



## Systematic Review

**Minimizing the Use of Restraint in Patients with Mental Disorders at a Mental Hospital:  
A Systematic Review****Achmad Syamsudin, Fakhrun Nisa Fiddaroini and Maulidiyah Junnatul Azizah Heru**

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**ABSTRACT**

**Background:** Restraint in the psychiatric unit is a common practice but it is very controversial and it has undergone a poor evaluation according to methodological investigations. Using restraint is a common problem and has a significant impact on patients, families and health care staff. Therefore, this systematic review will discuss the important reasons as to why restraint should be reduced. It will also explain several alternative treatments for aggressive patients in mental hospitals.

**Method:** The database searches were used to identify potential articles: Scopus and Proquest were the focus. The search was limited to those published in the range of the last 5 years from 2013 to 2018. The keywords that were used were 'restraint in the hospital', 'restraint reduction', 'the elimination of restraint' and 'physical restraint'.

**Result:** Only 15 articles met the inclusion criteria. The results suggest that restraint is considered to be a violation of human rights and that it traumatizes the patients. It is inhuman and degrading. Besides this, restraint can result in physical complications in the form of lacerations, asphyxia, thrombosis and death. Restraint is permitted when other methods fail and in emergency conditions.

**Conclusion:** Some of the ways to reduce the use of restraint are by constant monitoring and through the control of individual behavior, including verbal management and attitudes, reducing the environmental risks, and administering drugs. Some of the efforts to avoid restraint are the "Positive and Safe in Calderstones" program, sensory modulation and peer advice and support.

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**INTRODUCTION**

Using restraint is a common problem and it has a significant impact on the patients, families and health care staff (Scheepmans, Dierckx de Casterlé, Paquay, Van Gansbeke, & Milisen, 2017). Therefore, it is necessary to look for alternative treatment and appropriate strategies for aggressive patients. Restraint is one of the actions that is often used in health care for people who are aggressive in a manner that can harm themselves and others. Mental disorders are defined as the behavioral or psychological patterns shown by individuals that can cause dysfunction and distress and that can decrease the quality of life. It shows that there is the presence

of psychobiological dysfunction that is not as a result of the conflict of public or social deviation. The persistence and severity of some mental disorders affects and causes stress for the families, individuals, communities and the wider health care system (Stuart, 2016).

The World Health Organization (WHO) estimated that there are approximately 450 million people who have mental disorders in the world. The results of Riset Kesehatan Dasar (Riskesdas) in 2013 showed that the prevalence of severe mental disorders in the Indonesian population was 0.17%. Meanwhile, mental emotional disorders stood at 6%. The highest prevalence of mental disorders was Central Sulawesi (11.6%) while the lowest province was Lampung

(1.2%). The prevalence of mental disorders in East Java, for severe mental disorders (psychosis / schizophrenia), was 0.22% and for mental/emotional disorders, it stood at 6.5% (Penelitian & Pengembangan, 2013)(Badan Penelitian dan Pengembangan Kesehatan, 2013).

The main symptom that appears in patients with mental disorders is violent behavior. Violent behavior is a form of expression of anger is not appropriate in which a person acts in a manner that injures themselves, other people and that even damages the environment (Prabowo, 2014). One of the treatments for violent behavior is restraint. Restraint in a psychiatric unit is a common practice but it is very controversial and poorly evaluated according to the methodological investigations. Cultural issues, professional perceptions and attitudes are substantial contributors to the increasing frequency of using restraints (Vedana et al., 2018).

Therefore, this systematic review will discuss important reasons as to why restraint should be reduced and it goes on to suggest several alternative treatments for aggressive patients in mental hospitals.

## MATERIALS AND METHODS

The method used was a systematic review of the literature with the aim of several studies suggesting that restraint needs to be reduced or that it needs to be kept as a last alternative to treat patients who are aggressive. This can endanger both the patients themselves and the nursing staff. The database search used the Scopus and Proquest database with a range from 2013 - 2018. The search for a systematic review begins with the selection of topics and the keywords were determined to search for the journals that used English. The keywords used in the search were "seclusion", "restraint reduction", "elimination of seclusion and restraint" and "physical restraint". After obtaining the database through Scopus and Proquest, it was then reviewed until the stage of making a systematic review. The inclusion criteria was the research related to minimizing the use of restraint on patients who were receiving hospital care. The exclusion criteria was if there was no relationship found with minimizing the use of restraint in patients with mental disorders in hospitals and journals published before 2014.

The data to be extracted started from the general information including the author, the research design and the method used. The journals and abstracts that will be reviewed have been included in the journal feasibility assessment sheet. The journal feasibility test was seen in full text in a pdf format based on the inclusion criteria that have been set. The journals were in accordance with the original empirical research criteria of each review which was carried out in the form of critical appraisal analysis. Data synthesis was done by summarizing the results of the study in the narrative and then discussing it.

## RESULT

### Definition

Seclusion and restraint is focused on restricting a consumer's movement using environmental, physical or mechanical means. It is a containment methods used in inpatient settings and emergency departments to prevent and manage the risk of harm because of behaviors such as aggression, violence and self-injury (Adam Gerace & Muir-Cochrane, 2018)

Restraint may encompass the use of bodily force (physical restraint) or a device (mechanical restraint) to control a person's freedom of movement. (Brophy, Roper, Hamilton, Tellez, & Mcsherry, 2016). Restraint (restricting patients' freedom of movement by physical, mechanical, chemical and/or emotional means and seclusion (confining patients alone in rooms with locked doors and windows) may be used to address aggression but it can have deleterious effects on the patient (Muir-Cochrane, Baird, & Mccann, 2015).

Seclusion and restraint has its origins in the inhumane treatment of individuals with psychiatric disorders in the 18th century and earlier. During this period, service users were locked up in unclean rooms with little daylight and/or held in restraints. Towards the end of the 18th century, there were improvements for the individuals confined to the asylums such as banning the use of manacles and chains. From a pragmatic perspective, seclusion can be defined as the voluntary or involuntary short-term isolation of a service user in either a specifically designed room, usually low-stimulating, bare or sparsely decorated (seclusion room), locked from the outside with a window for observation (Green, Shelly, Gibb, & Walker, 2018).

### Prevalence

It has been estimated that 12% of UK mental health patients have experienced physical restraint but its use varies both within the UK and internationally. Chemical restraint is when medication is prescribed pro re nata (PRN) as a reaction to agitated or aggressive behavior for the purpose of sedation (Wilson, Rouse, Rae, & Kar Ray, 2017).

Studies performed in the psychiatric hospitals of two Brazilian cities estimated that physical restraint was used in 13%–36% of admissions and that it was more common in the patients presenting with agitation/aggressive behavior (Vedana et al., 2018).

In the USA, decreases in the seclusion and restraint rates have been reported in the 70 facilities that have used these strategies. The reductions range from 47 to 92% (Kinner et al., 2017).

In the Netherlands, restraint is recorded at 115.8 per 100 000 total population per year. Although seclusion rates for non-Māori and non-Pacific Island people in New Zealand around this time was 59 events per 100 000 total population per year, the crude population rate for Māori, the indigenous people of New Zealand, was 258 seclusion events per 100 000 population per year (the highest population-

based rate reported internationally) (W. M. Julie et al., 2016).

### **Type of restraint**

The term 'restraint' may encompass the use of bodily force (physical restraint) or a device used to control a person's freedom of movement (mechanical restraint) and/or the use of medication to control a person's behavior rather than to treat a mental disorder (chemical restraint) (Kinner et al., 2017).

Chemical restraint in the UK often comes hand in hand with physical restraint as the patients are physically restrained in order to receive PRN medication (Wilson et al., 2017). Some service users reported that during hospitalization, they were given strong doses of medication such as haloperidol. This is a medication whose significant side effects (apathy, somnolence, loss of consciousness and of memory and extra-pyramidal symptoms) can continue for hours and even days. (Gagnon, Desmartis, Dipankui, Gagnon, & St-Pierre, 2013).

### **Parts Involved**

Regarding the restraint measures, The Brazilian Federal Care Council states that nurse assistants can only use mechanical restraints under the direct supervision of nurses, except in emergency situations. Maintenance control is also needed by the doctors (Vedana et al., 2018).

The Department of Emergency of Southern California states that handling patients should be done as part of a multidisciplinary collaboration. The team consists of emergency room staff nurses, Emergency Department leadership and doctors (Kinner et al., 2017).

### **Reasons for Using Restraint**

Research shows that restraint is seen of as the last resort method of staff and nurses. The study also shows that initiatives at various levels are needed to help the nurses to maintain security and to minimize / reduce and, if possible, eliminate the use of restraints (A Gerace & Muir-Cochrane, 2018). Most of the interviewees expressed the belief that restraint was needed and that it could not or should not be completely eliminated on the basis of security for all parties and with restraint being used as a last resort (Wilson et al., 2017). The use of physical restraint shows that restraint is a challenging subject and that it can be considered an acceptable tool with various objectives, such as control, additional care, therapeutic measures and preventing damage (Vedana et al., 2018).

## **DISCUSSION**

Restraint can cause physical and psychological injury to the patient. This is in accordance with a study conducted in Australia on the patient's families who had performed restraint and the patients themselves. It was found that restraint was a violation of human rights and that it was traumatizing, inhuman, degrading and limiting recovery (Brophy et al.,

2016) and that it could result in physical complications such as laceration, asphyxia, thrombosis and death (Wilson et al., 2017). The restraint intervention is considered to be a difficult and potentially dangerous procedure for the patients, staff and others. They report on the negative consequences of restraint, including fractures, abrasions, cuts, bruises, bites, circulatory problems and contact with bodily fluids. Bodily injuries among the staff and nurse assistants is another risk. Physical restraint is a forced and traumatic procedure that is only permitted in very specific circumstances as a last alternative (Vedana et al., 2018). However, many participants, especially professionals, also believe that seclusion and restraint actions tend to be beneficial, namely for increasing the safety of the patients and increasing the safety of the staff and others (Kinner et al., 2017). The need for reduced or eliminated restraint and sectional action is because of the risk of physical health concerns associated with tension, including accidental injury and impaired respiratory function. Some patients may also become physically depressed because of the long periods of restraint (Green et al., 2018).

Restraint is not a therapeutic intervention because it not only has negative consequences for the patient but also for the staff as well. This is in accordance with a study called 'The National Mental Health & Caregivers Forum' (2009) that indicates that isolation and restraint is not therapeutic. It is not 'generally related to human rights violations' because it can cause short-term and long-term emotional damage to patients (A Gerace & Muir-Cochrane, 2018). Prolonged restraint can be considered to be a violation of human rights (Vedana et al., 2018). Although it has been debated that control is needed for patient and staff safety, its use has negative consequences. The patients and staff report feeling depressed, scared, angry, anxious and frustrated (Wilson et al., 2017). There is a strong agreement that the use of seclusion and restraint is dangerous, that it violates human rights and that it jeopardizes the therapeutic relationship and trust between the mental health service providers and patients (Kinner et al., 2017).

Efforts to avoid restraint are by the constant monitoring and control of individual behavior, verbal management and attitudes, reducing the environmental risks and administering drugs (Vedana et al., 2018). Calderstones' Partnership and The NHS Foundation Trust have established the "Positive and Safe in Calderstones" program which consists of three project group constituencies. The first of these, Safewards, aims to create the most conducive culture possible and an environment that may be within the limits of specialist services. The second, positive behavioral support, focuses on workforce development, shifting the emphasis to more preventive techniques through increasing the staff competencies supported by relevant training. Third, Monitoring, Reporting and Review, is focused on the use of high-quality data (Riding, 2016). One of

the ways to reduce the use of seclusion and restraint is through sensory modulation. The use of sensory modulation that is culturally appropriate includes the use of certain cultural prayers, songs, messages and dances. Peer advice and support can support recovery by sharing personal stories, personal approaches and skills (W. Julie et al., 2016)(Bryson et al., 2017)(W. M. Julie et al., 2016). Constant observation seems to be an acceptable alternative to seclusion if there is also communication between the service users and individuals. Listening and communicating are the main approaches that are spontaneously proposed as an alternative to restraint and seclusion (Gagnon et al., 2013).

## CONCLUSION

Restraint and seclusion are not therapeutic interventions related to human rights violations because they can cause emotional damage and physical injury. However, restraint and seclusion may be used in mental hospitals as a last alternative. It is necessary to reduce the use of restraint because it is deemed not to be humane and it has various adverse consequences. There needs to be an appropriate strategic alternative in terms of handling aggressive and furious patients in order to reduce and ultimately eliminate restraint. Some of the ways to reduce the use of restraint are by constant monitoring and the control of individual behavior, including through verbal management and the observation of their attitude, reducing the environmental risks and administering drugs. Some of the efforts to avoid restraint include the "Positive and Safe in Calderstones" program, which consists of three project group constituencies including sensory modulation and peer advice and support. Listening and communicating are the main approaches that are spontaneously proposed as an alternative to restraint and seclusion.

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