Global Journal of Health Science; Vol. 16, No. 1; 2024
ISSN 1916-9736 E-ISSN 1916-9744
Published by Canadian Center of Science and Education

Reducing Restrictive Interventions in Inpatient Mental Healthcare Facilities: A Literature Review

Abdullah Saeed Alahmari[1], Nasser Mohammed Aamri[2], Amer Ahmed Amer AL-Ammari[3] & Abdulrahman Abdullah Aldawood[1]

[1] MSc Nursing, Erada complex for Mental Health in Riyadh, Riyadh, KSA

[2] MSc Mental Health Nursing, Ministry of Health, Riyadh, KSA

[3] MSc Mental health Nursing, Erada Complex for Mental Health in Riyadh, Riyadh, KSA

[4] PhD Nursing, Ministry of Health, Riyadh, KSA

Correspondence: Abdullah Saeed Alahmari, Nursing at Ministry of Health, KSA.

Received: November 5, 2023 Accepted: December 12, 2023 Online Published: December 18, 2023

doi:10.5539/gjhs.v16n1p21 URL: https://doi.org/10.5539/gjhs.v16n1p21

Abstract

Background: One common characteristic of mental health facilities is the violence and aggression that most patients exhibit. Such characteristics threaten the safety of the patients as well as that of the healthcare providers. Interventions have been put in place to prevent such aggression among mental patients. One of the common interventions is physical or chemical restriction. However, such interventions not only violate the dignity of the patients but also have negative repercussions on the treatment process and recidivism among the patients. **Purpose**: This study aimed to identify methods and models that would reduce the need for restrictive interventions to challenging behavior by mentally ill patients in inpatient psychiatric healthcare facilities.

Methods: The researcher examined databases that had information concerning mental health. These included CINAHL, PSYCINFO, EMBASE, MEDLINE, and Google Scholar. The quality appraisal used in the Cochrane Library database encompasses several systematic reviews that have been published. The data analysis that was used in this research was based on the findings of other researchers' content analysis and was an excellent technique in the research methodology.

Results: The researcher employed the inclusion criteria from the previous chapter and identified 108 studies. The author applied qualitative research synthesis to analyze the literature and extract data for interpretation in the study. The majority of the studies used qualitative methodologies. The CASP tool was indispensable in appraising every study considered in the paper. Several health services have committed to the substantial reduction or elimination of the use of restrictive interventions. Restrictive practices can be reduced and often eliminated in healthcare services. The weight of evidence that seclusion and restraint can be reduced and eliminated comes from reports of these outcomes being achieved in mental health services. There is also evidence of seclusion and restraint being reduced in emergency departments and disability services.

Conclusion: Mental healthcare providers might argue that using restrictive interventions within the context of the medical care environment presents an excellent way of dealing with aggressive and violent people. Researchers in the future need to use actual test subjects. They need to conduct clinical trials to ensure that they can validate the results of the current study.

Recommendations: Intervention development should be theoretically informed and be conducted in collaboration with people who have lived experience of this issue. Limit setting may be effective for preventing and managing aggression. Observation is potentially a powerful strategy for preventing and managing aggression.

Keywords: Restrictive intervention, recidivism, mental health, psychiatry nursing, methamphetamine, inpatient

1. Introduction

Mental health wards are characterized by high rates of violence and aggression that threaten the safety of both patients and staff. According to (Witt et al., 2021 & Bowers 2014), some mentally ill patients are often aggressive, others inflict self-harm, some refuse medication and others even attempt to commit suicide. Such cases have made it difficult and dangerous for nurses working in mental healthcare institutions to carry out their tasks. As a result,

psychiatric nurses have opted for restrictive interventions that will deter aggression, protect patients from self-harm, and ease the process of administering medications (Rudge et al., 2020 & Khalil et al., 2017). Such restrictive measures, however, have caused major ethical dilemmas, especially among the nurses responsible for implementing them. (Ye et al., 2018) found out that physical restraint and seclusion have diverse effects on patients, causing restraint-related injuries and impeding the process of treatment. As a result, dealing with this phenomenon has become one of the most controversial practices within the field of medical psychiatry (Goz et al., 2019).

While some nurses and policymakers believe that restrictive interventions are necessary for effective service delivery in psychiatric wards, others argue that the approach causes harm to the patient and has a negative effect on the treatment response amongst the patients.

Restrictive intervention is a common phenomenon in the fields of psychiatry and mental health all over the world. This approach involves seclusion, physical or mechanical restraint, and even coercive administration of medicines by nurses (Reen et al., 2020 & Steinert et al., 2010). The genesis of this practice can be traced back – through historical texts – to the beginning of psychiatry in 1793 (Reen et al., 2020 & Steinert et al., 2010). Hence, this problem has existed since the beginning of mental healthcare and remains a major issue in this field of medicine. Over time, non-restraint movements have emerged, calling for the end or limitation of these restrictive interventions. (Tebbett-Mock et al., 2020, Richter & Whittington, 2011) maintained that coercive and restrictive interventions form one of the primary infringements of mental patients' rights. (Ye et al., 2018; O'Rourke & Hammond, 2000) have further argued that "Regarding respect the basic rights of psychiatric patients, it is recommended to protect their autonomy, and eliminate the adverse effects of physical restraint". This argument has equally influenced the UK health service, as well as the legislature. For this reason, the Mental Health Act Code of Practice was repealed in 2015 and provided that mental healthcare facilities should reduce the use of restrictive interventions (National Institute for Health Research, 2021; Mental Health Act, 2015). This legislation defined restriction as any form of seclusion, restraint, or rapid tranquilisation. It was against this backdrop that this research was undertaken to explore this phenomenon and provide recommendations on how such restrictive interventions can be reduced among mental health nurses.

Violence within mental healthcare institutions has become a major issue especially concerning the safety of patients and clinical staff members within facilities. Several studies (Owens et al., 2020; Anderson & West 2011; Reid et al., 2008) have pointed out the increasing number of incidences of aggression and violence, especially towards the attending nurses. One in every four persons in the UK and Ireland is, in one way or another, affected by some form of mental health issue (O'Rourke & Hammond, 2000), with 10% of all cases ending up in psychiatric wards (O'Rourke et al., 2018). These patients often exhibit aggressive characteristics which may result in violence against mental healthcare nurses who are attending them. According to (Arnetz, 2001), 'violent behavior towards healthcare personnel has been shown to often have long-term psychological effects on its victims, including post-traumatic stress disorder, even when physical injury is not present'. Such cases may affect the ability of these nurses and caregivers to effectively deliver on their jobs. A study undertaken by the National

Institute for Health and Care Excellence (2015) revealed that there were about 60,000 assaults on healthcare staff in 43,699 case studies (representing 69%) conducted on mentally ill patients. This level of violence not only poses a danger to patients and staff but also affects the quality of service delivery in these facilities.

Every professional nurse should endeavor to create an environment that will foster quality service delivery. However, these cases of violence deter the ability of nurses to optimize patient care and may also result in the exacerbation of the patient's condition. For this reason, systems must be put in place to manage this problem to create a safe and conducive environment for quality service (O'Rourke et al., 2018). On the other hand, such conditions must be promoted 'within good quality and safe care management', which provides for valid, retrospectively defensible, and reliable intervention measures (O'Rourke, 2006; Gaskin et al., 2007). Nonetheless, restrictive intervention was created to reduce such violence and create an atmosphere for quality healthcare. Isolating a patient was aimed at preventing them from attacking others, while forced medication was meant to make the patients take their medicine (Parke et al., 2019). Even so, new studies have revealed a negative correlation between restriction and treatment response (Li et al., 2020; Steinert et al., 2010). In other words, restrictive interventions are counter-productive even if the original intention is to ease the treatment process.

Nurses play a major role in the implementation of restrictive interventions within inpatient mental health facilities. Understanding their knowledge and attitude towards this phenomenon is necessary to formulate corrective measures. A qualitative study undertaken by (Khalil et al., 2017) examined the knowledge, practices, and attitudes of psychiatric nurses toward restrictive measures. The researchers determined that moderate knowledge and attitude on this subject have resulted in the strong intent amongst the nurses to use physical restraints, coercion,

and seclusion on their psychiatric patients.

Overall, the authors concluded that 'nurses' inadequate level of knowledge on the physical and psychological effects of restraints and seclusion impact their performance and attitude in caring with psychiatric patients. This study provided an important foundation for undertaking a deeper study on the subject. It also called for in-service training programs for nurses where they can be taught about the negative consequences of restrictive interventions and how they can limit these without increasing violence in the facilities (Khalil et al., 2017).

Currently, restrictive interventions remain rampant in psychiatric facilities, with many nurses still believing that the approach should be the first option for addressing violence among patients. As much as organizations have lobbied against seclusions and restrictions, 10% to 30% of mental health patients still receive these interventions (Knott et al., 2020; Fluttert et al., 2010). A systematic review conducted by (Muir-Cochrane et al., 2021; De Hert et al., 2011) revealed that 64% of all patients admitted to mental health facilities are subjected to some form of restraint and seclusion – at least once during their entire period of stay in the institution. One of the most dehumanizing forms of restrictive intervention is seclusion, which is often applied in managing acute violent behaviors (Khalil et al., 2017). Such methods are controversial and may risk hindering the treatment process of the patients. Subsequently, restrictive interventions cause direct infringement of the rights of mental health patients. It is relevant that the human rights and integrity of the patients are upheld during the treatment process (Steering Committee on Bioethics of the Council of Europe, 2005). The correct intervention will aim at improving the "quality of life of people with mental ill-health or disability through social inclusion and the protection of their rights and dignity" (Wong et al., 2020; Steinert et al., 2010). Therefore, it is important to find a way of balancing the crucial need for restrictive intervention and the ethical dilemma it creates regarding the infringement on human rights, injuries to patients, and the exacerbation of the patient's conditions.

1.1 Significance of the Study

While violence and aggression amongst mental healthcare patients create a threat to service delivery in the institution, the restrictive interventions violate the civil liberties of the patients and limit their treatment response. This scenario creates a challenging ethical dilemma in balancing clinical effects, ethical values, and human rights (Griffiths et al., 2022; Ye et al., 2018). Based primarily on a humanitarian point of view, several countries have created strategic plans to limit the use of restraint and seclusion on psychiatric patients (Kontio et al., 2011). It is possible to contain aggression without restraining the patient. Nurses should use a much more humane approach by creating 'designated de-escalation areas, where people can go to calm down and engage with staff in a non-threatening environment' (Royal College of Nursing, 2016). Restriction further devalues the way patients perceive the quality of their lives. Such interventions are dehumanizing and may result in a major psychological impact on patients which may hinder their ability for treatment (Strout, 2010). Therefore, it is important to find ways of reducing restrictive interventions in these facilities. The main target audience in this framework is the nurses who play a major role in handling patients in mental healthcare facilities.

This study aimed to identify methods and models that would reduce the need for restrictive interventions to challenging behavior by mentally ill patients in inpatient psychiatric healthcare facilities.

2. Methodology

2.1 Framework and Rationale

Qualitative research has become relevant for various types of studies, and its prominence has grown since the 1980s. The primary drawback has been the use of questionnaires and surveys which cannot provide in-depth knowledge concerning a given issue; moreover, they are also expensive and time-consuming. This has culminated in polarization concerning collecting and analyzing information using quantitative techniques that are considered traditional as well as qualitative methods that are considered newer (McCusker & Gunaydin, 2015).

2.2 Search Method

The researcher examined databases that had information concerning mental health. These included CINAHL, PsycINFO, EMBASE, MEDLINE, and Google Scholar. The search terms that were used to gain information from these databases consisted of mental health*, opinion*, seclusion*, physical restraint*, containment*, confinement*, patient confined in a mental health facility*, inpatient experiences in psychiatry*, psychiatry or mental wards*, description*, describe*, impact* and opinion*. These terminologies were imperative because they focused on the information that was related specifically to the research. The researcher also found references using a manual search, and these included literature reviews and studies from libraries to ensure they could be used within the context of the study. As such, the reference list was manually searched for additional studies, published books, and articles as recommended by the PRISMA guidelines. The literature source inclusion criteria included

participants with first-hand experiences in mental health facilities, original data, and experiences of seclusion. Articles that were not written in English were excluded from the context of the study. It was impossible to obtain information from such articles because of the need for translation into English before the information could be used.

The PICO tool depicted below narrowed the research question to focus on restrictive interventions:

Table 2. PICO Tool for Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
Studies Published after 2007 to ensure that the knowledge used is updated	Studies published before 2007
Papers written in English	Papers written in languages other than English
Peer-reviewed literature to ensure the research is of a high quality	Papers that have not yet been published
Studies focusing on one topic to answer the research question	Studies focused on diverse issues in mental health facilities

2.3 Critical Appraisal

The quality appraisal used in the Cochrane Library database encompasses several systematic reviews that have been published. As such, it is used to refer to paradigmatic sufficiency as proves relevant to the theoretical consistency of the data analyzed (Cohen & Crabtree, 2008). Thus, it is relevant to help understand the quality of the studies for systematic reviews (Mhatre & Sansgiry, 2015). The Critical Appraisal Skills Programme (CASP) was used to critically appraise evidence in the text (Rosella et al., 2016). The papers included in the study needed to meet the criteria at various levels. They had to discuss issues within the context of the study, which entailed applying concrete methodology and using research questions, as well as analyzing data and interpreting results. It was imperative to ensure that these papers met the criteria established at the outset. Information trustworthiness was a crucial consideration in the study. The value of any information depends on its trustworthiness, and it can be increased through the qualitative approach. Four different factors can be articulated to understand the level of trustworthiness. Conformability is one, which is being sure that the findings are determined by the context or subjects of the inquiry other than the perspectives and motivations or biases of the investigators (Brannen, 2017). Dependability or reliability is a second, which consists of the ability to repeat the inquiry with a similar or the same subject in a similar or the same context. Transferability or external validity is a third, and it considers the usefulness of applying findings to other groups of people or contexts. Finally, credibility or internal validity is a fourth which involves determining the confidence of the truthfulness of the results and how they can be applied in research. It was critical that the current research considered these factors and tested the data concerning them

2.4 Statistic and Data Analysis

Data analysis is an analytical technique used in applying a thematic technique. It is relevant to selecting the best method that fits the research inquiry. It needs to have the highest level of integrity within the context of the study. The objective is to ensure that the data can be accurate and appropriate in the context of the analysis, which is critical in taking into account the usefulness of various techniques. The data analysis that was used in this research was based on the findings of other researchers' content analysis and was an excellent technique in the research methodology (Queirós et al., 2017). It was used in analysing documented information in the context of images and text. When and where the method was used depended on the research question. This was relevant in helping to form positive outcomes in the research.

3. Results

The framework for the search strategy is diagrammatically illustrated in Appendix 1. The author applied qualitative research synthesis to analyze the literature and extract data for interpretation in the study. The technique provided descriptive data from every study which was different from quantitative synthesis where there would be a need to focus on the provision of statistical data.

3.1 Geographical Regions Included

Several countries have provided research on reducing restrictive interventions in inpatient mental healthcare facilities. This research has primarily focused on three major countries, including the United Kingdom, the United

States, and Australia, while some research has also been done in the Netherlands.

Table 3. Included Studies

Country	Author(s)/Year(s)	Number of Publications
Australia	Berntsen et al. 2011 Browne et al. 2011 Knott et al. 2019 Novak et al. 2012	4
US	Fralick 2007 Friedman and Crabb 2018 Goz et al. 2019 Lambrick et al. 2019 Reeves 2017 Richmond et al. 2012 Vitaro et al. 2016	7
UK	Gaskin, Elsom and Happell 2007 Georgieva et al. 2010 Georgieva, Mulder and Noorthoorn 2013 Noorthoorn et al. 2008 Richardson, Webber and Lambrick 2019	5
Netherlands	Price et al. 2018 Schneeberger et al. 2017	2

3.2 Overall Findings

The majority of the studies used qualitative methodologies except Knott et al. (2019) and Schneeberger et al. (2017). Each of these studies used unique qualitative designs. The CASP tool was indispensable in appraising every study considered in the paper. The critical appraisal of the selected sources using the CASP framework is detailed in Table 4 below represents a summary of the results from the studies.

Table 4. Summary of Results from the Studies

Author(s)/Year	Title	Objectives	Methodology	Findings
Berntsen et al. 2011	"Temporal trends in self-harm and aggression on a pediatric mental health ward"	Describe aggression and self-harm trends in a mental health context.	Retrospective study with information obtained from a computerized information management system database.	139 incidents of self-harm and 292 incidents of aggression were reported.
Browne et al. 2011	"Improving the care of mentally ill patients in a tertiary emergency department: Development of a psychiatric assessment and planning unit"	Describe the PAPU (Psychiatric Assessment and Planning Unit) that the Royal Melbourne Hospital devised for the ED to assist in improving access to psychiatric care.	Data was recorded from the RMH database comparing the lengths of stay (LOS) in the ED.	PAPU was useful in reducing LOS in the ED of RMH to zero with a reduction in one-to-one nursing, unarmed threats' security codes, and mechanical restraint.
Fralick 2007	"A restraint utilization project"	Examine the behavior of members of the staff about restraints.	A review of personal actions of staff members and a literature review.	Restraints were reduced when the Rapid Cycle for Improvement model was used for individuals aged from 5 to 15.
Friedman and Crabb 2018	"Restraint, restrictive intervention, and seclusion of people with intellectual and developmental disabilities (IDD)"	Examine how seclusion and restraint were used on individuals with IDD.	A review of waivers in Medicaid HCBS 1915 (c) as a supporter for individuals with IDD.	Waivers permitted restrictive interventions (75.7%) and restraint (78.4%) but only a small percentage (24.3%) allowed seclusion.
Gaskin et al. 2007	"Interventions for reducing the use of seclusion in psychiatric facilities: Review of the literature"	Determine the specific interventions that reduce seclusion in psychiatric facilities.	A review of peer-reviewed literature written in English on how to reduce seclusion.	Strategies to reduce seclusion include: improving the well-being and safety of employees; adopting a focus on facilities; changing the environment of psychiatry settings; changing the therapeutic settings; treating patients as active participants in interventions to reduce seclusion; using pharmacological interventions; monitoring patients; educating medical caregivers; instituting psychiatric emergency response teams;

				monitoring episodes of seclusion; increasing ratios of employees to patients; improving treatment plans; integrating employees; examining contexts of practice; focusing on leadership; making changes to state regulation and policy; and including support at the level of the state.
Georgieva et al. 2010	"Successful reduction of seclusion in a newly developed psychiatric intensive care unit"	Investigate if patients transferred to the new Psychiatric Intensive Care Units that focused on non-coercive and effective behavior management, are restrained and secluded less during the early stages of their stay at the facility.	Eight patients were analysed and six had severe cases of borderline personality disorder.	After PICU admission, seclusion reduced from 40% when admitted to the center once patients stayed at the facility.
Georgieva et al. 2013	"Reducing seclusion through involuntary medication: A randomized clinical trial"	Evaluate if coercive and seclusion incidents are reduced in number and extent by using involuntary medication.	Patients were admitted in two groups with involuntary medication and seclusion, respectively.	Involuntary medication successfully reduced and replaced much seclusion but was inadequate in managing acute aggression.
Goz et al. 2019	"Prevalence and predictors of restrictive interventions in a youth-specific mental health inpatient unit"	Identify the determinants (medication without consent, seclusion, and restraint) and prevalence of restrictive interventions in a youth-specific mental health inpatient unit.	A 16-bed youth acute IPU was used with individuals aged from 18 to 25.	159 youths were analysed, 16 were secluded, 25 experienced restraint, and 12 were given medication without consent.
Knott et al. 2019	"Restrictive interventions in Victorian emergency departments: A study of current clinical practice"	Determine current clinical practices useful in the management of behavioural emergencies in the ED.	Examining 327454 patient presentations with one or more restrictive interventions.	24.3% experienced restrictive interventions whereas 62.8% were restrained under the duty of care. Care and oversight are lacking in the management of these persons.

Lambrick et al. 2019	"Protecting the rights of people with intellectual disabilities in correctional settings"	Provide an overview of compulsory treatment frameworks and recipients in correctional facilities.	An examination of individuals with intellectual disability in CT settings between 2007 and 2014.	Restrictive interventions should be reduced for discrimination against individuals with intellectual disability in CT units.
Noorthoorn et al. 2008	"The power of day-to-day motivational techniques and family participation in reducing seclusion: A comparison of two admission wards with and without a seclusion prevention protocol"	Examine the controversy of restrictive interventions in the Netherlands.	Observations in two wards for 29 months.	A decrease in the duration and number of seclusions in the experimental ward was noticed because it aimed at abandoning seclusion.
Novak et al. 2012	"Pilot study of a sensory room in an acute inpatient psychiatric unit"	Examine the use of comfort rooms to reduce rates of seclusion in an acute IPU.	Staff rated various disturbed behaviours, and clients rated distress before and after using the sensory room.	The room reduced distress while improving behaviours. However, aggression and seclusion rates did not decline.
Price et al. 2018	"The support-control continuum: An investigation of staff perspectives on factors influencing the success or failure of de-escalation techniques for the management of violence and aggression in mental health settings"	Obtain descriptions of staff members concerning techniques appropriate for de-escalation in mental health facilities and determine issues imperative in influencing their effectiveness and implementation.	The study examines 20 staff members based in five inpatient wards in the UK using semi-structured, qualitative interviews.	Fourteen techniques in the continuum of support and control helped chart positive behaviors along with the understanding of environmental, patient, and staff influence on de-escalation.
Reeves 2017	"Reducing the use of restrictive interventions by changing staff attitudes"	Determine the impact of an alteration in staff attitudes on the reduction of restrictive interventions.	A review of literature on the effect of an alteration in staff attitudes on the reduction of restrictive interventions.	The findings of the study discuss the approaches imperative in implementing training programs. For example, it is imperative to educate staff members on new care models such as positive behavior support alongside crisis management and rapid tranquillization.
Richardson et al. 2019	"Factors associated with long-term use of restrictive interventions"	Discuss factors that relate to the long-term deployment of restrictive interventions.	The researchers used a data set with 1,414 individuals restrained during the period from July 2008 to June 2019.	Long-term use of RI is prevalent, but it is necessary to use positive behavior support to minimize it.

Richmond et al. 2012	"Verbal de-escalation of the agitated patient: Consensus statement of the American Association for Emergency Psychiatry Project BETA De-escalation Workgroup"	Examine the use of verbal de-escalation to calm down an agitated patient in acute behavior emergencies.	A review of literature on using verbal de-escalation to calm down an agitated patient in acute behavior emergencies.	Working with agitated patients requires: (1) Ensuring the safety of staff, the patient, and other people around. (2) Assisting the individual in emotional management to regain and maintain behavioral control. (3) Avoiding restraints as much as is feasible. (4) Avoiding any coercive intervention that may raise agitation.
Schneeberger et al. 2017	"Aggression and violence in psychiatric hospitals with and without open door policies: A 15-year naturalistic observational study"	Observe violence and aggression in psychiatric settings.	Analysis of data in 21 German hospitals on violence and aggression in psychiatric settings.	Open-door policies discourage seclusion and restraint.
Vitaro et al. 2016	"Links between friends' physical aggression and adolescents' physical aggression: What happens if gene-environment correlations are controlled?"	Examine the correlation between the physical aggression of adolescents and friends.	A cross-lagged design test of the physical appearance of friends to determine if it could increase physical aggression in adolescents.	Significant associations between the physical aggression of friends and adolescents were absent unless underlying genetics were similar in both instances.

3.3 Using the CASP Framework to Assess Quality

The framework was used to understand the quality of the papers considered in the current review. Studies were categorized into three groups. Group one indicated poor quality studies with a score from 0 to 4. Group two indicated studies with good quality with scores of from 5 to 7. Finally, group three included studies with scores from 8 to 10 which were considered of a sufficiently high quality. The results are depicted in Table 5 below.

Table 5. Quality Assessment of Literature

Author(s)/Year	CASP Framework (Appendix)											Scoring		
	1	2	3	4	5	6	7	8	9	10	Total	0	1	2
Berntsen et al. 2011	+	+	+	+	+	+	+	+	+	+	10			*
Browne et al. 2011	+	+	+	+	+	+	+	+	+	+	10			*
Fralick 2007	+	+	+	+	+	+	+	+	+	+	10			*
Friedman and Crabb 2018	+	+	+	+	+	+	+	+	+	+	10			*
Gaskin, Elsom, and Happell 2007	+	+	+	+	+	+	+	+	+	+	10			*
Georgieva et al. 2010	+	+	+	+	+	+	+	+	+	+	10			*
Georgieva, Mulder, and Noorthoorn 2013	+	+	+	+	+	+	+	+	+	+	10			*
Goz et al. 2019	+	+	+	+	+	+	+	+	+	+	10			*
Knott et al. 2019	+	+	+	+	+	+	+	+	+	+	10			*
Lambrick et al. 2019	+	+	+	+	+	+	+	+	+	+	10			*
Noorthoorn et al. 2008	+	+	+	+	+	+	+	+	+	+	10			*
Novak et al. 2012	+	+	+	+	+	+	+	+	+	+	10			*
Price et al. 2018	+	+	+	+	+	+	+	+	+	+	10			*
Reeves 2017	+	+	+	+	+	+	+	+	+	+	10			*
Richardson, Webber, and Lambrick 2019	+	+	+	+	+	+	+	+	+	+	10			*
Richmond et al. 2012	+	+	+	+	+	+	+	+	+	+	10			*
Schneeberger et al. 2017	+	+	+	+	+	+	+	+	+	+	10			*
Vitaro et al. 2016	+	+	+	+	+	+	+	+	+	+	10			*

4. Discussion

4.1 Aggression and Violence: Restrictive Interventions

Restrictive interventions have been considered excellent ways of attempting to reduce recidivism, especially in individuals who display violent and aggressive behavior. Restrictive interventions are excellent because they help reduce the propensity of the individual to continue displaying such behavior (Schneeberger et al., 2017). These interventions are also used to ensure that the least restrictive option has been employed in meeting the specific need (Price et al., 2018). Manual restraint is one of the examples of restrictive interventions used in the medical care context (Knott et al., 2019). Rapid tranquillization is also a restrictive intervention that is used (Friedman and Crabb 2018). Seclusion is another methodology used in restrictive interventions for service users (Richardson et al., 2019). The patients are often locked in a room without doors and windows, as well as without furniture that cannot withstand any form of damage (Friedman and Crabb 2018). However, they still need to have access to washing facilities and toilets.

4.2 Methods and Models Suggested for Reducing Restrictive Interventions

Several models and techniques can help eliminate the need for restrictive interventions in medical care. (Reen et al., 2020 & Browne et al., 2011) pointed out that there is a need to have access to acute psychiatric beds because these are imperative in gaining an understanding of emergency care of individuals with a proclivity for recidivism. (Owens et al., Gaskin et al., 2007) suggested a psychiatric emergency response team to help reduce recidivism. Physical activities should be encouraged for service users to ensure that they can change their behaviors. Berntsen et al., (2011) conducted a study in an adolescent and child inpatient facility. The research involved an exercise program that was well structured and allowed individuals to participate five times every week. Notably, the intervention was excellent because it restricted individuals from unwanted behaviors, and all were asked to join, except if they were extremely unwell.

4.3 Alternative Interventions

Insufficient evidence exists that can support the deployment of restraint and seclusion, which means that they can only be used as a last resort measure. Medical practitioners need to develop positive interventions in the context of the medical care environment (Cqc.org.uk 2017). Medical care units need to hire psychiatric advocates who can observe patients continuously and carefully. They need to check the status of the patient every 15 minutes and document the information. They should also check the neurovascular system of the patient every hour for any restrained extremities (Lambrick et al., 2019). They should then remove restraints and perform motion exercises every two hours. The advocates need to assess the toileting and nutrition requirements of the patient every four hours when the patient is asleep and every two hours when awake (Witt et al., 2021 & Georgieva et al., 2013). It is also critical to record any vital signs every four hours and present the information to a primary care nurse.

5. Conclusion

Mental healthcare providers might argue that using restrictive interventions within the context of the medical care environment presents an excellent way of dealing with aggressive and violent people. The antecedents of aggression include patient-to-patient provocation and care provision. Restraint and medical administration and limiting the freedom of the service user may also become critical issues when dealing with recidivism. As such, medical care providers should know that they can be challenged concerning their authority and credentials, and they should also enjoy working with such people or tolerate them. Multitasking is an essential quality that they need, and they must have positive attitudes towards their patients. Finally, they need to respect physical spaces by moving furniture quickly to create a safe environment, while understanding that furniture that has stood in one place creates a false sense of being secure. There should be several exits, but there is a need to avoid extremities in colors and temperature, as well as the sounds used in the room. Objects that can be used as weapons should be removed, but those that cannot be removed should be monitored. These alternative interventions have shown that reducing restrictive interventions within the mental healthcare system will result in an increase in the quality of service delivered and deter the infringement of the rights of the patients which these more restrictive interventions currently cause.

6. Recommendations for Future Practice and Research

Researchers in the future need to use actual test subjects. They need to conduct clinical trials to ensure that they can validate the results of the current study. Clinical trials can help discover new ways of dealing with restrictive interventions and determine if existing methodologies that have been proposed in this study are useful in helping understand their implications when attempting to change the use of restrictive interventions.

7. Limitations

The work was limited by the design chosen. A literature review was used instead of an actual study with subjects, such as a clinical trial. It resulted in results that reflected the viewpoints of other researchers with different subjects. Although this was valuable, the researcher would have been better off conducting an actual study to determine the impacts of restrictive interventions in medical contexts and how to reduce them. However, the review provided sufficient information in that regard, which made it worthy of consideration by answering the key question, posed.

Funding

None.

Informed Consent

Obtained.

Provenance and Peer Review

Not commissioned; externally double-blind peer reviewed.

Data Availability Statement

The data that support the findings of this study are available on request.

Competing Interests Statement

The authors declare that there are no competing or potential conflicts of interest.

References

Anderson, A., & West, S. G. (2011). Violence against mental health professionals: when the treater becomes the victim. *Innovations in Clinical Neuroscience, 8*(3), p.34-39.

Arnetz, J. E., & Arnetz, B. B. (2001). Violence towards health care staff and possible effects on the quality of patient care. S*ocial science & medicine, 52*(3), 17-427. https://doi.org/10.1016/S0277-9536(00)00146-5

Berntsen, E., Starling, J., Durheim, E., Hainsworth, C., de Kloet, L., Chapman, L., & Hancock, K., (2011). Temporal trends in self-harm and aggression on a pediatric mental health ward. *Australasian psychiatry, 19*(1), 64-69. https://doi.org/10.3109/10398562.2010.526212

Bowers, L., (2014). Safe wards: A new model of conflict and containment on psychiatric wards. *Journal of Psychiatric and Mental Health Nursing, 21*(6), 99-508. https://doi.org/10.1111/jpm.12129

Brannen, J., (2017). *Mixing methods: Qualitative and quantitative researc*h. Routledge. https://doi.org/10.4324/9781315248813

Browne, V., Knott, J., Dakis, J., Fielding, J., Lyle, D., Daniel, C., Bruce, M., & Virtue, E., (2011). Improving the care of mentally ill patients in a tertiary emergency department: development of a psychiatric assessment and planning unit. *Australasian Psychiatry, 19*(4), 350-353. https://doi.org/10.3109/10398562.2011.579612

Cohen, D. J., & Crabtree, B. F. (2008). Evaluative criteria for qualitative research in health care: controversies and recommendations. *The Annals of Family Medicine, 6*(4), 31-339. https://doi.org/10.1370/afm.818

Cqc.org.uk. (2017). *Reducing restrictive interventions in inpatient mental healthcare services*. Retrieved from https://www.cqc.org.uk/news/stories/reducing-restrictive-interventions-inpatient-mental-healthcare-services.

De Hert, M., Dirix, N., Demunter, H., & Correll, C. U. (2011). Prevalence and correlates of seclusion and restraint use in children and adolescents: a systematic review. *European child & adolescent psychiatry, 20*(5), 21-230. https://doi.org/10.1007/s00787-011-0160-x

Fluttert, F.A., Van Meijel, B., Nijman, H., Bjørkly, S., & Grypdonck, M. (2010). Preventing aggressive incidents and seclusions in forensic care using the 'Early Recognition Method'. *Journal of Clinical Nursing, 19*(11-12), 1529-1537. https://doi.org/10.1111/j.1365-2702.2009.02986.x

Fralick, S. L. (2007). A restraint utilization project. *Nursing Administration Quarterly, 31*(3), 219-225. https://doi.org/10.1097/01.NAQ.0000278935.11374.b0

Friedman, C., & Crabb, C. (2018). Restraint, restrictive intervention, and seclusion of people with intellectual and developmental disabilities. *Intellectual and developmental disabilities, 56*(3), 171-187. https://doi.org/10.1352/1934-9556-56.3.171

Gaskin, C. J., Elsom, S. J., & Happell, B. (2007). Interventions for reducing the use of seclusion in psychiatric facilities: a review of the literature. *The British Journal of Psychiatry, 191*(4), 298-303. https://doi.org/10.1192/bjp.bp.106.034538

Georgieva, I., de Haan, G., Smith, W., & Mulder, C. L. (2010). Successful reduction of seclusion in a newly developed psychiatric intensive care unit. *Journal of Psychiatric Intensive Care, 6*(1), 31-38. https://doi.org/10.1017/S1742646409990082

Georgieva, I., Mulder, C. L., & Noorthoorn, E., (2013). Reducing seclusion through involuntary medication: a randomized clinical trial. *Psychiatry Research, 205*(1-2), 48-53. https://doi.org/10.1016/j.psychres.2012.08.002

Goz, K., Rudhran, V., Blackburn, J., Schäfer, M. R., & O'Donoghue, B. (2019). Prevalence and predictors of restrictive interventions in a youth-specific mental health inpatient unit. *Early intervention in psychiatry, 13*(5), 1105-1110. https://doi.org/10.1111/eip.12739

Griffiths, R., Dawber, A., McDougall, T., Midgley, S., & Baker, J. (2022), inpatient settings: Systematic review and narrative synthesis. *Int J Mental Health Nurs, 31*, 35-50. https://doi.org/10.1111/inm.12940

Khalil, A. I., Al Ghamdi, M. A. M., & Al Malki, S. (2017). Nurses' knowledge, attitudes, and practices toward physical restraint and seclusion in an inpatients' psychiatric ward. *International Journal of Culture and Mental Health, 10*(4), pp.447-467. https://doi.org/10.1080/17542863.2017.1329330

Knott, J., Gerdtz, M., Dobson, S., Daniel, C., Graudins, A., Mitra, B., Bartley, B., & Chapman, P. (2019). Restrictive interventions in Victorian emergency departments: A study of current clinical practice. *Emergency Medicine Australasia*. https://doi.org/10.1111/1742-6723.13412

Knott, J., Gerdtz, M., Dobson, S., Daniel, C., Graudins, A., Mitra, B., ... & Chapman, P. (2020). Restrictive interventions in Victorian emergency departments: A study of current clinical practice. *Emergency Medicine Australasia, 32*(3), 393-400. https://doi.org/10.1111/1742-6723.13412

Kontio, R., Joffe, G., Putkonen, H., Kuosmanen, L., Hane, K., Holi, M., & Välimäki, M. (2011). Seclusion And Restraint In Psychiatry: Patients' Experiences And Practical Suggestions On How To Improve Practices And Use Alternatives. *Perspectives In Psychiatric Care, 48*(1), 16-24. https://doi.org/10.1111/j.1744-6163.2010.00301.x

Lambrick, F., Birgden, A., Troutman, C., & McLeod, D., (2019). Protecting the Rights of People with Intellectual Disabilities in Correctional Settings. *The Wiley Handbook on What Works for Offenders with Intellectual and Developmental Disabilities*, 41-66. https://doi.org/10.1002/9781119316268.ch3

Li, Y. L., Li, R. Q., Qiu, D., & Xiao, S. Y. (2020). Prevalence of workplace physical violence against health care professionals by patients and visitors: a systematic review and meta-analysis. *International Journal of Environmental Research and Public Health, 17*(1), 299. https://doi.org/10.3390/ijerph17010299

McCusker, K., & Gunaydin, S., (2015). Research using qualitative, quantitative, or mixed methods and choice based on the research. *Perfusion, 30*(7), 37-542. https://doi.org/10.1177/0267659114559116

Mental Health Act code of practice (2015). London: The Stationery Office.

Mhatre, S. K., & Sansgiry, S. A. (2016). Development of a conceptual model of health-related quality of life among hepatitis C patients: A systematic review of qualitative studies. *Hepatology Research, 46*(1), 26-39. https://doi.org/10.1111/hepr.12521

Muir-Cochrane, E., Grimmer, K., Gerace, A., Bastiampillai, T., & Oster, C. (2021). Safety and effectiveness of olanzapine and droperidol for chemical restraint for non-consenting adults: a systematic review and meta-analysis. *Australasian Emergency Care, 24*(2), 96-111. https://doi.org/10.1016/j.auec.2020.08.004

National Institute for Health and Care Excellence, N. (2015). Violence and aggression: short-term management in mental health, health, and community settings. *NICE guideline NG10*. London: National Institute for Clinical Excellence.

National Institute for Health Researc.h (2021). *A themed review of the experience of children and young people cared for in mental health, learning disabilities, and autism inpatient settings*. National Institute for Health Research [NIHR]. https://doi.org/10.3310/themedreview_46186

Noorthoorn, E. O., Janssen, W. A., Theunissen, J., Hesta, H., de Varies, W. J., Hutschemaekers, G. J. M., & Lendemeijer, H. H. G. M. (2008). The power of day-to-day motivational techniques and family participation in reducing seclusion: a comparison of two admission wards with and without a seclusion prevention protocol. *International Journal of Mental Health, 37*(3), 81-98. https://doi.org/10.1007/s11126-012-9222-6

Novak, T., Scanlan, J., McCaul, D., MacDonald, N., & Clarke, T., (2012). A pilot study of a sensory room in an acute inpatient psychiatric unit. *Australasian Psychiatry, 20*(5), 401-406. https://doi.org/10.1177/1039856212459585

O'Rourke, M., Wrigley, C., & Hammond, S., (2018). Violence within mental health services: how to enhance risk management. *Risk management and healthcare policy, 11*, 159-167. https://doi.org/10.2147/RMHP.S131834

O'Rourke, M., & Hammond, S. (2000). *Risk Management: Towards safe sound and supportive service*. Surrey Hampshire Borders NHS Trust.

Owens, C., Fox, F., Redwood, S., et al. (2020). Measuring outcomes in trials of interventions for people who self-harm: a qualitative study of service users' views. *BJ Psych Open, 6*(2), 1-8. https://doi.org/10.1192/bjo.2019.93

Parke, S., Hunn, L., Holland, T., Preston, L., McCarthy, L., & Day, M. (2019). Restrictive interventions: a service evaluation. *Mental Health Practice, 22*(5). https://doi.org/10.31265/usps.93

Price, O., Baker, J., Bee, P., & Lovell, K., (2018). The support-control continuum: An investigation of staff perspectives on factors influencing the success or failure of de-escalation techniques for the management of violence and aggression in mental health settings. *International Journal of Nursing Studies, 77*, 197-206. https://doi.org/10.1016/j.ijnurstu.2017.10.002

Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies*. https://doi.org/10.5281/zenodo.887089

Reen, G. K., Bailey, J., McGuigan, L., Bloodworth, N., Nawaz, R. F., & Vincent, C. (2020). Environmental changes to reduce self-harm on an adolescent inpatient psychiatric ward: an interrupted time series analysis. *European Child and Adolescent Psychiatry.* https://doi.org/10.1007/s00787-020-01607-3

Reeves, J. (2017). Reducing the use of restrictive interventions by changing staff attitudes. *Nursing Management, 24*(3). https://doi.org/10.7748/nm.2017.e1504

Reid, R. J., Bonomi, A. E., Rivara, F. P., Anderson, M. L., Fishman, P. A., Carrell, D. S., & Thompson, R. S. (2008). Intimate partner violence among men: Prevalence, chronicity, and health effects. *American Journal of Preventive Medicine, 34*(6), 478-485. https://doi.org/10.1016/j.amepre.2008.01.029

Richardson, B., Webber, L. S., & Lambrick, F. (2019). Factors associated with long-term use of restrictive interventions. *Journal of Intellectual & Developmental Disability*, 1-8. https://doi.org/10.3109/13668250.2019.1639895

Richmond, J. S., Berlin, J. S., Fishkind, A. B., Holloman Jr, G. H., Zeller, S. L., Wilson, M. P., … Ng, A. T. (2012). Verbal de-escalation of the agitated patient: consensus statement of the American Association for Emergency Psychiatry Project BETA De-escalation Workgroup. *Western Journal of Emergency Medicine, 13*(1), 17. https://doi.org/10.5811/westjem.2011.9.6864

Richter, D., & Whittington, R. (2011). Violence in mental health settings: causes, consequences, management. New York: Springer. https://doi.org/10.1007/978-0-387-33965-8

Rosella, L., Bowman, C., Pach, B., Morgan, S., Fitzpatrick, T., & Goel, V. (2016). The development and validation of a meta-tool for quality appraisal of public health evidence: Meta Quality Appraisal Tool (MetaQAT). *Public Health, 136*, 57-65. https://doi.org/10.1016/j.puhe.2015.10.027

Royal College of Nursing. (2016). Positive and proactive care: Reducing the need for restrictive interventions. RCN.

Rudge, S., Feigenbaum, J. D., & Fonagy, P. (2020). Mechanisms of change in dialectical behavior therapy and cognitive behavior therapy for borderline personality disorder: a critical review of the literature. *Journal of Mental Health, 29*(1), 92-102. https://doi.org/10.1080/09638237.2017.1322185

Schneeberger, A. R., Kowalinski, E., Fröhlich, D., Schröder, K., von Felten, S., … & Bux, D. A. (2017). Aggression and violence in psychiatric hospitals with and without open door policies: a 15-year naturalistic observational study. *Journal of psychiatric research, 95*, 189-195. https://doi.org/10.1016/j.jpsychires.2017.08.017

Steering Committee on Bioethics of the Council of Europe. (2005). White paper on the protection of the human rights and dignity of people suffering from mental disorders, especially those placed as involuntary patients in a psychiatric establishment. Council of Europe. Retrieved October 28, 2019, from http://www.ijic.org/docs/psychiatry.pdf

Steinert, T., Lepping, P., Bernhardsgrütter, R., Conca, A., Hatling, T., Janssen, W., … Whittington, R., (2010). Incidence of seclusion and restraint in psychiatric hospitals: a literature review and survey of international trends. *Social psychiatry and psychiatric epidemiology, 45*(9), 889-897. https://doi.org/10.1007/s00127-009-0132-3

Strout, T. D. (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. https://doi.org/10.1111/j.1447-0349.2010.00694.x

Tebbett-Mock, A.A., Saito, E., McGee, M., Woloszyn, P., & Venuti, M. (2020). Efficacy of dialectical behavior therapy versus treatment as usual for acute-care inpatient adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 59*(1), 149-156. https://doi.org/10.1016/j.jaac.2019.01.020

Vitaro, F., Brendgen, M., Girard, A., Dionne, G., Tremblay, R. E., & Boivin, M. (2016). Links between friends' physical aggression and adolescents' physical aggression: What happens if gene-environment correlations are controlled? *International Journal of Behavioural Development, 40*(3), 234-242. https://doi.org/10.1177/0165025415618277

Witt, K. G., Hetrick, S. E., Rajaram, G. et al. (2021). Interventions for self-harm in children and adolescents. *Cochrane Database of Systematic Reviews, 2021*(3), 1-98.©2021 the Authors. *International Journal of Mental Health Nursin*. GRIFFITHSET AL. https://doi.org/10.1002/14651858.CD013667.pub2

Wong, A. H., Ray, J. M., Rosenberg, A., Crispino, L., Parker, J., McVaney, C., ... & Pavlo, A. J. (2020). Experiences of individuals who were physically restrained in the emergency department. *JAMA network open, 3*(1), e1919381-e1919381.https://doi.org/10.1001/jamanetworkopen.2019.19381

Ye, J., Xiao, A., Yu, L., Wei, H., Wang, C., & Luo, T., (2018). Physical restraints: An ethical dilemma in mental

health services in China. *International journal of nursing sciences, 5*(1), 68-71. https://doi.org/10.1016/j.ijnss.2017.12.001

Appendix 1. Search Strategy

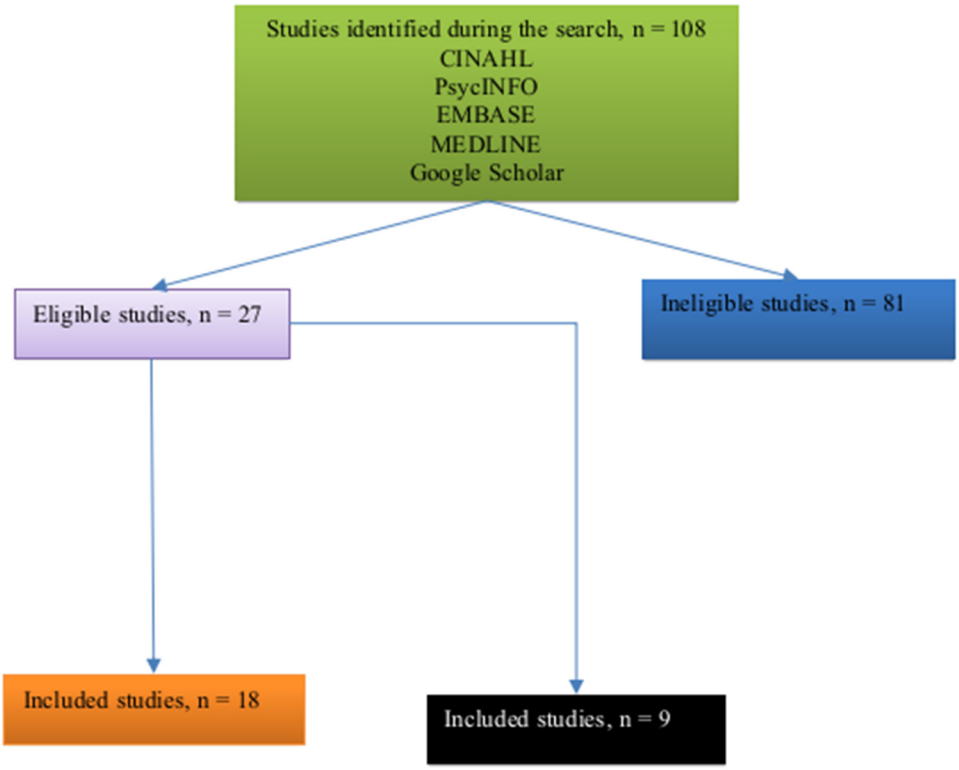

Figure 1. Search Strategy