Restraint in Psychiatric Patients: A Literature Review

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Abstract: Nowadays, many cases of violence in psychiatric patients visit to psychiatric emergency unit. Restraint is basically efficacious in managing violence. So, it also can prevent injuries to both the patient and those around the patient. This literature review explores the positive and negative effect of restraint, criteria for using restraint, guideline of restraint and standard documentation of restraint. Twenty papers were selected from electronic database of ProQuest, Pumed, Google Scholar and Google web site. A literature review of these papers showed that restraint can manage violent behavior, but it has physical and psychological negative impacts on psychiatric patient. In this review, it also explores about criteria using restraint based on JCAHO, APNA, and Department of Health for England and Wales; standard of restraint provide by JCAHO, APNA, Department of Health for England and Wales, and Park and Tang; and standard documentation for restraint by JCAHO, APNA, Park and Tang, and Reeves. We sum up that it is important for nurse to use appropriate techniques for restrain dan standard or guideline of restraint in order to prevent the negative impact of restraint and ensure the patients safety. Another important thing that must be considered by nurses is the standard documentation for restrain.

1 INTRODUCTION

Violence is act by someone or group to harm other with physical or threatened that may cause from such problem as disordered or paranoid thinking and belief, substance intoxication, or anger (Mohr, 2009). Violence can be danger to other or harm himself. According to retrospective study by Schory, Piecznski, Nair, and El-Mallakah (2003), it reported 3804 person from 4717 person who visit to emergency psychiatric service are with violence act.

Aggresive behavior and violence are seriously emergency that can be difficult to cope by staff in mental health hospital (Wynn, 2002). Based on Fortinash (2007), there are two interventions in psychiatry emergency on patient with violence or aggressive behavior, including verbal intervention and restrain intervention. Verbal intervention is important intervention when interacting with client whose behavior is escalating as a result of conflict, regardless of the reason and it use to prevent escalation of aggressive behavior or violence (Mohr, 2009). While the patient express a severe aggressive behavior or violence and the nurse cannot control it by using verbal intervention or other intervention, the nurse have to use restraint intervention, such as pharmacological restraint, physical restraint, or seclusion (Wynn, 2002). Stuart (2013) stated that the nurse needs to use restraint as nursing interventions in managing violent behavior on psychiatric patients in range of detention strategy.

According to retrospective study at a Norwegia university hospital during a five and a half year period (January 1989 to June 1994) by Wynn (2002), there were 797 episodes of physical restraint, 384 episodes of chemical restraint, and 88 episodes of seclusion. Another study by Reitan, Helvik and Valentina (2018) is also found that there were 863 cases with mechanical restraint and 595 cases with chemical restraint during 7 years period (January 2004 to December 2011). So, the physical or mechanical restraint was used higher than chemical restrain and seclusion. Restraint intervention is a necessary intervention to ensure safety to other and patient from patient who has escalation aggressive behavior or violence (Mohr, 2009).

Even though the restraint can prevent the patient to harm other or him/her self, it can cause physical trauma, emotional trauma, or sometime death (National Executive Training Institute as cited in

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Mohr, 2009). The patient can be death during restraint because inappropriate device application or lack of monitoring (Abrahamsen, 2001). The Hartford Courant series reported that 142 human who experienced restrain or seclusion was death in the previous 10 years (Office of the Ombudsman for Mental Health and Mental Retardation, 2002). The staffs or nurses need guideline for restrain to prevent death for patient who gets restraint.

There are some guidelines or standards on restraint and seclusion that provide by some organization, such as the Joint Commission on Accreditation of Healthcare Organization (JCAHO), the American Psychiatric Nurses Association, The National Institute for health and Clinical Excellence (NICE), the British Institute of Learning Disabilities (BILD), etc. They have different form to explain the guideline. However, they have similar focus on the point that important as standards or guideline in restraint and seclusion. All of these guidelines have purpose to ensure client safety and can prevent the negative effect of restraint, such as death. So, it is important to know various of guideline and compare it which one is more complete.

2 METHODS

Data were collected through ProQuest data base, Pumed data base, Google Scholar, and Google web site. The following terms that used to search the literature reviews are restraint, effectiveness of restraint on violent behavior, physical restraint, impact of restraint, negative effect of restraint, physical effects of restraint, psychological effects of restraint, criteria using restraint, guideline of restraint, guideline for physical restraint, and standard documentation for restraint

There are several objectives in this literature review as the following:

- To identify benefit of restraint;
- To identify negative impact of restraint;
- To identify criteria for using restrain;
- To describe standard of restraint;
- To describe standards of documentation for restraint.

2.1 Inclusion Criteria

The selected papers in this literature review had one or more criteria as the following:

- Discuss about restraint in psychiatric field;
- Discuss about negative effects of restraint;
- Discuss about criteria for using restraint;
- Discuss about guideline of restraint;
- Discuss about standard documentation for restraint;
- Written in English or Indonesian.

Those papers were not restricted in the year of publication. However, each article was confirmed to be related to a restraint.

2.2 Exclusion Criteria

Papers that discussed restraint on psychiatry health problem which is not focused on violent behavior, and physical health problem were excluded in this literature review. We also excluded papers about restraint in nursing homes and community.

2.3 Selection of the Studies

Initially, we found 51 papers while we searched from electronic data based. Moreover, we excluded 23 papers after reading the title and abstract. After fully reading 28 papers, there were excluded 8 papers because they did not meet inclusion criteria and had exclusion criteria. Finally, twenty papers were relevant.

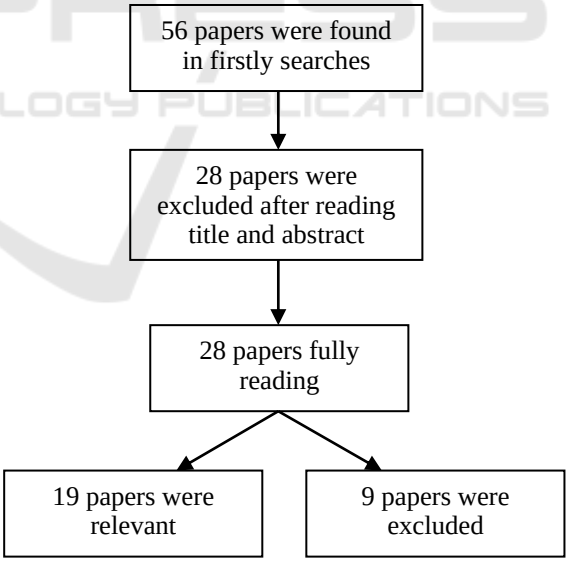

Figure 1: Flow diagram of article selection process

3 FINDINGS

3.1 Effectiveness of Restraint

According to several studies, the results showed that restraint was effective in reducing violent behavior among psychiatric patient (Saseno & Kriswoyo, 2013; Sulistyowati & Prihantini, 2014). In study by Saseno and Kriswoyo, after schizophrenic patients with violent behavior received mechanical restraint, the violent behavior was observed by using chek list of The Violent Behavior Observation Questionnaire. It showed the violent behavior of all respondents was decreased.

Moreover, study that developed by Sulistyowati and Prihantini (2014) used physical and/or mechanical restraint to manage violent behavior among schizophrenic patients with violence. In that study, the result showed that the restraint had significant effect to reduce behavioral, emotional, and verbal response related to aggression. The final result was proved that the restraint effectively reduced violent behavior.

The results from those studies are in accordance with purpose of restraint that is controlling the patient's violent behavior (Poniatowski, 2000). So, it can prevent injury to patient, nurse and others.

3.2 Negative Impacts of Restrain

Even thought restraint has effect to manage violent behavior, it also has physical and psychological reaction as negative impact to Psychiatric patients.

3.2.1 Physical Impacts

Several papers in this literature review found that psychiatric patients experienced physical negative impact after receiving restraints, especially physical and/or mechanical restraint. According to qualitative study by Asher et al. (2017), the result reported that the psychiatric patients experienced physical injury after being restrained. In addition, pressure sores and abrasion also occur in psychiatric patients with restraint by nurse (Kalula & Petros, 2016). Physical injury and /or abrasion on patient could be happen because of the attachment of the strap to physical restraint that is too tight (Saputra, 2017). Furthemore, Kandar and Pambudi (2014) found physical discomfort, abrasions on the mounting area of restrain, urinary incontinence, ineffective circulation, risk of contractures and skin irritation were some physical effects toward restraint based on their observation on psychiatric patient as respondent. Most of nurses (79.7%) reported that skin breakdown was experienced by psychiatric patients who were being restrained (Gandhi et al., 2018).

Next, study by Kamel, Maximos, and Gaafar (2007) showed that psychiatric inpatients who received physical restraint had general body aches and severe pain in extremities. Beside body aches, psychiatric patient with violence reported that physical discomfort during having restraint (Saputra, 2017). Moreover, Abrahamsen (2001) assumed that, strangulation, muscle loss, bone weakness, pneumonia, contractures, urinary incontinence and retention, and death were potential problem while use restraint.

A review paper by Mohr, Petti, and Mohr (2003) proved that restraint caused death to psychiatric patient by several reasons, such as aspiration, blunt trauma to the chest, etc. Milliken (1998) mentioned that deaths are reported due to using vest type restraint and bed rails, being tied to a prone position toward young people, and using choke holds on restraint in prone position.

3.2.2 Psychological Impacts

Based on literature review, there are psychological impacts on psychiatric patient toward physical or mechanical restraint. Qualitative study by Asher et al. (2017) reported that respondent who is being restrained had increased the risk of violence toward others and felt hopeless. The risk of violence could be happen because the patients cannot accept that they were restrained and angry with the person who caused him to be restraint. Mostly, the psychiatric patients' anger increased while the nurse was doing restraint to them and they experienced aggressive after receiving restraint (Kandar & Pambudi, 2014). Moreover, feelings hopeless could be occurred on the patients while they had been restrained and keeping them in the room for long time. Another study found that humiliation, worthlessness, rage, resentment, sadness, despair, as well as injustice, felt guilty, and fear insecurity were the psychiatric patients' feeling during restraint (Kamel, Maximos, & Gaafar, 2007). Similar result also found in study by Lanthen, Rask, and Sunnqvist (2015) that stated mechanical restraint may affect powerlessness, feelings of unreality, anger, and fear on psychiatric patient who received it. In that study, fear usually occurred to the patients because of a sense about what was going to happen next and how long the mechanical restraints would attach to their body. Moreover, while the patients were being excluded or

exposed form the others; it was partially connected to their feeling of insecurity.

3.3 Criteria for Restrain

Based on these papers, there are four organizations (the Joint Commission Accreditation of Health Care (JCAHO), American Psychiatric Nurse Association (APNA), Department of Health for England and Wales) and one of evidence based guideline (Park and Tang, 2007) have explore about criteria for using restraint.

Table 1: Criteria for restraint based on organizations.

Organizations	Criteria
JCAHO (Crisis Consultant Group, 2011)	Use restraint only to protect the immediate physical safety of the patient, staff, or others
	Do not use restraint as a means of coercion, discipline, convenience, or staff retaliation
	Use restraint or seclusion only when less restrictive interventions are ineffective
	Use the least restrictive form of restraint that protects the physical safety of the patient, staff, or others
	Discontinue restraint at the earliest possible time, regardless of the scheduled expiration of the order
APNA (APNA, 2007)	Restraint used only when less restrictive measures have proven ineffective and the behavioral emergency poses serious and imminent danger to the person, staff or others
	Restraint should not be used as a means of coercion or punishment, for the convenience of the staff, or when less restrictive measures to manage behaviors are available
	The risks and benefits considered must include an individualized assessment of the person's known history of physical or sexual abuse as well as current physiological and psychological status
Department of Health for England and Wales (Horsburgh, 2003)	When other strategies have failed; even when restraint is required
	It should comprise one component of an overall care plan for the service user and in an emergency situation when the risk of inaction outweighs the risks of restraint
Park and Tang (2007)	Using restraint only after assessment of the patient, the environment, and the situation have been completed
	Precipitating factors have been identified and eliminated whenever possible
	Consultation with other health care professionals have occurred
	A physician' a order for use of restraints has been attained
	Interventions to relieve discomforting behaviors have been used

According to these criteria for using restraint, the criteria of restraint by JCAHO, APNA, Department of Health for England and Wales, and Park and Tang have almost similar criteria. From those criteria, there are some important things to consider using restraint on psychiatric patient with violence. Firstly, restraint is used only to protect the patient, staff, or other from imminent danger after the less restrictive used before is ineffective to control the patient's behavior. In study by Saseono and Kriswoyo (2013), while the psychiatric patients had experienced raging behavior, threatening, trying to hurt himself or others, talking harshly, insulting others, demanding, angry, unstable, tense expressions, sharp eyes, red faces and high blood pressure, the nurses did restraint on these patients. The reason for doing restraint by the nurses in that study was because those behavior of the patients showing the imminent danger. Several least restrictive interventions can used to control violent behavior before deciding to use restraint. There are anger control assistance, cognitive intervention, behavior intervention, thought stopping, and biological intervention (Kamel, Maximos, & Gaafar, 2007).

Secondly, use of restraint on the patient has ordered by physician and has been consulted with other health care professionals. Generally, nurse uses restraint on psychiatric patient with violence without physician's instruction. In this situation, if the nurse does not restraint the patient, it will be danger to the patient and the others. So, restraint can be given without instruction by a physician while it is in emergency and should be given in order to prevent imminent danger to patient and others (Australian Capital Territory (ACT), 2011).

The last point, the nurse must conduct a complete assessment to the patient, the environment, and the situation. However, it cannot be done by nurse in emergency situation. Usually, the complete assessment will be done after the psychiatric patient with violence is being restraint. All of the information should be documented.

3.4 Guideline of Restrain

This literature review, the standards of restraint will provide by JCAHO, APNA, Department of Health for England and Wales, and Park and Tang.

Table 2: Standard of restraint based on organizations.

organizations	Elements
JCAHO (Crisis Consultant Group, 2011)	the staff or nurse using restraint or seclusion with safe technique
	the hospital or organization initiates restraint or seclusion based on an individual order
	the time limits for a maximum of 24 consecutive hours (it means the staff Licensed Independence Practitioners (LIP) primarily responsible for the patient's ongoing care sees and evaluates the patient before writing a new order for restraint or seclusion used every 24 hours)
	the time limit of restraint is longer (4 hours) for adult with 18 years old or older than children and adolescents with 9 to 17 years old (2 hours), and children with under 9 years old (1 hour)
	the staff evaluates and reevaluates the patient who is restrained or secluded and he/she has licensed independent practitioners or staff who have been trained
	they evaluate a patient through face to face within one hour of the initiation of restraint
APNA (APNA, 2007)	clear explanation to the person of the reason for restraint and the behavioral criteria for release
	the physician, LIP, or RN must see and evaluate a patient through face to face within one hour of initiation of restraint
	monitoring and assessment a client in restraint every 15 minutes to ensure the patient safe (eg. sign of injury, psychological and psychological status, nutrition, hydration, skin integrity, circulation,, hygiene, eliminate, physical discomfort or emotional distress)
	range of motion exercises must be performed every two hours
	the RN or LIP release the restraint as soon as possible while the behavioral criteria are met
Department of Health for England and Wales (Horsburgh, 2003).	restraint should be used only the minimum amount of force
	the shortest duration of time
	in the best interest of the service user and/or to prevent harm to third parties
	doing by staff who have received specialist training
	in a way to minimize the risk of physical injury and loss of dignity
	ensuring avoidance of contact that could be construed as sexual
	with subsequent debriefing for staff and the service user
	with formal recording and reporting of the incident
Park and Tang (2007)	contraindications to physical restraints should be assessed on a case by case prior to restraint use
	the patient should have access to call bell
	patient's behavioral status and need for restraints must be frequently assessed
	the patient and care giver should be notified promptly and have the restrictive intervention explained to them in a manner that can be understood
	informed consent from the patient or the care giver should be obtained within 24 hours after implementation of restrictive procedures for them to be continued
	patients have to monitor continually and their needs must be attended to
	protecting the patient or staff from imminent injury
	restrictive interventions may be implemented be authorized staff
	the staff should be removed as soon as possible after target behavior is diminished or disappears and criteria for discontinuation include improved mental status (most frequent)
	capacity to adhere to a contract related to expected behavior
	availability of direct supervision
	discontinuation of tubes or lines

According to this review on standard for restraint, the standard by JCAHO, APNA, and Park & Tang have similar. They focus on evaluation and reevaluation that include the time frame and the item of evaluation, monitoring that include the time frame and items of concern to monitor, criteria for release restraint, and only LIP, RN, Physician and the staff who have been trained restraint can do restraint and take care the patient in restraint. However, the JCAHO has explored more detail than others; the JCAHO was mentioned the limit time of restraint for patient according to age. Moreover, standards by Department of Health for England and Wales did not clearly explore the guideline or the standard, such as not mention about the time for evaluation and monitoring, etc.

According to Poniatowski (2000), the RN or LIP assess some physical assessment for a patient immediately after getting restraint and every 15 minutes such as signs of injury related to restraint, the needs such as nutrition or hydration, circulation and range of motion in the extremities, hygiene and elimination.

3.5 Standard Documentation for Restrain

From this literature review, there are standards documentation for restraint by JCAHO, APNA, Park & Tang, and Reeves. According to four standards of documentation, there are quite similar. However, the standard by Park and Tang does not complete like the standard of documentation by JCAHO, APNA, and Reeves. The standard documentation for restraint that is more complete than other is the standard by Revees. Revees mixed it from another guideline from different organization. Reeves (2011) provide 19 elements of standard documentation for restraint after Reeves combine from many elements of standard documentation for restraint by some organization, such as The National Institute for health and Clinical Excellence (NICE), the British Institute of Learning Disabilities (BILD), The National Institute for Mental Health in England, The Code of Practice for the Mental Health Act, The SIRCC and Smallridge and Williamson.

Table 3: Standard documentation for restraint based on organizations.

Organizations	Elements
JCAHO (Crisis Consultant Group, 2011)	Any in-person medical and behavioral evaluation for restraint or seclusion used to manage violent or self-destructive behavior
	A description of the patient's behavior and the intervention used
	Any alternatives or other less restrictive interventions attempted
	The patient's condition or symptom(s) that warranted the use of the restraint or seclusion
	The patient's response to the intervention(s) used, including the rationale for continued use of the intervention
	Individual patient assessments and re-assessments
	The intervals for monitoring
	Revisions to the plan of care
	The patient's behavior and staff concerns regarding safety risks to the patient, staff, and others that necessitated the use of restraint or seclusion
	Injuries to the patient
	Death associated with the use of restraint
	The identity of the physician or other licensed independent practitioner who ordered the restraint or seclusion
	Orders for restraint or seclusion
	Notification of the use of restraint or seclusion to the attending physician
	Consultations
APNA (APNA, 2007.	The events and behavior that led to the use of seclusion or restraint
	Non-physical interventions that were attempted and the person's response
	All necessary notifications of attending physicians, LIP, guardian and, if such notification is designated by the person, the caregiver or significant other
	Specifics of the episode, when it was initiated, specific physical holds and evaluation of the person's response to the physical interventions including any potential for complication or injury
	Monitoring and assessment of the person while in seclusion or restraint
	Interventions provided to promote comfort and safety as well as expedite release and the person's response

Organizations	Elements
	Criteria for release and data used to determine that the person met these criteria
	Time of release from seclusion or restraint
	Debriefing with the person and caregivers as indicated
Park and Tang (2007)	Type of restraint used
	Substance of explanations given to the client and support persons
	Exact times the restraint was applied and removed
	Client's behavior while the restraint was applied
	Frequency of care given while the restraint was applied and removed (such as assessment of circulation, range of motion exercise)
	Notification of the physician
Reeves (2011)	All people involved in or witness to any stage of the incident, including staff, clients and visitors, with a full description of their involvement
	The restraint training received by staff directly involved in the incident
	All events leading up to the incident, including details of the behavior of the client and the response of staff or others to this behavior
	The time and location of the incident
	Any alternative strategies that were followed or attempted and any deviations from relevant plans of care
	The reasons why physical interventions were used and the risks involved
	The methods of restraint used, including positions and types of hold
	The duration of each restraint
	Any deliberate application of discomfort or pain, including in breakaway or disengagement techniques, and justifications for this
	All physical observations taken during or after the incident
	Any difficulties in monitoring the client's physical wellbeing and any action taken to manage these difficulties
	How the restraint came to an end
	The use of and reasons for rapid tranquillisation, its beneficial or adverse effects, and justifications for any doses exceeding British National Formulary limits
	Additional actions taken or recommended and justifications for any changes in observation levels
	Any injuries to the client, staff or others, and treatments or attention received
	Any distress experienced by the client or others, and attention or support received
	All those informed of the incident, including managers, medical staff and family or carers
	Any police involvement during or after the incident
	Any debriefing of clients, staff or others after the incident

4 CONCLUSIONS

Most person come to the hospital with violence action and need restraint to prevent them harm other or him/her self after the other intervention cannot success or they are not cooperative. To ensure the patient safety in restraint, it needs standard for restraint. There are many standards for restraint, such as the standard for restraint by JCAHO, APNA, Department of Health for England and Wales, Park & Tang, and Revees. Every guideline have different strengthen and weakness. Actually, these standards have similar, but different way in explore it.

To ensure the patient safety in restraint, not only focus on the guideline, but also focus on the nurse, physician and staff who will provide the restraint. They have trained in restraint program. Moreover, they have carefully and follow the guideline to make the patient and others safety, and also to prevent the negative effect of restraint. Even though the hospital or organization has a good guideline for restraint, it is important for director of hospital or organization to evaluate the nurse follows the guideline of restraint and seclusion or not. Guideline of restraint is so important to make safety for the patient and staff or nurse.

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