Experiences and perceptions of physical restraint policies and practices by health professionals in the acute care sector: a qualitative systematic review protocol

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Review question: What are the experiences and perceptions of physical restraint policies and practices by health professionals, administrators and policy makers in the acute care sector?

Keywords acute care sector; health professionals; physical restraint; practice


Introduction

Systematic reviews of qualitative data on experiences and perceptions of physical restraint have been published in mainstream literature since the early 2000s. A paper by Evans and FitzGerald, one of the earliest qualitative reviews to address physical restraint, based upon the meta-aggregative methodology, sought to establish the experience of restraint from the perspective of persons being restrained and their families, concluding that restraint has a predominantly negative impact and advocating minimal usage of restraint as an intervention. Since this seminal review, qualitative reviews have been published examining staff attitudes toward the use of restraint, and staff perceptions of barriers to restraint reduction, primarily from a restraint minimization or reduction perspective.

A recently published review in residential aged care (long-term) used a meta-study approach to develop theoretical interpretations from primary qualitative studies. The authors of this review focused on identifying barriers to restraint reduction from the perspective of staff. This review of 18 studies identified themes for five key barriers related to patient/resident safety, including a lack of clear definitions of both physical restraint and restraint free care, as well as challenges for clinicians in changing culture, lack of clinician involvement in decision making to remove restraint and inadequate resources and education to facilitate an organizational change in policy or practice. The review also identified some of the challenges in decision-making, and reinforced the need for clear operational definitions of physical restraint, for well-articulated policies, and for widespread education to ensure all staff are aware of organizational policy, practice and legalities associated with restraint and restraint alternatives. The meta-synthesis concluded that nurses tend to apply restraint within a “concern for safety” mode of thinking. This generalized concern was found to override alternate considerations such as professional ethics and alternate strategies or interventions, and may have been accompanied by a sense of complacency (provided peers supported the decision-making process). Möhler and Meyer conducted a mixed methods synthesis using an approach to thematic analysis to explore and explain nurses’ decision-making processes in relation to physical restraint. The authors identified that nurses associate restraint with negative feelings, but were likely to use physical restraints, disregarding evidence and...
their intuition, particularly where patient safety was perceived as a concern, further reinforcing the notion that nurses will implement restraint from a “safety driven” mode of thinking.3

Studies consistently describe the decision-making process around use of physical restraint as “complex” and situated within a patient safety framework as the primary justification; however, evidence from grounded-theory suggests opinions of colleagues and family members of the patient are also highly influential in the decision-making, thus raising uncertainty as to the basis of decision-making. Gothals et al. identified that nurses in particular have been found to rely upon the opinions and values of colleagues or family in lieu of having a clear understanding of alternate accessible interventions or clear knowledge of the legal implications of their actions; it may be this lack of clarity which leads to uncertainty in the decision-making process.4 Institutional policies that lack a statement of ethics were also found to contribute to uncertainty, although it was unclear if this led to increased or decreased use of physical restraint. This study illustrates that while restraint tends to be used with some reservation, nurses are unaware of alternatives, lack ready access to alternatives, and tend to be guided by the most immediately available resources and advice.4

Why organizations continue to facilitate and enable the use of physical restraint has been queried. Studies indicate an absence of evidence of benefit and evidence of moderate to significant harms including falls, pressure sores, asphyxiation, psychological harms and increased risk of mortality.4 Evidence from the 1970s onward has measured harms, with cumulative evidence pointing toward increased morbidity and mortality directly associated with the use of physical restraints. Studies have shown that increased incidence of falls, bone and soft tissue injuries, loss of muscle tone, urinary and/or fecal incontinence, impaired balance, reduced communication, pressure sores, metabolic disturbances, anxiety, agitation, contractures, oedema, depression and dehydration (among others) are associated with physical restraint.5 9 Evidence also suggests that admission to acute care is associated with increased risk of psychological harms including rates of delirium or delusion among older adults, thus increasing the risk of physical restraint.7 This is compounded by what Retsas describes as a lack of consensus among staff on alternate strategies to maintain patient safety, which appears to be underpinned by a lack of knowledge of how restraint is experienced by patients.7 These factors tend to be associated with organizational culture, practices and priorities. Exactly how and why the decision to implement physical restraint is made, in the absence of evidence of benefit and in the face of evidence of significant harms, remains unclear, particularly given the concerns health professionals express about using physical restraints, as is made clear in the research literature.3,5,7,8

While clinical, policy informed or administrative positions have been reported to lack clarity and consistency, there is consistency in how physical restraint has been defined in published systematic reviews. The previous meta-aggregative review (among others) uses the definition of restraint that was first described in a study of physical restraint in Australian residential aged care (long-term care). Similarly, this review will be based upon the operational definition by Retsas on physical restraint as “any device, material or equipment attached to or near a person’s body and which cannot be controlled or easily removed by the person and which deliberately prevents or is deliberately intended to prevent a person’s free body movement to a position of choice and/or a person’s normal access to their body”.7(p.186)

In addition to this, no previous qualitative synthesis on this topic has used the JBI Critical Appraisal Checklist for Qualitative Research to evaluate trustworthiness of included studies. The impact of study quality on the resultant synthesized findings has therefore yet to be evaluated in meta-aggregation. The Critical Appraisal Skills Program (CASP) appraisal instrument was used in one review.2 However, evaluations of CASP indicate its strength is in the evaluation of applicability (analogous to external generalizability), rather than trustworthiness. The role of ConQual in establishing confidence in the synthesized findings of meta-aggregative reviews has been described and theorized; we intend to further the evaluation by including measures of credibility and dependability in this systematic review.9,10

Therefore, in this systematic review, we aim to contribute to the understanding by health professionals, policy makers and administrators of the experience or perception of physical restraint. A more
nuanced understanding of the experience of physical restraint may present a compelling perspective that raw numbers (for example, prevalence figures) are unable to communicate about the physical, psychological, biochemical, perceptual, behavioral, emotional and social impacts of being physically restrained.\textsuperscript{9,10} Consistent with Joanna Briggs methodology, this systematic review will include implications for practice and policy that are informed by the quality of included studies and the contexts within which the studies have been conducted. Variability between or limitations within the included primary studies will be identified and used to inform recommendations for future research.

**Inclusion criteria**

**Participants**

The review will consider studies that include registered or licenced health practitioners from all clinical backgrounds, regardless of recency or level of qualification who have either: i) cared for patients who have been physically restrained, or ii) themselves applied physical restraints to patients. Healthcare administrators and policymakers’ experiences will only be included where it is feasible to identify their role in relation to restraint policy or restraint related administrative processes within acute care facilities.

**Phenomena of interest**

The phenomena of interest are the experiences and perceptions of registered or licenced health practitioners, administrators and policy makers in the acute care sector involved in caring for patients who have been or are restrained.

**Context**

The acute care sector, defined as secondary care, is the context for this systematic review, and is inclusive of all geographic and economic zones globally. This includes tertiary and quaternary settings. Mental health and residential aged care (long-term care) facilities/units will be excluded.

**Types of studies**

This review will consider studies that focus on qualitative data including, but not limited to, designs such as phenomenology, grounded theory, ethnography, qualitative description, action research and feminist research.

Studies published in the English language will be included. Studies published in black or gray literature from any date will be sought through a comprehensive and exhaustive search strategy.

**Methods**

**Search strategy**

The search strategy will aim to find both published and unpublished studies. An initial limited search of PubMed and CINAHL will be undertaken, followed by analysis of the text words contained in the title and abstract, and of the index terms used to describe each article. This will inform the development of a search strategy which will be tailored for each information source. A full search strategy for PubMed, CINAHL, Embase, PsycINFO, HealthSource Nursing, Scopus and Web of Science will be detailed in an appendix of the completed systematic review; a draft search for PubMed is described in Appendix I. The reference list of all studies selected for critical appraisal will be screened for additional studies. No date limits will be set for the database searches, or for article reviews; however, only English language papers will be included.

**Information sources**

The databases to be searched include: PubMed, CINAHL, Embase, PsycINFO, HealthSource Nursing, Scopus and Web of Science.

The search for unpublished or grey literature will include: ProQuest Dissertations and Theses, Web of Science Conference Proceedings and Google Scholar.

The key terms that will guide the development of database specific strategies were derived from PubMed, and will be revised/updated based upon specific database indexation terminology and combined with relevant free text terms before the full search is undertaken per database.

**Study selection**

Following the search, all identified citations will be collated and uploaded into EndNote X7 (Clarivate Analytics, PA, USA) and duplicates removed. Titles and abstracts will then be screened by two independent reviewers for assessment against the inclusion criteria for the review. Studies that meet or could potentially meet the inclusion criteria will be retrieved in full and their details imported into Joanna Briggs Institute System for the Unified
Management, Assessment and Review of Information (JBI SUMARI). The full text of selected studies will be retrieved and assessed in detail against the inclusion criteria. Full text studies that do not meet the inclusion criteria will be excluded and reasons for exclusion will be provided in an appendix in the final systematic review report. Included studies will undergo a process of critical appraisal by two independent reviewers. The results of the search will be reported in full in the final report and presented in a PRISMA flow diagram. Any disagreements that arise between the reviewers during any phase of study selection will be resolved through discussion, or with a third reviewer.

Assessment of methodological quality
Selected studies will be critically appraised by two independent reviewers at the study level for methodological quality in the review using the JBI Critical Appraisal Checklist for Qualitative Research. Any disagreements that arise between the reviewers will be resolved through discussion, or with a third reviewer. The results of critical appraisal will be reported in narrative form and in a table. A consensus process will be utilized to determine study inclusion following critical appraisal, with blinded independent appraisal undertaken by two members of the review team, then the results discussed at a whole of review team meeting to consider the quality of each individual study.

Data extraction
Qualitative data will be extracted from papers included in the review using the standardized data extraction tool from JBI SUMARI by one reviewer. The data extracted will be based upon operational guidelines and definitions for extraction of findings within meta-aggregation as per the published guidance. In the context of meta-aggregation, data extraction is a two-phase process. In phase one, the data extracted will include specific details about the populations, context, culture, geographical location, study methods and the phenomena of interest relevant to the review question and specific objectives. Phase two data extraction is inclusive of analytic data and an illustration per finding from each included study. As findings and their illustrations are extracted, each will be assigned a level of credibility via the JBI levels of credibility. Where studies are missing key data that is considered necessary to facilitate data extraction or synthesis, the study authors will be contacted to request the additional information.

Data synthesis
Qualitative research findings will be pooled using JBI SUMARI with the meta-aggregation approach. This will involve the aggregation or synthesis of like-findings (where similarity is based upon the wording, and/or similarity of meaning) to generate a set of statements that represent that aggregation into a series of categories, with two or more findings contributing to each category that is generated through the synthesis process. These categories will then be subjected to a synthesis in order to produce a single comprehensive set of synthesized findings that can be used as a basis for evidence-based practice.

Assessing certainty in the findings
The final synthesized findings will be graded according to the ConQual approach for establishing confidence in the output of qualitative research synthesis and presented in a Summary of Findings. The Summary of Findings includes the major elements of the review and details how the ConQual score is developed. Included in the table is the title, population, phenomena of interest and context for the specific review. Each synthesized finding from the review is then presented, along with the type of research informing it, a score for dependability and credibility, and the overall ConQual score.

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References
Appendix I - Search strategy (PubMed)

This draft search strategy presented below will be finalized with an information scientist; the search is divided based upon the PIco elements for clarity in the protocol; in the final report, the search strategy for each included black literature database will be included.

Attitude of Health Personnel OR Decision Making OR Nursing Service, Hospital/standards OR Nurse Clinicians/organization & administration OR Health Knowledge, Attitudes, Practice OR Health Services Needs and Demand OR Health Personnel/psychology OR Nurse-Patient Relations OR Allied Health Personnel OR Health Knowledge, Attitudes, Practice AND

(Restraint, Physical/adverse effects OR Restraint, Physical/standards OR physical restraint OR restraint, physical OR bedrail, OR siderail, OR cotside, OR belt, OR containment measure, OR bedchair OR behaviour control) AND

(acute care OR hospital OR Hospitals OR Hospitalization OR Hospitals/standards OR Nursing Process OR Patient Care) AND (Adult OR Humans OR Patients OR Aged)