

Factors Influencing Nurse Compliance in Implementing Pressure Ulcer Care at Martha Friska Multatuli General Hospital, Medan

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Abstract.

Compliance is the extent to which a nurse's behavior is in accordance with the provisions that have been given by the nurse leadership or the hospital. The level of compliance of nurses is not only measured by their knowledge and attitude towards the procedure, but is based on the assessment and supervision of the procedure actions. The purpose of this study is to determine the relationship of knowledge and attitudes nurses' compliance in the implementation of decubitus wound care at Martha Friska Multatuli Hospital in Medan in 2024. This study uses a correlation descriptive design with a cross sectional approach. The population in this study were all nurses at Martha Friska Multatuli Hospital Medan with a sample of 53 people. Sampling uses purposive sampling. The research data was obtained by the primary data collection method using questionnaires and secondary data from hospitals. The statistical test used is chi square ($\alpha = 0.05$). The results of the research at the level of knowledge were obtained that most of the respondents had a good level of knowledge as much as 37 (69.8%), a sufficient level of knowledge of 7 (13.2%). Based on the chi square statistical test, p -value = $0.001 < \alpha$ (0.05), it was found that there was a significant relationship between knowledge and nurse compliance in carrying out decubitus wound care. In the attitude of nurses, positive attitudes were obtained as many as 38 (71.7%), negative attitudes as many as 2 (3.8%) Based on the statistical test of chi square obtained p -value = $0.000 < \alpha$ (0.05), it was found that there was a significant relationship between attitude and nurse compliance in carrying out decubitus wound care. The conclusion of this study is that there is a relationship between knowledge and attitudes towards nurses' compliance with the implementation of decubitus wound care at Martha Friska Multatuli Hospital Medan in 2024. It is hoped that the hospital will provide special training on wound care to improve nursing knowledge and attitudes.

Keywords: Decubitus wound care, compliance, knowledge, attitude and nurse.

I. INTRODUCTION

Pressure injuries are a long-standing health problem worldwide and are associated with patient safety. During hospitalization, these injuries are a dangerous occurrence. Pressure injuries are also localized damage to the skin and/or underlying soft tissue due to pressure, shear, or compression, causing compression injuries (Awoke et al., 2022). These injuries usually occur in areas with bony prominences. Immobility, recovery from surgery, poor nutrition, dehydration, diabetes, peripheral vascular disease, low albumin levels, anemia, and obesity are some factors that can increase the risk of pressure injuries. During prolonged immobility, the soft tissues between the bony prominence and the external surface are vulnerable to injury (Vecin & Gater, 2022).

Pressure injury control is a pressing issue in hospital emergency services. A meta-analysis by Li et al. (2020) found that the prevalence of pressure injuries worldwide is 12.8%, with the sacrum, heel, and hip being the most vulnerable. A systematic review by Sardo et al. (2023) found that the prevalence of pressure injuries ranged from 5.2% (at admission) to 12.3% (at discharge). Pressure injuries associated with medical devices in intensive care units in Indonesia reached 21.9%, most frequently occurring in stage 2 (57.1%), with the largest wound area being on the fingers (37.5%) (Masyitha et al., 2020).

The government recognizes nurses as such (Febriana, 2017). Nurses play a crucial role in ensuring patient safety because they are medical professionals on call around the clock. This role is evident in all aspects of care, such as identifying and correcting abnormalities, errors, and potential injuries, implementing early prevention, understanding patient care processes and system

weaknesses, and monitoring patients' conditions and needs as they experience clinical changes, both physically and mentally.

The way nurses evaluate and monitor procedures is used to measure compliance. Compliance is the extent to which a nurse adheres to the expectations of the hospital or nursing leadership. Several factors contributing to compliance behavior include education, investment, shifts in social and environmental factors, increased professional interactions, shifts in work models, and knowledge (Suparyanto, 2011).

According to the World Health Organization (WHO), there are approximately 8.50 million cases of pressure ulcers worldwide, or 21 percent. According to WHO (2018), pressure ulcers range from 5 to 11% in acute care, 15 to 25% in long-term care, and 7 to 12% in home healthcare. Sugiarti emphasized that by 2022,

The National Pressure Ulcer Advisory Panel (NPUAP, 2020) states that the incidence of pressure ulcers varies significantly from place to place. Acute care units have an average of 0.4 to 38%, long-term care units have an average of 2.2 to 23.9%, and home care has an average of 0 to 7%. According to the NPUAP (2020), the incidence of acute care hospitals varies from 3% to 83.6% in Europe and from 9% to 14% in Singapore.

Different with prevalence wounddecubitus in Southeast Asia which only ranges from 2.1 to 31.3%, Indonesia has a high rate the incidence of pressure ulcers was 33.3% (Ministry of Health, 2018). The number of pressure ulcers in Indonesia reported by the Indonesian Ministry of Health is 8.2 per 1,000 population, an increase of 0.7 percent compared to the previous five years.

II. METHOD

This type of research is a quantitative research study quantitative survey analytical cross-sectional that aims to determine the relationship between knowledge and attitudes of nurses regarding their compliance in the care of pressure ulcers. This research was conducted at Martha Friska Multatuli General Hospital Medan.

According to Imas Masturoh (2018), a population can be defined as a distinct subject or object in a research field that has met the requirements for research. The term "population" refers to a broader category of people or objects that researchers have selected to investigate in order to arrive at conclusions (synthesis). In this study, all nurses at Martha Friska Multatuli General Hospital participated. The population in this study was all 120 nurses at Martha Friska Multatuli General Hospital.

A portion of the population from which research and conclusions are drawn is called a sample (Imas, Mustaroh, 2018). The Slovin formula was used to determine the sample for this study, resulting in a sample of 54 nurses, using a sampling technique known as purposive sampling.

III. RESULT

1. Distribution

Respondent Frequency By Age

Table 1 Frequency Distribution of Respondents Based on Age

No	Category age	Frequency	Presentation (%)
1	21 – 31 years old	40	75.5
2	32 – 42 years old	13	24.5
	Total	53	100.0

Based on the table above, it shows that of the 53 respondents, 40 nurses (75.5%) were aged between 21 – 31 years and 13 nurses (24.5%) were aged between 32 – 42 years.

2. Distribution: Respondent Frequency By Gender

Table 2 Frequency Distribution of Respondents Based on Gender

No	Gender	Frequency	Presentation (%)
1	Man	11	20.8
2	Woman	42	79.2
	Total	53	100.0

Based on the table above, it shows that of the 53 respondents, 11 nurses (20.8%) were male and 42 nurses (79.2%) were female.

3. Respondent Frequency Distribution Based on Education

Table 3 Frequency Distribution of Respondents Based on Last Education

No	Education	Frequency	Presentation (%)
1	D3	38	71.7
2	S1/Nursing	15	28.3
	Total	53	100

Based on the table above, it shows that of the 53 respondents, 38 nurses (71.7%) had a D3 education and 15 nurses (28.3%) had a S1/Nursing education.

4. Respondent Frequency Distribution Based on Wound Care Training

Table 4 Frequency Distribution of Respondents Based on Wound Care Training

No	Education	Frequency	Present ase (%)
1	Once	10	18.9
2	Never	43	81.1
	Total	53	100

Based on the table above, it shows that of the 53 respondents, 10 nurses (18.9%) had attended wound care training and 43 nurses (81.1%) had never attended wound care training.

5. Respondent Frequency Distribution Based on Knowledge

Table 5 Frequency Distribution of Respondents Based on Respondent Knowledge

No	Knowledge	Frequency	Presentation (%)
1	Good	44	83.0
2	Enough	9	17.0
	Total	53	100

Based on the table above, it shows that of the 53 respondents, 44 nurses (83.0%) had good knowledge and 9 nurses (17.0%) had sufficient knowledge.

6. Respondent Frequency Distribution Based on Attitude

Table 6 Frequency Distribution of Respondents Based on Respondents' Attitudes

No	Attitude	Frequency	Presentation (%)
1	Positive	45	84.9
2	Negative	8	15.1
	Total	53	100

Based on the table above, it shows that of the 53 respondents, 45 people (84.9%) had a positive attitude and 8 people (15.1%) had a negative attitude.

7. Respondent Frequency Distribution Based on Respondent Compliance

Table 7 Frequency Distribution of Respondents Based on Nurse Compliance

No	Level Compliance	Frequency	Presentation (%)
1	Obedient	40	75.5
2	Less Compliant	13	24.5
	Total	53	100

Based on the table above, it shows that of the 53 respondents, 40 people (75.5%) were compliant and 13 (24.5%) were not. 13 (24.5%) people (24.5%) are less compliant.

BIVARIATE ANALYSIS

8. The Relationship Between Knowledge and Nurse Compliance in Implementing Pressure Ulcer Treatment at Martha Friska Multatuli General Hospital, Medan in 2024

Table 8 Relationship between Knowledge and Nurse Compliance in Implementing Pressure Wound Care at Martha Friska Multatuli General Hospital, Medan in 2024

Based on the table above, it shows that of the total 44 respondents who had good knowledge, there were 37 respondents (69.8%) who complied with the implementation of decubitus wound care and there were 7 respondents (13.2%) who were less compliant with the implementation of decubitus wound care. Meanwhile, of the total 9 respondents who had sufficient knowledge, there were 3 respondents (5.7%) who complied with the implementation of decubitus wound care and there were 6 respondents (11.3%) who were less compliant with the implementation of decubitus wound care.

Based on the Chi-Square test, a probability value of 0.001 was obtained, which is smaller than the α value of 0.05, so H_0 was rejected. This means there is a relationship between knowledge and nurse compliance in implementing pressure ulcer care at Martha Friska Multatuli General Hospital, Medan in 2024.

9. The Relationship Between Attitudes and Nurse Compliance in Implementing Pressure Ulcer Treatment at Martha Friska Multatuli General Hospital, Medan in 2024

Table 10 Relationship between Attitudes and Nurse Compliance in Implementing Pressure Wound Care At Martha Friska Multatuli General Hospital, Medan in 2024

Knowledge	Nurse Compliance						Prob
	Obedient		Not enough		Total		
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	
Good	37	69.8%	7	13.2%	44	83.0%	0.001
Enough	3	5.7%	6	11.3%	9	17.0%	
Total	40	75.5%	13	24.5%	53	100%	

Based on the table above, it shows that of the total 45 respondents who had a positive attitude, there were 38 respondents (71.7%) who complied with the implementation of decubitus wound care and there were 7 respondents (13.2%) who were less compliant with the implementation of decubitus

wound care. Meanwhile, of the total 8 respondents who had a negative attitude, there were 2 respondents (3.8%) who complied with the implementation of decubitus wound care and there were 6 respondents (51.2%) who were less compliant with the implementation of decubitus wound care.

Based on the Chi-Square test used, the probability value obtained was 0.000, which is smaller than the value of $\alpha = 0.05$, so H_0 was rejected. This means there is a relationship between attitudes towards nurses' compliance in implementing pressure ulcer care at Martha Friska Multatuli General Hospital, Medan in 2024.

DISCUSSION

1. The Relationship Between Knowledge and Nurse Compliance in Implementing Pressure Ulcer Care at Martha Friska Multatuli General Hospital, Medan in 2024

The results of the research that has been conducted show that the probability value of 0.001 is smaller than the value of $\alpha = 0.05$, so H_0 is rejected. There is a relationship between knowledge and nurses' compliance with pressure ulcer care procedures at Martha Friska Multatuli General Hospital, Medan in 2024.

According to the study, the group of respondents with good knowledge complied with the implementation of pressure ulcer care, while the group of respondents with sufficient knowledge were less compliant. The results of the study showed that nurses' knowledge of pressure ulcer care in each room was good and sufficient, with a total of 83.0 percent and lower expenditure. Feeling something produces knowledge. He will be more likely to take an attitude based on knowledge and awareness than an attitude based on concepts or knowledge that he does not understand. A person must understand the benefits for himself and his organization before taking any action. Socialization is one way to increase knowledge that can help employees become more effective in achieving work goals for patient safety and satisfaction.

The results of this study are in line with Andri Yulianto's (2016) study which found a significant relationship between nurses' knowledge of wound care and their compliance with wound care procedures in the inpatient ward of Dr. H. Abdul Moeloek Bandar Lampung Regional General Hospital in 2016, with a p-value of $0.041 < \alpha (0.05)$ and OR 6.9. Thus, it can be concluded that there is a statistical correlation between nurses' knowledge of their compliance in implementing decubitus wound care.

2. The Relationship Between Attitudes and Nurse Compliance in Implementing Pressure Wound Care at Martha Friska Multatuli General Hospital, Medan in 2024

The results of the study indicate that the probability value of 0.000 is smaller than the value of $\alpha = 0.05$, so H_0 is rejected. There is a relationship between attitudes towards nurses' compliance with pressure ulcer care at Martha Friska Multatuli General Hospital, Medan in 2024.

The study found that nurses largely had a positive attitude towards adherence to pressure ulcer care in each ward. Respondents with a positive attitude indicated that they were less compliant with pressure ulcer care. The results showed that 84.9% of respondents expressed a positive attitude, while 15.1% expressed a negative attitude. This finding aligns with Ria Novita Tersnawati's research, in which the majority of respondents, 78.3%, had a positive attitude towards standard operating procedures. This indicates a significant correlation between nurses' attitudes and adherence to pressure ulcer care.

This is in accordance with the theory of levels of attitude proposed by Notoatmodjo (2007), which states that attitudes have several levels: receiving, responding, valuing, and finally being responsible. Essentially, the nurses' attitudes demonstrated have reached the responsible level, meaning they are responsible for everything they choose, regardless of the potential risks.

IV. CONCLUSION

1. There is a relationship between knowledge and nurse compliance in implementing pressure ulcer care at Martha Friska Multatuli General Hospital, Medan in 2024 with a probability value of 0.001.
2. There is a relationship between attitudes towards nurses' compliance in implementing

pressure ulcer care at Martha Friska Multatuli General Hospital, Medan in 2024 with a probability value of 0.000.

3. Percentage of nurse compliance level in In 2024, data was obtained from 53 respondents at Martha Friska Multatuli General Hospital in Medan, where 40 nurses (75.7%) were compliant and 13 nurses (25.5%) were less compliant in carrying out pressure ulcer care.

SUGGESTION

1. It is expected that respondents can maintain, increase knowledge, and demonstrate a positive attitude about how to carry out pressure ulcer care in accordance with standard operating procedures (SOP) that apply comprehensively to improve the quality of health services in hospitals and avoid self-harm from practice.
2. It is hoped that the Martha Friska Multatuli Medan Hospital will not ignore the implementation of wound care training to improve the quality of nurses in carrying out procedures.
3. For Further Researchers It is hoped that further researchers will be able to expand the research area by implementing pressure ulcer care in hospitals and at home.

REFERENCE

- [1]. Abdu, S., & Sampe, A. (2020). Analysis of Determinant Factors of Nurse Compliance in Implementing Wound Care According to Standard Operating Procedures (SOP).
- [2]. Amirsyah, M. (2020). Decubitus Ulcers in Stroke Patients.
- [3]. Amelia, A, R. (2022). The Relationship Between Nurse Workload and Adverse Events.
- [4]. Aminuddin, M, Sukmana, M, Nopriyanto, D, Scholichin (2020). Wound Care Module
- [5]. Arikunto, Suharsimi. 2010. Research Procedures: A Practical Approach. Jakarta: Rineka Cipta
- [6]. Ministry of Health of the Republic of Indonesia. Law of the Republic of Indonesia Number 36 of 2009 Concerning Health. Jakarta: Ministry of Health of the Republic of Indonesia: 2009.
- [7]. Febriana, DV (2017). Basic Concepts of Nursing. Indonesia's Great Children.
- [8]. Ginting, Dameria, Maita, S: (2025). Wound Care Using Modern Dressings. Jorong Pale: PT. Insan Cendikia Mandiri
- [9]. Haliman, A., & Wulandari, A. (2012). Smartly Choosing a Hospital. Yogyakarta: ANDI.
- [10]. Imas Masturoh, NA (2018). Health Research Methodology. *Ministry of Health of the Republic of Indonesia*.
- [11]. Indrawati, Y. (2023). Factors Influencing Nurses' Compliance with Perioperative Standard Operating Procedures (SOP) to Prevent Postoperative Wound Infections at Dr. R. Goeteng Taroenadibrata Purbalingga Regional Hospital.
- [12]. Irawan, a. G., Yulia, S., & Mulyadi. (2017). The Relationship between Supervision and the Implementation of Patient Safety Culture in the Inpatient Ward of XX Hospital.
- [13]. Ministry of Health. (2017). Health Data and Information Center, Indonesian Health Profile. Ministry of Health of the Republic of Indonesia.
- [14]. Krisnawati, D. (2022). The Effect of Position Changes on the Incidence of Decubitus Ulcers in Bedrest Patients in the Irin Ward of Mardi Rahayu Hospital, Kudus.
- [15]. Mugiarti, T. (2022). The Relationship between the Role of Nurses in Preventing Pressure Ulcers in the ICU/IMC.
- [16]. Notoatmodjo, S. (2014). Health Behavior Science. Rineka Cipta.
- [17]. Sari, Y. (2020). Nursing Care for Decubitus Ulcer Clients with Skin Integrity Problems with the Application of Wound Care Therapy at Pandan Regional Hospital, Central Tapanuli Regency.
- [18]. Situmorang, (2022). Application of Automatic System in Prevention and Treatment of Pressure Ulcers
- [19]. Sumijatun.(2009). Management Nursing: Basic Concepts and Applications of Clinical Decision Making. Trans Info Jakarta.
- [20]. Wurdiana Shinta, LE (2021). Plagiarism Checker X Originality Report.
- [21]. Yanti, I, R, M. (2018). The Relationship Between Nurses' Knowledge and Nurse Compliance in Implementing Post-Operative Wound Care at Santa Elisabeth Hospital, Medan.
- [22]. Yulianto, A., & Moeloek, HA (2016). Relationship between Knowledge Level and Nursing Care. *Health Science*.