


Healthcare staff's experiences of using manual physical restraint: A meta-synthesis review

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Abstract

Manual restraint is a hands-on type of physical restraint used to prevent harm to service users and staff, and to administer necessary treatments. This article reports on a review and meta-synthesis of the qualitative literature on healthcare staff's experiences of using manual restraint. Three electronic databases (CINAHL Complete, MEDLINE, and PsycINFO) were systematically searched, and 19 studies were included. Thematic synthesis was used to synthesize the findings. The Critical Appraisal Skills Programme (CASP) checklist was used to appraise study quality. The synthesis generated one overarching interpretive theme, "unpleasant but necessary," and five subthemes: "maintaining safety triumphs all," "emotional distress," "significance of coping," "feeling conflicted," and "depletion." Seven studies indicated that, from staff perspectives, manual restraint was not always used as a last resort. Healthcare staff experience manual restraint as a psychologically and physically unpleasant practice, yet paradoxically deem its use to be sometimes necessary to keep themselves and service users safe from harm. The findings indicate a need for healthcare staff support, post-restraint debriefing meetings with service users, and the implementation of manual restraint minimization programs in healthcare settings.

KEYWORDS

manual restraint, meta-synthesis, nursing research, physical restraint, qualitative research, thematic synthesis

Key points

- Despite international calls to minimize manual restraint, healthcare staff express fears about the potential elimination of this restrictive intervention. Manual restraint remains in widespread use in healthcare settings globally to maintain service user and staff safety.
- A thematic synthesis of the relevant qualitative literature published between January 2002 and June 2023 suggests that healthcare staff experience manual restraint as an "unpleasant but necessary" intervention.

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- This meta-synthesis review highlights a need for increased support of healthcare staff, and a need for increased efforts to minimize manual restraint and facilitate post-restraint debriefing with service users. However, these implications are challenging to implement and require the wider support of healthcare organizations, financial investment, and possibly, policy changes.

1 | INTRODUCTION

Despite growing international calls to minimize restraint and seclusion, these practices remain in widespread use globally to maintain service user and staff safety, and have been described as a “necessary evil” within the nursing literature (Gerace & Muir-Cochrane, 2019; Perkins et al., 2012). Although there is limited evidence to support their effectiveness, healthcare staff express significant fears about the potential elimination of restraint and seclusion (Muir-Cochrane et al., 2018; Zaami et al., 2020). It is therefore important to understand the use of these practices from the perspectives of healthcare staff.

Physical restraint has been defined as “any action or procedure that prevents a person's free body movement to a position of choice and/or normal access to his/her body by the use of any method” (Bleijlevens et al., 2016, p. 2307). Manual restraint, which is the focus of this article, is a hands-on type of physical restraint whereby one or more persons immobilize the free body movement of another by manually holding and/or moving them (National Institute for Health and Care Excellence [NICE], 2015; Royal College of Nursing [RCN], 2008; Stubbs & Paterson, 2011). This type of physical restraint differs from the mechanical type of physical restraint whereby equipment (e.g., belts or cuffs) is used to immobilize movement (Care Quality Commission, 2018). In practice, manual restraint is sometimes broadly referred to as “physical restraint,” and typically (but not always) involves a team of two or more trained persons immobilizing an individual in a standing or seated position, or more restrictively on the floor in a face-up (supine) or face-down (prone) position (Whittington et al., 2006). The commonality of manual restraint practice has been evidenced by research that has suggested that it is a routine practice within inpatient mental health, pediatric, and emergency department care settings within Europe and beyond (Bigwood & Crowe, 2008; Chapman et al., 2016; Lombart et al., 2020; Wilson et al., 2017). This article reports on a review and meta-synthesis of the qualitative literature on healthcare staff's experiences of using manual restraint.

1.1 | Background

Manual restraint, like mechanical restraint, chemical restraint, and seclusion, is considered to be a restrictive intervention in mental and general healthcare, and is used internationally to prevent harm to service users and staff, and to administer medications and other necessary treatments (Chapman et al., 2015; Riahi et al., 2020; Ryan & Bowers, 2006). For instance, the literature has depicted the use of manual restraint in response to service user self-harming, aggressive and attempted

absconding behaviors (Chapman et al., 2016; Perkins et al., 2012), service user medication refusal (Owiti & Bowers, 2011), and in the provision of necessary medical treatments, including the compulsory nasogastric feeding of service users with severe eating disorders (Brenner et al., 2014; Fuller et al., 2019). Additionally, manual restraint is sometimes (but not always) used as a precursor in the application of other restrictive interventions because service users may need to be physically held and/or moved in order to be mechanically restrained, chemically restrained, or secluded (Queensland Health, 2022; Ryan, 2010; Whittington et al., 2006). Manual restraint specifically however has been associated with increased risks of injury to healthcare staff and service users (Kodua et al., 2020; Meehan et al., 2022), and its elimination has been reported by healthcare staff as being less likely in comparison to other restrictive interventions (Gerace & Muir-Cochrane, 2019). Consequently, there is value in targeting manual restraint for standalone review and meta-synthesis.

Given the oppressive hallmark of manual restraint, it is not surprising that its use is governed by policies and laws globally (e.g., Department of Health, 2014; Mental Health Units [Use of Force] Act, 2018; National Disability Insurance Scheme Quality and Safeguards Commission, 2020). For instance, within the United Kingdom (UK), the Department of Health (2014, p. 25) states that restrictive interventions, such as manual restraint, “should only ever be used as a last resort” to prevent significant harm to an individual and/or others, and that the use of restrictive interventions should be proportionate to the risk, be imposed for no longer than necessary, and represent the least restrictive option. However, despite such laws and policies, there is evidence to indicate that manual restraint is not always used as a last resort, and concerns continue to be raised about its use (Knowles et al., 2015; Riahi et al., 2020).

The need to minimize manual restraint practice has been reflected globally through the introduction of guidelines, policies, and programs advocating for its reduction and, where possible, elimination (e.g., Bowers et al., 2015; Department of Health, 2014; Duxbury, Baker, et al., 2019; Mental Health Commission, 2014; O'Hagan et al., 2008; Royal Australian and New Zealand College of Psychiatrists, 2021). This is not surprising considering that manual restraint has been linked to service user death (Duxbury et al., 2011; Nunno et al., 2022), service user and staff distress (Bigwood & Crowe, 2008; Cusack et al., 2018), staff misuse (Brophy et al., 2016; Lee et al., 2003), and staff and service user injury (Lee et al., 2003; Wilson et al., 2017). The development and implementation of multimodal restraint and restrictive intervention minimization programs such as “Safewards,” “No Force First,” and “REsTRAIN Yourself” have successfully led to reductions in manual restraint rates ranging from 19% to 26% within

inpatient mental health, older adult, and learning disability settings (Bowers et al., 2015; Duxbury, Baker, et al., 2019; Haines-Delmont et al., 2022), highlighting that not all instances of manual restraint are necessary. However, while healthcare staff report a desire to reduce and, where possible, eliminate manual restraint (Kodua & Eboh, 2023), insufficient time and staffing levels, environmental limitations, and a lack of effective alternative strategies have all been cited as barriers in this endeavor (McKeown et al., 2019; Muir-Cochrane et al., 2018; Wilson et al., 2018).

Although three qualitative reviews and meta-syntheses have been conducted in the past decade or so exploring service users' experiences of manual restraint (Cusack et al., 2018; Douglas et al., 2022), and service users' experiences of manual and mechanical restraint (Strout, 2010), only one review and meta-synthesis has been conducted exploring staff's experiences, representing a gap in the literature. In an integrative review by Riahi et al. (2016) exploring the decision-making factors influencing mental health nurses' use of manual and mechanical restraint, eight themes were generated which highlighted the ethical, safety, interpersonal, and staff-related factors influencing the use of restraint: "safety for all"; "restraint as a necessary intervention"; "restraint as a last resort"; "role conflict"; "maintaining control"; "staff composition"; "knowledge and perception of patient behaviors"; and "psychological impact." However, Riahi et al. (2016) indiscriminately focused on manual and mechanical restraint within inpatient mental health settings only in their review; this limits the transferability of the findings to non-mental health settings such as the emergency department, and countries like the UK, where mechanical restraint is not routinely used (Wilson et al., 2017).

More recently, Butterworth et al. (2022) conducted a review and thematic synthesis of the qualitative research literature on staff's and service users' experiences of restrictive interventions. However, like Riahi et al. (2016), this review focused on several types of restrictive interventions (e.g., manual, mechanical, and chemical restraint) within inpatient acute mental health settings only, and the authors did not include key studies exploring inpatient acute mental health staff members' experiences of manual restraint (e.g., Bailey et al., 2021; Perkins et al., 2012). Arguably, in order to reduce manual restraint practice effectively, it is important that healthcare organizations and policy-makers have access to research literature of the highest standards.

1.2 | Aim

The aim of this review is to systematically identify and meta-synthesize the qualitative literature pertaining to healthcare staff's experiences of using manual restraint. The question guiding this review is: "How do healthcare staff experience the practice of manually restraining service users?"

2 | METHOD

This review was guided by the Enhancing Transparency in Reporting the Synthesis of Qualitative Research statement (ENTREQ;

Tong et al., 2012). A pre-registered protocol of this review is accessible on the International Prospective Register for Systematic Reviews (PROSPERO) website (registration no: CRD42019160621).

2.1 | Search strategy

Three electronic databases (CINAHL Complete, MEDLINE, and PsycINFO) relevant to healthcare and nursing, and accessed via the EBSCOhost platform, were individually searched from inception by M.K. in November 2019; the search was updated in May 2022, December 2022, and June 2023. No limits were applied to the search. To ensure a comprehensive search strategy, M.K. conducted additional forward and backward citation searches of the final included studies in this review to identify further studies, using the "Cited by" and "References" feature of a supplemental electronic database (SCOPUS).

The search terms consisted of keywords related to, and including the following: staff ("staff" OR "nurs*" OR "worker*"), experience ("experience*" OR "perspective*" OR "perception*" OR "view*" OR "phenomen*") and manual restraint ("manual restrain*" OR "restrain*" OR "physical restrain*" OR "physical intervention*" OR "restrictive intervention*" OR "seclu*" OR "PMVA" OR "MAPA"). Searches of these three keyword blocks were individually performed and subsequently combined using the "Search with AND" operator within the EBSCOhost platform. Seclusion was included within the manual restraint block of keywords because it is sometimes grouped with manual restraint in the literature (e.g., Chieze et al., 2019). PMVA (Prevention and Management of Violence and Aggression) and MAPA (Management of Actual or Potential Aggression) are commonly used models of manual restraint practice (Griffin, 2015; Obi-Udeaja et al., 2016). Hence, the inclusion of these terms.

2.2 | Inclusion and exclusion criteria

Studies included in this review were required to meet the following inclusion criteria: (i) original qualitative studies or original mixed method studies with a substantial qualitative component; (ii) reporting on staff's experiences of manual restraint within a healthcare or residential care setting (e.g., inpatient mental health, emergency department, care home, pediatric general hospital); (iii) published in peer-reviewed journals; and (iv) written in English. The decision to include only studies published in peer-reviewed journals was made to ensure that only studies of adequate quality were included in this review (e.g., peer-reviewed studies). We widened our inclusion criteria to healthcare and residential care settings as opposed to, for example, inpatient mental health settings only, to strengthen the applicability and transferability of our meta-synthesis. Single case studies were excluded to ensure that only studies that incorporated some form of intersubjective analysis were included. Additionally, studies were excluded if they did not distinguish manual restraint from other types of restraint (e.g., Muir-Cochrane et al., 2015; Riahi et al., 2020).

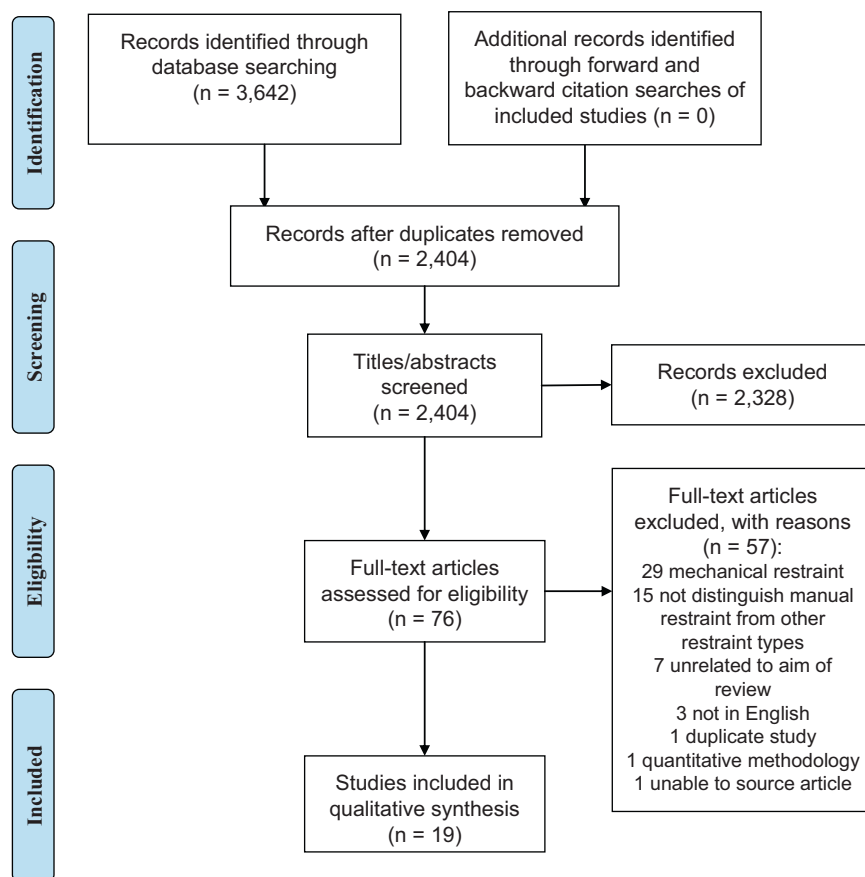


FIGURE 1 PRISMA flow diagram of the study selection process.

This was to ensure that only studies that sufficiently explored health-care staff's experiences of manual restraint were included.

2.3 | Study selection

A total of 3642 records were identified through electronic database searching. Following the removal of 1238 duplicates, M.K. screened the remaining 2404 records by title and abstract against the inclusion and exclusion criteria stipulated. If a title and/or abstract appeared relevant, or a title and/or abstract provided insufficient information (e.g., referenced multiple restrictive interventions and/or "physical restraint" or "restraint" generically) then the full text of the record was retrieved and assessed for eligibility (e.g., to ascertain whether manual restraint was the focus and/or could be distinguished from other restrictive interventions in the results/findings section). A second reviewer (J.T.) subsequently screened titles and abstracts for a random 25% of all records (601 records). Screening discrepancies were few and occurred when records had been excluded when the restraint type had been unclear; these discrepancies were resolved by including such records for full text assessment. A sum of 2328 records were excluded following title and abstract screening, leaving 76 articles eligible for full text retrieval and assessment. Of the 76 eligible articles, M.K. excluded 57 articles following full text assessment against the inclusion and exclusion criteria; the reasons for exclusion are presented in Figure 1. Again, J.T. subsequently screened a random

25% of eligible full text articles (19 articles); screening discrepancies were few and occurred when two articles had been included that did not distinguish manual restraint from other restraint types; such discrepancies were resolved by excluding the articles. Nineteen studies thus met the criteria for inclusion in this review. No further studies were identified through forward and backward citation searching of the included studies.

2.4 | Quality appraisal

Despite the lack of agreement about whether quality criteria should be applied to qualitative research (Lachal et al., 2017), we decided to quality appraise each included study using the Critical Appraisal Skills Programme (CASP, 2018) checklist for qualitative research. Our decision was informed by the increasing number of researchers who are choosing to quality assess studies for meta-synthesis (Hannes & Macaitis, 2012), and the argument put forward by some authors that a good meta-synthesis can no longer bypass a quality appraisal (Ring et al., 2011). The CASP checklist, which is recommended by the Cochrane Collaboration (Noyes et al., 2019) and reportedly addresses key principles and assumptions of qualitative research (Tong et al., 2012), includes 10 questions: two for screening out inappropriate studies, and eight for assessing research design, recruitment, data collection and analysis, reflexivity, ethical considerations, and implications of qualitative studies.

As recommended by the Cochrane Collaboration, we did not assign an overall quality rating to each study (Noyes et al., 2019). We felt that a narrative appraisal of the quality of studies would be more informative to the reader than assigning individual quality ratings. Given that there is no consensus or globally accepted method for excluding qualitative studies for meta-synthesis based on quality criteria (Majid & Vanstone, 2018), we had no plans to exclude studies in this review on the grounds of quality. M.K. quality appraised all 19 studies and J.T. subsequently appraised a random 25% of studies (five studies). No discrepancies in appraisal occurred.

2.5 | Synthesis

Our analysis, guided by Thomas and Harden's (2008) thematic synthesis method and performed using NVivo Version 12, was led by M.K. and discussed with W.E. and L.A. Thematic synthesis is well suited for qualitative reviews that address questions concerning people's perspectives and experiences (Thomas & Harden, 2008), hence our choice of this method.

Initially, following the reading and re-reading of each study by M.K. to facilitate immersion in the data, M.K. inductively coded all author narrative text (excluding participant extracts, unless author narratives were ambiguous) within the "Findings" or "Results" sections of study articles, meaningful unit-by-meaningful unit with respect to meaning and content. A meaningful unit was any sentence or paragraph of author narrative text that was relevant to the review question. Codes applied to one study were applied to others, and if no prior codes were applicable, then a new code was applied and added to the code bank. Irrelevant author narratives such as text exclusively addressing service users' experiences were not coded. In the next phase of the analysis, M.K. grouped codes into descriptive themes and subthemes based on the differences and similarities between codes. The final phase of the analysis involved the development of an analytical theme by M.K. from the descriptive themes which went beyond the findings of the original studies. The analytical theme and descriptive themes were further modified following discussions with W.E. and L.A. Following the example of McPherson et al. (2020), we chose primarily to use author narratives as data rather than participant quotes to reduce the potential bias that we anticipated could arise by attempting to re-analyze primary data presented as selective participant quotes in study articles.

2.6 | Reflexivity

M.K. is a clinical psychologist with previous experience of using manual restraint within a previous nursing job role. J.D. is a professor of mental health with previous experience of using manual restraint. W. E. is a professor of nursing with previous experience of observing manual restraint. L.A. is a clinical psychologist with previous experience of observing manual restraint. J.T. is a mental health nurse with

previous experience of using manual restraint. Given our collective manual restraint experiences, to improve the credibility of the review, the lead reviewer (M.K.) kept a reflexive log throughout the review process in which he detailed his presuppositions and their potential influence on the analysis process, with the aim of improving awareness. Additionally, M.K., who is a mindfulness practitioner, adopted a mindfulness-practice stance throughout the analysis to maintain an inductive approach (as far as was possible) and minimize the disproportionate influence of his presuppositions on the analysis process; this involved M.K. noticing where his mind had taken him during the analysis and write-up of the analysis (e.g., to assumptions, judgements, associations, and past memories of using manual restraint), and gently and repeatedly bringing his attention back to the author narrative descriptions within study articles (Nicholls, 2019). The modifications that M.K. made to the generated themes from the analysis, following discussions with W.E. and L.E., were also part of the reflexive process.

3 | RESULTS

3.1 | Study characteristics

The study characteristics of the 19 included studies are summarized in Table 1. Overall, the studies, published between January 2002 and June 2023, constituted a diverse participant population; sample sizes ranged from 5 to 41 with a total of 342 healthcare staff participants across the studies. Healthcare staff participants within the studies were mainly nursing and care staff, and worked in a variety of settings including the emergency department (Chapman et al., 2016), pediatric general hospitals (Brenner et al., 2014; Lombart et al., 2020; Svendsen et al., 2017), inpatient adult mental health (Bailey et al., 2021; Bigwood & Crowe, 2008; Bonner et al., 2002; Duffy et al., 2023; Meehan et al., 2022; Moran et al., 2009; Perkins et al., 2012; Sequeira & Halstead, 2004; Wilson et al., 2017), inpatient adult forensic mental health (Meehan et al., 2022; Moyles et al., 2023), inpatient child and adolescent mental health—eating disorders (Kodua et al., 2020), inpatient child and/or adolescent mental health—general (Kodua & Eboh, 2023; Meehan et al., 2022), residential childcare (Steckley & Kendrick, 2008), and residential and inpatient learning disability services (Fish & Culshaw, 2005; Hawkins et al., 2005). Across studies, healthcare staff participants' ages ranged from 18 years to at least 63 years, and their experience of working within their specialties ranged from up to two weeks to at least 40 years. The majority (11/19) of studies were conducted in the UK (Bailey et al., 2021; Bonner et al., 2002; Duffy et al., 2023; Fish & Culshaw, 2005; Hawkins et al., 2005; Kodua & Eboh, 2023; Kodua et al., 2020; Perkins et al., 2012; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008; Wilson et al., 2017). Three studies were conducted in Ireland (Brenner et al., 2014; Moran et al., 2009; Moyles et al., 2023), two studies were conducted in Australia (Chapman et al., 2016; Meehan et al., 2022), and one study each was conducted in France (Lombart et al., 2020), New Zealand (Bigwood & Crowe, 2008), and Norway (Svendsen et al., 2017).

TABLE 1 Characteristics of included studies

Study (Country)	Main aims	Sample	Setting(s)	Data collection	Data analysis	Key themes/findings
Bailey et al. (2021) (UK)	To explore nurses' experiences of forcible touch during PR	14 nurses (9 females) Age: 28–59 years Exp: 1–30 years	Inpatient adult MH	Semi-structured interviews	Cohen's Hermeneutic PA	<ul style="list-style-type: none"> • Needing to justify • Inconsistent knowing • Compassionate whilst careworn
Bigwood and Crowe (2008) (New Zealand)	To understand nurses' experiences of PR	7 nurses (3 females) Age: Not reported Exp: <5 and >5 years	Inpatient adult MH	Semi-structured interviews	Van Manen's Hermeneutic PA	<ul style="list-style-type: none"> • It's part of the job (overarching theme) • Control (subtheme) • Conflicted nurse (facet) • Scared nurse (facet)
Bonner et al. (2002) (UK)	Pilot study to explore nurses and SUs' experiences of PR	12 nurses and 6 SUs Gender, age, and exp duration not reported	Inpatient adult MH	Semi-structured interviews	Thematic Analysis	<ul style="list-style-type: none"> • Antecedents (ward atmosphere, failed communication) • During restraint (fear and embarrassment, last resort) • Aftermath (distress, resolution) • Re-traumatization
Brenner et al. (2014) (Ireland)	To describe nurses' experiences of restricting a child's movement for a clinical procedure	20 nurses Age: 24–60 years Exp: 10–40 years Gender not reported	Pediatric GH	Focus groups	Thematic Network Analysis	<ul style="list-style-type: none"> • Tensions in care (overarching theme) • Acknowledging restriction (subtheme) • The only way to manage them (subtheme)
Chapman et al. (2016) (Australia)	To explore nurses' perceptions of MR use	15 nurses (12 female) Age: 24–46 years Mean exp: 9 years	Emergency department	Semi-structured interviews	Thematic Analysis	<ul style="list-style-type: none"> • Part of the job • Reasons for MR (aggression, leaving against medical advice, medical procedures) • Restraint techniques • Consequences (physical, psychological, organizational) • Lack of documentation
Duffy et al. (2023) (UK)	To explore nursing staffs' and SUs' experiences of the therapeutic relationship after PR	5 nursing staff (3 female) and 5 SUs Staff age: 20–49 years Staff exp duration not reported	Inpatient adult MH	Semi-structured interviews	Interpretive PA	<ul style="list-style-type: none"> • Emotional response • Balancing professional roles and responsibilities within the relationship • Moving forward with the therapeutic relationship after PR
Fish and Culshaw (2005) (UK)	To explore staffs' and SUs' experiences of aggression and PI incidents	16 care staff (9 female) and 9 SUs Gender, age, and exp duration not reported	Inpatient adult LD	Unstructured interviews	Hycner's PA	<ul style="list-style-type: none"> • Staff responses to aggression (distress) • Reasons for PI (injury risk, control) • Re-traumatization • Last resort

TABLE 1 (Continued)

Study (Country)	Main aims	Sample	Setting(s)	Data collection	Data analysis	Key themes/findings
Hawkins et al. (2005) (UK)	To explore staff's and SUs' views and experiences of PI	8 nursing staff (3 females) and SU pairs Staff age: 26–53 years Staff exp: 1–17 years	LD residential community care	Semi-structured interviews	Grounded Theory	<ul style="list-style-type: none"> • Before PI (negative emotions, rise in adrenaline) • During PI (emotional rollercoaster, physical exhaustion, getting it right) • After PI (walking on eggshells, physical & emotional aftermath) • It needs to be done sometimes • It's not a nice thing to do • It does not really damage the therapeutic relationship • Importance of team support • An unpleasant practice • Importance of coping • Becoming desensitized and sensitized
Kodua and Eboh (2023) (UK)	To explore nursing staff's experiences of using manual restraint within inpatient adolescent mental healthcare	12 nursing staff (7 females) Age: 22–47 years Exp: 8 months–11 years	Inpatient adolescent MH	Semi-structured interviews	Thematic Analysis	<ul style="list-style-type: none"> • A regrettable paradox that is rarely contested • From a taboo term to a feeling of unease • Constraints that allow for the use of force • A laborious practice that results in the child being forgotten
Kodua et al. (2020) (UK)	To explore nursing assistants' experiences of MR for compulsory nasogastric feeding of young people with anorexia nervosa	8 nursing assistants (4 females) Age: 23–36 years Exp: 5 months–3 years	Inpatient child and adolescent MH (eating disorders)	Semi-structured interviews	Thematic Analysis	<ul style="list-style-type: none"> • Building a recovery focused therapeutic relationship • Authoritarian role • Inevitable imbalance • Rebuilding the therapeutic relationship
Lombart et al. (2020) (France)	To explore healthcare professionals' perspectives of forceful PR in pediatric care	30 female healthcare professionals Age: 23–63 years Exp duration not reported	Pediatric GH	Focus groups	Thematic Analysis	<ul style="list-style-type: none"> • Justifying the need for restraint • Reliance on the prone position • The position is not the issue • Time limits
Meehan et al. (2022) (Australia)	To explore nurses' and lived experience workers' perspectives of PR use and the restrictions placed on prone restraint	37 nurses (12 females) and 8 lived experience workers Nurse age: Not reported Nurse exp: <5–>21 years	Inpatient adult MH Inpatient child and adolescent MH Inpatient adult forensic MH	Focus groups	Thematic Analysis	<ul style="list-style-type: none"> • The last resort • Emotional distress • Suppressing unpleasant emotions
Moran et al. (2009) (Ireland)	To explore nurses' experiences of restraint and seclusion with a focus on their emotions and feelings	23 nurses (15 females) Age: <30–>51 years Exp: 1–30 years	Inpatient adult MH	Focus groups	Diekmann's Hermeneutic PA	
Moyles et al. (2023) (Ireland)	To explore nurses' experiences of rebuilding the therapeutic relationship after an episode of physical restraint	10 forensic mental health nurses (3 females) Age: 24–49 years Exp: 1–5 years	Inpatient adult forensic MH	Semi-structured interviews	Thematic Analysis	

(Continues)

TABLE 1 (Continued)

Study (Country)	Main aims	Sample	Setting(s)	Data collection	Data analysis	Key themes/findings
Perkins et al. (2012) (UK)	To examine nurses' decision-making process involved in a series of PR episodes	30 nurses (including 9 females and 8 males) Age: 25–56 years Exp: 18 months–25 years	Inpatient adult MH	Interviews and focus groups Interview type not reported	Thematic Analysis	<ul style="list-style-type: none"> Contextual demands (ward factors, organizational demands) Lack of alternatives The escalatory effects of PR Perceptions of risk
Sequeira and Halstead (2004) (UK)	To explore nursing staff's experiences of PR with a focus on their psychological responses	17 nursing staff (8 females) and 19 SUs Staff age: 18–50 years Staff exp: <1–15 years	Inpatient adult MH	Semi-structured interviews	Grounded Theory	<ul style="list-style-type: none"> Anxiety and anger Conflict with nursing role Boredom, frustration and low morale Laughing/joking to release feelings and inhibition of emotional distress Automatic responding/'no feelings'
Steckley and Kendrick (2008) (UK)	To explore care staff's and SUs' views and experiences of PR	41 care staff (24 females) and 37 SUs Age and exp duration not reported	Residential childcare	Semi-structured interviews	Probable Thematic Analysis	<ul style="list-style-type: none"> Necessity of PR Dilemmas and complexities Negative emotions and experiences Concerns about PR (inadequate reasons, worrying for the YP) Relationships and PR
Svendsen et al. (2017) (Norway)	To explore staff's perspectives and reasoning about restraint use during medical procedures on preschoolers	15 nursing and physician staff (14 females) Age: 26–44 years Exp: 2 weeks–8 years	Pediatric GH (somatic care)	Semi-structured interviews	Thematic Analysis	<ul style="list-style-type: none"> Disparate views on the concept of restraint and restraint use Ways to limit the use of PR and its negative consequences Experience with the role of parents and their influence on restraint
Wilson et al. (2017) (UK)	To explore staff's and SUs' experiences of PR	22 healthcare staff (15 females) and 13 SUs Staff age: 20s–50s Staff exp: 4 months–20 years	Inpatient adult MH	Semi-structured interviews	Thematic Analysis	<ul style="list-style-type: none"> Is restraint a necessary evil? (overarching theme) 'It never is very nice' (subtheme) 'It's got to be done' (subtheme)

Abbreviations: Exp, experience; GH, general hospital; LD, learning disability; MH, mental health; MR, manual restraint; PA, phenomenological analysis; PI, physical intervention; PR, physical restraint; SU, service user; YP, young person.

The terms used to describe manual restraint varied across studies with just three studies referring to the practice as such (Chapman et al., 2016; Kodua & Eboh, 2023; Kodua et al., 2020). Eleven studies referred to manual restraint as “physical restraint” (Bailey et al., 2021; Bigwood & Crowe, 2008; Bonner et al., 2002; Duffy et al., 2023; Lombart et al., 2020; Meehan et al., 2022; Moyles et al., 2023; Perkins et al., 2012; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008; Wilson et al., 2017), two studies referred to manual restraint as “physical intervention” (Fish & Culshaw, 2005; Hawkins et al., 2005), two studies referred to manual restraint as “restraint” (Moran et al., 2009; Svendsen et al., 2017), and one study referred to manual restraint as “restricting” (Brenner et al., 2014). Seven studies jointly explored staff’s and service users’ experiences of manual restraint (Bonner et al., 2002; Duffy et al., 2023; Fish & Culshaw, 2005; Hawkins et al., 2005; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008; Wilson et al., 2017). However, staff and service users’ experiences were deemed to be adequately distinctly reported in the results/findings section of these studies, hence their inclusion in this review. One study jointly explored staff’s experiences of manual restraint and seclusion (Moran et al., 2009). However, manual restraint and seclusion were deemed to be adequately distinctly reported in the results/findings section of this study, hence its inclusion in this review.

3.2 | Quality appraisal

We felt that all included studies made a valuable contribution to the healthcare staff’s experiences of manual restraint research literature with regards to their originality, findings, and implications. However, the vast majority of studies had at least one methodological and/or reporting limitation with respect to the CASP checklist items. These limitations included an absence of author reflexivity (Bigwood & Crowe, 2008; Bonner et al., 2002; Brenner et al., 2014; Chapman et al., 2016; Fish & Culshaw, 2005; Hawkins et al., 2005; Meehan et al., 2022; Moran et al., 2009; Perkins et al., 2012; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008; Svendsen et al., 2017; Wilson et al., 2017), a lack of information regarding ethical considerations (Chapman et al., 2016) and ethical approval (Hawkins et al., 2005; Sequeira & Halstead, 2004), a deficit of information regarding the participant sample (Bonner et al., 2002; Brenner et al., 2014; Duffy et al., 2023; Fish & Culshaw, 2005; Lombart et al., 2020; Meehan et al., 2022; Steckley & Kendrick, 2008), and a lack of information regarding the participant recruitment strategy (Hawkins, et al., 2005; Perkins et al., 2012; Svendsen et al., 2017), although the use of a purposeful sample was evident and appropriate in all studies.

While all studies used appropriate data collection methods such as interviews and focus groups, four studies provided insufficient justification for the selected participant sample size (Brenner et al., 2014; Perkins et al., 2012; Steckley & Kendrick, 2008; Wilson et al., 2017), and three studies failed to provide any details of the interview/focus group topic guide that was used (Duffy et al., 2023; Moran et al., 2009; Perkins et al., 2012). Eight studies commented on whether “data saturation” had been achieved as evidenced by the use of phrases such as

“saturation,” “data saturation,” and “no new information” (Bailey et al., 2021; Chapman et al., 2016; Fish & Culshaw, 2005; Kodua et al., 2020; Lombart et al., 2020; Meehan et al., 2022; Moyles et al., 2023; Sequeira & Halstead, 2004). Moreover, it could be inferred from the grounded theory methodology of a further study that “data saturation” principles had been adopted (Hawkins et al., 2005).

All studies presented verbatim participant quotes to evidence the analysis, and used appropriate data analysis methods and/or methodologies including grounded theory (Hawkins et al., 2005; Sequeira & Halstead, 2004), types of phenomenological analysis (Bailey et al., 2021; Bigwood & Crowe, 2008; Duffy et al., 2023; Fish & Culshaw, 2005; Moran et al., 2009), and types of thematic analysis (Bonner et al., 2002; Brenner et al., 2014; Chapman et al., 2016; Kodua & Eboh, 2023; Kodua et al., 2020; Lombart et al., 2020; Meehan et al., 2022; Moyles et al., 2023; Perkins et al., 2012; Steckley & Kendrick, 2008; Svendsen et al., 2017; Wilson et al., 2017). However, one study provided insufficient information of the analysis process (Steckley & Kendrick, 2008), and seven studies featured a somewhat superficial analysis, evidenced by the topic summary hallmark of generated themes (Bonner et al., 2002; Chapman et al., 2016; Fish & Culshaw, 2005; Hawkins, et al., 2005; Perkins et al., 2012; Steckley & Kendrick, 2008; Svendsen et al., 2017). According to Braun and Clarke (2019), topic summary themes merely summarize an area or domain of the data, such as a summary of everything participants said in relation to a particular interview question or topic (e.g., “reasons for physical intervention”; Fish & Culshaw, 2005); these themes differ from those that represent a pattern of shared meaning within the data underpinned by a central concept that organizes the analytical observations (e.g., “compassionate whilst careworn”; Bailey et al., 2021).

3.3 | Thematic synthesis: “Unpleasant but necessary” as overarching theme

One overarching interpretive theme (“unpleasant but necessary”) and five subthemes (“maintaining safety triumphs all,” “emotional distress,” “significance of coping,” “feeling conflicted,” and “depletion”) were generated from the thematic synthesis.

The single overarching interpretive theme of “unpleasant but necessary” was latently inferred across all 19 studies, and explicitly evidenced within six studies (Bailey et al., 2021; Chapman et al., 2016; Kodua & Eboh, 2023; Kodua et al., 2020; Perkins et al., 2012; Wilson et al., 2017). “Unpleasant but necessary” describes an implicit and explicit narrative that was central to healthcare staff’s experiences of manual restraint: that while manually restraining service users is unpleasant, it is nevertheless sometimes necessary to keep service users and staff safe from harm. As noted, this overarching theme constitutes five subthemes. The subthemes of “emotional distress,” “significance of coping,” “feeling conflicted,” and “depletion” reflect the inference across the 19 studies that manual restraint is an unpleasant practice for healthcare staff. The remaining subtheme of “maintaining safety triumphs all” reflects the inference across the 19 studies that manual restraint is a sometimes necessary practice for healthcare staff.

Thus, the five reported subthemes, examined separately in the following sections, collectively constitute the interpretation that manual restraint is “unpleasant but necessary.”

3.3.1 | Maintaining safety triumphs all

A central theme that was apparent across all 19 studies was that the use of manual restraint was sometimes necessary to keep healthcare staff and/or service users safe from harm, and that this maintenance of safety was of the upmost priority for healthcare staff. For instance, Bailey et al. (2021) reported that “although they [nurses] spoke of not wanting to restrain, they defended their actions on safety grounds for service users and staff” (p. 405). Similarly, four studies across inpatient adult mental health and pediatric general hospital settings described manual restraint as a “necessary evil” to protect staff and/or service users (Bailey et al., 2021; Perkins et al., 2012; Svendsen et al., 2017; Wilson et al., 2017), further highlighting the inferred view that maintaining safety is of the highest priority when staff use manual restraint:

Despite the mainly negative image/descriptions of restraint and its emotional and relational impacts, a common theme from both staff and patients was that, at times (to keep patients and staff safe...), restraint is needed: “it’s a necessary evil.” (Wilson et al., 2017, p. 506)

Ten of the 19 studies highlighted that manual restraint was used in response to service user aggressive behavior to prevent harm to staff and service users; this was the case across all examined settings except for pediatric general hospital settings where manual restraint was not reportedly used in the management of aggressive behavior (Bailey et al., 2021; Chapman et al., 2016; Fish & Culshaw, 2005; Kodua & Eboh, 2023; Meehan et al., 2022; Moran et al., 2009; Perkins et al., 2012; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008; Wilson et al., 2017):

The decision to manually restrain a patient was made to stop or reduce violent and aggressive behaviours to protect the safety of the patient, staff, other patients or relatives. (Chapman et al., 2016, p. 1276)

[Nurse participants] felt that restraint was necessary to manage increasing levels of violent behaviour.... Those in favour of prone [restraint] noted that it provided a greater level of protection when patients were more violent. (Meehan et al., 2022, pp. 891–892)

However, 11 studies also highlighted the staff use of manual restraint for the following reasons: to prevent service users from deliberately harming themselves (Kodua & Eboh, 2023; Kodua et al., 2020; Perkins et al., 2012; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008); to prevent service users from absconding and leaving the ward/premises against medical advice (Chapman et al., 2016;

Perkins et al., 2012; Steckley & Kendrick, 2008); to administer necessary medications (Bonner et al., 2002; Meehan et al., 2022; Perkins et al., 2012); to administer necessary dietary intake to food-and/or fluid-refusing service users with eating disorders (Kodua & Eboh, 2023; Kodua et al., 2020); and, in the case of pediatric general hospital and emergency department settings, to perform necessary medical procedures including the collection of pathology, and the insertion of cannulas, catheters, and nasogastric tubes (Brenner et al., 2014; Chapman et al., 2016; Lombart et al., 2020; Svendsen et al., 2017). These 11 studies highlight the service user safety-maintaining application of manual restraint:

Staff identified aggression or violence, self-harm, absconding and the planned administration of medication as the antecedents leading to restraint. (Perkins et al., 2012, p. 44)

Self-inflicted harm through self-harm behaviour such as head-banging, ligature-tying, cutting and substantial refusal of foods and fluids were the most commonly cited antecedents leading to restraint. (Kodua & Eboh, 2023, p. 5)

Participants gave examples of their own experiences of restricting a child for procedures such as lumbar punctures, insertion of nasogastric tubes, and insertion of intravenous cannulae.... There was consensus in all groups that safety and expediency of care were absolutely necessary. (Brenner et al., 2014, p. 1084)

Although the use of manual restraint to maintain staff and service user safety was inferred as being of the upmost priority for healthcare staff in all studies, 13 studies across all examined settings highlighted that manual restraint was used only as a last resort, such as when less restrictive alternatives for managing service users' behavior were ineffective or not possible (Bailey et al., 2021; Bigwood & Crowe, 2008; Chapman et al., 2016; Fish & Culshaw, 2005; Hawkins et al., 2005; Kodua & Eboh, 2023; Lombart et al., 2020; Meehan et al., 2022; Moran et al., 2009; Perkins et al., 2012; Steckley & Kendrick, 2008; Svendsen et al., 2017; Wilson et al., 2017):

All staff reported that physical intervention was used to control a situation when all other means had failed and there was risk of injury.... all the staff interviewed stressed that the use of physical intervention would be their last resort. (Fish & Culshaw, 2005, pp. 100, 104)

However, seven studies across inpatient adult and adolescent mental health, residential care, and pediatric general hospital settings implied that differences in staff members' emotional reactions (Hawkins et al., 2005), tolerance of risk (Kodua & Eboh, 2023; Perkins et al., 2012), tiredness (Lombart et al., 2020), and needs to maintain safety and control (Bigwood & Crowe, 2008; Steckley & Kendrick, 2008;

Wilson et al., 2017) could result in the premature, preemptive, and unnecessary use of manual restraint:

It was suggested by [some] participants that experiencing strong emotions, being in an unpredictable situation and feeling the urge to respond automatically, could result in staff responding with a physical intervention too early. (Hawkins et al., 2005, p. 28)

The participants identified that their colleagues had different needs in relation to control and could act quicker than others in commencing a physical restraint. ... When the decision of another nurse to proceed with the physical restraint felt pre-emptive, then some participants described feeling uneasy. (Bigwood & Crowe, 2008, pp. 219–220)

Contrary to this subtheme, six studies across inpatient adult and child and/or adolescent mental health, inpatient adult forensic mental health, and emergency department settings highlighted that manual restraint could cause physical harm to staff (Chapman et al., 2016; Kodua & Eboh, 2023; Kodua et al., 2020; Meehan et al., 2022; Moyles et al., 2023; Wilson et al., 2017) and service users (Meehan et al., 2022; Wilson et al., 2017). Specifically, Wilson et al. (2017) described manual restraint incidents which resulted in “pain” and/or “injury” (p. 507) to service users and staff, and Meehan et al. (2022) highlighted that manual restraint “might increase a patient’s risk of asphyxia” (p. 5). Three studies described back pains, bruises, muscle aches, and grazes sustained by staff from manual restraint (Chapman et al., 2016; Kodua & Eboh, 2023; Kodua et al., 2020); these studies also described more severe restraint-related staff injuries including black eyes (Chapman et al., 2016), twisted ankles (Kodua & Eboh, 2023), and head injuries (Kodua et al., 2020). Five studies illustrated the patient physical assault that staff experienced in manual restraint including being bitten, kicked, punched, head-butted, and spat at (Chapman et al., 2016; Kodua & Eboh, 2023; Kodua et al., 2020; Meehan et al., 2022; Moyles et al., 2023). Three studies highlighted the negative impact of manual restraint on the safety of the healthcare environment by illustrating how manual restraint incidents often took away staff, leaving fewer staff to care for other service users (Chapman et al., 2016; Kodua & Eboh, 2023; Perkins et al., 2012).

3.3.2 | Emotional distress

Eighteen of the 19 studies across all examined settings described the emotional distress associated with using manual restraint, which included the experience of anxiety and fear (Bailey et al., 2021; Bigwood & Crowe, 2008; Chapman et al., 2016; Duffy et al., 2023; Hawkins et al., 2005; Kodua & Eboh, 2023; Kodua et al., 2020; Moran et al., 2009; Perkins et al., 2012; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008; Wilson et al., 2017), anger and frustration

(Bonner et al., 2002; Duffy et al., 2023; Hawkins et al., 2005; Kodua & Eboh, 2023; Kodua et al., 2020; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008), guilt (Bailey et al., 2021; Brenner et al., 2014; Kodua & Eboh, 2023; Kodua et al., 2020; Lombart et al., 2020; Moran et al., 2009; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008), sadness (Hawkins et al., 2005; Kodua & Eboh, 2023), embarrassment (Bailey et al., 2021), disgust—in relation to some service users’ body odor (Bailey et al., 2021), and feelings of distress (Bailey et al., 2021; Bigwood & Crowe, 2008; Bonner et al., 2002; Brenner et al., 2014; Chapman et al., 2016; Duffy et al., 2023; Fish & Culshaw, 2004; Hawkins et al., 2005; Kodua & Eboh, 2023; Kodua et al., 2020; Moran et al., 2009; Moyles et al., 2023; Sequeira & Halstead, 2004; Svendsen et al., 2017; Wilson et al., 2017). Healthcare staff distress was inferred from study authors’ use of terms such as “traumatizing,” “upsetting,” “terrible,” and “distressing” when narrating healthcare staff’s experiences of manual restraint:

The most dominant theme was that restraint was distressing for both patients and staff.... staff members reported feeling distress and upset for themselves as a result of restraining patients. (Wilson et al., 2017, p. 503).

Many nurses and physicians said they felt terrible when a child was held.... inexperienced nurses were quite affected when talking about how difficult and demanding it could be to use restraint (Svendsen et al., 2017, p. 5).

Healthcare staff anxiety and fear were the most prevailing emotions as evidenced by their descriptions in 12 of the 19 studies; this was the case across all examined settings except for pediatric general hospital and inpatient adult forensic mental health settings where anxiety was not reported. For instance, Bigwood and Crowe (2008) reported: “the participants all acknowledged the anxiety associated with physical restraint” (p. 220). Similarly, Duffy et al. (2023) reported: “anxiety was a common emotional response” (p. 8). Across the 12 studies, healthcare staff’s experiences of anxiety and/or fear were attributed to a range of reasons, such as the fear of being hurt or hurting the service user in restraint (Bailey et al., 2021; Bigwood & Crowe, 2008; Kodua & Eboh, 2023; Moran et al., 2009; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008), the unpredictability of manual restraint incidents (Hawkins et al., 2005; Kodua et al., 2020), and the worry about one’s own performance when applying manual restraint (Bigwood & Crowe, 2008; Hawkins et al., 2005; Kodua et al., 2020; Perkins et al., 2012; Steckley & Kendrick, 2008):

The most prominent aspects of the experience with which staff associated anxiety were being hurt themselves, other staff getting hurt or hurting the patient during restraint (Sequeira & Halstead, 2004, p. 6).

The majority of the staff ... spoke of an overwhelming feeling of dread *Before the Physical Intervention*, associated with thoughts about what lay ahead of them (Hawkins et al., 2005, p. 27; emphasis in the original)

Although three studies reported that anxiety and/or fear were highest in the moments leading up to a manual restraint (Hawkins et al., 2005; Kodua & Eboh, 2023; Sequeira & Halstead, 2004), an overall reduction in anxiety and distress was reported over time for the healthcare staff in four studies (Kodua & Eboh, 2023; Kodua et al., 2020; Sequeira & Halstead, 2004; Wilson et al., 2017). For example, Wilson et al. (2017) reported that “restraint was seen to become less frightening with experience” (p. 504).

Of the eight studies reporting on healthcare staff guilt, the experience of this emotion was most frequently linked to the coerciveness of applying manual restraint and the service user's distressing reaction to the practice (Bailey et al., 2021; Kodua et al., 2020; Lombart et al., 2020; Moran et al., 2009). The inability to find ways of avoiding restraint was also reported to prompt guilt for the healthcare staff in one study: “a theme emerging from staff interviews is a sense of guilt or defeat related to their inability to find a way to avoid having to restrain the young person” (Steckley & Kendrick, 2008, p. 562). Healthcare staff guilt was reported across settings including inpatient adult, child, and adolescent mental health; pediatric general hospital; and residential childcare.

Of the seven studies reporting on healthcare staff anger and frustration, the experience of these emotions were associated with the following: being hurt by the service user in restraint (Kodua & Eboh, 2023; Kodua et al., 2020; Sequeira & Halstead, 2004); the service user hurting colleagues in restraint (Sequeira & Halstead, 2004); failing to meet the service user's needs (Bonner et al., 2002); failing to execute one's own restraint position (Kodua et al., 2020); feeling that the situation could have been de-escalated sooner to avoid restraint (Duffy et al., 2023); and less restrictive alternatives proving to be ineffective (Hawkins et al., 2005; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008). Healthcare staff anger and frustration were not reported across studies conducted within emergency department and pediatric general hospital settings:

[Some nursing staff] said that they normally felt frustrated. This frustration appeared to be mainly because of the fact that less restrictive strategies were proving ineffective in calming a service user, resulting in the realization that a physical intervention was probably going to have to be used. (Hawkins et al., 2005, p. 27)

Many staff referred to the response of anger during the restraint process. Some associated this with the patient's hurting them or their colleagues and to frustration with patients' not responding to less restrictive interventions. (Sequeira & Halstead, 2004, p. 7)

Contrary to this subtheme, three studies reported that manual restraint elicited “a degree of bravado” (Sequeira & Halstead, 2004,

p. 6), “no negative emotional impact” (Wilson et al., 2017, p. 504), “no emotional reactions” (Sequeira & Halstead, 2004, p. 6), and no emotional impact (Duffy et al., 2023) for some healthcare staff, highlighting that manual restraint may not be overtly distressing for some healthcare staff. Additionally, one healthcare staff in one study highlighted that the staff experience of manual restraint entailed some positive as opposed to only negative feelings:

And then there are other feelings. I mean you're asserting control and preventing danger or preventing harm. So there are positive feelings as well as negative feelings. It's a mixture of things.” (Hawkins et al., 2005, p. 28, quoting a participant)

3.3.3 | Significance of coping

Nine of the 19 studies across inpatient adult and child and/or adolescent mental health, and pediatric general hospital settings highlighted the ways in which healthcare staff coped with manual restraint. Five studies across these same settings described conscious actions of healthcare staff inhibiting their emotions during manual restraint incidents through “switching off feelings” (Sequeira & Halstead, 2004, p. 9), “suppressing unpleasant emotions” (Moran et al., 2009, p. 601), “actively detaching themselves” (Kodua et al., 2020, p. 1186), “emotional detachment” (Bailey et al., 2021, p. 406), and temporarily suspending their ability to empathize (Lombart et al., 2020). These processes were reported to reflect healthcare staff's methods of coping with restraint-related distress:

[Some] nursing assistants reported actively detaching themselves from the process when they were administering manual restraint.... Detaching the self appeared to be a conscious response used by participants to cope with the adverse psychological outcomes of manual restraint. (Kodua et al., 2020, p. 1186)

The nurses implied that they suppressed their unpleasant emotional responses, in an effort to get through restraint (Moran et al., 2009, p. 601).

Support from colleagues in the aftermath of a manual restraint incident through formal (Kodua & Eboh, 2023) and informal post-incident debriefing support such as talking (Bonner et al., 2002; Duffy et al., 2023; Kodua & Eboh, 2023; Kodua et al., 2020) and humor (Bigwood & Crowe, 2008; Kodua et al., 2020; Sequeira & Halstead, 2004), and through formal post-incident debriefing learning meetings involving reflection on restraint incidents to identify what could have been done differently (Bailey et al., 2021; Bonner et al., 2002), were also reported to reflect healthcare staff's coping behaviors for distress in seven studies. However, one study reported that one healthcare staff “saw no need for debriefing” (Bonner et al., 2002, p. 470), while another study reported that healthcare staff

“felt the commitment to de-briefing [by their colleagues] was generally poor” (Bailey et al., 2021, p. 409). The possible harm that could arise from poorly managed formal post-incident debriefing learning meetings was highlighted in one of the only three studies reporting on formal debriefing meetings:

While debriefing was generally viewed positively, there were also issues of concern around possible harm that might arise from poorly managed debriefing. [Some] nurses described unhelpful experiences relating to a serious incident which occurred some months before, where debriefing had been set up some 6 weeks after a particularly disturbing incident. (Bonner et al., 2002, p. 470)

3.3.4 | Feeling conflicted

Sixteen of the 19 studies across all examined settings except inpatient learning disability highlighted the relational conflict (Chapman et al., 2016; Duffy et al., 2023; Kodua & Eboh, 2023; Kodua et al., 2020; Moyles et al., 2023; Steckley & Kendrick, 2008; Wilson et al., 2017) and the internal conflict (Bailey et al., 2021; Bigwood & Crowe, 2008; Brenner et al., 2014; Chapman et al., 2016; Duffy et al., 2023; Hawkins et al., 2005; Lombart et al., 2020; Moran et al., 2009; Perkins et al., 2012; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008; Svendsen et al., 2017; Wilson et al., 2017) that healthcare staff experienced in relation to using manual restraint. The latter feelings of conflict were most commonly attributed to the inferred view that manual restraint was incongruent with the caring values of a healthcare worker (Bailey et al., 2021; Bigwood & Crowe, 2008; Chapman et al., 2016; Lombart et al., 2019; Moran et al., 2009; Sequeira & Halstead, 2004; Wilson et al., 2017):

Their discomfort with having to manually restrain patients was articulated clearly by one nurse who viewed her role as patient advocate being compromised and felt restraint should not be part of her work as a nurse. (Chapman et al., 2016, p. 1277)

The first sub-theme, “Only if I have to” revealed the nurses' negative feelings and reluctance about using physical restraint.... Their moral discomfort about being a nurse and using force was expressed through apparent contradictions (Bailey et al., 2021, p. 405).

One study described how staff members had to work through debates in their minds prior to using manual restraint, which “appeared to be both distracting and distressing for the individuals concerned” (Hawkins et al., 2005, p. 28). The content of these debates appeared to reflect a degree of internal conflict: “I just want to walk away from this situation vs. I can't walk away, this is my job” (Hawkins et al., 2005, p. 28).

The use of manual restraint to maintain safety of the healthcare environment in the absence of effective less restrictive alternatives was inferred from five studies as an antecedent that could prompt feelings of staff internal conflict. These studies highlighted that the use of manual restraint in such circumstances could be perceived by healthcare staff as being dissonant with the best interests of the service user (Perkins et al., 2012; Steckley & Kendrick, 2008) and the desire to avoid using manual restraint (Hawkins et al., 2005; Perkins et al., 2012; Sequeira & Halstead, 2004; Steckley & Kendrick, 2008; Svendsen et al., 2017):

The following illustrates the dilemma between a desire to avoid creating a situation that, given the young person's difficulties and patterns of behaviour, might lead to him being physically restrained, and the necessity of setting boundaries. (Steckley & Kendrick, 2008, p. 559)

It appeared from one study that the stipulated feelings of internal conflict could be somewhat relieved if staff members felt that restraint had truly been used as a last option, and if staff members felt that their therapeutic relationship with the service user had remained intact following restraint:

This sense of conflict could be ameliorated if they knew attempts had been made to try other options.... The feelings of conflict could be suspended if the nurse was able to maintain a therapeutic relationship with the patient. (Bigwood & Crowe, 2008, p. 220)

The relational conflict associated with using manual restraint was evidenced by the damage to the staff–service user therapeutic relationship from restraint in six studies across inpatient adult and adolescent mental health, inpatient adult forensic mental health, emergency department, and residential childcare settings (Chapman et al., 2016; Duffy et al., 2023; Kodua & Eboh, 2023; Moyles et al., 2023; Steckley & Kendrick, 2008; Wilson et al., 2017), as well as the conflict within the staff–staff relationship consequent to poor restraint performance in one study (Kodua et al., 2020):

Participants reported a negative impact [of restraint] on patient–staff relationships, including patients feeling distrustful, feeling unable to approach or talk to staff, seeing staff members as the “bad guys,” and disliking and hating them. (Wilson et al., 2017, p. 505)

Conflict [between staff] typically occurred when participants had failed to execute their restraint positions effectively.... some described [restraint] incidents where their colleagues had made them feel incompetent. (Kodua et al., 2020, p. 1186)

Of particular significance, two studies highlighted that damage to the therapeutic relationship from manual restraint was only

“short lived” (Wilson et al., 2017, p. 506) and “temporary” (Kodua & Eboh, 2023, p. 8). Additionally, four studies highlighted that good practice after a manual restraint through, for example, post-incident debriefing support and post-incident debriefing learning with the service user, could minimize damage to the therapeutic relationship and lead to a repair (Duffy et al., 2023; Kodua & Eboh, 2023; Moyles et al., 2023; Steckley & Kendrick, 2008):

Debrief following physical intervention was noted as an important facilitator [for rebuilding the staff–service user therapeutic relationship], where effectively undertaken it was felt to be important for staff and patients to gain an understanding of what happened and why (Moyles et al., 2023, p. 9)

In contrast to the inference of manual restraint as a cause of relational conflict, three studies highlighted improved staff–service user therapeutic relationships following manual restraint incidents (Bigwood & Crowe, 2008; Kodua & Eboh, 2023; Steckley & Kendrick, 2008): “Conversely, both staff and young people described situations where there was an improvement in their relationships after a restraint” (Steckley & Kendrick, 2008, p. 564).

3.3.5 | Depletion

A theme that was inferred from at least six studies across inpatient adult and child and/or adolescent mental health, pediatric general hospital, emergency department, and residential learning disability settings was that manual restraint was a laborious practice that could deplete staff numbers (Chapman et al., 2016; Kodua & Eboh, 2023; Perkins et al., 2012) and result in physical exhaustion to staff (Hawkins et al., 2005; Kodua & Eboh, 2023; Kodua et al., 2020; Lombart et al., 2020). The laborious hallmark of manual restraint at the service level could be inferred from Chapman et al.’s (2016) study which highlighted that “on many occasions anywhere from three to seven staff were used to manually restrain one patient” (p. 1277). Similarly, Perkin’s et al. (2012) reported that “restraint episodes were also labor intensive, often requiring higher staffing levels and drawing staff from other wards” (p. 44), again reflecting the staff-number-depleting consequences of manual restraint.

Although just four studies explicitly highlighted the physical exhaustion associated with using manual restraint (Hawkins et al., 2005; Kodua & Eboh, 2023; Kodua et al., 2020; Lombart et al., 2020), a further four studies implied a level of staff physical exhaustion. For instance, Bigwood and Crowe (2008) reported that manual restraint required “physical preparation” (p. 220), Perkins et al. (2012) referred to manual restraint as a “physical struggle” (p. 47), Meehan et al. (2022) likened manual restraint to “wrestling with the patient” (p. 6), and Bailey et al. (2021) highlighted that manual restraint could be a “wrestling match” (p. 407). Of the four studies explicitly reporting on physical exhaustion, two provided vivid author narratives of healthcare staff’s experiences:

Nursing assistants described the physical exhaustion they felt in relation to applying manual restraint for [compulsory nasogastric feeding], especially in circumstance where the young person was highly resistive.... reports of sweating during restraints were not uncommon. (Kodua et al., 2020, p. 1185)

Staff described experiencing *Physical Exhaustion During the Physical Intervention....* The *Physical Exhaustion* was attributed to: the continuous *Rise in Adrenaline*, the physical nature of the restraint techniques requiring muscle tension and long durations of physical interventions. (Hawkins et al., 2005, p. 29; emphasis in the original to highlight categories of analysis)

In contrast to this subtheme, two studies highlighted that manual restraint was not always physically demanding for staff members (Kodua & Eboh, 2023; Kodua et al., 2020); this was the case when service users displayed minimal physical resistance to the intervention: “participants additionally described occasions of minimal physical exhaustion in restraint due to the minimal physical resistance displayed by some young people” (Kodua & Eboh, 2023, p. 8).

4 | DISCUSSION

The purpose of this review was to systematically identify and meta-synthesize the qualitative research literature pertaining to healthcare staff’s experiences of using manual restraint. Overall, the findings suggest that healthcare staff experience manual restraint as an “unpleasant but necessary” practice that is sometimes required to keep service users, themselves, and their colleagues safe from significant harm. The findings also suggest that healthcare staff, through their use of manual restraint, appear to prioritize the aforementioned need to maintain safety above their own physical safety (in the context of restraint-related physical injury and pain) and psychological safety.

The findings showed that manual restraint was associated with emotional distress (18 studies), internal and relational conflict (16 studies), and the experience of physical exhaustion (at least six studies) and injury (six studies) amongst healthcare staff. Healthcare staff across the studies experienced unpleasant emotions such as anxiety/fear, anger/frustration and guilt, and felt conflicted in the capacity of their therapeutic role consequent to their manual restraint use. Given these aversive psychological and physical outcomes, it is thus not surprising that nearly 50% of the reviewed studies highlighted the coping behaviors that healthcare staff used to manage their restraint-related distress. The reviewed studies showed that healthcare staff used emotion suppression-based coping strategies to cope with their distress during restraint (e.g., switching off feelings, emotional detachment), but used interpersonal-based coping strategies to cope with their distress in the post-restraint period (e.g., humor, talking with colleagues, formal post-incident debriefing learning meetings). The use of such coping behaviors during and after restraint respectively likely

represented an adaptive coping strategy for healthcare staff, ensuring that they were emotionally regulated enough to execute restraint, while also ensuring that their emotional support needs were met in the post-restraint period. The above aggregate of findings are congruent with the coping literature which has indicated that individuals develop coping responses when confronted with distressing experiences (Blum et al., 2012).

The fact that just two of the reviewed studies reported on formal post-incident learning staff debriefing meetings (Bailey et al., 2021; Bonner et al., 2002), and just one study reported on formal post-incident support staff debriefing meetings (Kodua & Eboh, 2023), may highlight the scarcity of these post-restraint practices in healthcare settings, and/or a lack of research focus on debriefing within the staff experience of manual restraint literature. This is unfortunate given that the Restraint Reduction Network (2022) has highlighted post-incident support and post-incident learning as important debriefing processes in the aftermath of a restraint.

The meta-synthesis showed that manual restraint could damage the staff–service user therapeutic relationship (six studies); this was the case for studies based in inpatient adult and adolescent mental health, inpatient adult forensic mental health, emergency department, and residential childcare settings where healthcare staff reported using manual restraint in response to service user aggressive behavior, but this was not the case for studies based in pediatric general hospital settings where manual restraint was used exclusively to deliver medical care and sustenance. This finding is not surprising given the coercive hallmark of manual restraint practice, particularly when used in the management of highly agitated service users (Perkins et al., 2012). However, two studies highlighted that damage to the therapeutic relationship was only temporary (Kodua & Eboh, 2023; Wilson et al., 2017), and four studies highlighted how good debriefing practices in the post-restraint period (e.g., offering post-incident support and post-incident learning discussions with the service user) could minimize damage to the therapeutic relationship and lead to a repair (Duffy et al., 2023; Kodua & Eboh, 2023; Moyles et al., 2023; Steckley & Kendrick, 2008). These findings are reassuring, and the latter finding highlights the importance of post-restraint practices such as debriefing with the service user in minimizing restraint-related damage to the staff–service user therapeutic relationship. Reducing the potential damage to the therapeutic relationship is paramount given that improved staff–service user relationships can reduce the overall need for restrictive interventions such as manual restraint in the first place (Restraint Reduction Network, 2022).

Although it was apparent from the reviewed studies that healthcare staff reportedly used manual restraint as a last resort intervention when effective less restrictive alternatives were lacking, seven studies across a range of settings (e.g., inpatient adult mental health, inpatient adolescent mental health, residential childcare, pediatric general hospital, residential learning disability) alarmingly evidenced healthcare staff's reports of premature, preemptive, and unnecessary manual restraint use, shedding light on the possibility for restraint to be used abusively (Care Quality Commission, 2022; Lee et al., 2003), even if this is not the intention of staff (e.g., responding with restraint too

early due to differences in staff tolerance of risk; Perkins et al., 2012). These findings reflect what service users have reported in the literature, with some describing experiences of being restrained unfairly, preemptively, and unnecessarily (Knowles et al., 2015), being subjected to excessive force in restraint (Brophy et al., 2016; Haw et al., 2011), and believing that restraint had been used to punish them (Haw et al., 2011; Sequeira & Halstead, 2002). These findings together with the findings of the present review suggest that manual restraint is not always being used as a last resort in healthcare settings. While this finding is concerning, the non-last resort use of manual restraint is understandable in light of the dynamic moment-to-moment nature of assessing service user risk (Hawkins et al., 2005), and in the context of the physical environmental limitations (e.g., lack of activity and sensory/low stimulus rooms), insufficient time (e.g., to sit with and verbally de-escalate service users at length), fear, and lack of effective alternative strategies that healthcare staff have identified as barriers towards minimizing manual restraint (Muir-Cochrane et al., 2018; Wilson et al., 2018).

The findings of this meta-synthesis paradoxically mirror those of previous reviews of service users' experiences of manual restraint, which have highlighted the adverse physical and psychological outcomes to service users (e.g., distress, fear, pain, physical injury) consequent to manual restraint (Cusack et al., 2018; Douglas et al., 2022; Strout, 2010). These findings, combined with the findings of the present review, reflect poorly on manual restraint practice, and suggest that manual restraint is a predominately negative practice for both healthcare staff and service users, despite its protective functions.

The themes generated in this meta-synthesis were consistent across studies from different countries, healthcare settings, and service user populations. For instance, even the subthemes of “significance of coping” and “depletion” which consisted of just nine and at least six studies respectively, spanned a diverse range of countries (e.g., Australia, France, Ireland, UK), healthcare settings and service user populations (e.g., inpatient adult mental health, inpatient child and/or adolescent mental health, residential learning disability, pediatric general hospital). The diverse range of studies that constituted each theme within the meta-synthesis may suggest that there is some universality in the experience of using manual restraint within healthcare settings.

This review highlights that further research focusing on healthcare staff's manual restraint experiences is needed within emergency department and inpatient child and/or adolescent mental health settings. Just one and two of the 19 included studies in this review were conducted exclusively in the former and latter settings, respectively, despite manual restraint being commonly used in these settings (Chapman et al., 2016; Kodua & Eboh, 2023).

4.1 | Clinical implications for practice

The adverse psychological and physical manual restraint outcomes highlighted collectively in the reviewed studies indicate that it is important that healthcare organizations adequately support their

healthcare staff, for example, through the provision of sufficient supervision, optional psychological support, post-restraint staff debriefing meetings (including post-incident support and post-incident learning), as well as the required time and staffing resources to allow these practices to occur. This is important in light of the high staff turnover rates that may result in a healthcare organization where frontline healthcare staff feel unsupported and undervalued by their employers (Eriksson et al., 2022).

The findings of this review and previous reviews of service users' experiences of manual restraint indicate that manual restraint is a predominantly negative practice for healthcare staff and service users alike. Consequently, the implementation of multimodal restraint and restrictive intervention minimization programs such as "Safewards" (Bowers et al., 2015), "No Force First" (Ashcraft & Anthony, 2008; Haines-Delmont et al., 2022) and "REsTRAIN Yourself" (Duxbury, Baker, et al., 2019) in relevant healthcare settings are important initiatives and would be assumed to be welcomed by healthcare staff and service users alike. Notwithstanding, it is important that such minimization programs clearly acknowledge and validate the manual restraint-related challenges that healthcare staff might face (e.g., emotional distress, tension between reducing restraint and maintaining safety), as opposed to focusing disproportionately on change and the benefits of manual restraint reduction, so that healthcare staff do not interpret these programs as "an unfounded criticism of their professionalism" (Duxbury, Thomson, et al., 2019, p. 848). Such an approach may increase healthcare staff's willingness towards adopting restraint minimization practices and translate into improved manual restraint reduction rates beyond the 19%–26% reported in the literature (Bowers et al., 2015; Duxbury, Baker, et al., 2019; Haines-Delmont et al., 2022). Indeed, individuals are much more likely to be willing to change when they feel heard and validated (Bertolino, 2018; Day, 2008).

The findings of this review suggest that it is important that healthcare staff offer post-incident support and post-incident learning opportunities to service users through debriefing in the aftermath of a manual restraint; this can be facilitated through the establishment of policy mandating such practices. Notwithstanding, in order for post-incident support and post-incident learning debriefing to be effective, it is recommended that the former is offered first, and that any subsequent post-incident learning meetings are offered by a skilled facilitator after a period of cooling down (Restraint Reduction Network, 2022).

4.2 | Limitations

This review needs to be considered in the light of several limitations. First, more than half of the included studies were conducted in the UK; caution is therefore needed when transferring the findings of this review to other countries. Notwithstanding, it is acknowledged that this review might appeal more to UK settings, where manual restraint, when compared to mechanical restraint, is the most frequently used type of physical restraint practice (Wilson et al., 2017).

Second, although the widening of the study inclusion criteria to all healthcare and residential care settings was a strength of this review, such broad inclusion criteria meant that the purpose and function of manual restraint use was inconsistent amongst studies (e.g., restraint for medical reasons vs. restraint to prevent self-harm and aggression). Consequently, the themes generated in the meta-synthesis may have lacked specificity. Third, this review was limited to peer-reviewed studies published in English. Therefore, eligible non-English and doctoral thesis studies may have been missed; such studies may have influenced the themes generated within the meta-synthesis. Finally, this review is subject to the limitations of the reviewed studies, many of which were found to have several methodological and/or reporting limitations from the CASP quality appraisal. This needs to be considered when interpreting the findings of this review.

5 | CONCLUSION

To our knowledge, this review and meta-synthesis of 19 qualitative studies is the first to review and meta-synthesize the qualitative research literature pertaining exclusively to healthcare staff's experiences of using manual restraint, and consequently, provides valuable insight into this phenomenon. Overall, the findings suggests that healthcare staff experience manual restraint as a psychologically, and (to a lesser extent) physically aversive practice, yet paradoxically deem its use as sometimes necessary to keep themselves, their colleagues and service users safe from significant harm. At the same time, the review also suggests that manual restraint is not always being used as a last resort intervention within healthcare settings. This review generates several important practice implications including: the need for healthcare organizations to adequately support their healthcare staff; the need for healthcare organizations to implement manual restraint minimization programs; and the need for healthcare staff to hold post-restraint debriefing meetings (including post-incident support, and post-incident learning discussions) with service-users to minimize potential damage to the staff–service-user therapeutic relationship consequent to manual restraint. However, the implementation of these practice implications is challenging in light of current resource, staffing level, and staff time limitations, and thus undoubtedly would require the wider support of healthcare organizations, financial investment, and possibly, policy changes.

AUTHOR CONTRIBUTIONS

Michael Kodua: Conceptualization; methodology; writing – original draft. **Joy Duxbury:** Writing – review and editing. **Winifred Oluchukwu Eboh:** Writing – review and editing; supervision. **Lilla Asztalos:** Validation; writing – review and editing. **Justin Tweneboa:** Validation.

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