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THE RELATIONSHIP BETWEEN NURSES' KNOWLEDGE LEVEL AND THEIR ABILITY TO USE RESTRAIN IN PATIENTS WITH VIOLENT BEHAVIOR

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ABSTRACT
Restraints applied to patients in mental hospitals also have negative impacts, the impact of restraints can occur on the patient themselves and the nurses who carry out this action. Therefore, in addition to knowledge, the ability of nurses to manage crisis situations is also very important. To determine the relationship between nurses' knowledge level and the use of restraints on patients with violent behavior at Prof. Dr. Soerojo Mental Hospital, Magelang. This study used an observational analytical approach using a cross-sectional approach. Sampling was conducted using a total sampling technique with a purposive sampling approach, involving 40 nurses. Data collection in this study used a questionnaire. Data were analyzed using the chi-square test. The The majority of respondents were aged 27-30 years (15 respondents) (37.5%), male (30 respondents) (75.0%), and 23 respondents (57.5%) had worked for 2-3 years. Most respondents had good knowledge (27 respondents) (67.5%). Most respondents used restraints moderately (26 respondents) (65.0%). Most respondents used restraints well (11 respondents) aged 17-25 years (27.5%). Most respondents used restraints well (13 respondents) (32.5%). There is a relationship between the level of nurses' knowledge and the use of restraint in patients with violent behavior at Prof. Dr. Soerojo Mental Hospital, Magelang.

Keywords: knowledge; nurses; restraint; violent behavior

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INTRODUCTION

Mental disorders are a collection of symptoms, including behavioral or psychological patterns, that are clinically significant and typically associated with distress and cause impairment in one or more important human functions. According to research by (Patel et al., 2018), mental disorders affect not only individuals but also families and communities, creating significant social burdens. Common mental disorders include schizophrenia, bipolar disorder, and depression. Schizophrenia is a brain disorder that causes unusual thoughts, perceptions, emotions, movements, and behaviors, leading to deviant personal behavior (Mashudi, 2021). Other symptoms of schizophrenia include being unaware of their appearance, a tendency to withdraw from social environments, decreased self-motivation, and the appearance of irritability or discomfort (Bayu Seto Rindi Atmojo, 2021).

According to the World Health Organization (2016), approximately 21 million people are affected by schizophrenia, while 300 million people worldwide suffer from mental disorders such as depression, bipolar disorder, and dementia, including 24 million people with schizophrenia (World Health Organization, 2022). This indicates a significant increase in cases of mental disorders worldwide, particularly schizophrenia, over the past five years, reaching 3 million people worldwide (World Health Organization, 2022). The Indonesian Health Survey (SKI) explains that the 2013 Riskesdas data for the percentage of schizophrenia sufferers is 0.3 to 1 per thousand, while the 2018 Riskesdas data shows that the percentage of schizophrenia sufferers in ART has increased significantly to 1.7 per 1,000 people. However, social stigma and a lack of understanding of the disease often discourage individuals from seeking professional help. This results in late diagnosis

and inadequate management, worsening the patient's condition. According to training reports at Prof. Dr. Soerojo Mental Hospital in Magelang from 2022 to 2023, 91.5% of patients were at risk of violent behavior. Therefore, this condition requires appropriate treatment to prevent harm to the patient, others, and the surrounding environment, including the use of restraints.

Restraint is a procedure performed by healthcare professionals only in emergencies. Restraint is performed when a patient, particularly a psychiatric patient, is at risk of harming themselves or others (Sulistyowati&Prihantini, 2014). The use of restraints in the care of psychiatric patients has become a topic of increasing concern in the mental health field, particularly in patients experiencing violent behavior. Violent behavior is one response to stressors faced by an individual. Individuals experiencing violent behavior often exhibit behavioral changes such as threatening behavior, being noisy, restless, pacing, restlessness, loud intonation, tense expressions, excited speech, aggression, high-pitched voice, and excessive excitement (Pardede et al., 2020). Nurses' knowledge of restraints is a key factor in clinical decision-making. A good understanding of the indications, contraindications, and procedures for restraint use can help nurses accurately assess situations. However, suboptimal restraint use is often found due to a lack of preparedness or knowledge on the part of nurses, even though the majority have good knowledge. One study in Pekanbaru found that 57.54% of nurses had high knowledge of restraints, but 60.44% of them demonstrated poor preparedness in their implementation, resulting in negative risks for both patients and nurses (Malfasari et al., 2024).

Restraints carried out on patients in mental hospitals also have negative impacts. The impact of restraints can occur on the patient himself as well as the nurse who carries out this action (Setyadi et al., 2022). Therefore, in addition to knowledge, nurses' ability to manage crisis situations is also crucial. Communication skills, as well as techniques for managing aggressive behavior, enable nurses to respond more effectively to situations. Training courses and practice forums can enhance understanding of nursing's contribution to physical restraint by discussing the nature of nurses' bodily labor. This discourse will help unravel the complexities of these restraint interventions, identify areas of good practice, and areas for practice development (Akasyah, 2024). Hasil penelitian yang dilakukan oleh (Hadiansyah et al., 2024) The authors point to the need for ongoing training and institutional support to ensure nurses have the knowledge and skills necessary to safely and effectively manage emergency situations.

The relationship between nurses' knowledge level, ability, and restraint use in violent patients suggests that increased knowledge and skills can reduce unnecessary restraint use. The importance of awareness of the long-term impact of restraint use should also be emphasized. Nurses should engage patients as active partners in their care to potentially reduce restraint-related incidents (Cusack et al., 2018). In the context of mental health, it is important to emphasize the ethical aspects of restraint use. Inappropriate use of restraint can cause physical and psychological trauma to patients. Seeing the existing problems, the aim of this study is to determine the relationship between nurses' knowledge level and the use of restraints on patients with violent behavior at Prof. Dr. Soerojo Mental Hospital, Magelang.

METHOD

This research was conducted at Prof. Dr. Soerojo Mental Hospital in Magaleng. The study was conducted from May to June 2025 for two weeks to meet the predetermined sample size. The study used an observational analytic approach using a cross-sectional approach. The sample was drawn using a total sampling technique with a purposive sampling approach, with 40 nurses. Data collection used a questionnaire.

The research instruments used in this study were a nurses' knowledge level questionnaire and a questionnaire on the ability to use restraints for violent patients. Before being used in data collection, the instruments were first tested for validity and reliability to ensure their appropriateness. The validity test results showed that all items in the nurses' knowledge level questionnaire had calculated r values ranging from 0.412 to 0.783, and all items in the restraint use questionnaire had calculated r values between 0.435 and 0.801, all of which were greater than the table r value of 0.361. Therefore, all items in both questionnaires were declared valid and suitable for use in this study.

Next, a reliability test was conducted to determine the level of instrument consistency using the Cronbach's Alpha method. An instrument is considered reliable if the Cronbach's Alpha value is ≥ 0.70. The reliability test results showed that the nurses' knowledge level questionnaire had a Cronbach's Alpha value of 0.879, while the restraint use questionnaire had a Cronbach's Alpha value of 0.901. This value shows that both instruments have a very good level of reliability and are consistent in measuring research variables.Data were analyzed using the chi-square test.

RESULT

Distribution of Respondent Characteristics, Including Age, Gender, and Length of Service

Table 1.
Distribution of Respondent Characteristics Including Age, Gender, Length of Service and Education

Characteristics	f	%
Age (years old)		
20 – 23	6	15,0
24 – 26	7	17,5
27 – 30	15	37,5
31 - 33	4	10,0
34 - 36	8	20,0
Gender		
Male	30	75,0
Female	10	25,0
Length of Service (years)		
0- 1	12	30,0
2- 3	23	57,5
>3	5	12,5
Education		
DIII	28	70,0
SI and Nursing	12	30,0

Table 1 shows that the majority of respondents were aged 27-30 years (15 respondents) (37.5%). The majority of respondents were male (30 respondents) (75.0%). The most years of service were 2-3 years (23 respondents) (57.5%). The most common education level for respondents was a Diploma III in nursing (25 respondents) (70.0%).

Nurses' knowledge level regarding restraint skills for violent patients

Table 2.
Nurses' knowledge level regarding restraint skills for violent patients

Nurses' knowledge level	f	%
Good	27	67,5
Sufficient	13	32,5

Table 2 shows that the majority of respondents (27 respondents (67.5%) had good knowledge, and 13 respondents (32.5%) had sufficient knowledge.

Restraint skills in patients with violent behavior

Table 3.
Restraint skills in patients with violent behavior

Restraint skills	f	%
Good	14	35,0
Sufficient	26	65,0

Table 3 shows that the majority of respondents (26 respondents (65.0%) had sufficient knowledge, and 14 respondents (35.0%) had good knowledge.

Age in relation to restraint use in patients with violent behavior.

Table 4.
Age in relation to restraint use in patients with violent behavior

Age	Restraint Use			
	Good	%	Sufficient	%
17-25 years	11	27,5	0	0
26-35 years	3	7,5	25	62,5
36-45 years	0	0	25	62,5

Table 4 shows that the majority of restraint use was good among 11 (27.5%) respondents aged 17-25.

Gender Perceptions of Restraint Use in Patients with Violent Behavior

Table 5.
Gender Perceptions of Restraint Use in Patients with Violent Behavior

Gender	Restraint Use			
	Good	%	Sufficient	%
Male	13	32,5	17	42,5
Female	1	2,5	9	22,5

Table 5 shows that the majority of restraint use was good among 13 (32.5%) male respondents.

DISCUSSION

Distribution of Respondent Characteristics, namely Age, Gender, and Length of Service

The research results show that the majority of respondents, 15 respondents (37.5%), were aged 27-30 years. This age group falls within the late adulthood category, where individuals generally possess considerable work experience, mature cognitive abilities, and a high level of professional responsibility, particularly in the nursing field. In the context of knowledge and use of restraints, age is a significant factor that can influence the level of understanding and application of appropriate procedures. Research Results Riko&Soebyakto, (2023) showed a significant relationship between nurse age and restraint of agitated patients. More senior nurses tended to be satisfied with their jobs because they were better able to adapt to the work environment based on their experience. (Kamil, 2019) stated that the older a person is, the more mature and strong they become in their thinking and working.

The majority of respondents were male, with 30 respondents (75.0%). Gender can influence nurses' perspectives and approaches in implementing nursing procedures, including the use of restraints. Male nurses are generally perceived as having greater physical strength, and therefore are often more involved in procedures requiring physical force, such as applying physical restraints to patients who are aggressive or at risk of harming themselves or others. The results of this study align with research (Oktaviany, 2019) 33 respondents (67.3%) were male. This is due to specific nursing tasks that are more suitable for men. Gender can determine specific skill sets.

The maximum length of service was 2-3 years, as many as 23 respondents (57.5%). Nurses with longer service periods have more extensive experience, mature thinking and attitudes, and therefore can act more wisely. The longer a nurse works, the less work stress they experience because they

are experienced and responsive to various work issues (Sandra&Soebyakto, 2023). Furroidah et al., (2023) explains that senior nurses are more experienced and possess greater skills in performing nursing procedures. Length of service and work experience will influence a person's level of knowledge, skills, and maturity in performing a job.

Research Results (Oktaviany, 2019) This study shows that there is a relationship between length of service and the level of knowledge regarding psychiatric emergency management in the ER. The most common education level was Diploma III, with 28 respondents. Nurses with higher education, such as a Bachelor's degree in Nursing, have better ability to restrain patients who are agitated or restless. Research shows that 80% of nurses with a Bachelor's degree or higher are able to restrain patients with good categorization, while only 30% of nurses with a Diploma 3 education are able to do so (Riko&Soebyakto, 2023).

Nurses' knowledge level regarding the use of restraints for violent patients

The results showed that the majority of respondents (27 respondents (67.5%) had good knowledge, and 13 respondents (32.5%) had sufficient knowledge. This finding indicates that the majority of nurses understand the basic principles, indications, procedures, and risks and ethics associated with restraint use. A good knowledge of restraint use is crucial because it directly relates to patient safety, the safety of healthcare workers, and the protection of human rights. Nurses with good knowledge tend to be more cautious in making decisions and prefer non-physical alternatives before using restraint as a last resort. Knowledge is vital and must be considered to lead to a better life. Philosophy and religion are essentially two different realms, and there are often differences of opinion between them. However, they are interconnected and combined to understand the scientific nature of both (Octaviana&Ramadhani, 2021).

This high level of knowledge is likely influenced by various factors, such as educational level, regular training or outreach regarding restraint procedures, and adequate work experience. In the context of this study, most respondents had worked for 2-3 years, indicating that they were still adapting and strengthening their professional knowledge through direct experience in the field. Good knowledge also reflects support from the hospital institution, such as the availability of restraint SOPs, nursing action guidelines, and ongoing training activities.

Use of restraints on violent patients

The results showed that the majority of respondents (26 respondents) used restraints adequately, and 14 respondents (35.0%) used restraints well. This indicates that although nurses understand the basics of restraint use, in practice there are still limitations in optimal and standardized implementation. The use of restraints in the adequate category indicates that nurses have implemented restraint procedures, but may not have consistently followed applicable protocols or SOPs, such as documenting use, providing education to families, monitoring patients during restraints, and periodically evaluating the procedure. This situation is also possible due to nurses' tenure being less than 3 years. Research (Riko & Soebyakto, 2023) shows that nurses with more than 3 years of experience are 9.75 times more likely to restrain agitated patients with good grades compared to nurses with less than 2 years of experience. The longer a nurse works for an institution, the more experience they gain and the opportunity to increase productivity because they already understand the work patterns within their workplace (Faridha, 2020).

Respondents' age characteristics regarding restraint use in violent patients

Based on the research results, the majority of restraint use was good in 11 patients aged 17-25 (27.5%), while restraint use was moderate in 26-35 and 36-45 (62.5%). This means that although older nurses have experience and mental maturity, restraint use data indicates that younger age groups (e.g., 17-25) tend to be more likely to fall into the "Good" restraint use category. This is likely because younger nurses have received more recent education and training and are therefore

more up-to-date with correct restraint techniques and current procedures. Meanwhile, middle-aged and older nurses are more likely to fall into the "Fair" category, possibly due to their infrequent technical training updates (P&Soebyakto, 2020). Research recommends regular refresher training, especially for middle-aged and older nurses, to ensure optimal, safe, and humane technical skills in restraint use. Regular competency monitoring and evaluation are also highly recommended to ensure all nurses, regardless of age, have strong technical skills in restraint use (Aulia&Widodo, 2024).

Gender-based impact on restraint use on violent patients

The study results showed that 13 respondents (32.5%) were more effective in using restraints. Restraint procedures often involve physical force to limit patient movement, particularly for patients with violent or agitated behavior. Male nurses are typically physically stronger, so when applying restraints, which involve extra physical effort, they tend to be more effective and safe. (Arianti et al., 2020). Male nurses are typically more frequently prepared or involved in the restraint process because male patients, who are more likely to experience violent behavior, also require strong physical handling. Therefore, male nurses' greater experience in administering restraints also leads to a better knowledge of restraint procedures, leading to greater skill in their implementation.

CONCLUSION

Based on the research results, it can be concluded that the characteristics of the respondents were dominated by nurses aged 27–30 years, male, with 2–3 years of experience. In general, most respondents had a relatively good level of knowledge regarding the use of restraints. The practice of using restraints on patients with violent behavior was also mostly in the good category, with the highest proportion being male nurses at 13 respondents (32.5%). The analysis results showed a significant relationship between the level of nurses' knowledge and the use of restraints on patients with violent behavior at Prof. Dr. Soerojo Mental Hospital, Magelang.

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