wards, acute psychiatric inpatient units and EDs provide a broad landscape to understand the distinct elements of different care settings and the use of restrictive measures. While there are limitations to the published papers, this does not diminish the significance of the work which extends understandings about the dynamics and experiences of patients and staff regarding conflict and containment. The mixed methodological approaches, undertaken in a pragmatic applied clinical approach, provide a rich set of findings to indicate possible future directions in policy and practice as well as foci for future research.

The next section uses domains from the Safewards Model and associated interventions to situate the findings from the published papers and to critically discuss flashpoints ('social and psychological events that precede conflict' (Bowers, 2014, p. 500)) and implications for the potential for transformational change in clinical services to reduce restrictive practices.

Table 5. Mapping of the Safewards Model against findings from published papers

Research topics from published papers	**Domains**	**Flashpoints from findings**	**Key findings**	**Safewards nursing interventions mapped against published papers**
Risk	Regulatory framework Patient characteristics Staff team	Acuity of illness	Management of risk and therapeutic concern by staff needs to be finely balanced in patient care	Know each other Soft words
Absconding	Regulatory framework Patient characteristics Outside hospital Physical environment	Bad news Conflict Feeling unsafe Acuity of illness	Patients leave because they feel unsafe in hospital, have things to do, feel socially isolated or are acutely unwell	Bad news mitigation Clear mutual expectations Mutual help meeting Know each other Positive words Reassurance

	Staff team Patient Community	Missing family and friends		Discharge messages
Seclusion and Restraint	Regulatory framework Patient characteristics Physical environment Staff team	Involuntary status Acuity of illness	Nurses often do not feel safe at work and do not believe all forms of restraint can be eliminated. Nurses also feel fear and blame in regard to the use of restrictive measures and their potential elimination.	Calm down methods Talk down Soft words Know each other Clear mutual expectations Positive words Discharge messages
Chemical Restraint	Regulatory framework Patient characteristics Physical environment Staff team	Involuntary status Acuity of illness	The evidence base is weak regarding the effectiveness of specific medications to manage aggressive and violent behaviour although both droperidol and haloperidol appear to be safe and effective. Patients view chemical restraint as unjustified and a form of violence whereas nurses perceive it to be justified and necessary.	Calm down methods Talk down Soft words Know each other Clear mutual expectations Positive words Discharge messages
Security Guards	Regulatory framework Patient characteristics	Acuity of illness	Security guards are commonly used in medical and surgical units to manage aggressive and	Calm down methods Soft words Positive words

	Physical environment Staff team		violent behaviour. The most frequent security guard actions were 'Attend only/standby,' followed by 'Physical restraint.'	

Table 5 maps the domains of the Safewards Model, flashpoints, and the associated interventions currently being used, across the published papers. As previously mentioned, while the published papers were not framed using the Safewards Model, the table shows the links and synergies between the published papers and the Safewards Model. The published papers support and confirm the Safewards Model as evidence-based and pertinent to clinical practice. Table 5 shows the links of specific current interventions to reduce flashpoints identified in the findings that may lead to conflict and containment. As Bowers (2014a) elucidates, it is the short circuiting of the link between the flashpoint and a conflict event (absconding, aggression, and violence) that can facilitate the use of less of restrictive measures. Conflict and restrictive practices are therefore intrinsically linked and interventions from the Safewards Model can assist in removing factors that cause conflict or reduce the use of restrictive measures when conflict arises. The next sections discuss the originating domains for the Safewards Model in relation to the research evidence of the published papers, relevant literature, and the barriers and enablers to reducing restrictive practices.

7.4 Domain: Regulatory framework

7.4.1 Restrictive practices as a form of violence

All of the published papers in this thesis relate to regulatory frameworks used in acute inpatient settings and EDs. The Regulatory framework in the context of the Safewards Model include legal applications of Mental Health Acts such as involuntary admission, use of restrictive measures, national and hospital policies and guidelines that have been explored in Chapter Three, in relation to the South Australian context. The upholding of human rights within mental health law which sanctions restrictive practices remains extremely problematic (UN, 2017). Some consumers call for the elimination of all restrictive practices rather than the adoption of best practice elimination strategies (Roper et al., 2021), citing the concept of 'lawful violence' which frames restrictive practices as forms of violence legitimated by law. In support of this, Laurence (2003) states in his

text ‘Pure Madness’ that the standards of provision of care in mental health services would not be tolerated in any other branches of medicine, while Paterson et al. (2013) comment that restrictive practices are now accepted as a failure of treatment and an intractable reality with no safe, effective alternative methods that could support their elimination. The notion of restrictive practices as a form of violence is also echoed in papers about patients’ experiences (Cusack et al., 2018; Brophy et al., 2016). In the published review paper on patients’ and staff experiences of chemical restraint (Muir-Cochrane & Oster, 2021a), patients also identified the use of chemical restraint as a form of violence and unjustified, although some saw it as a preferred method of coercion.

Roper et al. (2021) propose that practices that support individuals’ agency at service and community levels could facilitate a repeal of discriminatory mental health laws and elimination of the use of restrictive practices. For this to occur, transformational changes to mental health law and mental health service provision would need to be implemented (McSherry, 2021a) and be based on the human rights of patients. Although recent initiatives were introduced by the WHO (2019) to reform regulatory and clinical practice to support human rights issues of patients and reduce or eliminate restrictive practices, these practices remain in common practice, supported by exiting legislation in Australia and internationally. As the results of one of the published papers in this thesis on seclusion and restraint demonstrate, ‘nurses expressed significant fear about the elimination of restrictive practices as well as feeling blamed for both the use of such practices and any consequences should they be eliminated’ (Muir-Cochrane et al., 2018, p.1511). Thus, any change to existing practices needs to be examined with careful consideration of the potential risks for the safety of nurses and patients for whom they provide care. Without practical, safe, and effective alternatives to the use of restrictive measures, their use is likely to continue (McSherry 2021a). While consumers and consumer academics (Roper et al., 2021) continue to call for transformational change, what would replace restrictive practices - which includes involuntary detention, forced medication, and seclusion and restraint - remains unknown.

7.4.2 Revisiting risk and safety

The use of restrictive practices as described in the published papers in this thesis is legitimated through law and policy in mental health settings, and nurses are obligated to follow such direction. Legal frameworks such as Mental Health Acts are beyond the control of nursing staff, although hospital policies can be influenced by how nurses enact them (Bowers, 2014). The upholding of patient rights and enhancing their involvement in care planning by increasing patient choices in the provision of care are practical ways nurses can support patients within the confines of legal constraints (Dawson 2021a). Positive support by nurses in terms of advocacy regarding patient appeals about enforced treatment can serve to minimise negative experiences of patients in

inpatient units and reduce conflict and containment (Bowers, 2014). However, regulatory frameworks are also underpinned by risk and, although risk is not explicitly represented in the Safewards Model, it is tacitly present as it is implicit in examinations of conflict and containment. Risk averse practices increase the possibility of the excessive use of power and enforcement of treatment, which increases the likelihood of conflict between patients and nurses and associated use of restrictive measures (Bowers et al. 2014b).

Findings from the risk published paper (Muir-Cochrane et al., 2011a) suggest that mental health staff can in some part reduce the dominance of risk assessment and management in the care of patients. Implications from this published paper include the need for nurses to develop mastery in the balancing of therapeutic concerns with risk management processes in patient care, which is supported by the Safewards Model. In this way, it is possible for nurses to demonstrate respect towards patients and minimise the power imbalance experienced by patients (Cusack et al., 2018; Tingleff et al., 2017).

As described in Chapter Three, safety was discussed as having been reconceptualised as risk in the assessment and management of psychiatric inpatients. Ross (2018) asserts that reflection on the current risk discourse as a response to violence by psychiatric patients clouds a discussion of inhumane treatment and the negative impacts of restrictive practices. Perkins and Repper (2016) draw attention to the likelihood that, in attempts to reduce risk, the use of enforced treatment can serve to increase conflict and containment by destroying trust. Relationships between patients and staff are built on trust but patients' experiences demonstrate that this is lacking during enforced treatment (Dawson et al., 2021b). Furthermore, patients' experiences of hospitalisation show that they are mistrusting of both clinicians and services (Dawson 2021a; Dawson et al., 2021b; Muir-Cochrane et al., 2012).

Epistemic trust refers to an individual having faith in health professionals' knowledge and deeming it trustworthy (McCraw, 2015).The notion of epistemic injustice is relevant to the Safewards Model domain Regulatory framework as it refers to injustices created by national and international regulatory frameworks which deny patient freedoms based on their diagnosis of mental illness and their assessment as 'risky', which enforces treatment and containment (Kidd et al., 2017). Epistemic injustice involves silencing and excluding through a minimisation of an individual's autonomy and associated unwarranted distrust (Kidd et al., 2017). Gadsby and McKeown (2021) suggest that using terms like 'last resort' to refer to the use of restrictive practices can obscure routine practices of force and coercion, which in other settings would be considered epistemic violence, but in psychiatry have been legitimised. These authors go on to identify that ideas regarding the legitimacy of other restrictive measures can be disrupted by focussing on the

evidence of such practices to consider their equivocal nature. Chapters Three and Four discussed the varying quality of evidence to support restrictive interventions in psychiatric inpatient units, identifying the need for more robust research evidence and supporting the claims made by Gadsby & McKeown (2021).

To address a risk averse and containment culture, Rose (2005) suggests that health professionals might do better to refuse the demands of risk and learn to live with uncertainty. Otherwise, risk management approaches will continue to disempower other attempts to use least restrictive practices. A reframing of risk to safety of the patient and those around them can allow a refocussing of clinical practice where trust between patients and staff can allow a moderation of risk. This would involve moving away from efforts that aim to completely eliminate potential threats to one where some uncertainty is tolerated and where possibilities for recovery focussed care through safe risk taking can be realised, reducing an emphasis on containment methods (Coffey et al., 2017). The quest for less defensive and risk focussed care practices has been and continues to be supported (Wand et al., 2015).

Coffey et al. (2017) also draw attention to the less dramatic but significant risks for hospitalised patients including non-concordance with medication, social risk of lack of contact with loved ones, and the inability to carry out everyday activities. The published paper on absconding (Muir-Cochrane et al., 2021b) supports this, drawing attention to the reasons for absconding which included leaving hospital to attend to everyday activities outside of hospital and to visit family and friends for social contact. This research extends understanding of risk by identifying that patients view risks differently to nursing staff and that staff believe they can reduce absconding by acknowledging the needs of patients in their daily lives when hospitalised. However, the published papers on seclusion and restraint in this thesis (Gerace & Muir-Cochrane, 2018; Muir-Cochrane et al., 2018) draw attention to nurses identifying predominant risk assessment and management foci in care practices and how this detracts from being able to practice in a trauma-informed and least restrictive way. Other researchers have identified the bio-psychiatry focus with its emphasis on medication as a barrier to person-centred care (Dawson et al., 2021b., Rio et al., 2020). As such, the complexity of issues around safety and the use of restrictive measures makes practical considerations of the elimination of restrictive measures problematic.

7.5 Domain: Patient characteristics

Acuity of illness is a significant factor in this domain within the Safewards Model and a defining patient characteristic in the nature of flashpoints associated with conflict and containment in all the published papers in this thesis. These characteristics are largely driven by symptoms such as

psychosis or altered mental state which can lead to aggression or violence to self or others. In one of the published papers (Muir-Cochrane et al., 2021a), the majority of absconding patients had diagnoses of schizophrenia or psychosis evidencing the high acuity of patients with potentially high-risk behaviours. High acuity remains a significant organisational and clinical challenge noted in the published papers of this thesis; a concern that is also supported by others (Slemon et al., 2017; Tonso et al., 2016). The focus on symptomatology in this domain can be seen as bio-psychiatry centred and ignores other patient characteristics relevant to person-centred care such as gender diversity, cultural, and spiritual patient characteristics. From an Australian perspective, Bradley (2021) is the first paper exploring indigenous women's experiences of restrictive practices (which were negative), finding a lack of cultural understanding in the provision of care and a need for the adoption of culturally safe transcultural care practices. A broadening of the domain of patient characteristics in a person-centred manner could be a useful adaptation to the Safewards Model and associated interventions.

7.5.1 Aggression and violence an ongoing issue

Workplace violence is also a significant and perennial problem in health care settings and increases staff perceptions that restrictive interventions are necessary (Larsen & Terkelsen, 2013). A high proportion of nurses and mental health nurses have experienced violence and aggression with almost 70% of mental health nurses reporting physical aggression (Itzhaki et al., 2018; Kelly et al,. 2016; Niu et al., 2019). A US study found that almost 85% of nurses on psychiatric inpatient units had experienced verbal aggression and 80% experienced physical violence over the past 30 days (Ridenour et al., 2015). There is significant short-term trauma for staff being exposed to violence and aggression due to physical injuries and psychological distress (Rosen, 2013) as well as negative long-term impacts (Baby et al., 2014), including post-traumatic stress disorder and substance abuse (Jones & Lyneham, 2001). Violent incidents are also not consistently reported due to perceptions that the incident was not serious enough, that they would not be supported by their managers, and that nothing would change (Dafny et al., 2020). A recent systematic review reported that only 10 qualitative papers published in the last decade explored nurses' experiences of workplace violence (Zhang et al., 2021). Further research that focusses on antecedents and the effects of the environment on violence and aggression which extends the existing evidence base can provide potential answers to reduce this occupational hazard for staff, as well as improve patients' experiences of hospitalisation.

The fear and experience of aggression and violence towards nurses and health staff remains a significant barrier to the elimination of restrictive practices in health settings where no practical and effective alternative strategies exist. As Baby et al. (2014) argue, nurses do not see violence as

part of their job and yet they experience its negative effects. Longer-term sequelae of exposure to workplace violence include the ability of nurses to provide effective and empathic patient care (Kim et al., 2020), loss of experienced nurses from the workforce (Chapman & Styles, 2006), low staff morale, and perceptions of an unsafe working environment (Hegley et al., 2006; Hegley et al., 2010). These factors need to be foregrounded and addressed in any considerations of the use of least restrictive practices in the management of acutely unwell psychiatric patients, to maintain safety for staff and patients.

7.6 Domain: Outside hospital

7.6.1 Absconding as a normal reaction to stressors

The Outside hospital domain detailed in the Safewards Model involves a focus on the stressors experienced by inpatients from outside hospital and their effect on the potential for aggression and violence to be exhibited whilst the person is in hospital (Bowers et al., 2014b). The published papers on absconding contained in this thesis extend understandings about the need to leave hospital without permission as involving a person's acuity of symptoms, negative inpatient experiences (feeling unsafe), and a need to attend to everyday activities and to have social contact. These findings 'normalise' the act of absconding in a way not previously described in the literature and extend this Safewards domain which focuses on absconding being a reaction to a negative external event rather than negative inpatient experiences or an autonomous and volitional act by some patients. Other research, albeit in a forensic setting, support the findings from the published papers reporting that absconding was goal-directed, sometimes impulsive, or opportunistic (Martin et al., 2018). The findings from the published papers on absconding in this thesis suggests that nurses ought to be prepared and plan for the potential of inpatients to abscond as a normal response to their experience of involuntary commitment in hospital and not necessarily as a conflict behaviour. Such reframing can enrich nurses' understanding of why individuals leave hospital without permission and thus proactively engage with patients about their specific needs while in hospital.

This domain originally identified bad news experienced by patients from outside hospital (for example, illness of a family member) as a reason that may increase patient distress and potential aggression and violence leading to containment. It is now recognised that receiving bad news relating to an issue whilst in hospital as well as the receipt of bad news from outside hospital has significant deleterious effects on a person's wellbeing. The published papers on absconding provide new evidence that receiving bad news inside hospital about a patient's medical or psychological condition as well as enforcement or extension of involuntary commitment under the

Mental Health Act can lead to a patient absconding. Such evidence can be used to mitigate absconding through adoption of Safewards interventions such as Bad News Mitigation. There is very little research into the direct relationship between stressors outside hospital and the exhibition of aggression and violence by inpatients, and this is therefore an area worthy of examination.

7.7 Domain: Patient community

The Safewards Model domain Patient community is underpinned by contagion or discord (Bowers et al, 2014) in the patient community. Contagion refers to patients exhibiting behaviours in response to the behaviours of other patients in hospital or because behaviour by other patients causes agitation or distress, and may increase symptomology which may trigger aggression and violence. Conflict refers to discord between patients which could be due to environmental factors such as overcrowding or fear of other patients (Voss & Bartlett, 2019). Other studies have reported patients experiencing sexual harassment and bullying (Bowers et al.,1999; Muir-Cochrane et al., 2013), the latter being one of the published papers in this thesis. That paper details the negative impact that interaction between consumers could have on their experience of hospitalisation and influence their decision to abscond. When patients witnessed unusual or bizarre behaviour, aggression and violence by other patients, they felt unsafe and fearful. Feeling safe with other consumers is a fundamental component of a positive experience of hospitalisation and is interconnected with other aspects of the Safewards domains such as the Staff team and the Physical environment. Fletcher et al. (2019a) identify that consumer perspectives of Safewards have been lacking in the development of the model to date. Their evaluation of consumers' perspectives about the impact of Safewards on the experience of hospitalisation found that consumers reported a greater sense of community due to increased consumer participation in the everyday activities of the ward, although consumer perspectives of each other was not specifically examined. Further research into how consumers perceive each other in inpatient settings and factors that increase or decrease their sense of safety would be a useful contribution to understandings about how to reduce conflict and contagion within the patient community. The carer perspective is also an area ripe for research investigation into their experiences regarding acute psychiatric inpatient units.

7.8 Domain: Staff team

All of the published papers in this thesis relate in some way to the Staff team domain. The Safewards Model articulates this domain as relating to the internal structure of the inpatient unit and the overall ward culture including how staff respond to aggression and violence. Flashpoints in this domain refer to staff exerting control to manage ward disruptions when there is conflict

between staff and patients. The Safewards Model discusses the need for staff to possess teamwork skills and technical mastery through education and training (Bowers et al., 2014b). Also, the model stressed that a second approach is to deal with flashpoints differently, for example by less limit setting and rule enforcement, and by use of the Safewards interventions.

7.8.1 Nurses' concern about elimination of seclusion and restraint

The published papers in this thesis on seclusion and restraint (Gerace & Muir-Cochrane, 2018; Muir-Cochrane et al., 2018) demonstrate that nurses are aware of the need to use seclusion and restraint as a last resort but do not believe that these practices can be totally eliminated (apart from mechanical restraint) as there was a lack of availability of alternatives and adequate support from management, as Kinner also found (2017). The lack of supportive management and effective leadership (Gabrielsson et al., 2016) remain key organisational challenges to reducing restrictive practices. Muskatt (2014) supports this, stating that the elimination of seclusion and restraint is seen to be utopian (an unachievable goal) by many mental health nurses in inpatient settings.

It is useful to explore the concept of moral distress to situate nurses' experiences on acute psychiatric units. Moral distress of nurses was defined by Jameton (1984) and refers to negative emotions and distress experienced when an individual knows the right thing to do but is constrained by internal or external factors from doing that right thing. Nurses identifying seclusion and restraint as a necessary evil (Brophy et al., 2016; Wilson et al., 2017) is a prime example of moral distress. Also, when nurses do not feel safe at work and are exposed to regular violence and aggression, they experience moral distress which can lead to burnout and post-traumatic stress disorder (Jansen et al., 2020). In Jansen's study (2020), participants experienced pressure by their managers to reduce the use of coercive measures and this caused moral distress in the context of managing aggression and violence exhibited by patients. Recognition of the phenomenon of moral distress in considerations of reducing or eliminating restrictive practices is vital to support staff working in acute inpatient units and research into this topic can facilitate strategies to support staff in their daily practice.

7.8.2 On chemical restraint

A further issue relating to the Staff team domain is that of more clearly understanding the use and effectiveness of chemical restraint. Chemical restraint, understandings of medications, and their efficacy remains in its relative infancy with ongoing lack of clarity about an internationally agreed definition. The extent to which therapeutic and non-therapeutic uses of chemical restraint can be differentiated is contested (WPA, 2020) despite the published papers on chemical restraint offering some clarity (Muir-Cochrane et al., 2020a, Muir-Cochrane et al., 2021a). The published papers in

this thesis identify gaps in knowledge due the heterogeneity of research studies and the need for methodological rigour in research to explore the phenomenon of chemical restraint further. Findings also identified that patients feel that chemical restraint is a form of violence and unjustified, warranting further investigation.

Other papers have attempted to define chemical restraint (Muir-Cochrane, 2020d) and have examined prevalence of the use of chemical restraint (Muir-Cochrane et al., 2020e) and the effectiveness of specific medications (olanzapine and droperidol) in the management of aggression and violence (Muir-Cochrane et al., 2021c). Nevertheless, a patient's agitation may be due to their symptoms or a result of the environment and their experiences, suggesting further investigation into what other non-pharmacological interventions have been tried first could help distinguish between treatment and chemical restraint (WPA, 2020). The range of medications used alone or in combination in chemical restraint requires nursing and other health staff to gain knowledge that is contemporary. It also requires their competence in pharmacokinetics and pharmacodynamics and this is an area of focus for future examination.

A recent prevalence study (Muir-Cochrane et al., 2020e) was the first paper to systematically review the prevalence of the use of chemical restraint over a 22 year period, establishing a rate of 9.5% of all patients in the dataset having been chemically restrained. More men than women experience this form of restraint and wide variations exist across countries, likely due to issues in data capture and recording accuracy. Findings show that patients who are chemically restrained are likely to also experience physical restraint, and that the reporting of adverse events and a need for medical management post chemical restraint is important to attend to a patient's physical health needs. Staff in acute inpatient settings thus require contemporary training and education in the physical health needs of patients, particularly in the context of caring for patients who have been chemically restrained. Seventeen of the 48 papers reported that chemical restraint was not the preferred first-line management strategy, but the reviewed papers did not provide details of the strategies or why they were not successful (Muir-Cochrane et al., 2020e). Further research into the first-line non-pharmacological management strategies can expand the knowledge base of the use of chemical restraint and increase staff knowledge about the dynamics of the use of chemical restraint.

Gadsby and McKewan (2021) argue that forced treatment with drugs is the least defensible of all forms of restrictive practices. Their paper does not define chemical restraint specifically but appears to refer to all forced administration of psychiatric medications. Forced treatment may include the administration of long-term depot injection if a person is on a community treatment order under the Mental Health Act, whereas the definition of chemical restraint in this thesis refers

to the emergency administration of medication to manage acute agitation, aggression, or violence. Gadsby and McKewan (2021) posit that the evidence for psychotropic medication is contested, citing Moncrieff (2009, 2020) who questions whether medication is treatment at all and raises concerns about the long-term side effects of medications. The discussion paper by Gadsby and McKewan (2021) is a call for action for mental health nurses to conscientiously object to current forced medication practices. Moncrieff (2020) proposes that nurses ought to engage in providing patients with informed choices rather than coercion about their treatment options. Gadsby and McKewan (2021) raise controversial and serious questions about coercive practices and call for political action by mental health nurses to be activists to facilitate transformational change in mental health care from the coercive management of acutely unwell psychiatric patients to compassionate care. A move from coercive bio-psychiatry to partnerships in treatment between patients and health professionals also sits with the work of Roper et al. (2021) who propose mental health services where forced treatment of any kind is absent. These ideological positions can serve to make incremental change over time, but they would require a major revision of national and international regulatory frameworks, policy, and practice. However, currently there are no solid, tangible solutions which can realise the elimination of restrictive practices in Australia or overseas.

7.8.3 Security guards as new members of the team

Security guards are a recent addition to hospital staff teams, with limited research on this workforce group undertaken to date. One published paper in this thesis on security guards draws attention to the presence of security staff in all heath settings today. There is no mention of security guards in the Safewards Model, but it is evident that the presence of security staff in health care settings is commonplace. This has been because of increasing hospital-based violence (Muir-Cochrane & Musker, 2015) in Australia and internationally (Niu et al., 2019). In Australia, the amount of training and preparation of security guards is not standardised, although some security firms have a minimum training standard of a Certification Level 2 five-day training course (Muir-Cochrane & Musker, 2015). Further examination of their role is essential to ensure the provision of safe quality care in hospitals. Traditional security measures focus on zero tolerance to risk and on the containment of individuals to prevent, manage, or minimise aggression and violence. In the published paper on security guards (Muir-Cochrane et al., 2020b), security staff were frequently ‘stood down’ on arrival at an incident, indicating that a ‘show of force’ was utilised by nursing staff to manage a situation. Pich (2019) argues that increasing security may be counterproductive in safety practices as security staff may further arouse acutely ill patients if communication with patients is not sensitive, causing the situation to escalate. Pich calls for specially designed training for security staff, particularly in mental health issues, drug, and alcohol misuse, including methamphetamines.

Limited studies investigating the role of security guards currently exist, and they tend to have had a focus on the attitudes towards security staff by health professionals or their effectiveness (Gillespie et al., 2013; Partridge et al, 2017). One recent Australian study explored the experiences of security staff in a multi-site study across EDs (Wand et al., 2020). Findings demonstrate that security staff felt unsafe at times and are concerned about their legal position in restraining patients. They did not feel respected by health staff and acknowledged that guarding patients in EDs for long periods of time could increase the potential for aggression and violence. These authors concluded that greater clarity was required regarding the role of security staff, and they raised concern about the involvement of security staff in a 'clinical role' with close physical contact with patients (Wand et al., 2020). Their paper was submitted for review prior to the publication of the published paper on security guards and supports the findings of this published paper (Muir-Cochrane et al., 2020b).

A recent Joanna Briggs Evidence summary (2021) found no evidence that the use of security staff to prevent or manage violence in health settings has been evaluated in relation to effectiveness. As such, without evidence-based recommendations, health care organisations need to determine their security approaches in individual settings. Thus, there is a need to conduct further research into the role, function, education, and training needs of security guards to advance the knowledge base in this area. In this way, the domain Staff team can better reflect all the actors involved in the management of aggression and violence. Research evaluating the efficacy of security approaches is also required to determine safe provision of care. The next section explores the concept of trauma-informed care as a mechanism to strengthen the staff team and facilitate the use of least restrictive measures.

7.8.4 Trauma-informed care

Meaningful engagement is a central component of the Safewards Model with the 10 interventions aimed at knowing patients and their preferences and attending to their concerns (Bowers, 2014). The literature on trauma-informed care is useful to understand how staff can mitigate restraint practices by adopting patient-centred care approaches. This can help change culture at the unit and organisational level if such practices are supported and encouraged by management. Trauma-informed care is a systems focussed approach that recognises the extent and impact of trauma among people with mental health problems (Reeves, 2015). Hospitalisation has the potential to retraumatise patients, as discussed in Chapter Three, and trauma-informed care has gathered traction as an approach that can focus on the patient experience, on patients' needs, and mitigate negative experiences of hospitalisation (Wilkson et al., 2017). The core principles of trauma-informed care include that: patients need to be assisted to feel connected and hopeful about their

recovery; staff are knowledgeable about the link between childhood trauma and mental health problems; and staff empower and promote autonomy in patients and their families and friends (Muskatt, 2014). In Australia, reports have supported the need for mental health services to practice trauma-informed care (Isobel et al., 2021) but there is little guidance about how this is to be done. Isobel et al. (2021) interviewed consumers and carers about their perspectives on how this could be achieved, finding that participants identified increased knowledge base of staff as important, together with strategies to build trust and make wards feel safe to patients. These findings are helpful to support trauma-informed initiatives where patient preferences are actively sought out and listened to, and where the use of Advanced Care Directives and care plans written by both patients and staff can uphold a person's autonomy. Nevertheless, continuing barriers to the practice of trauma-informed care have been identified, including patient acuity, bio-psychiatry approaches and an emphasis on emptying beds, reducing opportunities for person-centred care (Rio et al., 2020). The final domain to be discussed is the Physical environment which in the Safewards Model includes the quality of the built spaces and how comfortable they are as well as the presence of seclusion rooms, whether the front door is locked, and the presence of quiet spaces and sensory rooms.

7.9 Domain: Physical environment

This figure shows a psychiatric intensive care unit in Odense, Denmark. It is furnished in a home-like way adopting 'hygge' (the Danish cultural concept of cosiness) to facilitate wellbeing. The image in this figure stands in stark contrast to the current seclusion room image shown in Figure 2 (page 67) and raises questions about why such large differences in care approaches remain in developed countries.

Figure 7. Psychiatric intensive care unit in Denmark (2017)

The Safewards Model details the physical environment as containing features which influence the amount of conflict and containment in inpatient units. The majority of the published papers in this thesis (absconding, seclusion and restraint, chemical restraint, security guards) relate to the physical environment in terms of how restrictive practices are used by staff. The relationship between ward design and negative outcomes such as aggression or therapeutic outcomes such as patients feeling safe and cared for is complex with limited definitive conclusions (Rogerson et al., 2021). However, ward environments which are homely, with comfortable furniture and decorated with abstract art and natural soft lighting, have been recommended to facilitate therapeutic environments (Jovanovic et al., 2019; Shepley et al., 2016; Ulrich et al., 2018). A published paper in this thesis (Muir-Cochrane et al., 2013 p. 308) provides detail about patients desiring tranquil and calm surroundings with outdoor areas and the use of colour indoors. They complained that the physical environment was ‘too crowded, noisy, too busy, too hot or cold, and ugly’.

A recent systematic review examined 35 studies on architectural design and the use of restrictive practices in acute inpatient settings (Oostermeijer et al., 2021). The findings demonstrated that although the quality of studies was low a number of core elements for a therapeutic environment emerged. Uncrowded spaces, access to gardens and recreational areas, sensory or comfort rooms were seen to support the reduction in the use of seclusion and restraint, although it is difficult to demonstrate direct causality (Oostermeijer et al., 2021). These authors suggest that a multi-

layered approach to the reduction of seclusion and restraint is useful in both new builds and redesign of inpatient units, particularly with co-production with consumers to create innovations in design that are based on individuals' lived experience of hospitalisation. Very few studies have examined what activities patients would like whilst in hospital even though boredom has been linked to self-harm and aggression (Foye et al., 2020). A range of activities in inpatient units (e.g. art music and exercise) were suggested by patients (Foye et al., 2020). Research has shown that patients' family and carers would like a home-like and friendly environment in inpatient settings where normal social activities and communication could occur, but this was generally lacking in existing settings where a sparse clinical environment is justified due to risk management concerns about ligature points (Pinto-Peri et al., 2019).

One of the published papers in thesis on absconding (Muir-Cochrane et al., 2013) used the concept of therapeutic landscapes to show how consumers perceive the psychiatric unit as safe and unsafe. Feelings of safety depend on the relationship between the physical environment, sense of social, symbolic and individual aspects of the unit. For these consumers, a comfortable friendly environment reduced their likelihood of absconding. These findings support and extend this domain of the Safewards Model. A commitment to less clinical and more home-like ward environments is required by mental health services to support the goal of reduction of least restrictive environments. Having discussed the domains of the Safewards Model in relation to the published papers in this thesis and how findings support and extend the model, the next section provides reflections on the Safewards Model and opportunities for its further development to enhance patients experiences of hospitalisation.

7.10 Reflections and further development of the Safewards Model

A recent systematic review of the implementation of the Safewards Model to inpatient units (Finch et al., 2021) examined 13 studies of which only four were of high quality and seven were of moderate quality. Due to the heterogeneity of studies a meta-analysis could not be undertaken. These authors found some evidence that the model could decrease conflict and containment in mental health service inpatient settings, but this could not yet be established in the wider health services in which it had been implemented. Finch et al. (2021) suggest that it is possible that reductions in conflict and containment could be due to the focus on reducing such events rather than the Safewards Model itself, particularly given the low fidelity reported in studies evaluating the model. These authors conclude that further research is necessary to explore these issues and to examine the fidelity of Safewards implementation to extend the current evidence base of this model.

The Safewards Model places strong emphasis on the nature of the relationship between staff and inpatients and whilst this is a significant component, this should not be relied on as the core factor in the quest to reduce conflict and containment on inpatient units (Pinto-Peri et al., 2019). As discussions in this chapter have shown, the capacity of mental health services to provide a therapeutic environment for patients and staff relies also on the nature of regulatory frameworks, on the physical environment, and the acuity and variability of patients' mental health. Thus, there is a complexity of factors at play that need to be considered and examined at the micro (patient-staff engagement) level, the meso (physical environment, ward structure, routine and activities) level, and the macro (regulatory framework) level. The Safewards Model conceptualises a linear relationship wherein events within originating domains can result in flashpoints that can then set in motion potential conflict and containment (Fletcher et al., 2019a, 2019b). It is arguable that this conceptualisation is too simplistic due to the complex factors at play beyond patient and staff modifiers. Wyder et al. (2017) also identify the complexity of the nursing role (balancing care, control, and safety) and upholding regulatory frameworks (mental health legislation and mental health service policy) as well as operational barriers (risk management) as significant factors when providing person-centred and trauma-informed care. These authors call for multi-dimensional interventions through participatory methods with carers, consumers, and staff and mental health services managers to improve patients' experiences of hospitalisation.

In relation to participatory methods with carers, consumers, and staff, some authors have called for enhancements to the Safewards Model to reflect and promote trauma-informed care approaches that can facilitate an inpatient experience of safety not currently reflected in the existing model (Kennedy et al., 2019). This discursive paper, written from a consumer perspective, usefully critiques the Safewards interventions and proposes adaptions to refocus on trauma-informed patient-centred care that clinicians can implement. This is a significant contribution to the literature on the Safewards Model given the consumer and carer perspective is largely absent from existing research into Safewards (Fletcher et al., 2019c). Such considerations can further develop the Safewards Model as an explanatory approach to why conflict and containment occurs, and how it is implemented and maintained. Consumer researchers identify that the Safewards Model is a reformist and not a transformational model and does not address the legitimacy of coercive treatment or involuntary treatment, which are fundamental issues to be grappled with by those pushing for the elimination of all forms of restrictive practice and coercive treatment (Kennedy et al., 2019). However, such transformational changes require visionary, innovative practices to eliminate coercion in inpatient settings that to date have not been realised as no safe, realistic, and practical alternatives have been developed.

By way of helping to progress these changes, the published papers in this thesis provide useful and important understandings about how restrictive practices are used and perceived as well as why patients abscond. The eight published papers on chemical restraint and the role of security guards extend existing knowledge in a nascent area of research, while the papers on risk absconding and seclusion have added to the body of international research that exists and aided the development of further research questions to be explored. This knowledge can facilitate at least incremental change in clinical practice to further reduce the use of control measures; albeit, acknowledging that it does not present an antidote for their use.

7.11 Summary

This chapter has discussed the significance of the published papers in this thesis in the context of the Safewards Model and associated literature about restrictive practices. Trauma-informed care approaches are supported to decrease the power differential between patients and nurses and reduce associated conflict and use of restrictive practices. However, the moral distress experienced by health staff is a significant issue that needs to be addressed in supporting staff and to prevent burn-out. The emphasis of bio-psychiatry in inpatient units, high patient acuity, and the incidence of aggression and violence in hospital settings reinforces risk approaches that inhibit patient autonomy, and cause conflict between staff and patients which lead to restrictive practices. These practices, in-turn, traumatise patients and limit efforts to reduce or eliminate their use. The final chapter concludes the thesis.

CHAPTER EIGHT
CONCLUSION

> 'Confronted with the constant churn of admissions and readmissions of clients with challenging behaviours, and seemingly intractable mental illness, the elimination of seclusion and restraint is seen to be utopian by many mental health nurses in inpatient settings.'
>
> (Muskett, 2014 p.52)

8.1 Introduction

This chapter concludes the thesis, briefly summarising the contribution of the published papers and identifying the use of restrictive practices as a wicked problem. Directions for continuing and future research directions are outlined.

8.2 Brief summary of the research of the published papers

Containment and confinement of consumers following acutely disturbed behaviours remains a common occurrence globally (Mayers et al., 2010, Stensgaard et al., 2018, Baumgardt et al., 2019). Over my academic career, I have published many papers on seclusion and restraint and associated topics, eight of which are included in this thesis. Although focussed on Australia, the research adds to the international body of literature on restrictive practices, how and why they are used, and the consumer experience. Alignment of the research with the Safewards Model has allowed a further consideration of the findings of the published papers against recent research, and identified further areas for investigation. The findings from the published papers in this thesis have been used locally, nationally, and internationally by researchers and advocates to inform policy and position statements and to change clinical practice in South Australia to some degree.

Findings from the published papers have extended knowledge in risk assessment and balancing safety with control measures as well as illuminating the nature of absconding as a normal reaction to stressors experienced as an inpatient. The published papers on seclusion and restraint portray the complexity of issues facing nurses in making decisions about whether or not to use restrictive measures and the barriers they perceive to eliminate the use of seclusion and restraint altogether. Findings from the published papers on chemical restraint offer new insights into the heterogeneity of existing studies about the effectiveness of medications used in chemical restraint as well as the negative perceptions of consumers about its use. Finally, the paper on the role of security guards documents the pervasive role that security plays in hospitals today and the direct involvement of security guards in the application of restrictive practices. The published papers cover settings that include acute aged care psychiatric units, medical and surgical wards, acute psychiatric inpatient

units, and EDs. As such, the findings have provided a comprehensive picture of the distinct elements of a range of health care settings and how restrictive measures are used within them. The next section discusses restrictive practices as an intractable and wicked problem.

8.3 Restrictive practices: a wicked problem

This thesis has grappled with the use of restrictive practices that are recognised as deleterious to inpatients and recognised as a failure of treatment. Nevertheless, such practices remain commonly in use with significant barriers to their elimination (Stensgaard et al., 2018, Baumgardt et al., 2019).

The continued use of seclusion and restraint is a wicked problem that requires sustained attention in order to provide the least restrictive care in inpatient settings. The term 'wicked problem' was first used in the 1960's referring to problems in planning and policy and can be defined in various ways although there is conceptual confusion in how it is used (Termeer et al., 2019). Here, it is used here to refer to restrictive practices commonly employed to manage aggressive and violent behaviour in inpatients. Wicked problems are recognised as potentially insolvable and problems that may also make things worse by generating undesirable consequences (Churchman, 1967; Petrie & Peters 2020). Wicked problems can refer to a problem that cannot be fixed, that there is no single solution to the problem, and that the term 'wicked' refers to the resistance to resolution of the problem rather than its evil nature (Kuntz et al., 1970). Stigma, climate change, and the Corona virus have been identified as wicked problems in contemporary society (Henderson & Gronnholm, 2018; Klasche, 2021). It is clear that despite efforts to reduce restrictive practices, there are significant barriers to effect such change at the clinical interface, and within health services that have limited opportunities for the transformative changes required if restraint is to be eliminated in the care of inpatients in mental health and other services. The ideology of the elimination of restrictive practices has identified the complexity of the many issues regarding the care of individuals when they are acutely agitated, aggressive, or violent, but this ideology has not yet been translated into real world practical and safe solutions.

8.4 The road to least restrictive care

Recovery focussed, trauma-informed, and person-centred care approaches can provide the foundation on which least restrictive care practices can be adopted in acute care settings. Research evaluating the embedding of such approaches within the Safewards Model can elicit further understandings about how to improve patients' experiences of hospitalisation. The use of consumer focussed tools and practices and research into their efficacy can also improve the provision of quality care. The dominance of bio-psychiatry remains a significant barrier to

consumer focussed care practices and authors have called for political action by mental health nurses to be activists to encourage compassionate and not coercive care (Gadsby & McKewan, 2021; Roper et al., 2021).

As has been identified, the Safewards Model is a reformist and not a transformative model and until the legitimacy of the use of restrictive measures is overruled through changes to mental health legislation, such practices are likely to continue, if only because there are no safe alternatives to the management of acutely disturbed behaviour. However, further research exploring the dynamics of conflict in acute inpatient units and the nature of restrictive practices can serve to find solutions to reduce conflict and in-turn reduce the need for restrictive measures.The next section briefly discusses the resignations of two experienced and respected health professionals as their response to the current significant issues facing South Australian mental health services where the research in the published papers in this thesis was undertaken. The parlous state of South Australian mental health services drastically reduces opportunities for ongoing change to reduce restrictive practices.

8.5 South Australian mental health services in crisis

In early 2021, Adjunct Professor John Mendoza resigned from his position as executive director of mental health and prison health services at the Central Adelaide Local Health Network (CALHN), stating ‘I’m not going to waste my time in a sense pretending I’m part of some reform effort when it’s not there. If I felt I could continue to make a difference at a system level, if we could build on the work we’ve done here (in CALHN), if we could solve these systemic problems which South Australia has had for decades, I would stick at it. But there’s little prospect of that’ (Chapman, 2021a). Later in 2021, a senior mental health nurse resigned his post with SA Health after 21 years, saying ‘it’s time to stop trying to fix what is out of my control’ (Chapman, 2021b). The Australian Nursing and Midwifery secretary Elizabeth Dabars stated that the lack of reform in mental health services was extremely frustrating and perpetuated poor quality provision of care. There continues to be a shortage of qualified mental health staff as well as below par in-hospital capacity, limited community capacity, and patients are spending excessive time in EDs due to lack of available beds. Dabars said, ‘more beds were needed in the system, particularly inpatient and psychiatric intensive care beds to get people out of the emergency department’ (Chapman, 2021b).

During 2021, more acute mental health beds have been created as well as the recent opening of a new Urgent Mental Health Care Centre in the centre of Adelaide. However, staff shortages remain and long wait times for people with a mental illness in EDs continue. Wicked problems need complex analysis and planning for transformative change, and it is likely that in the short-term at

least only incremental change in acute inpatient care can be realised in the quest to reduce the use of seclusion and restraint in South Australia.

8.6 A final personal note

I remain confounded about the 'how' of eliminating seclusion and restraint altogether. Although I had experiences of the physical restraint of patients, I had never been involved in the use of seclusion in the UK because I worked in settings where it was not used. Mechanical restraint using shackles is also not used in the UK and this demonstrates the cultural differences that can influence the use of various types of restrictive practices and their associated acceptability.

There is so much restriction in every aspect of acute mental health care today, from involuntary treatment to constant observation and locked doors, and such restriction has been normalised and legitimated in regulatory frameworks around the world. Nurses are caught between 'a rock and a hard place' in attempting to provide care as well as enforce control over patients and are disempowered within a risk focussed and bio-psychiatric approach to the treatment of mental illness. As this thesis has shown, nurses experience significant moral distress in their work on acute inpatient units and are also regularly exposed to aggression and violence; theirs is an unenviable task. I believe nurses have a vital role to play in implementing the best evidence into practice and have to be accountable and implement changes to provide the best possible care. However, nurses and other health professionals work within a system of control that limits their ability to make radical change. I hope that consumers supported by health professionals continue to lobby for the ongoing reduction and elimination of restrictive practices but will need to be armed with viable alternatives to provide safe care.

8.7 Summary

This chapter concludes this thesis by drawing together the multi-faceted aspects of the issues at play in the use of restrictive practices in the care of individuals when they are severely agitated, aggressive, or violent. The range of settings of the research conducted in the published papers exemplifies that restrictive practices are common in a range of settings and across age groups and that there are significant challenges to further reduce or absolutely eliminate restrictive practices. Further investigations into how to re-vision regulatory frameworks and associated policy and practice are required to extend possibilities of care using least restrictive practices.

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APPENDICES

Appendix 1. Co-Authorship Declaration

This declaration relates to Muir-Cochrane, E., Gerace, A., Mosel, K., Barkway, P., O'Kane, D., Curren, D., & Oster, C. (2011a). Managing risk: Clinical decision making in mental health services. *Issues in Mental Health Nursing, 32*(12), 726-734.

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Appendix 2 Co-Authorship Declaration

This declaration relates to Muir-Cochrane, E., Oster, C., Grotto, J., Gerace, A., & Jones, J. (2013). The inpatient psychiatric unit as both a safe and unsafe place: Implications for absconding. *International Journal of Mental Health Nursing, 22*(4), 304-312.

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Appendix 3 Co-Authorship Declaration

This declaration relates to Muir-Cochrane, E., Muller, A., & Oster, C. (2021a). Absconding: A qualitative perspective of patients leaving inpatient psychiatric care. *International Journal of Mental Health Nursing, 30*(5), 1127-1135.

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Appendix 4 Co-Authorship Declaration

This declaration relates to Gerace, A., & Muir-Cochrane, E. (2018). Perceptions of nurses working with psychiatric consumers regarding the elimination of seclusion and restraint in psychiatric inpatient settings and emergency departments: An Australian survey*. International Journal of Mental Health Nursing, 28*(1), 209-225.

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Appendix 5 Co-Authorship Declaration

This declaration relates to Muir-Cochrane, E. C., O'Kane, D., & Oster, C. T. (2018). Fear and blame in mental health nurses' accounts restrictive practices: implications for the elimination of seclusion and restraint. *International Journal of Mental Health Nursing, 27*(5), 1511-1521.

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Appendix 6 Co-Authorship Declaration

This declaration relates to Muir-Cochrane, E., Oster, C., Gerace, A., Dawson, S., Damarell, R., & Grimmer, K. (2020a). The effectiveness of chemical restraint in managing acute agitation and aggression: A systematic review of randomised controlled trials. *International Journal of Mental Health Nursing, 29*(2), 110-126.

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Appendix 7 Co-Authorship Declaration

This declaration relates to Muir-Cochrane, E., Muller, A., & Oster, C. (2021a). Chemical restraint: A qualitative synthesis review of patient and staff experiences. *Nursing and Health Sciences, 23*(2), 325-336.

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Appendix 8 Co-Authorship Declaration

This declaration relates to Muir-Cochrane, E., Muller, A., Fu, Y., & Oster, C. (2020b). Role of security guards in Code Black events in medical and surgical settings: A retrospective chart audit. *Nursing and Health Sciences*, *22*(3), 758-768.

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