



Relationship Between Nurses' Knowledge and Implementation of Decubitus Assessment Reassessment at Hospital X

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KEYWORDS

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A B S T R A C T

Pressure ulcers occur due to reduced blood supply and tissue malnutrition caused by continuous pressure on the skin. The incidence of pressure ulcers continues to rise. The prevalence of pressure ulcers remains very high worldwide, with 2.5 million people in the United States, 1.67% in Asia, 50% in Australia, 49% in Europe, 5%-32% in Canada and the UK, and 29% in Jordan. Therefore, an accurate assessment is required. Pressure ulcer assessment using the Braden scale is crucial. Braden scale assessment should be conducted daily, referred to as reassessment, to help prevent the occurrence of pressure ulcers. The aim of this study is to identify the relationship between nurses' knowledge and the implementation of pressure ulcer assessments at Hospital X in 5 inpatient wards and the ICU. The research method involves using the Braden scale as a measurement tool. The study was conducted at Hospital X. The study population includes all nurses in the inpatient wards and the ICU. Using Slovin's formula, 65 respondents were selected. This study employs frequency distribution tests for univariate analysis and Kendall's tau b test for bivariate analysis. The study was carried out from November 2023 to January 2024. Univariate research results: Characteristics of the respondents include those aged 26-35 years (55.4%), female gender (63.1%), Bachelor's degree (53.8%), working experience of 5-10 years (64.6%), sufficient knowledge (39 individuals, 60.0%), and performing pressure ulcer assessments (36 individuals, 55.4%). The bivariate research results showed that there is a significant relationship between nurses' knowledge and the implementation of reassessment for pressure ulcer assessments at Hospital X (p value 0.000). A relationship was found between nurses' knowledge and the implementation of reassessment for pressure ulcer assessments at Hospital X (p value 0.000). It is recommended that nurses improve patient care, especially for patients at risk of developing pressure ulcers, by minimizing the risk of pressure ulcer formation through periodic patient repositioning or mobilization.

1. Introduction

Pressure ulcer, also known as decubitus ulcer or pressure sore, is a localized injury to the skin and underlying tissues over areas with prominent bones such as the occiput, ears, shoulders, elbows, hips, buttocks, knees, ankles, and heels (Headlam & Illsley, 2020). Pressure ulcers occur due to reduced blood supply and tissue malnutrition resulting from continuous pressure on the skin, tissues, muscles, and bones. This pressure causes disturbances in blood supply, leading to insufficient blood flow, anoxia, or ischemia, and ultimately cell death (Headlam & Illsley, 2020).

The prevalence of pressure ulcers remains high worldwide (Jiang et al., 2020). In the United States, over 2.5 million people are estimated to suffer from pressure ulcers annually. In China, the prevalence is 1.67%, in Australia 50%, in Europe 49%, in Canada and the UK 5%-32%, in Jordan 29%, and in Western Europe, it ranges from 8.3%-22.9% (Gani et al., 2022; Gbadamosi et al., 2023). The incidence of pressure ulcers among adults varies from 0-12% in patients with acute conditions, 24.3-53.4% in critical conditions, and 1.9-59% in elderly patients (Ebi et al., 2019). According to Wulandari et al. (2023), patients treated in intensive care units (ICUs) have a significantly higher prevalence compared to general wards, ranging from 33% to 44%.

Based on research by Wulandari et al. (2023), a preliminary study on the percentage of pressure ulcer occurrences in the pediatric ward of Building A at RSUPN Cipto Mangunkusumo showed that in 2020, the percentage of pressure ulcer cases per month ranged from 0% to 2.8%, with an increase in cases occurring in February to around 3.8%. Data from RS X reported 6 cases of pressure ulcers in 2022, and by September 2023, there were 9 cases of patients developing pressure ulcers.

The rising incidence of pressure ulcers requires attention from healthcare professionals, especially nurses, in preventing these ulcers in hospital wards. One approach is through consistent risk assessments and reassessments, which help reduce the incidence of pressure ulcers. Therefore, having the right assessment tools to promptly detect potential pressure ulcer risks is essential (Wulandari et al., 2023).

The Braden scale's activity subscale can be used to determine whether a patient requires a full assessment of the risk of developing pressure ulcers. Following the initial assessment of the patient, reassessment should be conducted 48 hours later and periodically depending on how quickly the patient's condition changes, as well as whenever significant changes occur in their condition. Special vigilance is needed during acute illness and the first two weeks after transitioning to long-term care, as this is a high-risk period for pressure ulcers (Lyder & Ayello, 2008).

Pressure ulcers can be prevented through the implementation of specialized care interventions such as risk assessment, skin assessment, patient repositioning, and providing adequate nutrition (Ebi et al., 2019). Nurses must have sufficient knowledge about the potential risks that contribute to the development of Pressure Ulcers (PU) (Guerrero et al., 2023).

2. Methodology

This study is a quantitative research with a cross-sectional approach. The research was conducted from November 2023 to January 2024. Using Slovin's formula, 65 respondents were selected. The study was conducted in 6 inpatient care units at Hospital X. Data collection was done by distributing the PUKAT (Pressure Ulcer Knowledge Assessment Tool) questionnaire, which had a Cronbach's alpha value of 0.71. For the reassessment of pressure ulcer evaluation, an observation sheet using the Braden Scale was employed, following Bhoki et al. (2014), with a Cronbach's alpha value of 0.818. Frequency distribution was used for univariate analysis, and the Kendall's tau b test was used for bivariate analysis, as the data is ordinal.

3. Result and Discussion

Univariate Analysis Test Results

Research results on the Relationship between Characteristics, Nurses' Knowledge and the Implementation of

Decubitus Reassessment Assessment at Hospital X.

Description of respondent characteristics (age, gender, education and length of service), knowledge and Implementation of Reassessment of Decubitus Wound Assessment at Hospital X in 2024

Characteristics	Frequency	Percentage (%)
Age		
< 25 years	7	10.8
26-35 years	36	55.4
36-45 years	17	26.2
> 46 years	5	7.7
Gender		
Man	24	36.9
Woman	41	63.1
Education		
D3	30	46.2
S1 Nursing	35	53.8
Length of working		
1-5 years	17	26.2
> 5-10 years	42	64.6
>10 years	6	9.2
Knowledge		
Not enough	14	21.5
Enough	39	60.0
Good	12	18.5
Implementation of the assessment		
Are not done	29	44.6
Done	36	55.4

The results of the study showed that the majority of respondents were aged 26-35 years (55%), female gender as many as 41 respondents (63.1), had a Bachelor's degree in Nursing as many as 35 respondents (53.8%), length of service 5-10 years as many as 42 respondents (64.6%), had sufficient knowledge as many as 39 respondents (60%) and carried out decubitus wound assessment as many as 36 respondents (55.4%).

Bivariate Analysis Test Results

Table 2 Relationship between nurses' knowledge and implementation of decubitus reassessment at Hospital X (n=65)

Knowledge	Implementation of Reassessment				Total		P	Correlation Coefficient
	No		Done					
	N	%	N	%	N	%		
Not enough	14	100	0	0	14	100	0.000	0.524
Enough	13	33.3	26	66.7	39	100		
Good	2	16.7	10	83.3	12	100		
Total	29	44.6	36	55.4	65	100		

From the results of *the Kendal test*, it was found that there was a relationship between the level of knowledge and the Implementation of Decubitus Assessment Reassessment in Hospitals with a p value of 0.00 where $p < 0.05$. This is because the lack of knowledge, not implementing the decubitus assessment reassessment is 100%, for sufficient knowledge, those who do the reassessment are 83.3% and those who do not do the reassessment are 33.3%. While for good knowledge, those who do the decubitus assessment reassessment are 55.4%.

Discussion

Age is a person's age from birth until the person dies. (KKBI, 2016). Age 26-35 years is middle adulthood, it is assumed that a person has more experience in dealing with each case compared to people who are younger than him. According to the researcher's assumption, the older a person is, the greater the person's ability to make decisions in rational thinking. This study is in line with research (Abrahams et al., 2023), that the majority of respondents 94% of respondents are young (21-30 years), which indicates that they are still beginners in the nursing profession. According to (Rudianti et al., 2013), the characteristics of a nurse based on age greatly influence performance in nursing practice.

Age 26-35 years is the most age in the hospital, because based on their graduation from high school and completing nursing education is the age where nursing staff with that age range will have good work enthusiasm. Where that age is the age of a person entering the world of work.

Gender

The results of the study obtained data on the characteristics of respondents based on gender, the majority of whom were women, as much as 63.1%. Gender is the division of roles between men and women because of the nature given by God (Iskandar, 2018). Women have instincts and have a gentle nature in accordance with the initial concept of nursing in its history, namely *the mother instinct*. This study is in line with research conducted by (Abrahams et al., 2023), that the majority (94%) of respondents were women who carried out decubitus assessments. In this study, male nurses who were respondents to the study were unmarried. This study is not in line with research (Shen et al., 2022), that the marital status of male nurses is closely related to the performance of male nurses. The nursing performance of married male nurses is higher than that of unmarried male nurses. This may be related to the importance of the role of family support in performance and career development.

Education

The results of the study obtained data on the characteristics of respondents based on the level of education, the majority had a bachelor's degree, as many as 53.8%. The level of education is a long-term process that uses systematic and organized procedures, in which managerial workers study conceptual and theoretical knowledge for general purposes (Nuzleha et al., 2021). The results of the study showed that the highest education was bachelor's degree, because Hospital X had carried out the development of nursing education, it was stated that 3 generations of the hospital had collaborated with STIK Carolus to send students to the bachelor's level. According to the researcher's assumption, it is hoped that with higher education, the person's knowledge will be broader. According to Notoatmodjo (2018), people who have higher education will also have higher knowledge. According to Kumajas et al. (2014) Education can be a foundation for developing oneself and the ability to utilize all the suggestions around us for smooth work. Based on the results of the study, there were still 46.2% of respondents with a D3 Nursing Education Level. This study is in line with research (Getie et al., 2020), the practice of assessing pressure ulcers was statistically associated with nurses with a bachelor's degree and above the qualification level (AOR = 1.7, 95% CI: 1.02, 2.83), where the level of education had a 1.7 times risk associated with the practice of assessing pressure ulcers.

Length of working.

The results of the study obtained data on the characteristics of respondents based on the length of service, the majority of respondents had worked for >5-10 years, namely 64.6%. Length of service is the time that has been used while working (Mirwanti et al., 2015). According to the researcher's assumption, length of service can affect a person's performance. The length of service of the nurses was the most >5 - 10 years because the hospital started operating in 2008, which means they have been working for 16 years, but many senior nurses have retired and many nurses have left due to personal problems such as getting married and changing jobs. According to Nursalam (2015), the more years a nurse has worked, the more experience the nurse has in providing nursing care in accordance with applicable standards or fixed procedures. Length of service is usually associated with the time of starting work, where work experience also determines a person's performance. The longer the length of service, the better the skills will be because they have adjusted to their work. This study is in line with research (Wardani, 2019), that the results of the study found that respondents who conducted decubitus assessments were respondents with a length of service of more than 10 years 34.5%.

The results of the knowledge study obtained were: the most variable was sufficient knowledge as many as 39 people (60.0%), carrying out decubitus assessment reassessment as many as 36 people (55.4%). The results of the study obtained data that the majority of respondents had sufficient knowledge, namely 60.0%. Knowledge is the result of knowing that someone obtains after experiencing sensing an object (Notoatmodjo, 2018). According to the researcher's assumption, the level of knowledge of the majority of nurses respondents is in the sufficient knowledge category, meaning that its implementation is not optimal. From the results of the study there are question items, where the majority of respondents answered incorrectly, namely in question no. 11 the majority of answers were wrong as many as 42 people. Question no. 16 the majority of answers were wrong as many as 46 people. Question no. 17 the majority of answers were wrong as many as 48 people. Question no. 19 the majority of answers were wrong as many as 50 people. Question no. 24 the majority of answers were wrong as many as 47 people. Question no. 25 the majority of answers were wrong as many as 46 people. This study is in line with (Abrahams et al., 2023), that 30% of nurses have sufficient knowledge. This is supported by the results of research (Furtado et al., 2022), that the development of pressure ulcers is associated with a lack of knowledge and inability of nurses to handle pressure ulcers. This study is not in accordance with research (Halász et al., 2021), that the majority of nurses have less knowledge of pressure ulcer assessment.

The implementation of the most decubitus assessments was carried out, which was 55.4%. From the results of observations conducted by researchers for two days, where out of 65 respondents on the first day of the assessment, 3

nurses did not carry out a decubitus assessment. On the second day, 26 nurses did not carry out a decubitus assessment reassessment. The hospital requires all nurses to complete documentation, one of which is documentation of the decubitus assessment, so that the completeness of the decubitus assessment is carried out properly. The implementation of reassessment is a step in preventing decubitus wounds to identify patients at greatest risk, plan and implement interventions, and ensure resources are used appropriately (Young & Fletcher, 2019). According to (Potter & Perry, 2009, 2010, 2013), nurses need to have knowledge and skills because this will affect nurse behavior. Knowledge about the implementation of decubitus reassessment is very important and is the basis for nurses to determine the risk assessment of pressure ulcers in patients with prolonged bed rest. This study is in line with the study (Getie et al., 2020), that this study found that 51.9% of nurses carried out decubitus assessment actions in the good category. This is not in line with the study (Dewi et al., 2022), there were 40% of nurses who were less compliant in conducting decubitus pressure ulcer assessments.

Knowledge and implementation of assessments can be related because knowledge is obtained from education and obtained from socialization. Based on data interpretation, it can be linked between education and nurses' knowledge in carrying out decubitus assessment reassessment actions, where according to the researcher's assumption, professional nursing education will reflect a person's ability to complete a job well. People who have professional nursing education have high experience and have a more mature mindset so they can distinguish between good and bad. A high level of education will have mature thinking skills and can think rationally, especially in terms of implementing decubitus assessment reassessment to be monitored in each shift. Thus, good work quality will be seen compared to the level of vocational nursing education. According to (Sesrianty, 2018), education is also one of the factors that influences a person's perception, because it can make it easier for someone to accept new ideas or technologies. Nurses with sufficient education will carry out effective and efficient nursing practices which will then produce high-quality health services. A sufficient level of education will contribute to nursing practice. The level of education of a nurse will influence the rationale behind setting nursing standards (Sesrianty, 2018)

According to the assumption of old researchers, a nurse who works in a hospital, the longer a person's work period, the more knowledge and experience they have, this can help improve a nurse's skills in carrying out decubitus reassessment assessment actions. This is supported by Cristian, Suarnianti & Ismail (2013), that work period is also something that can affect knowledge and skills, because someone who has a long work period will automatically form adequate work experience and create an effective work pattern and can solve various problems based on experience, skills, and knowledge.

4. Conclusion

Characteristics Respondent age 26-35 years as much as 55.4%, type sex Woman as much as 63.1%, education 53.8 % of nurses have a bachelor's degree , with a working period of 5-10 years as much as 64.6%, knowledge Enough as many as 39 people (60.0%), implemented it assessment decubitus as many as 36 people (55.4%). There is a relationship between nurses' knowledge and the implementation of decubitus reassessment at Hospital X (p value 0.000).

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