



Relationship between Education Level Post Operative Patients on Knowledge about Wound Care in the Surgery Polyclinic KH. Mansyur Regional Hospital, Tanah Laut Regency

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Abstract

Background: The post-operative wound healing process is significantly influenced by the patient's knowledge of self-care at home. Education level is thought to be a significant factor influencing patient understanding of wound care. Objective: To determine the relationship between the level of education of post-operative patients and knowledge about wound care at the Surgical Polyclinic of KH. Mansyur Regional Hospital, Tanah Laut Regency. Method: This study used a quantitative approach with a cross-sectional design. A sample of 44 respondents was selected using a purposive sampling technique. Data were collected through a structured questionnaire and analyzed using the Spearman statistical test. Results: The analysis showed a significant relationship between education level and patient knowledge of wound care ($p < 0.05$). Patients with higher education levels tended to have better knowledge than patients with lower education levels. Conclusion: There is a significant relationship between postoperative patients' education level and their knowledge of wound care. Nurses are expected to provide education appropriate to the patient's education level to improve their ability to care for wounds independently.

Keywords

Knowledge, Wound Care, Education Level.

Introduction

The wound healing process in post-operative patients depends on the presence or absence of complications. Several factors influence wound healing, such as infection, nutritional deficiencies, stress, a dry wound environment due to poor wound care techniques, personal hygiene, and mobilization. Several factors that can cause wound infections include non-sterile suturing techniques, contaminated wounds, the presence of retained foreign objects, poor wound care techniques, and the length of hospitalization before surgery (Suparyanto, 2011 in Sandra et al., 2022).

World Health Organization (WHO) data, surgical site infections (SSIs) account for

approximately 5% to 34% of nosocomial infections (Haryanti et al., 2023). In the United States, SSIs are the third most common infection in hospitals, affecting 14-16% of patients (NNIS, 2020). A 2009 study in Nigeria found that 5% to 10% of postoperative patients experienced SSIs with positive bacterial cultures (Setyarin & Dwitari, 2023 in Mutmainnah, 2025). A 2023 study by Asyifa, Suarniant, and Mato, citing 2022 data from the Indonesian Ministry of Health, showed that the incidence of SSIs (SSIs) in Indonesian government hospitals reached an alarming 55.1% (Mutmainnah, 2025). According to SSI data at KH. Mansyur In 2024, from 716 operations, found the prevalence of ILO was around 10%.

Patient knowledge and attitudes regarding wound care are influenced by several factors, one of which is education. A patient's ability to understand information effectively is closely related to their educational level (Setiawan et al., 2015 in Liliyana, 2022). To further improve postoperative patient knowledge about wound care, health education from nurses is needed to assist patients in optimally performing wound care independently at home.

During a preliminary study at the Surgical Polyclinic of KH. Mansyur Regional Hospital, the most common post-operative cases were diabetic ulcer patients, who require routine wound care to prevent infection that can lead to amputation and to accelerate the wound healing process. Based on the data above, the researchers were interested in determining whether there was a relationship between the level of education of post-operative patients and their knowledge of wound care at the Surgical Polyclinic of KH. Mansyur Regional Hospital.

Methods

The research method used in this study is an observational analytical study. Observational analytical studies are conducted to analyze the relationship between variables without any intervention from the researcher. The location of this study will be the Surgical Polyclinic of KH. Mansyur Regional Hospital.

This study was designed as an observational study and used a cross-sectional approach. The population in this study were 50 post-operative patients at the Surgical Polyclinic of KH. Mansyur Regional Hospital in January. In this study, the sampling technique used was the Purposive Sampling method, also known as judgment. Determination of the number of samples for this study used the Slovin formula, resulting in a sample of 44 people (respondents).

The data type in this study is categorical. Categorical data is the result of classifying/categorizing data. Categorical variables generally have nominal and ordinal scales. Data collection in this study was conducted by administering questionnaires to post-operative control patients.

Results and Discussions

Table 2. Education level

Characteristics	f	%
Education		
Elementary School	22	50.0
Junior High School	7	15.9
High School	9	20.5
Diploma	3	6.8
Bachelor	2	4.5

Masters/S2

1

2.3

Table 3. Based on Knowledge of Wound Care

Characteristics	f	%
Bad	0	0
Currently	15	34.1
Good	29	65.9

Table 4. Frequency Distribution of Education Levels Regarding Wound Care Knowledge

		Knowledge		Total	
		Currently	Good		
EDUCATION	Elementary School	Count	12	10	22
		% Within Education	54.5%	45.5%	100.0%
		% Within Knowledge	80.0%	34.5%	50.0%
		% Of Total	27.3%	22.7%	50.0%
	Junior High School	Count	2	5	7
		% Within Education	28.6%	71.4%	100.0%
		% Within Knowledge	13.3%	17.2%	15.9%
		% Of Total	4.5%	11.4%	15.9%
	High School	Count	1	8	9
		% Within Education	11.1%	88.9%	100.0%
		% Within Knowledge	6.7%	27.6%	20.5%
		% Of Total	2.3%	18.2%	20.5%
	DIPLOMA	Count	0	3	3
		% Within Education	0.0%	100.0%	100.0%
		% Within Knowledge	0.0%	10.3%	6.8%
		% Of Total	0.0%	6.8%	6.8%
	BACHELOR	Count	0	2	2
		% Within Education	0.0%	100.0%	100.0%
		% Within Knowledge	0.0%	6.9%	4.5%
		% Of Total	0.0%	4.5%	4.5%
MASTER	Count	0	1	1	
	% Within Education	0.0%	100.0%	100.0%	
	% Within Knowledge	0.0%	3.4%	2.3%	
	% Of Total	0.0%	2.3%	2.3%	

	Count	15	29	44
Total	% Within Education	34.1%	65.9%	100.0%
	% Within Knowledge	100.0%	100.0%	100.0%
	% Of Total	34.1%	65.9%	100.0%

Table 5. Spearman Rank Test Results: Relationship between *Post-Operative Patient Education Level* and Knowledge of Wound Care

		Correlations		
			EDUCATION	KNOWLEDGE
Spearman's rho	EDUCATION	Correlation Coefficient	1,000	.461 **
		Sig. (2-tailed)	.	.002
		N	44	44
	KNOWLEDGE	Correlation Coefficient	.461 **	1,000
		Sig. (2-tailed)	.002	.
		N	44	44

Discussion

, on matters that support health and thus improve quality of life. The research results showed that the majority of respondents had elementary school education, namely 22 people (50.0 %) .

Education plays a crucial role in the information process, transforming it into new knowledge. Information can be acquired through repeated listening, viewing, and reading. This information then becomes an engaging stimulus in the brain and tends to be stored in long-term memory (Notoatmodjo, 2016, cited in Erva Elli Kristantil, Dyah Ayu Kartika Wulan Sari, 2022) .

Most respondents have a good understanding of how to treat wounds, namely 29 people (65.9%). This was because some respondents had previously received information or direct experience through repeated wound control visits, so that their understanding of wound care was better.

In a journal written by Hasniatisari Harun *et al* in 2024, it was stated that after conducting health education related to wound care, the level of family knowledge was found to increase due to the process of exchanging information and demonstrating wound care which could increase family insight and correct actions that were deemed inappropriate when carrying out wound care.

The results of statistical testing between the two variables with data processing using the Spearman's rho test show that p-value 0.002 ($p < 0.05$) The α value used in this study is 0.05. If $p < 0.05$ then H_0 is rejected and H_a is accepted. The results in this study obtained a result of 0.002 where $p < 0.05$ states that there is a significant relationship between the level of education of *post-operative patients* and knowledge about wound care

Conclusion

There is a significant relationship between postoperative patients' education level and their

knowledge of wound care. Nurses are expected to provide education appropriate to the patient's education level to improve their ability to care for wounds independently

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