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Use of the Safewards Model in healthcare services: a mixed-method scoping review protocol

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ABSTRACT

Introduction Safewards is an organisational approach to delivering inpatient mental health services. The aim of Safewards is to minimise the number of situations in which conflict arises between healthcare workers and patients that lead to the use of coercive interventions (restriction and/or containment).
The Safewards Model has been developed, implemented and evaluated for its impact on all forms of containment. Safewards has been adopted as the recommended approach to preventing patient agitation and clinical aggression in some jurisdictions. Notwithstanding these recommendations, the outcomes of Safewards for staff and patients have not been comprehensively described. The aim of the scoping review is to describe (1) Safewards interventions; (2) how Safewards interventions have been implemented in healthcare settings; (3) outcome measures used to evaluate the effectiveness of Safewards; (4) barriers and enablers to the uptake and sustainability of Safewards. This review will provide a foundation for further research and/or systematic review of the effectiveness of Safewards.

Methods and analysis Peer-reviewed manuscripts of quantitative, qualitative and mixed-method research in English with be included for the period 01 January 2013– December 31st 2020. Electronic databases including Cumulative Index to Nursing and Allied Health Literature, Cochrane, Embase, Emcare, Joanna Briggs Institute, Medline, Global Health, PsycINFO and Scopus will be searched. Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews checklist and explanation and the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocol will be followed. Publications will be excluded if they do not include the required participants, concept or context. Two reviewers will independently screen all titles and abstracts and full-text studies for inclusion.

Ethics and dissemination Ethical approval for this review is not required as the information to be collected is publicly available. There are no participants or safety considerations in this review of published literature. Key findings for future research and clinical practice will be disseminated though peer-reviewed publication, stakeholder reporting and conference presentations.

Strengths and limitations of this study

- This scoping review protocol is the first to focus on the Safewards interventions using a transparent and systematic method to reduce bias.
- The comprehensive search strategy, inclusive of grey literature, will support the identification of a broad range of interprofessional publications.
- The specified data extraction fields will support the identification of effectiveness, barriers and enablers, but this review does not seek to establish effectiveness.
- The scoping review will synthesise findings across a broad range of study types and designs.
- Use of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews tool will support a systematic approach to the reporting.

BACKGROUND

Accessing healthcare can be a challenging and stressful experience for patients and their carers/families. This is particularly so when a person is experiencing sudden ill health or injury, pain, discomfort and diagnostic uncertainty. The complexity of healthcare environments and healthcare systems can further contribute to suboptimal communication resulting in conflict between patients and healthcare providers. Such situations can result in aggressive and/or violent behaviours by patients that may serve as precipitants to further negative actions by the patient. This includes patients self-harming or deciding to leave part-way through treatment or against medical advice. These actions expose healthcare organisations to risk and individual staff to potential injury.[1]

To maintain the safety of patients and healthcare workers, restrictive interventions, specifically physical, mechanical and chemical restraint, may be employed alone or in combination.[2 3] The use of restrictive interventions in acute healthcare settings, including hospital emergency departments (EDs), is common practice.[4] Despite this, there are significant harms associated with restriction.[5] Research shows that restrictive interventions used in the context of a 'code

grey' response[6] (emergency response from security and clinical staff to an unarmed threat) are associated with negative experience and emotions among both patients and staff.[7 8]

The use of restrictive interventions disrupts the therapeutic relationship between the patient, healthcare workers and their families. This, in turn, negatively impacts the ability of the patient and healthcare professional to work cooperatively to optimise health and wellbeing.[9] The adverse effects of restrictive interventions are particularly detrimental for those people who may suffer long-term mental health conditions and need to access healthcare in the future. Importantly authors have noted that previous use of restrictive interventions influences patient decisions to seek subsequent hospital care.[10] Physical restraint continues to be used despite known physical and/or psychological harm experienced by mental health patients; international concern over that restraint still occurs, as well as the call for eradication of this practice.[9]

The Safewards Model is a way of organising and delivering health services to reduce situations where conflict during interactions with patients may lead to containment (such as seclusion in a locked room or the use of physical and/or mechanical restraint).[1] The Safewards Model was developed initially for use in mental health services; however, it has since been used to prevent conflict and containment in other healthcare settings. Safewards presents a way for healthcare staff to identify and address triggers resulting in conflict by, for example, staff imposing rules and restrictions on patient and family contact. Staff actions may, at times, serve as antecedents to conflict and the subsequent use of harmful interventions (such as seclusion and restraint). Ultimately Safewards aims to reduce the likelihood of conflict and containment.[11]

Safewards is the recommended model of care in Australia for preventing agitation and aggression among patients[12] and is so regarded internationally.[13] The Safewards Model according to Bowers employs a set of prevention and intervention strategies that are designed to promote a therapeutic response to minimise conflict and containment among patients thereby optimising patient and staff safety.[14]

The Safewards Model requires healthcare providers who are educated and skilled in this approach to recognise contributing factors that lead to aggression and conflict and then respond to reduce the risk of situational triggers that may result in containment.[15 16] Where a restrictive intervention is deemed necessary, on the basis of patient safety, the Safewards Model advocates the application of least restrictive intervention/s to prevent harm and minimise conflict.[11]

There has been extensive funding allocated to reducing the risk of violence in healthcare both internationally and nationally. For example, in Australia there are initiatives funded by work compensation insurance schemes to increase public awareness of violence in healthcare.[17] Likewise strategies to improve ward and hospital security through staff training and security reviews have been implemented.[18 19] These initiatives, however, do not address the factors that contribute to episodes of violence, or provide evidence of the best interventions to ensure staff and patient safety.

There are several organisational initiatives to reduce occupational violence and the use of restrictive interventions. One example is the Six Core Strategies programme which uses data, leadership, workforce development, prevention strategies such as de-escalation, enhancing consumer roles and debriefing in mental health settings to reduce the use of seclusion and restraint.[20] This model has been successful in reducing restraint and seclusion in mental health settings and highlights the need to understand the dynamic relationship between health services, model implementation and consumer outcomes in different settings.[21]

A preliminary search of the literature identified some studies reporting favourable outcomes for patients, healthcare providers and systems when healthcare services employ the Safewards Model. Internationally, there has been one randomised controlled trial in adult mental health inpatient wards (n=16) that found a significant reduction in rates of conflict by 15% (95% CI 5.7% to 23.7%) and containment by 23.2% (95% CI 9.9% to 35.5%) relative to control wards (n=15).[14] In Australia, a before and after comparison study of the effect of Safewards on the practices of nurses in 13 mental health inpatient units identified a 36% reduction in seclusion incident rate ratio (from 1.0 to 0.64, p=0.04) at 12-month follow-up in wards using Safewards, compared with no change in comparison wards.[22] This evaluation also reported that implementation of Safewards improved communication, optimism and relationships among patients and healthcare providers.

Research has shown that increasing awareness through collaboration and reflection by ED nurses leads to a shift in attitudes towards restraint with less reliance on coercive interventions.[23] Despite this, restrictive interventions used in EDs continue and only a minority of people who experience restraint are admitted to mental health wards.[4]

Given the prevalence, cost of conflict and containment, and negative outcomes for patients and staff, there is potential for the Safewards Model to reduce situations where conflict during interactions with patients may lead to containment.

The aim of the scoping review is to comprehensively describe:

1. Safewards interventions.
2. How Safewards interventions have been implemented in healthcare settings.
3. Outcome measures that have been used to evaluate the effectiveness of Safewards.
4. Barriers and enablers to the implementation, uptake and sustainability of Safewards as reported by patients, staff and researchers.

It is anticipated that the scoping review will be useful for health services considering implementation of Safewards

and will establish the need, or otherwise, for further research and/or systematic review of the effectiveness of the Safewards Model on reducing the rates of conflict and containment and/or the experiences of healthcare staff and patients. The review will describe the Safewards Model and components implemented to answer the following three questions:

1. What Safewards interventions have been evaluated and subsequently reported in published peer-reviewed research literature?
2. Which outcome measures have been used to evaluate the impact of the Safewards Model in practice?
3. What are the barriers and enablers to implementation of the Safewards Model?

METHOD

The scoping review framework has been adapted from the work of Arksey and O'Malley,[24] Levac *et al*[25] and Peters *et al*.[26] The current review protocol integrates these frameworks with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis extension for Scoping Reviews checklist and explanation.[27] This approach is aligned with the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Protocol (PRISMA-P).[28] The Joanna Briggs Institute Reviewer's Manual[29] will guide a stepwise approach. The review title was registered with The Joanna Briggs Institute on the 5th of February 2020.

Ethics and dissemination

Ethical approval for this review is not required as the information to be collected is publicly available. There are no participants or safety considerations in this review of published literature. Key findings for future research and clinical practice will be disseminated through peer-reviewed publication, stakeholder reporting and conference presentations.

Patient and public involvement

Patients and the public were not involved in the design nor planning of this scoping review.

Inclusion criteria

Types of participants

Patients, carers (formal and informal), accompanying persons and healthcare professionals.

Concept

Safewards Model and interventions, measures, outcomes, barriers and enablers. The paper will report all outcome measures, including those not yet validated, for studies that investigate effectiveness.

Context

Any healthcare service/s: mental health, inpatient units, forensic mental health, ED, acute health.

Types of publications

Peer-reviewed journal publications of quantitative, qualitative and mixed-method primary research published in English from 1st January 2013 to 31st December 2020. This period was chosen because the Safewards Model was first evaluated in 2013. Grey literature will be included to capture other reports of the implementation of Safewards that have not been published in academic literature.

Search strategy

We will search electronic databases including Cumulative Index to Nursing and Allied Health Literature (CINAHL), Cochrane, Embase, Emcare, Joanna Briggs Institute, Medline, Global Health, PsycINFO and Scopus. Grey literature will be searched using OpenDissertations, OpenGrey and Trove. Two reviewers will independently screen all titles and abstracts, and full-text studies, for inclusion according to the predetermined inclusion and exclusion criteria. The search terms will include the following keywords (and associated index terms): Safewards', 'Safe-wards' and 'Safe+wards'.

To identify potentially relevant publications, a three-stage search process will be executed. First, the search strategy will be tested in two electronic databases (CINAHL and Medline) and we will identify additional relevant keywords and index terms. Additionally, we will conduct a search of keywords and index terms in all the included databases. Finally, we will review the reference lists of included studies to identify any additional relevant publications. The proposed search strategy for CINAHL and Medline is presented in online supplemental appendix 1.

Study selection

To achieve consistency among reviewers, the first two included publications will be independently screened (according to the inclusion and exclusion criteria) by all reviewers (authors 1, 2, 3 and 4) and the process and results discussed before continuing with the review. Thereafter, two reviewers will independently screen the title and abstracts of the publications identified in the search followed by full-text screening of those potentially meeting the inclusion criteria. Disagreements on study inclusion will be resolved through discussion and consensus, or a third reviewer.

Data extraction

Data from eligible studies will be extracted independently by two reviewers. Extracted data will be recorded in an extraction tool in Microsoft Excel which has been purposely designed for the study (online supplemental appendix 2). The tool will record publication details, theoretical frameworks, research questions, aims and objectives, design, sample, setting, interventions, outcomes and measures used. A 'Template for Intervention Description and Replication checklist'[30] will be completed for each intervention.

Presentation of the results

Results of the search strategy and selection process (number of citations, titles and abstracts, full-text articles, included and excluded studies) will be presented

in a PRISMA flow chart with a narrative summary.[31] A synthesis of the study results according to participants, concept and context will be presented in tables and diagrams with accompanying narrative summaries. For both interventional studies and qualitative research, we will provide a table of results including year published, country of origin, date of research, Safewards interventions implemented, measures of effectiveness, and barriers and enablers to implementation. A convergent-segregated approach will be used to extract and analyse quantitative and qualitative data simultaneously.

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