Spanish Mental Health Nurses' experiences of Mechanical Restraint: A qualitative descriptive study.

Accessible Summary

What is known on the subject?

- Mechanical restraint is a common practice in mental healthcare settings despite controversy.
- Mechanical restraint is perceived as a negative experience for nurses and service users.
- Mechanical restraint damages the nurse—patient therapeutic relationship, which is essential in providing quality care and promoting recovery.

What the paper adds to existing knowledge?

- The negative experiences of service users and mental health nurses arising from use of mechanical restraint affect both parties involved and result in trauma.
- Using mechanical restraint can provoke a moral injury in mental health nurses
 which can negatively impact on the establishment of trust within the therapeutic
 nurse-patient relationship.

What are the implications for practice?

- Nurses must be aware of the negative effects that mechanical restraint use has on both their practice and their day-to-day lives.
- Post mechanical restraint debriefing is required to repair the damage to the trust aspect of the nurse-patient relationship.
- Involving service users in co-producing a debriefing framework may be a way to rebuild trust through constructive dialogue.

Abstract

Introduction

Mechanical restraint is an intervention that causes harm to service users and nurses, yet continues to be used in many countries, including Spain. However, there is a lack of research exploring Spanish mental health nurses' experiences of using mechanical restraint.

Aim

To describe the experiences of mental health nurses who have used mechanical restraint in practice.

Methods

A qualitative descriptive methodology was used and a purposive sample of ten Spanish mental health nurses were interviewed about their experiences of using mechanical restraint. Thematic analysis was then employed to analyse interview data.

Results

Participants' experiences of using mechanical restraint were mostly negative. Three main themes arose from the analysis of interview transcripts, (i) Symmetrical trauma, (ii) Moral Injury and (iii) Broken Trust.

Discussion

The use of restrictive practices, which can be perceived as counter-therapeutic, exposes nurses to risks such as moral injury and service users to broken trust in the therapeutic nurse patient relationship. Avoiding empathy in order to use mechanical restraint is counterproductive, in the understanding that empathy is key to reduce this intervention.

Implications for practice

Reducing or eliminating use of mechanical restraints should be a policy and practice priority due to the symmetrical harms it causes both nurses and service users. The trust aspect of the therapeutic nurse-patient relationship is a significant casualty when mechanical restraint is used, therefore involving service users in co-production of post mechanical restraint debriefing can be an avenue for restoring this trust through dialogue.

Mechanical Restraint, Trauma, Moral Injury, Nurse-patient relationship, Broken Trust

Introduction

The management of violence and aggression has long been a contentious issue for Mental Health Nurses (MHNs) because it often involves the use of counter-recovery measures and coercion. Collectively, these practices are known as Restrictive Interventions (RIs), which have been defined as planned or reactive acts that restrict an individual's movement, liberty and/or freedom to act independently(Department of Health and Social Care, 2019).

Restrictive interventions are often employed when risk of injury to self, or others, cannot be safely managed by alternative means (Nash et al 2018). Examples include physical restraint, chemical restraint, seclusion, and mechanical restraint (Department of Health and Social Care 2019), which can be used individually, or in combination, depending on the level of risk. However, RIs should be used as a last resort, meaning they are only used by MHNs when all other options have failed, such as communicating therapeutically with the service user (SU) (Moran et al 2009).

Aguilera-Serrano et al (2018) suggest that RIs are intended to protect patients and those around them, however, their use restricts freedom and conflicts with the ethical principle of autonomy. This is because RIs are coercive in nature and are usually employed without the consent of the SU, who may be actively resisting them (Tingleff et al 2019), and most probably against their expressed wishes. However, not using RIs may put other SUs and staff at risk. Allen et al (2019) note that sometimes patients in acute psychiatric units lose behavioural control and

mechanical restraint (MR) may be necessary to stop harmful behaviour and prevent injury.

Mechanical restraint is an intervention that is legally mandated in many jurisdictions, however, research shows that its use results in various harms to SUs such as helplessness and fear (Krieger et al 2018) and negative experiences such as post-traumatic stress (Guzmán-Parra et al, 2019). Mental health nurses are the branch of the psychiatric workforce who are most likely to be involved in using MR and are therefore disproportionately exposed to the risk of adverse events. Vedana et al (2018) suggest that physical harms can arise, such as fractures, abrasions, bites and contact with bodily fluids, however, occupational and emotional harms have also been mentioned such as decreased job satisfaction (Wilson et al 2017) and distressing emotions, such as anxiety, fear and guilt (Moran et al 2009). However, Korkeila et al (2016) describe positive experiences associated with MR use such as nurses perceiving increased feelings of safety at work.

Mechanical restraint in Spain

MR is considered to be one of the most intrusive and least acceptable forms of RI (Krieger et al 2018). In Ireland MR use is strictly monitored by the Irish Mental Health Commission (MHC Ire) and in 2019, there were 18 episodes of MR, a rate of 0.38 per 100,000 population (MHC Ire 2020). However, in Spain there is no national mental health commission, which hampers the ability to monitor trends in MR use nationwide.

Spain ratified the Convention on the Rights of Persons with Disabilities in 2007, however, it took until 2022 for the Spanish Government to officially recognise that MR and restraint can directly affect the fundamental rights of people and should only be used in exceptional circumstances (Boletín Oficial Del Estado, 2022). In Spain MR is usually prescribed by a doctor for use in emergencies or as part of a treatment plan. However, the decision to implement MR rests with nurses. Spanish research indicates that MR, along with involuntary medication, are commonly used measures for the management of violence in Spanish mental healthcare (Guzman-Parra et al. 2019).

For the purposes of this research, MR is defined as "the use of devices or bodily garments for the purpose of preventing or limiting the free movement of a patient's body" (MHC Ire. 2009). In the acute inpatient setting where the research was conducted, MR involved restraining a person on a bed adapted with a waist belt, anklets and wristlets – a five-point restraint. Depending on the level of agitation, restraint is applied in the least restrictive manner appropriate to the threat, e.g., one-point MR may be belt only, two-point MR is belt and one wristlet etc.

The aim of this study was to explore Spanish mental health nurses' experiences of using MR. Despite its widespread use in Spain, little is known about Spanish MHNs' experiences of using MR. Research covered in the introduction indicates that MHNs' experiences of using MR is mixed, however, little is known about MHNs' experiences in a Spanish context. This research hopes to contribute to the body of knowledge in this area.

Methods

Study Design

This study used a qualitative descriptive design which offers the opportunity to gather rich descriptions about a phenomenon of which little may be known, while providing a vehicle for the voices of those experiencing the phenomena of interest (Bradshaw et al 2017). The Standards for Reporting Qualitative Research (SRQR) (O'Brien et al 2014), a 21-item checklist for reporting qualitative research, was used when writing up this study.

Participants and recruitment

This research was undertaken at a 24-bed acute psychiatric admission ward. The decision to carry out the study in one hospital site was made because in Spain there is no national legislation regulating the use of MR, and thus, each hospital centre establishes its own protocol for MR use. A purposive sampling method was used, as participants were required to have direct experience of using MR in practice which ensured they had experiential insights regarding the use of MR and its outcome. To reduce recall bias, participants had to have been involved in MR in the preceding three months. Participant recruitment was performed via posters advertising the research which were placed in the inpatient unit. Interested participants were self-selected by contacting the first author directly to arrange an interview. The sample size was decided when a point of data saturation was achieved, and no new information was obtained. Feeling comfortable that a theoretical category has been saturated involves recognition that the data collected is sufficient to create an intended product (Sandelowski, 1995).

Research Ethics

Permission to access services was granted by the Hospital management. This research was conducted between June and August 2019. Ethical approval was obtained from the local Hospital Ethics Committee. Written, informed consent was obtained from participants who signed a consent form which included permission to audio-record the interviews. Recalling the use of MR may be traumatising for participants and they were informed that if they felt distressed the interview would be paused and they would be given a break as needed. If the participant was unable to continue, the interview would be terminated, and the person would be informed of available local support services.

Data Collection

The semi-structured interviews were conducted in Spanish and took place in a private room at the hospital.

Interview schedule

A detailed literature review was conducted to support the drafting of the questions used in the interview schedule, see Table 1. This consisted of twelve open questions and prompts designed to engage participants in conversation.

Study Interview Schedule

Q1	Can you explain to me the circumstances behind your last experience of MR – why				
	was it used?				
Q2	On reflection is there anything that you think could have been done better to				
	prevent use of MR?				
Q3	Do you think it is possible to work in your area without using MR?				
Q4	What do you think needs to happen in order to stop the use of MR?				
Q5	How do you feel following the use of MR?				
Q6	Is there a policy for MR in the hospital/Are you familiar with the MR policy of the				
	hospital?				
Q7	Is there anything you would change in the MR policy				
Q8	What type of support is there for nurses following the use of MR?				
Q9	Have you got any ideas of what can be done to support nurses following the use of				
	MR?				
Q10	How do you think the patient feels when MR is used?				
Q11	How are patients supported following the use of MR?				
Q12	In your experience how does the use of MR affect the therapeutic relationship with				
	the patient?				

Table 1 Spanish MHNs' experiences of Mechanical Restraint interview schedule

Inclusion criteria

Participants were required to be qualified MHNs who had practical experience of using MR. In Spain, nurse training differs from the UK, as nurses qualify as general nurses and then opt to specialize post-registration, which, for mental health is a two-year course which grants nurses with the title of: "Nurse Specialist in Mental Health",

equivalent to a qualified MHN in the UK and Ireland. Student nurses, other healthcare professionals and healthcare assistants were excluded from the study.

Data Analysis

Following each interview, audio recordings were transcribed verbatim in Spanish by first Author Transcripts were then translated into English by Author 4 (who speaks and reads Spanish), assisted by online translation software. The initial stage involved both authors discussing the transcripts to increase the accuracy of the literal translation before contextualizing this with interpretation into a mental health context e.g., "Contención Mecánica" in Spanish translates into English as Mechanical Containment, which was interpreted as Mechanical Restraint. Discussions around translation also involved teasing out meanings, especially of colloquialisms, e.g., fatal in Spanish can be translated as deadly, lethal or dire. In English it means deadly. In the context of this study, we have interpreted it as 'dire', to indicate an emotional state. Once the translation was completed transcripts were reviewed independently by each author which involved reading and re-reading them to get an overall view of participant experiences.

Following translation, both authors analysed the interviews using the thematic analysis framework of Braun and Clarke (2006). This was an iterative process related to Spanish MHNs' experiences of using MR, therefore, recurring key words and phrases were identified and changed to block capitals. The patterns that emerged were refined into main themes which were discussed at length to ensure coherent translation was agreed. Each theme was supported with appropriate

verbatim quotes from participants that were representative across interviews. This ensured our description was grounded in the transcript data (Mullen et al 2020). Consensus in the analysis was reached through a combination of in-depth discussions facilitated via video conferencing between researchers. This largely involved refining and clarifying themes by translation and the use of a thesaurus to capture more accurate synonyms. For example, one participant stated ..."me quedó mal cuerpo..." which translates into English as "I had a bad body", which is interpreted as somatic feelings of guilt and bad conscience at participating in a MR, which contributed to the theme of Moral Injury.

Rigour

Lincoln & Guba's (1985) criteria for establishing trustworthiness in qualitative research – credibility, dependability, confirmability, and transferability – were employed to enhance rigour in this study. A process of member checking was used to enhance credibility, where individual transcripts and the final analysis of themes, in Spanish language, was returned to participants for their feedback. This helped to determine agreement with the researchers' interpretation of their experiences and offered an opportunity for additional commentary. This is considered by Lincoln and Guba (1985) to be a crucial aspect of ensuring credibility. An audit trail was established where details of dates, times, location, informed consent, and length of interview recording help to enhance confirmability, while the inclusion of direct quotes (although translated) can help enhance dependability. Finally, the detailed outline of methods, sample size and recruitment, data collection and analysis can

help enhance the transferability of the findings to situations similar to those in the study.

Results

Ten MHNs with experience of MR were interviewed. Table 2 illustrates the sample profile. The mean length of interview was seventy-two minutes. Demographic information such as age, gender, qualification, length of qualified status where also recorded.

Participant	Gender	Age	Years qualified	Work area*	Qualification
1	F	29	2	АМН	MHN
2	F	31	5	AMH	MHN
3	M	32	8	AMH	MHN
4	M	31	2	AMH	MHN
5	F	25	4	AMH	MHN
6	F	41	20	AMH	MHN
7	F	25	4	AMH	MHN
8	F	28	4	AMH	MHN
9	F	23	2	AMH	MHN
10	F	27	2	AMH	MHN

^{*}AMH (Acute Mental Health)

Table 2 Sample characteristics

Most participants were female (n=8, 80%). Sample age range was between 23 to 41 years, with a mean age of 29.2 years. All participants were MHNs. Most were qualified for five years or under (n=8, 80%), with the longest qualified being 20 years. All had been involved in MR in the three months prior to the interview.

Three main themes were generated through the process of thematic analysis of interview transcripts, and these were entitled: symmetrical trauma, moral injury and broken trust.

Theme 1 - Symmetrical Trauma

Participants were asked how they felt following their use of MR and also, how they thought the SU felt undergoing MR. Participating in MR and witnessing the effects of MR was principally a negative experience for many participants and provoked personal upset and emotional distress,

Dire. I feel very bad...it is one of the things, well I think the most unpleasant thing, in this job... Impotence. I feel frustrated (P1),

There was also an element of professional reproach charged with negative emotional sentiment,

...I feel bad, bad as a person and as a professional because it is not pleasant (P5).

When participants spoke about how they thought the SU felt following the use of MR, their responses resonated with their own experiences. Thus, the participants also perceived that the SU's experience was also negative and distressing.

I think they must feel bad, they are limiting their movement, they cannot defend themselves, they cannot do anything and they would feel powerless and defenceless (P4).

...during the MR, dire. The feeling of being caught and not being able to move I don't know what it is like, but it can't be pleasant... (P9).

The theme of symmetrical trauma refers to the similarities noted in participants' own subjective experiences following their participation in MR and their objective perception of witnessing how SUs felt when subjected to MR. Upon comparing key words and phrases of the theme, their symmetry can be illustrated with a scale of negative effects, see diagram 1 below.

How participant felt	How participants' thought	
following MR		SUs felt following MR
	Scale	
Bad	1	Bad
Impotent	2	Impotent
Helpless	3	Helpless
Dire	4	Dire
Trauma	5	Trauma
(Moral Injury)		(Emotional, physical)

Diagram 1 A scale of negative effects due to MR

Therefore, we suggest that not only does MR use have detrimental consequences for both service users and nurses, but there is also a symmetry to these experiences. Further analysis of the negative experiences of study participants led to the formulation of our second theme entitled "Moral Injury."

Moral Injury

Being involved in the use of MR coupled with witnessing its effects on SUs during and after the intervention, had a profound impact on the way participants viewed themselves following MR use. We characterise our second theme as a Moral Injury (MI) which refers to the professional, ethical, and personal or emotional harm experienced by participants following their involvement in MR. The negative experiences encountered and endured by participants are associated with an intervention that runs against their ethical beliefs as nurses, and moral values as people.

...[MR] is a violent act and you are applying violence in your work when I consider myself a peaceful person, in my life I try to ward off violence as much as I can, this ethical dilemma is in my work every day (P10).

The effects of the moral injury endured outside the work place meaning that participants felt they were 'taking work home' with them.

... when it touches you, you gradually find yourself taking cases back home, in the end you still resent it and say I'm not physically tired, but I am emotionally exhausted, it's making a dent in me (P1),

An aspect of moral injury is feelings of guilt that participants held onto.

... truthfully, I felt dreadful, also, I don't know, it's like it felt uncomfortable to have to see it... (P9) (*see data analysis section).

To protect themselves from moral injury, some participants used counter-therapeutic desensitisation strategies to avoid empathising with the SU in order to perform the intervention.

... you do what you have to do and it's over, you desensitize to this kind of thing... I have been desensitizing myself, although there are certain MRs that continue to affect me as much as at the beginning (P9).

Involvement in MR left participants with residual feelings of doubt.

...at the beginning I felt bad for a few days, wondering whether I had done everything right, if I could have done something else to avoid it (P10).

For many participants MR was perceived as a safe way for them to act while protecting others. However, the requirement to protect others and the SU

themselves came at a cost to participants, as they felt that using MR may not have been the moral way for them to act. The experience of Moral Injury stemming from involvement in MR not only affected the participants personally, but also impacted on the caring aspect of their MHN role.

Theme 3 – Broken Trust

Our final theme is broken trust. The therapeutic nurse-patient relationship (TNPR) is a core aspect of mental health nursing and participants felt that MR jeopardised this, especially the trust element.

The patient loses the confidence that he had in you, it is a very aggressive measure, you are taking away a right that he has, at that moment I think that it [trust] is completely broken (P3).

Participants also recognised the distinct possibility that using MR can jepordise the future TNPR.

I think that the alliance that the patient has with you isn't going to be the same... The patient no longer has so much confidence in you, loses confidence, doesn't tell you everything he thinks (P4).

The therapeutic alliance requires collaboration and partnership which is at odds with the paternalism of MR. The weakening of this alliance due to MR use was also a concern.

... it is negative, it is something that distances the patient from the health personnel...containment [MR] will never strengthen the therapeutic bond, (P2).

Threats to the TNPR have been identified by other authors e.g. McKenna et al (2017). Therefore, it must be recognised within the profession that this threat will likely remain as long as SUs and MHNs are exposed to this particular practice.

Discussion

This study explored Spanish MHNs' experiences of using MR. Our findings show that MR use was a traumatic experience for participants, affecting them both emotionally and professionally. This is a common finding in the literature where Sequeira and Halstead (2004) report that nursing staff experienced a range of emotional responses including anxiety, anger, distress and crying in the use of restraint procedures, while Power et al (2020) found that MHNs felt distressed and even traumatized following use of RIs. Similarly, in research into physical and mechanical restraint in Brazilian psychiatric units, Vedana (2018) reported that nurses considered restraint to be distressing, finding it unpleasant, challenging, stressful and associated with dilemmas and conflicts such as imposing limits to autonomy.

Despite nurses reporting negative experiences with MR, it continues to have a place in mental health services due to a lack of accessible alternatives, unfavourable physical environment, fear, problematic interpersonal relationships and lack of time to spend with patients (Muir-Cochrane et al., 2018; Price et al., 2018; Wilson et al., 2017). Bigwood and Crowe (2008) found the main source of conflict in physical restraint related to the imperative to maintain control and the professional values of the therapeutic relationship. Apparently RIs, such as MR, have become normalised in mental health nursing practice for the management of violence and aggression.

Over twenty years ago, Johnson (1998) reported the negative experiences that Sus had regarding the use of restraint, which included fear, powerlessness, and helplessness. More recently, emotional states raging from anger, fear, humiliation, powerlessness, distress (Strout 2010), helplessness (Steinert et al 2013), rejection and loss of autonomy (Ling et al 2015) and trauma (Lanthén et al 2015) have been reported, which resonate with the narratives of participants in this study. In a more recent Spanish context, research by Guzman-Parra et al (2019) noted high levels of stress and coercion in SUs subjected to MR.

Bonner et al (2002) found subjective experiences of MHNs mirror feelings expressed by patients such as anger, distress, and frustration. Jacob et al (2019), found that the emotional reaction of nurses to MR was similar to that of patients, noting a tension between how nurses feel about the practice and what they must do as professionals. Our findings support previous research in this area which has consistently found experiences of MR to be predominantly negative for both MHNs and SUs. While the

trauma of SUs can only be expressed by those who have been restrained (Lanthén et al 2015), participant responses were objective validations of existing research, reflecting the subjective experiences found in research on SUs experiences of MR, such as Wynn (2004), who found that being immobilized made several patients in their study feel helpless and vulnerable, while Chien et al (2005) also report negative experiences such as powerlessness, helplessness, anxiety and fear.

Therefore, we characterise the symmetry of the trauma recounted by participants in our research as a scale of negative effects because of the perception that MR is detrimental and harmful to both nurses and SUs. While trauma was the worst experience, we have differentiated between what participants experienced as a professional impact (Moral Injury) and what the experience of SUs that they first hand (Psychological). Nurses are engaged in a moral endeavour and therefore confront challenges in making the right decision and taking the right action (Corley 2002). Codes of practice for nurses are ethical guidelines designed to ensure they work in ways that 'do good' and minimise harm. In the context of this study, we found that MR use runs counter to participants' ethical beliefs or moral values. This has resulted in professional and personal conflict which we characterise as a Moral Injury.

Moral Injury (MI) is a 'harm' that has been done to a person's sense of personal values or beliefs. It is an existential rather than a religious concept (Yan 2016) and includes factors such as perpetrating or witnessing acts that transgress deeply held moral beliefs and expectations, which might give rise to long term emotional or

psychological harm (Litz et al 2009). Although used predominently in a military context, its use has been integrated into nursing in the concept of Moral Distress - the perception of moral wrong doing because the drive to do good is constrained by institutional obstacles (Jameton 1984). Restrictive interventions are often couched in language of 'necessary evil' or 'last resort' intervention (Wilson et al 2017, Pérez-Toribio et al 2022, Power et al 2020). Synonyms of evil include wicked, malevolent, and immoral and are not adjectives one would accord to nursing or notions of care. However, they align with the negative experiences that participants felt following MR use.

Nurses participate in ethical decision-making and are frequently required to make moral choices (Chaloner 2007). Our findings suggest that having to employ an intervention described as a 'necessary evil' contributes to conflict between professional nursing and personal beliefs and values causing a moral injury. Mechanical restraint is a mandated intervention and therefore it is a legal procedure. However, it is harmful, and participants took no succour in its legitimacy. McKeown et al. (2020), suggest that rationalising restraint as a last resort intervention vindicates staff actions. Yet participants in this research did not feel vindicated as vindication requires freedom from guilt. Instead, they carried their guilt and it impacted on their personal and professional lives. Overall, participants believed MR was the safe thing to do, yet they did not feel it was right.

The moral agency of MHNs' may be threatened with exposure to MR because they see it as less dignified and less acceptable than other forms of restrictive practice

(Gerace and Muir-Cochrane 2019) which does not align with nursing theories of caring (Allen et al 2019). Consequently, moral injury compelled participants to use counter-coping strategies such as desensitisation in order to participate in MR, which has been noted elsewhere (Moran et al 2009). Sequeira and Halstead (2004) also report staff feeling 'hardened' following restraint and resorted to defences such as inhibiting emotional distress by 'switching off' when undertaking restraint. In order to participate in MR, participants may see it as a task-oriented activity to mitigate the harm that it causes to them.

Involvement in MR also impacted on the Therapeutic Nurse Patient Relationship (TNPR) especially the trust element. Moreno-Poyato et al (2017) suggest that the TNPR is one of the most important tools at a nurses' disposal. Built on trust the TNPR has been found by SUs to be important in providing positive caring environments and this was enhanced with the absence of coercion (Gilburt et al 2008). Scanlon (2006) found that MHNs place a huge emphasis on the development of trust with Sus, however, participants in this study recognised that MR constituted a threat to the TNPR, especially the trust element.

Trust is a dynamic quality as it can be built, lost, sustained, or re-established. In this sense, trust is a relational phenomenon that is vital for an effective nurse—patient relationship (Dinc and Gastmans 2013) and when restraint is used, trust becomes a common casualty of the TNPR (Wynn 2004, Wilson et al 2017). Broken trust echoes findings from other studies (Jacob et al 2019, Ling et al 2015 and Brophy et al 2016). Tingleff et al (2019) found that MR increased mistrust as SUs spoke of avoiding staff

and following rules in order to prevent further conflicts. Yet, in a ward environment MHNs need to develop TNPRs with a number of SUs at the same time. This can be difficult to achieve if MR is required to manage a SU who is presenting as a high violence risk to another SU. Something has to give, and this leaves MHNs in a Catch 22 – in order to maintain a TNPR they need to use an intervention that breaks the TNPR.

For participants, the consequences of broken trust include a rupture in the therapeutic alliance and a loss of trust in nurses where SUs may not confide issues to staff. One way of re-establishing trust would be post-restraint debriefings which Krieger et al (2021) found relatively easy to implement on acute wards for staff, enabling them to reflect on their own attitudes and emotions. As MR produces shared negative experiences, involving service users in co-producing a post-mechanical restraint debriefing framework would be a way of rebuilding trust and promoting a shared understanding aimed at reducing and eliminating MR use.

What the study adds to existing evidence

Negative experiences associated with MR use are often reported in a somewhat dichotomous way i.e., how it affects nurses (Vedana et al 2018) or how it affects service users (Lanthén et al 2015). However, to perceive another person's feelings requires empathy, which Gerace et al (2018) suggest is important in resolving nurse/consumer conflict situations. Yet, a perceived lack of empathy and consideration has been reported by service users subjected to MR (Chien et al.

2005). The present study found a symmetry in the subjective negative experiences of nurses who used MR and their objective perceptions of the service users' experience. We synthesised these negative experiences into a scale of negative effects, which illustrates the traumatic consequences for nurses, in the form of moral injury and service users as emotional and physical harm. Such a synthesis has not been undertaken to the best of our knowledge.

While participants demonstrated empathy by being able to recognise how service users felt, their inability to provide an alternative to MR provoked a moral injury, which sets this work apart from similar research. For example, participants in Muir-Cochrane et al.'s (2015) study expressed an overall positive view regarding the use of these measures because they believed they had no better alternatives. Participants in this study gave examples of evading moral injury by avoiding empathy and desensitizing themselves to MR use. These strategies are the antithesis of mental health nursing and require further investigation.

Study limitations

The authors acknowledge several study limitations. The views of a purposive sample of MHNs may not be representative of the wider population of MHNs from which the sample is drawn. A recall bias cannot be discounted where participants may not accurately recall their experiences. Mechanical restraint is a highly controversial practice and therefore a social (or professional) desirability bias must also be considered, where participants may present a more positive aspect of their attitudes

or beliefs, especially as the interviewer worked in the area. Professional translation may have maximised data quality, however, there were no resources available to fund this. Another study limitation is that triangulation only occurred when the transcribed interviews were shown to the nurses to validate the content.

Conclusion

Participants' experiences of using MR are overall negative. These research findings indicate that Spanish MHNs' experiences of MR mirror those of similar international research. In this study, participant experiences were symmetrical to those of Sus, in terms of negative feelings identified. Participants' moral 'wellbeing' appeared to suffer following the use of MR and the trust aspect of the TNPR was also negatively affected. While participants displayed empathy in considering how SUs might feel when MR is used, this can only ever be an assumption. Therefore, exploring SU (and family/carer) experiences of MR would add to our understanding of this controversial intervention.

Implications for practice

Our findings demonstrate that nurses' experiences of using MR were predominantly negative. Nurses also considered the experiences of service users to be negative, therefore recognizing that this shared experience could be a factor worth noting for exploring avenues for reduction of MR. Perceptions that empathy and trust were damaged by the use of mechanical restraint may be restored through constructive dialogue in post mechanical restraint debriefing. Involving service users in the co-

production of a debriefing framework could be a cathartic factor in promoting a more empathetic approach to managing distress.

Relevance Statement

Mental health nurses use restrictive interventions more than any other mental health professional group and are therefore disproportionately exposed to the negative outcomes of their use. We explored mental health nurses' experiences of using mechanical restraint and found these to be professionally and personally traumatic, resulting in moral injury and damaged trust relationships with the service user. However, some of the traumas resemble those of service users noted in the literature and this shared experience could be a catalyst for creating a shared understanding of how interventions such as mechanical restraint can be reduced and eventually eliminated.

References

Allen, DE., Fetzer, SJ., and Cummings, KS. (2019). Decreasing Duration of Mechanical Restraint Episodes by Increasing Registered Nurse Assessment and Surveillance in an Acute Psychiatric Hospital *Journal of the American Psychiatric Nurses Association*26(3):245-249.

Aguilera-Serrano, C., Guzman-Parra, J., Garcia-Sanchez, J. A., Moreno-Küstner, B., & Mayoral-Cleries, F. (2018). Variables associated with the subjective experience of coercive measures in psychiatric inpatients: A systematic review. *Canadian Journal of Psychiatry*, 63(2):129–144.

Bigwood., S, and Crowe., M. (2008) It's part of the job, but it spoils the job': a phenomenological study of physical restraint. *International Journal of Mental Health Nursing* 17(3):215–222.

BOLETÍN OFICIAL DEL ESTADO, (2022). Instrucción 1/2022, de 19 de enero, de la Fiscalía General del Estado, sobre el uso de medios de contenciónmecánicos o farmacológicos en unidadespsiquiátricas o de salud mental y centrosresidenciales y/o sociosanitarios de personas mayores y/o con discapacidad. Madrid, pp.18260-18279.

Bonner, G., Lowe, T., Rawcliffe, D and Wellman, N. (2002). Trauma for all: a pilot study of the subjective experience of physical restraint for mental health inpatients and staff in the UK. *Journal of Psychiatric and Mental Health Nursing* 9(4):465–73.

Bradshaw, C., Atkinson, S. & Doody, O. (2017). Employing a qualitative description approach in health care research. *Global Qualitative Nursing Research*, 4, 1–8.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.

Brophy, LM., Roper, CE., Hamilton, BE., Tellez, JJ., and McSherry, BM. (2016). Consumers and Carer perspectives on poor practice and the use of seclusion and restraint in mental health settings: results from Australian focus groups. *International Journal of Mental Health Systems* 10:1e10.

Chaloner, C. (2007). An introduction to ethics in nursing. *Nursing Standard*, 21 (32):42-46.

Chien, WT., Chan, CW., Lam, LW., and Kam, CW. (2005). "Psychiatric inpatients' perceptions of positive and negative aspects of physical restraint," *Patient Education and Counselling*, 59 (1):80–86.

Corley, MC. (2002). Nurse moral distress: a proposed theory and research agenda. *Nurse Ethics* 9(6):636–650.

Department of Health and Social Care (2019) 'Reducing the Need for Restraint and Restrictive Intervention', *Department of Health and Social Care*, (June). Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach

ment_data/file/812435/reducing-the-need-for-restraint-and-restrictive-intervention.pdf

Dinc, L. and Gastmans, C. (2013) Trust in Nurse-Patient Relationships: A Literature Review. *Nursing Ethics*, 20, 501-516.

Gerace, A., Oster, C., O'Kane, D., Hayman, C. L. & Muir-Cochrane, E. (2018). Empathic processes during nurse consumer conflict situations in psychiatric inpatient units: A qualitative study. *International Journal of Mental Health Nursing*, 27(1), 92–105. doi: 10.1111/inm.12298. Epub 2016 Dec 26.

Gerace, A. and Muir-Cochrane, E. (2019) 'Perceptions of nurses working with psychiatric consumers regarding the elimination of seclusion and restraint in psychiatric inpatient settings and emergency departments: An Australian survey', *International Journal of Mental Health Nursing*, 28(1):209–225. doi: 10.1111/inm.12522.

Gilburt, H., Rose, D.,& Slade, M. (2008). The importance of relationships in mental health care: a qualitative study of service users' experiences of psychiatric hospital admission in the UK. *BMC Health Services Research*, 8,92.

Guzman-Parra, J., Aguilera-Serrano, C., Garcia-Sanchez, JA., et al (2019). Experience coercion, post-traumatic stress, and satisfaction with treatment associated with different coercive measures during psychiatric hospitalization *International Journal of Mental Health Nursing* 28(2),448–456. doi: 10.1111/inm.12546.

Jacob, J. D., Holmes, D., Rioux, D., Corneau, P. & Macphee, C. (2019). Convergence and divergence: An analysis of mechanical restraints. *Nursing Ethics*, 26(4):1009-1026.

Jameton, A. (1984). Nursing practice: the ethical issues. Englewood Cliffs, NJ: Prentice Hall, USA.

Johnson, ME. (1998). Being Restrained: A Study of Power and Powerlessness, *Issues in Mental Health Nursing*, 19(3):191-206.

Korkeila, H., Koivisto, AM., Paavilainen., E, &Kylmä., J.(2016) 'Psychiatric Nurses' Emotional and Ethical Experiences Regarding Seclusion and Restraint', *Issues in Mental Health Nursing*, 37(7):464–475. doi: 10.3109/01612840.2016.1163626.

Krieger, E., Moritz, S., Weil, R. & Nagel, M. (2018). Patients' attitudes towards and acceptance of coercion in psychiatry. *Psychiatry Research*, 260, 478–485.

Krieger, E., Moritz, S., Lincoln, TM., Fischer, R., & Nagel. (2021) Coercion in psychiatry: A cross-sectional study on staff views and emotions. Journal of Psychiatric and Mental Health Nursing 28(2):149-162 doi: 10.1111/jpm.12643. Epub 2020 Jun 4.

Lanthén, K., Rask, M. &Sunnqvist, C. (2015). Psychiatric patients' experiences with mechanical restraints: an interview study. *Psychiatry journal*, 2015, 1-8. doi: 10.1155/2015/748392

Lincoln, YS., and Guba, EG. (1985): Naturalistic Inquiry. Sage Publications Inc. Newbury Park, CA.

Ling, S., Cleverley, K., Perivolaris A (2015) Understanding mental health service user experiences of restraint through debriefing: a qualitative analysis. *Canadian Journal of Psychiatry* 60(9):386-392.

Litz, B. T., Stein, N., Delaney, E., Lebowitz, L., Nash, W. P., Silva, C., &Maguen, S. (2009). Moral injury and moral repair in war Veterans: A preliminary model and intervention strategy *Clinical Psychology Review*, 29(8): 695-706.

McKenna, B., McEvedy, S., Maguire, T., Ryan, J. & Furness, T. (2017). Prolonged use of seclusion and mechanical restraint in mental health services: A state-wide retrospective cohort study. *International Journal of Mental Health Nursing*, 26(5):491–499.

McKeown, M., Thomson, G., Scholes, A., Edgar, F., Downe, S., Price, O., Baker, J., Greenwood, P., Whittington, R. & Duxbury, J. (2020) Restraint minimisation in mental health care: legitimate or illegitimate force? An ethnographic study. *Sociology of Health and Illness*, 42(3):449-464.

Mental Health Commission Ireland (2009). Rules Governing the Use of Seclusion and Mechanical Means of Bodily Restraint. Dublin: Mental Health Commission Ireland; 2009.

Mental Health Commission (2020) The Use of Restrictive Practices in Approved Centres Activities Report 2019: Seclusion, Mechanical Restraint and Physical Restraint Mental Health Commission, Ireland

Moran A., Cocoman A., Scott P. A., Matthews A., Staniuliene V. &Valimaki M. (2009) Restraint and seclusion: a distressing treatment option? *Journal of Psychiatric and Mental Health Nursing* 16(7): 599-605. doi: 10.1111/j.1365-2850.2009.01419.x.

Moreno-Poyato, A.R., Delgado-Hito, P., Suárez-Pérez, R. et al. (2017) Implementation of evidence on the nurse-patient relationship in psychiatric wards through a mixed method design: study protocol. *BMC Nursing* 16(1): DOI 10.1186/s12912-016-0197-8

Muir-Cochrane, E. C., Baird, J. and McCann, T. V. (2015) 'Nurses' experiences of restraint and seclusion use in short-stay acute old age psychiatry inpatient units: A qualitative study', *Journal of Psychiatric and Mental Health Nursing*, 22(2):109-15 doi: 10.1111/jpm.12189.

Muir-Cochrane, E., O'Kane, D. and Oster, C. (2018) 'Fear and blame in mental health nurses' accounts of restrictive practices: Implications for the elimination of seclusion and restraint', *International Journal of Mental Health Nursing*, 27(5): 1511–

1521. doi: 10.1111/inm.12451.

Mullen, A., Harman, K., Flanagan, K., O'Brien, B., & Isobel, S. (2020) Involving mental health consumers in nursing handover: A qualitative study of nursing views of the practice and its implementation *International Journal of Mental Health Nursing* 29(6): pp1157-1167

Nash, M., Noone, I., McDonagh, C., Culhane, A., and Higgins, A. (2018). Rapid tranquilisation: An audit of Irish mental health nursing practice, *International Journal of Mental Health Nursing*27(5): pp1449-1458.

O'Brien, BC., Harris, IB., Beckman, TJ., Reed, DA., Cook, DA. (2014). Standards for reporting qualitative research: a synthesis of recommendations. *Academic Medicine*.;89(9):1245-1251.

Pérez-Toribio, A., Moreno-Poyato, A. R., Lluch-Canut, T., Molina-Martínez, L., Bastidas-Salvadó, A., Puig-Llobet, M., & Roldán-Merino, J. F. (2022). Relationship between nurses' use of verbal de-escalation and mechanical restraint in acute inpatient mental health care: a retrospective study. International journal of mental health nursing, 31(2), 339–347. https://doi.org/10.1111/inm.12961

Power, T., Baker, A., and Jackson, D. (2020) 'Only ever as a last resort': Mental health nurses' experiences of restrictive practices *International Journal of Mental Health Nursing*29(4):674–684

Price, O., Baker, J., Bee, P., Grundy, A., Scott, A., Butler, D., Cree, L., & Lovell, K. (2018). Patient perspectives on barriers and enablers to the use and effectiveness of de-escalation techniques for the management of violence and aggression in mental health settings. *Journal of Advanced Nursing*, 74(3), 614–625. https://doi.org/10.1111/jan.13488

Sandelowski , M. (1995) Focus on Qualitative Methods - Sample Size in Qualitative Research. *Research in Nursing & Health*, 1995, 18:179-183.

Scanlon, A. (2006). Psychiatric nurses' perceptions of the constituents of the therapeutic relationship: a grounded theory study. *Journal of Psychiatric and Mental Health Nursing*, 13(3):319–29.

Sequeira, H., & Halstead, S. (2004). The psychological effects on nursing staff of administering physical restraint in a secure psychiatric hospital: 'When I go home, it's then that I think about it.' *The British Journal of Forensic Practice*, 6(1), 3–15. https://doi.org/10.1108/14636646200400002

Steinert, T., Birk, M., Flammer, E., et al (2013). Subjective distress after seclusion or mechanical restraint: one-year follow-up of a randomized controlled study. *Psychiatric Services* 64(10):1012-1017.

Strout, TD. (2010). Perspectives on the experience of being physically restrained: an integrative review of the qualitative literature. *International Journal of Mental Health Nursing*,19(6):416–427.

Tingleff, E. B., Hounsgaard, L., Bradley, S. K. &Gildberg, Frederik A. (2019). Forensic psychiatric patients' perceptions of situations associated with mechanical restraint: A qualitative interview study. *International Journal of Mental Health Nursing*, 28(2):468-479.

Vedana.KG., da Silva, DM., Ventura, CA,. et al (2018). Physical and mechanical restraint in psychiatric units: Perceptions and experiences of nursing staff *Archives of Psychiatric Nursing* 32(3):367–372

Wilson, C., Rouse, L., Rae, S., & Kar Ray, M. (2017). Is restraint a 'necessary evil' in mental health care? Mental health inpatients' and staff members' experience of physical restraint. *International Journal of Mental Health Nursing*, 26(5), 500–512. https://doi.org/10.1111/inm.12382

Wynn, R. (2004). Psychiatric inpatients' experiences with restraint. *Journal of Forensic Psychiatry and Psychology*, 15(1):124-144.

Yan, GW. (2016). The Invisible Wound: Moral Injury and Its Impact on the Health of Operation Enduring Freedom/Operation Iraqi Freedom Veterans *Military Medicine*, 181(5):451-458