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PSYCHIATRIC NURSES EXPERIENCES REGARDING PHYSICAL RESTRAINT

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29/03/2023

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ABSTRACT

Introduction: Physical restraint is a commonly used intervention in mental health institutions. Restraint is used to preserve safety and security, at the same time, it causes physical physiological negative effects on patients, as well as nurses. Nurses are the main professionals in charge of restraint, and they suffer its impact directly.

Objective: The purpose of this review is to analyse psychiatric nurses' experiences when applying physical restraint.

Methodology: This systematic review of the literature performed its search in three databases (PubMed, PsychInfo and CINHAL). With terms like "Psychiatry", "Nurse", "Experiences" and "Restraint" it elected 171 articles from 2012-2022, the number was reduced to 11 final articles.

Results: Four main categories related to nurses' experiences were found. Firstly, individual, and professional characteristics. Secondly, the level of knowledge regarding restraint nurses possess. Thirdly, nurses' attitudes, emotions, ideas, and ethical debates towards restraint. Finally, nurses' practices.

Conclusion: Psychiatric nurses experiences regarding restraint should continue to be studied. There exists a relation between knowledge, attitudes and practices that needs to be investigated in order to improve the quality of care.

Key words: psychiatry, nurse, experiences, restraint

RESUMEN

Introducción: La contención mecánica es una práctica habitual en las unidades de psiquiatría. A pesar de utilizarse para mantener la seguridad. Puede acarrear consecuencias físicas y psicológicas negativas en pacientes cómo en enfermeras. Estas últimas sufren su impacto directamente.

Objetivo: Este estudio de la literatura busca analizar las experiencias de las enfermeras, en unidades psiquiátricas, a la hora de llevar a cabo una contención mecánica.

Metodología: Se ha realizado una búsqueda bibliográfica en tres bases de datos (PubMed, PsychInfo y CINHAL). Mediante términos similares a "Psiquiatría", "Enfermera", "Experiencias" y "Contención" se seleccionaron 171 artículos publicados entre los años 2012 y 2022. El número de artículos se redujo a 11.

Resultados: Los resultados de esta investigación se dividen en cuatro categorías. Comenzando por las características individuales y profesionales de las enfermeras. Siguiendo por el nivel de conocimiento aplicado a las contenciones mecánicas que poseen las enfermeras. A continuación, las actitudes, emociones y dilemas éticos alrededor de dicha práctica. Finalmente, cómo se refleja todo lo anteriormente mencionado en las prácticas de enfermería.

Conclusión: Las experiencias de las enfermeras psiquiátricas deben seguir siendo estudiadas. Se ha hallado una relación entre conocimientos, actitudes y prácticas que debe seguir siendo investigada para mejorar la calidad de los cuidados.

Palabras clave: psiquiatría, enfermera, experiencias, contención

JUSTIFICATION

The World Health Organization defines physical, or mechanical, restraint as the interventions undertaken with the use of devices to immobilize the person or restrict a person's ability to freely move their body (WHO, 2019). Coercive measures are a legitimate practice that is regularly employed in the mental health context, regardless of the country, its wealth, or the healthcare setting (Sashidharan, S. 2019). Generally, mental health is perceived as a neglected area, surrounded by stigma, in which patient's voices and perspectives tend to be ignored when talking about safety or quality of care (D'Lima, D. 2017).

Physical restraint rises an ethical dilemma about the loss of liberty that patients might suffer from (Butterworth, H. *et al*., 2022). All care givers must follow the ethical principles of autonomy, justice, beneficence, and non-maleficence; however, these four core elements may be compromised during restrictive episodes. This type of procedure is mainly carried out by nurses, and it implies an ethical debate between the need for applying a coercive measure to maintain safety and the potential physical and psychological negative consequences patients may face (Zaami, S. *et al*., 2020).

This specific intervention is commonly used in the mental health area, a setting where restraint is still habitually used despite the new concern to reduce these practices (Gooding, P. et al., 2020). Physical restraint entails a traumatic experience for both the patient themselves and the nurse performing it (Krieger, E. *et al*., 2021). Since nurses are the principal professionals applying these methods in their clinical practice, it is necessary to inquire on their experiences, perspectives, and attitudes in order to understand the whole process. Nurse's actions are driven by affective, behavioural, and cognitive aspects, that can be assessed and studied (Laukkanen, E. *et al*., 2020).

This narrative review seeks to cluster and analyse the current literature regarding the use of coercive measures and physical restraint applied to mentally ill patients admitted into acute care settings by nurses. It intends to provide evidence of the nurse's experiences, attitudes and perceptions when using these methods.

METHODS

This literature review pursues to answer the following research question: What are psychiatric nurses' experiences when applying physical restraint? The question follows the "PIS" structure.

The "PIS" framework was used to conduct the search strategy. In which, the population stands for psychiatric nurses, the intervention correlates with physical restraint and the situation is their experiences and perceptions.

A search was performed in the following databases: PubMed, CINAHL and PsychINFO. The Key terms employed were Nurse (Nursing, nurses), Psychiatry (Acute wards, psychiatric, acute care setting), Restraint (Containment, physical restraint, restrictive measures) and Experiences (Perspectives, perceptions, and attitudes). The MeSH terms used were: "Restraint, physical" and "Psychiatry".

The search performed was: (((((("Acute care setting") OR (Psychiatric)) OR ("Acute wards")) OR (Psychiatry)) OR (psychiatry [MeSH Terms])) AND ((Perspectives) OR (livings) OR (view) OR (perceptions) OR (attitudes))) AND ((Nurse) OR (nursing))) AND (((((("Physical restraint") OR ("restraint, physical" [MeSH Terms])) OR ("Restrictive measures")) OR ("Containment")) OR ("Immobilization"))

The following are the selection criteria established for this literature review. Studies were incorporated if they met the subsequent criteria, articles published in Spanish or English after 2012, this year was chosen in order to obtain more up to date and modern data. Qualitative and quantitative studies regarding psychiatric nurse's experiences when performing physical restraint in mentally ill patients. The exclusion criteria were applied to articles that studied various types of restraint, not just physical. Studies centred on other staff members, such as doctors and psychologist, and patient's perspectives. To conclude, studies related to non-psychiatric health care settings, for instance emergency rooms, geriatric wards, or intensive care units.

A total of 212 articles were obtained in the search strategy. 35 studies form PubMed, 82 from PsychInfo and 95 from CINAHL. After applying the established limits and criteria the total number was reduced to 171 studies. After reading the titles and abstracts, 31 studies were selected since they addressed the topic of study for this review. 19 duplicated were removed from the search strategy, therefore the number decreased to 12 eligible articles. Finally, after reading the full text and in light of the established selection criteria, a total of 11 articles were included for this review.

Figure 1 shows the flow chart diagram of the study selection process.

RESULTS

NURSES CHARACTERISTICS

Nurses' personal and socio-demographic characteristics have been shown to be a relevant factor in relation to the use of restraint. Evidence shows that nurses' practices may vary according to their gender, level of education and years of service (Bregar, B *et al*., 2018). Firstly, various studies demonstrated that male nurses are more likely to use restraint than female nurses, thus more coercive measures were applied in wards with a higher number of working male nurses (Lee TK *et al*., 2021; Doedens P, 2020). Nevertheless, a more positive attitude towards the use of restraint was associated with the female gender. (Mahmoud, A. S, 2017). Secondly, nurses with greater work experience were found to have better attitudes, besides, more experienced nurses tend to restraint less (Doedens P, 2020; Mahmoud, A. S, 2017). Finally, higher level of education is correlated with the use of restraint, whereas nurse's formation and level of knowledge were associated with a more positive approach (Laukkanen *et al*., 2019; Mahmoud, A. S, 2017).

Several studies have shown the relationship between personality traits and the use of restraint. For instance, Doedens P (2020) studies the connection among factors such as high creativity, leadership, optimism, and empathy. All four of them are linked with a lower prevalence of restraint and a better perspective of containment. Other distinct factors that are associated with more desirable attitudes are, high personal accomplishments and low burnout scores (Laukkanen *et al*., 2019). Finally, tolerance to stress and risk perception are individual's qualities that can influence the decision-making process leading to restraint, with overcautious and fearful personalities tending to participate more in restraint episodes (Walker H & Tulloch L. A, 2020).

KNOWLEDGE TRAINING

Knowledge is an essential part of health care professionals' training. A higher knowledge level is linked with better clinical practices (Lee TK *et al*., 2021). Containment can be applied for different reasons, as a preventive measure or as an attempt to gain control of a difficult situation (Fereidooni Moghadam M, 2014). The main reasons for containment can be divided into two categories, firstly, in less-threatening situations, for example, in cases of inappropriate behaviour, shouting or the patient becoming excited. Secondly, when the patient displays threatening behaviour, for instance, being aggressive, attacking other users and the staff or trying to harm themselves (Bregar, B., et al 2018; Laukkanen et al., 2019).

Several articles have investigated the level of knowledge nurses possess regarding restraint in different countries. While Gandhi S (2018) demonstrated that Indian nurses have a good general level of knowledge, especially concerning the negative effects that patients may experience (such as skin breakdown, circulatory problems and choking), the restraint procedure (the need to obtain a physician's order, knowing how to attach the devices, and recognising in which situations restraint is needed) as well as the existence of alternative measures. Furthermore, Lee TK *et al* (2021) found a relationship between knowledge, age, experience, and level of education. According to his study the highest level of knowledge was associated with nurses older than 30 years old, with 5 to 9 years of experience, and with a master's degree. In general, Chinese nurses own a good level of knowledge, particularly

regarding the legal implications it holds and the obligation to record the episode, nonetheless, they lack knowledge about the usage of restraint devices. However, Hasan, A. A. & Abulattifah, A (2019) puts its focus on Saudi Arabia nurses, it was evidenced by their responses that these professionals hold a lower level of knowledge. More specifically with respect to the causes for restraint, the requirement to have a physician's order, the use of devices, the negative consequences, the alternative techniques, and the risk of death.

Restraint is applied as a last resort and is typically described as an unsatisfactory but unavoidable intervention. In response to this problem, alternative techniques have emerged as a possible solution that some nurses carry out in their practice, however these de-escalation techniques are considered time consuming and ineffective. It was evidenced that nurses have limited knowledge on alternative methods (Vedana, K. G. G., *et al*., 2018; Wong, W. K., & Bressington, D. T, 2022).

> *You would have to spend an awful lot of time talking with them, which is probably time that… while you are spending so much time trying to de-escalate you are actually taking your time away from other patients who probably need your help more than the actual other person* (Walker H & Tulloch L. A., 2020. p.44)

Some studies emphasize on the necessity of creating protocols, giving formation, guides and routines to the staff, nevertheless other studies have proven the existence of protocols and programmes inefficient, although they help to increase the critical capacity of the staff (Bregar, B., *et al*., 2018; Doedens P., 2020; Laukkanen *et al*., 2019; Vedana, K. G. G., *et a*l., 2018).

> *There's no training that can ever really portray what it's like to go hands on, and I think the course is really good, but when you're actually in a situation when you're about to restraint someone very seriously…everyone's adrenaline is going, and everyone can just sort of jump in really without there being in control* (Walker H & Tulloch L. A., 2020. p.45)

ATTITUDES TOWARDS RESTRAINT

Attitudes are described as a personal tendency to think, feel, or respond towards an object or situation (Wong, W. K., & Bressington, D. T, 2022). Restrictive episodes can evoke a range of emotional responses in the nurses performing them, with negative reactions being the most common. These feelings are typically defined as, frustration, anger, helplessness, anxiety, regret, guilt, and pity. In both the studies of Gandhi S (2018) and Lee TK *et al* (2021) emotions such as, embarrassment and feeling bad were evidenced. On the contrary, Hasan, A. A. & Abulattifah, A (2019) research suggest some nurses don't share these feelings. In addition, nurses expressed that, as a team, they don't' usually talk about what happened or how they felt during restraint episodes (Walker H & Tulloch L. A, 2020). In order to face these unpleasant sensations, nurses must be trained and prepared on an emotional level, therefore, emotion-focus coping strategies are recommended in this type of situation (Bregar, B., *et al*., 2018; Laukkanen *et al*., 2019; Wong, W. K., & Bressington, D. T, 2022;).

Additionally, the paradigm surrounding restraint is changing from a treatment paradigm to a safety paradigm. On the one hand, the treatment model defends restraint as a therapeutic intervention in itself

and describes it as effective and beneficial. On the other hand, the safety model advocates for restraint as a necessary but undesirable intervention performed to ensure safety (Doedens P., 2020). Walker H & Tulloch L. A (2020) accurately defines physical restraint as a "necessary evil", performed as a way to maintain safety and security. Restraint is not a desirable or pleasant intervention, when asked about the need for containment in psychiatric wards, nurses classified it as "very necessary" (Vedana, K. G. G., *et al*., 2018).

> *You need it because it's for your safety and other people's safety. Because you just need it there because if you didn't have it, people could get hurt. I mean I know it's not the nicest thing, and it is uncomfortable, but you have got you look at it, at the safety aspects of what could happen if we don't use restraints* (Walker H & Tulloch L. A., 2020 p.46)

Another issue concerning nurses' attitudes towards restrain is the ethical dilemma it presents. Despite being a necessary intervention, restraint may compromise the integrity, liberty and autonomy of the patient, this act may also damage the therapeutic relationship between the professional and the patient (Laukkanen *et al*., 2019; Vedana, K. G. G., *et al*., 2018; Wong, W. K., & Bressington, D. T.,2022). When assessing nurses' attitudes towards containment, Gandhi S (2018), Hasan, A. A. & Abulattifah, A (2019) and Lee TK *et al* (2021) found out that many nurses didn't believe restraint could affect the person's dignity.

NURSE'S PRACTICES

The containment process can be divided into three categories. In the first place, moments prior to restraint. Before applying coercive measures, a good assessment of the patient is fundamental, followed by the need to obtain a physician's order and prepare all the materials necessary for restraint (Fereidooni Moghadam M., 2014). In the second place, the intervention itself. Most of the time, the decision-making process surrounding restraint is overtaken by intuition and instinctive reactions, nurses frequently act rapidly, which lead to poor practice, furthermore, sometimes restraint can be used as a threat or as a battle to gain power and authority over the patient (Walker H, Tulloch L. A., 2020). In the third place, care of the patient after restraint. This includes, recording the intervention, performing assessments every 15 minutes, evaluating the situation and its effect on the patient's behaviour. On the one hand, Gandhi S (2018) and Lee TK *et al* (2021) demonstrated that most nurses perform all the above mentioned tasks. On the contrary, Hasan, A. A. & Abulattifah, A (2019) evidenced that Saudi Arabia nurses don't typically execute these practices. Other mandatory interventions include, talking to the patient during the procedure and explaining the situation, in addition to deciding whether to stop or continue the restraint based on the evolution of the user's behaviour (Fereidooni Moghadam M., 2014).

Furthermore, many nurses suffer the consequences of restraint accidents, such as, exposure to biological materials (blood or saliva), fractures, abrasions, bites or taken sick leaves caused by these incidents (Vedana, K. G. G., *et al*., 2018). Restraint can also affect the therapeutic relationship between the nurse and the patient, this can provoke damage on the patient's trust, however, if the patient accepts the situation, he can cooperate with the nurse and strengthen their relationship (Fereidooni Moghadam M., 2014).

Another issue directly related to nurses' practices regarding restraint is the context. In the first place, the patient's population is considered an important factor, this encompasses, the pathology they may suffer from, their situation, their behaviour, their capacity to control themselves and the relationship between the professional and the user (Walker H, Tulloch L. A., 2020). In the second place, the staff. Various authors mention the link between an insufficient number of workers and the prevalence of restraint, shortage of staff in mental health institutions is a reality that contributes to containment and increases the number of restrictive episodes (Doedens P., 2020; Gandhi S., 2018; Mahmoud, A. S., 2017; Vedana, K. G. G., *et al*., 2018; Walker H, Tulloch L. A., 2020; Wong, W. K., & Bressington, D. T., 2022;).

DISCUSSION

The aim of this review is to identify, analyse and summarise the current scientific literature on psychiatric nurses' experiences regarding physical restraint. This review includes various findings, firstly the association between nurses' personal and professional characteristics with their attitudes and perceptions towards restraint, many factors have been considered in this area, for instance, gender, level of experience, level of education and personality traits. Secondly, the level of knowledge about containment held by psychiatric nurses. This includes the main reasons for restraint, the misconceptions about containment and its use, knowledge of alternative techniques and the existence of protocols and guidelines to guide nurses in their practice. Thirdly, nurses' attitudes towards physical restraint, including feelings and emotions, the need to maintain safety and security on the ward, additionally the ethical dilemma surrounding restrictive measures. Finally, psychiatric nurses' practices when using physical restraint, their perspectives during the whole process (before restraint, during the episode and after the restraint), the context in which restraint occurs and its relationship to the nurses' experiences and the consequences of restrictive episodes.

With respect to the purpose of this review, two main themes respect psychiatric nurses' experiences regarding restraint were identified. On the first place, understanding the patient's experience and the ethical debate surrounding restraint. This review evidenced that restraint has a direct impact on the patient's quality of life, these consequences can be both physical and psychological (Fereidooni Moghadam M., 2014). The current literature demonstrates that restraint diminishes a person's quality of life, increases the need for medication and prolongs time of hospitalization (Chieze, M. *et al*., 2019). Another important aspect of the user's experience is the adverse effects associated with restraint, various authors enumerate the risks that patients undergoing restraint may face, for instance, skin breakdown, circulatory problems, suffocation, and death (Gandhi S. 2018; Hasan, A. A. & Abulattifah, A. 2019). Other studies demonstrated the physical, psychological, and social repercussion of restraint. Containment is associated with higher mortality rates, pressure ulcers, respiratory problems, constipation, urinary incontinence, risk of malnutrition and compromised muscle strength (Raveesh, B. N. *et al*., 2019).

In addition, Reveesh, B. N. *et al*. (2019) proved that users commonly face emotions such as, shame, guilt, feeling of loss of dignity and self-respect, these feelings are similar to those often experienced by

nurses as demonstrated by Lee TK et al. (2021) and Gandhi S. (2018). This demonstrates that both nurses and patients suffer from the emotional consequences of restraint and containment is not considered as a desirable intervention for either. Another important adverse effect is Post Traumatic Stress Disorder (PTSD), which has been shown to occur in 40% of patients (Chieze, M. *et al*., 2019). When talking about their personal experiences with restraint, many users share the negative perception that staff members don't usually communicate or talk to the patients during the procedure (Chieze, M. *et al*., 2019). This correlates with the findings of Hasan, A. A. & Abulattifah, A (2019) where it was evidenced that many nurses don't engage in conversation with patients during restraint.

Another issue surrounding nurses' attitudes is the ethical conflict related to restraint, many nurses agree about containment being necessary, and the need to infringe values like freedom or autonomy as a way to fulfil values such as security and safety (Chieze, M. *et al*., 2020). Many philosophies emerge around this issue. Firstly, some authors believe restraint should be banned, because it is considered a violation of fundamental human rights and bioethical principles, therefore coercion should be prohibited regardless of the context in which it occurs (Chieze, M. *et al*., 2020). Nevertheless Doedens P. (2020) defines restraint as an unavoidable nursing intervention and Walker H & Tulloch L. A., 2020 proves that psychiatric nurses perceive containment as a "necessary evil" and couldn`t imagine their work without it.

Secondly, coercive measures are viewed as appropriate, but only under determined conditions, this means that restraint must be used to safeguard the patient, seeking to promote wellbeing and prevent harm (Chieze, M. *et al*., 2020). This review shows that restraint is commonly applied, either as a preventive measure or as way to gain control of a situation (Fereidooni Moghadam M, 2014). Furthermore, Chieze, M. *et al*. (2019) highlights the importance of considering ethics in these situations, this means that restraint can't be performed as a form of punishment, neither as a threat, nor as a battle for authority. However, containment is indeed sometimes used with punitive intentions, as a battle for power or as a way to impose oneself over the patient (Walker H, Tulloch L. A., 2020).

In terms of the decision-making process behind restraint, this literature review shows that nurses tend to act fast and base their performance on instinct and intuition (Walker H, Tulloch L. A., 2020). On the contrary, the scientific evidence explains that the professional must make an individual evaluation of each situation, in this assessment all elements and factors must be considered, in addition, gut feelings must be avoided when applying restraint (Chieze, M. *et al*., 2020). Finally, similar findings have been reported regarding the relationship between restraint and the therapeutic relationship. Both Chieze, M. *et al*. (2019) and Fereidooni Moghadam M. (2014) prove that restraint is likely to negatively affect the patient-nurse relationship, whereas if the patient engages and participates in the process and the nurse acts professionally, coercion can enhance the relationship and help the patient regain control of themselves and autonomy.

The second theme identified is the necessity for alternative methods that can help diminish the restraint prevalence. This review evidence that nurses consider alternative techniques inefficient, limited, and time consuming, that's the reason why professionals don't practice these methods (Vedana, K. G. G., *et al*., 2018; Wong, W. K., & Bressington, D. T, 2022). However, the current literature demonstrates that

alternative methods are associated with lower rates of restraint as well as many beneficial effects on care quality (Fernández-Costa, D. *et al*., 2020; Raveesh, B. N, *et al*., 2019).

Fernández-Costa, D. *et al*. (2020) shows that there is a wide range of alternative techniques, from simple interventions such as sensory modulation, de-escalating techniques, scale assessments and staff training to more complex programs that are currently being developed and studied. On the one hand, some studies show that training and creating protocols doesn't have an impact on nurses' experiences (Doedens P., 2020). On the other hand, it has been proved that staff training is one of the most effective interventions in order to reduce restraint and has shown many positive results (Fernández-Costa, D. *et al*., 2020). Part of this training includes strategies to improve leadership qualities, educating staff on different methods, using data for education purposes, usage of containment tools, being respectful to the patient and performing an analysis once the episode is over (Raveesh, B. N, *et al*., 2019). Within the available alternative techniques, de-escalating is proven to be the more effective and it's connected with lower rates of containment (Fernández-Costa, D. *et al*., 2020). Nurses express feelings of preoccupation regarding their lack of knowledge on alternative techniques, as well as wishes to receive formation and guidance when facing restraint situations (Vedana, K. G. G., *et a*l., 2018). Evidence provides some tips that can be beneficial, such as, being there for the patient, engage in conversations, work together as a team, and set objectives, set limits with patients, and combine the usage of de-escalating techniques with assessment scales (Raveesh, B. N, *et al*., 2019).

The therapeutic relationship between the nurse and the patient is an essential part of care. It has been demonstrated that restraint can either damage or reinforce this relationship (Fereidooni Moghadam M., 2014). Alternative techniques are proven to be a way to ameliorate this alliance since it allows patients to engage on their own care by taking their preferences into consideration, facilitating dialogue between users and workers, promoting values like empathy, communication, and respect, and bringing in light new ways to handle crisis (Fernández-Costa, D. *et al*., 2020).

LIMITATIONS

This systematic review has several limitations. Firstly, the search strategy was only performed in three databases (PubMed, PsychInfo and CINHAL), this can omit various articles and reduces the number of articles available. At the same time, only studies published in the last ten years were considered, this intends to include the latest publications and the most updated information. Also, only articles written in English or Spanish were included in this review, hence some potential publications could have been missed.

When performing the search strategy, the terminology surrounding restraint is wide and varied, this includes many interpretations and types of seclusion, all included articles talk about physical restraint, but some can also include broader definitions and other forms of containment. Another important limitation is the novel profile of the author.

RELEVANCE FOR PRACTICE AND RESEARCH

The findings of this review evidence that restraint entails a complex and difficult experience for nurses. It is clear that despite being an undesirable intervention, its necessity makes it a common practice in mental health settings. This review shows that there is a need to change practice around physical restraint towards a more science-based intervention. There are implications for research, education, and practice in this regard. Firstly, there is a need for more research on the subject, including research into nurses' practices and ways of improving care in relation to physical restraint. This can help identify possible errors and suggest solutions to improve the quality of care. Secondly, there is a need for research into alternative techniques and ways of reducing the use of restraint, including new methods, programmes, and experimental studies.

The second pillar is education, clearly more training and formation regarding physical restraint is needed, as well as educating in alternative techniques and de-escalating methods. This formation should be provided in the university programme, also in mental health specialities (such as official specialisation program or master's degree), finally all nurses working in psychiatric areas should receive formation on this topic, through sessions, guidelines, or courses. Finally, in the daily practice, it was demonstrated the literature and nurses' practices differ, and there is a general lack of knowledge that prevents nurses from using restraint as they should. Nurses need to understand their mistakes and learn new ways to improve the care they provide.

CONCLUSIONS

Psychiatric nurses' experiences regarding restraint are complex. Restraint is seen as a necessary intervention due to the lack of alternative methods, however nurses describe it as an undesirable practice. This review shows that nurses' experiences of seclusion revolve around a number of factors, and in order to explore and learn more about their perspectives, all of these elements need to be assessed together. These components include, relevant socio-demographic data, level of knowledge applied to restraint, types of alternative methods, nurses' attitudes towards restraint, their perspectives and feelings during the process, the ethical dilemma surrounding restraint, the nurses opinion regarding coercive measures and finally nurses' practices and the quality of their care.

There is a clear relationship between nurses' knowledge and their practices. When nurses receive formation and education on this intervention they experience a change towards a more positive attitude, which is reflected in an improvement in their clinical practice. In addition, more programmes, training, and guidelines are needed to reduce the prevalence of physical restraint. In conclusion, more research needs to be done on this topic, particularly in relation to nurse education and practice.

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ANNEX

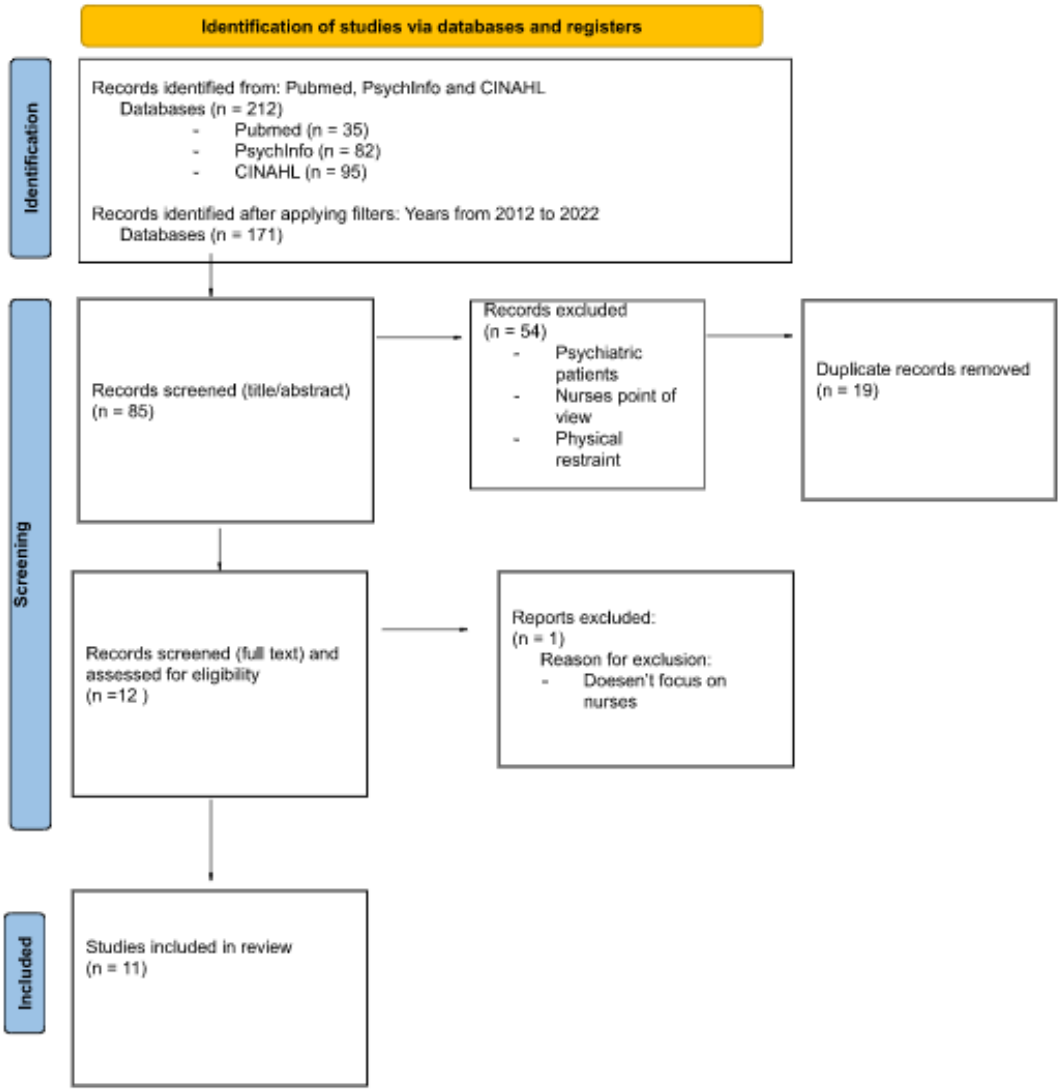

Figure 1. Flowchart diagram

Figure 2. Table of results

	TITLE	AUTHOR + YEAR + COUNTRY	AIM OF THE ARTICLE	METHODS	SAMPLE	RELEVANT RESULTS FOR MY STUDY
1	Cross-sectional study on nurses' attitudes regarding coercive measures: The importance of socio-demographic characteristics, job satisfaction, and strategies for coping with stress.	Bregar, B., et al (2018) Slovenia	Analyse factors such as gender, age, level of education, type of ward, job satisfaction and stress coping mechanisms and their relationship with containment	Cross sectional descriptive study	367 nurses from six psychiatric hospitals completed a structured questionnaire regarding the mentioned factors	Attitudes towards CM: • Reasons for containment ○ Less-threatening patient behaviour: Patient becoming excited, inappropriate behaviour, yelling… ○ Threatening patient behaviour: Aggressiveness, hitting other patients or professionals • Employee's feelings: ○ Depend on the situation, vary from feeling powerful and in control of the situation to emotions of guilt or anger. Attitudes and factors that draw nurses to perform CM must be studied jointly and not separately. Women have a more positive view towards CM. Lack of guidelines and protocol related to CM. A positive nursing attitude towards CM is linked to emotional-focus strategies (resignment, denial, conformation…)

Figure 2. Table of results

2	Influence of nursing staff attitudes and characteristics on the use of coercive measures in acute mental health services- A systematic review.	Doedens P., (2020) Netherlands	Summarize scientific literature in reference to nurses' attitudes towards coercive measures	Systematic review	84 studies were included in the article	Attitudes: • Treatment vs Safety o Treatment: believing restraint is a therapeutic intervention itself that has a calming effect o Safety: A necessary intervention performed in order to maintain safety that has a negative impact. ▪ Emotional negative experiences. ▪ Undesirable but unavoidable. ▪ Nurses can have positive attitudes because they know restraint is necessary. • Need for alternatives. o Fear of eliminating coercive measures o Restraint as a "last resort" o Nurses who perform restraint more frequently had less ethical concerns. o Experience linked to better attitude. Nurses' characteristics: • Individual: o Gender: Male restraint more than females. o Higher empathy skills were related to less coercive measures.

Figure 2. Table of results

						○ Higher feeling of safety was correlated with lower restraint practices. ○ Safety related to physical environment, organisation, staff shortage and trust within the team. • Professional: ○ More qualified staff was related with more restraints. ○ More experienced nurses had better attitudes. • Organisational: ○ The lower the staff-patient ratio the higher the use of restraint. ○ Night shift has the lowest coercive measures use. ○ Existence of protocols was not associated with restraint usage. Effective structure of the ward was linked with less restraint.

Figure 2. Table of results

3	Psychiatric Nurses' Perceptions about Physical Restraint; A Qualitative Study.	Fereidooni Moghadam M., (2014) Iran	Explore nurses' experiences concerning physical restraint while working in psychiatric units	Qualitative study	14 nurses from four psychiatric hospitals were interviewed	Restraint as a multi-purpose procedure (Causes for restraint) • To control the patients • To prevent damages (Disorientation, sleepiness and dizziness) Processing of physical restraint • Before restraint: ○ Assess the situation and the needs of the patient. ○ Physician order. ○ Prepare everything for the containment. • During restraint: ○ Surround the patient. ○ Reduce the patient. ○ Perform a safety restraint. • After restraint: ○ To stop or to continue with restraint (periodic evaluations). ○ Talking with the patient and explaining what happened. ○ Assessment. The restraint effects on the spectrum • Negative effects:

Figure 2. Table of results

						○ It damages the relationship with the patient. ○ It damages the patient. ○ It can damage the nurses. • Positive effects: When accepted, the patient can cooperate and work with the nurses.
4	Indian nurses' Knowledge, Attitude and Practice towards use of physical restraints in psychiatric patients.	Gandhi S., (2018) India	Evaluate the knowledge, attitudes and practice of nurses when applying mechanical restraint in mentally ill patients	Descriptive cross-sectional study	128 nurses working in a mental health institution completed a questionnaire	Knowledge: (In general a good grade of knowledge was shown) • Knowledge regarding the process, the care of the patient and other alternatives, as well as the patients' rights. Attitudes: • Almost half of the nurses believed that the patient doesn't suffer from a loss of dignity. • In general, worst attitude answers: ○ Feeling badly and guilty. Practices: • Most nurses always try alternative measures. • Restraint is done under a physician order. • Check the patient every 2 hours. More restraints are applied when there is staff shortage.

Figure 2. Table of results

5	Psychiatric nurses' knowledge, attitudes, and practice towards the use of physical restraints.	Hasan, A. A., & Abulattifah, A. (2019) Saudi Arabia	Study the relation between nurse's knowledge, attitudes, and practices in respect of mechanical restraint	Descriptive correlational design study	110 nurses employed in a mental health hospital answered a questionnaire	Knowledge: • A lack of general knowledge regarding the restraint practice was evidenced. o Physical restraint requires a physician's order. o Good alternatives to restraint do not exists. o Restraint must be snugly. Attitudes: • 2/3 don't try any alternatives or techniques prior to restraint. • Staff shortage is the main reason to restraint. • Don't believe restraint can cause a loss of dignity. • Not many felt guilt or embarrassment. Practices: • In general, a poor practice was evidenced. • Don't assess the patient's condition. • Don't document the intervention. • Don't evaluate the skin. • Don't talk to the patient. Don't involve the patient in the process.

Figure 2. Table of results

6	Psychiatric nursing staffs' attitudes towards the use of containment methods in psychiatric inpatient care: An integrative review.	Laukkanen et al., (2019) Finland	Seeks to analyse, integrate, and bring together the available information regarding psychiatric nurses' attitudes concerning containment measures in psychiatric wards	Integrative review	24 articles incorporated in the study	Affective component: (Feelings and emotions) • Frustration, helplessness, regret, guilt, and pity Behavioural component: (Actions) • Causes for restraint: Control violence, self-harm, and behaviour. • Experience was linked with a better attitude. • A seclusion reduction programme did not reduce the number of restraints, but nurses became more critical. • Practice differs on gender, years of experience and level of education. • Alternative measures aren't usually taken into consideration. Cognitive component: (Beliefs) • Approval depends of experience, sex and age. • Restraint was perceived as necessary in order to ensure safety and security. • Nurses with high accomplishments, optimism and low burnout levels were less likely to use restraint. • Restraint constitutes a violation of the person's integrity and dignity; it damages the therapeutic relationship. Restraint is seen as "necessary" not as "desirable".

Figure 2. Table of results

7	The Knowledge, Practice and Attitudes of Nurses Regarding Physical Restraint: Survey Results from Psychiatric Inpatient Settings.	Lee TK, Välimäki M, Lantta T. (2021) China (Hong Kong)	Identify interventions to improve psychiatric nurses' practices when caring for mentally ill patients	Cross sectional study	157 nurses from an inpatient psychiatric care unit were interviewed	Knowledge: • A relation was found between knowledge and age, experience, and education. ○ Most knowledge: Older than 30 years old, 5-9 years of experience and master's degree. Practice: • No relation between restraint and staff shortage • Always try alternative measures and explain the procedure to the patient. • Routine restraint is disoriented and confused patients. • Male nurses' restraint more than female nurses. Attitudes: • Better attitude answers, especially those with master's degree. The higher the nurse's knowledge, the better their practice was found to be. No relation with attitude.

Figure 2. Table of results

8	Psychiatric nurses' attitude and practice toward physical restraint	Mahmoud, A. S. (2017) Sudan	Assess the attitudes and practices of psychiatric nurses when applying mechanical restraint in psychiatric patients	Descriptive research design study	A questionnaire was passed to 96 nurses working in three specialised mental health hospitals and two psychiatric wards in Sudan	Attitudes: • Most try alternative measures prior to apply containment. • They don't think the patient suffers from loss of dignity when being restrained • They don't think restraint decreases nursing care time. • Some feel guilt and embarrassment when having to perform mechanical restraint. Practices: • Not enough staff in the moment of containment • Don't assess patient condition and don't document the intervention. • Don't talk and explain the decision to patient and family. • Don't take the security measures necessary (patient position, make restraints slack enough, tie to the bed frame, remove restraint progressively…) Nurses' characteristics: • Female nurses have better attitudes than male nurses. • Formation and knowledge are associated with a positive approach. (Those who have a degree).

Figure 2. Table of results

						Years of experience are correlated with better attitudes.
9	Physical and mechanical restraint in psychiatric units: Perceptions and experiences of nursing staff	Vedana, K. G. G., et al (2018) Brazil	Its intention is to understand the perceptions, perspectives, and experiences of nursing staff regarding physical restraint in psychiatric wards.	Qualitative study	Throughout interviews to 29 nursing staff members in two psychiatric units	Restraint accidents: (most nurses have suffered from) • Exposed to biological materials. • Sick leave caused by accidents. Workers consider physical restraint to be "Very necessary" (A mean of 8 on a scale from 0 to 10) Experiences: • Close relation between aggressiveness and restraint, linked to feelings of unpleasantness, undesirable, stressful and anxiety • Negative consequences for both patient and staff (a harmful procedure) o Fractures, abrasion, bites, circulatory problems, cuts… • Insufficient number of staff workers, lack of preparation and formation, unpredictable behaviour,

Figure 2. Table of results

						• Lack of cohesion in the decision-making process as a team (insecurity, disharmony) • Ethical dilemma, limits autonomy and liberty of the patient. • Necessary and a normal nursing practice that ensures safety. • Little knowledge on alternatives. • Tool for protection, safety, and preservation of integrity. • De-escalation techniques (talk to the patient, behaviour management, medications) Need for more protocols, formation, and routines.
10	A "Necessary Evil": Staff Perspectives of Soft Restraint Kit Use in a High-Security Hospital.	Walker H, Tulloch L. A (2020) United Kingdom	Seeks to explore the livings and attitudes of nurses regarding physical restraint and the decision-making process that leads to containment	Qualitative study	30 nurses working in an acute mental health setting were interviewed	Contextual demands: • Changes in the patients' populations, the uncertainty of not knowing the patient. (Not a relationship with them) • Don't have the time to perform good deescalating techniques. • Not enough staff. • Need to define which behaviours are tolerable and intervene earlier. • Restraint used as a threat, it provokes patients and angers them. • Restraint seen as a battle for power and authority with the patient.

Figure 2. Table of results

						Lack of alternatives: • In moment where the patient is being aggressive restraint is immediate. (Especially physical assault) • When acting fast, the objective decision-making process is overtaken by intuition and instinct. • Need to act as quick as possible, restraint is performed fast and wrong rather the progressively and gradually. • Restraint is perceived as a necessary evil, in order to maintain safety. • Relation between mental illness and the inability of patients to control themselves and their behaviour creates a context in which restraint is normalised. Perception of risk: • Depending on the assessment of risk each nurse does the response will be different. • Assessing the risk, and predict the outcomes is a challenging situation. • Restraint are sometimes applied before time, without trying deescalating techniques. • Staff don't usually talk about what happened and how they felt.

Figure 2. Table of results

						• Each staff member has different perception of what's tolerable (Some are fearful or overcautious) leading to more restraints. • Differences in personal qualities, individual levels of tolerance and assessments.
11	Nurses' attitudes towards the use of physical restraint in psychiatric care: A systematic review of qualitative and quantitative studies.	Wong, W. K., & Bressington, D. T. (2022) China (Hong Kong)	Investigate around psychiatric nurses' attitudes respecting physical restraint and their leading factors	Systematic review	10 studies were incorporated.	Attitudes: • Emotional response: anger, unpleasant, sadness, anxiety, painful, distress, frustration. o Nurses need to be prepared both physically and emotionally. • Moral conflicts: It's a necessary intervention that causes loss of autonomy and dignity to the patient. o The need to don't harm users. • Ensuring safety: Main cause for restraint. • A necessary nursing intervention: o It is unsatisfactory but inevitable due to lack of alternatives. • Last resort: Majority of nurses tries alternative methods. Factors that influence attitudes:

Figure 2. Table of results

						• Contextual demands: Control behaviours, insufficient space, too many patients and shortage of staff. • Level of knowledge: Higher education, less restraint. Alternatives: deescalating techniques (Considered time consuming and ineffective).

Figure 2. Table of results