




The Relationship Of Nurses' Knowledge With The Implementation Of Sop For Providing Entral Nutrition Therapy In The ICU Room, Dr. Hospital. Zainoel Abidin Government Of Aceh 2023

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ARTICLEINFO	ABSTRACT
<p>Article history:</p> <p>Received Nov 03, 2023 Revised Dec 29, 2023 Accepted Jan 15, 2024</p> <p>Keywords:</p> <p>Enteral SOP; Knowledge; Nurse.</p>	<p>Nutrition is one of the most important aspects of medical care for critically ill patients, especially in the ICU. Enteral nutrition is the method used for delivery that supplies all the nutrients. This study aims to determine the relationship between nurses' knowledge and the implementation of SOPs for providing enteral nutrition therapy in the ICU. Correlative Descriptive research type with a Cross Sectional approach. The research sample was 34 respondents using total sampling technique. Data analysis used the chi square test with a significance level of $\alpha = 0.05$ (95%). The results of the research obtained nurses' knowledge of implementing SOP for enteral administration ($p = 0.000 < \alpha 0.05$). The results of this study indicate that nurses' knowledge can influence the application of SOPs in providing enteral nutrition to patients treated in the ICU.</p> <p style="text-align: right;"><i>This is an open access article under theCC BY-NClicense.</i></p> 

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1. Introduction

Nutrition is one of the most important aspects of medical care for critically ill patients, especially in the ICU (Reis et al., 2018) (Pakaya et al., 2022). A high prevalence of morbidity and mortality is associated with malnutrition, affecting up to 40% of hospitalized patients (Hoffmann et al., 2020). Enteral nutrition is a delivery system that supplies all essential nutrients including water and minerals into the digestive tract (via mouth or tube) and then into the stomach, duodenum, or jejunum (Zhang et al., 2021).

American Society for Parenteral and Enteral Nutrition (ASPEN, 2022) recommend that EN is the feeding method of choice for critically ill patients due to its effectiveness in preventing intestinal mucosal atrophy, and maintenance of intestinal immunity through gut-associated lymphoid tissue. Based on these findings, almost two thirds of the 130 respondents (67.7%) had insufficient understanding, while only 62 (32.3%) had sufficient knowledge about enteral nutrition. These findings are consistent with research conducted in Pakistan, which showed that only 10% of nurses implemented appropriate SOPs (Margrate et al., 2018). Research shows that nurses working in ICUs have inadequate knowledge and poor practices leading to the highest prevalence of malnutrition among hospitalized patients (Elke et al., 2019). In patients with decreased consciousness, enteral nutrition is indicated when oral nutritional intake is insufficient to meet estimated nutritional requirements (WHO, 2020).

The use of enteral nutrition should be initiated within the first 24 to 48 hours after hospital admission for patients who are on a ventilator and are hemodynamically stable with an adequate total caloric intake of 20 to 25 calories per kilogram of body weight for most adults in the ICU (van Zanten et al., 2019). It is important to consider the underlying medical condition, nutritional status, and available routes of nutritional administration when determining the type and amount of nutritional support (PHY, 2022). The meaning of nutrition is not only limited to the food that enters the patient's body. However, how food can maximize the patient's healing process (KEMENKES, 2022).

ICU nurses play an important role in maintaining the patient's daily nutritional status. To prevent complications related to enteral feeding and improve outcomes, effective nursing practices such as the use of prokinetic agents, decreasing the rate of feeding, measuring residual gastric volume, and maintaining correct patient position are required. (WHO, 2020). It is necessary for ICU nurses to know the correct SOP for administering enteral nutrition (Rollins & Mogensen, 2021). In several studies, factors such as lack of guidelines and protocols regarding enteral nutrition, characteristics of nurses related to the implementation of SOPs (Alsohime et al., 2021).

2. Methods

This research uses quantitative methods with a cross sectional design which analyzes variable data collected at a certain point in time across a predetermined sample population (Notoatmodjo, 2018). The population in this study were nurses in the ICU room at RSUD dr. Zainoel Abidin Aceh Government in the period January-February 2023. Sampling was taken using a total sampling technique of 34 respondents. Data collection uses questionnaires and data analysis uses univariate and bivariate tests in the form of chi-square tests.

3. Results and Discussion

3.1 Results

The results of this research are a reassessment of the validity of research results on nurses' knowledge and implementation of SOPs for administering enteral nutrition therapy. The discussion of research results can be explained as the researcher's original thoughts to provide an explanation and interpretation of the research results which have been analyzed between nurses' knowledge and the application of SOPs for providing enteral nutrition therapy.

a. Univariate Analysis

Table 1.
Frequency distribution of nurses' knowledge and implementation SOP for providing enteral nutrition therapy

Variabel	Kategori	F	%
Pengetahuan	Baik	26	76,5
	Cukup	8	23,5
	Kurang	0	0
Pemberian terapi nurtisi Enteral	Menrapkan SOP	23	67,6
	Tidak menerapkan sesuai SOP	11	32,4
Total		37	100

Based on table 1. The number of respondents involved in the research on nurses' knowledge and application of SOPs for providing enteral nutrition therapy was 37 respondents, all of whom were nurses in the ICU. Most of the nurses' knowledge in providing enteral nutrition therapy was good knowledge, 26 respondents (76.4%) , and a minority with sufficient knowledge was 8 respondents (23.5%). And the implementation of enteral nutrition therapy in accordance with the SOP was mostly given by 23 respondents (67.6%), and the minority did not comply with the SOP as many as 11 respondents (32.4%).

b. Bivariate Analysis

Table 3.
Relationship between nurses' knowledge and the provision of enteral nutrition therapy

Nursing Knowledge	Providing Nutritional Therapy Per NGT						PValue
	Given		Not given		Total		
	f	%	F	%	f	%	
Good	15	44.1	11	32.4	26	76.5	0.034
Enough	8	23.5	0	0	8	23.5	
Not enough	0	0	0	0	0	0	
Total	23	67.6	11	32.4	34	100	

Based on table 3, bivariate data analysis was obtained for knowledge with the provision of enteral nutrition therapy to patients in the ICU, for good knowledge with the given category there were 16 respondents (44.1%), for good knowledge with no provision there were 11 respondents (32.4%). With sufficient knowledge in the light category there were 8 respondents (23.5%), for sufficient knowledge in the not given category there were 0 respondents (0%), and with insufficient knowledge in the given and not given categories there were 0 respondents (0%).

The results of the statistical test obtained $p\text{-value } 0.034 < \alpha 0.05$, then H_0 is rejected and H_a is accepted, which means there is a significant relationship between knowledge and the application of SOPs for providing enteral nutrition therapy in the ICU.

3.2 Discussions

The results of this study indicate that there is a relationship between knowledge and the provision of enteral nutrition therapy in the ICU at Dr. General Hospital. Zainoel Abidin Aceh Government. This research is in line with research conducted by Zhang et al., (2021), said that nurses' knowledge can influence the implementation of SOPs for providing enteral nutrition to patients being treated in the ICU.

Pakaya et al., (2022), said that enteral nutrition is used for critical patients during treatment and the technique is very effective in fulfilling the patient's nutrition if it is done in the correct way and in accordance with the SOP. These results are supported by research Hadera et al., (2022) And (Motta et al., 2021), said that nurses with low knowledge can cause errors in implementing the SOP for providing enteral nutrition to patients, these errors can have an impact on the patient.

All facilities should provide safe nutritional support based on enteral SOPs, but only 76 (39.6%) and 88 (45.8%) nurses respectively knew about enteral SOPs and indicated that providing nutrition according to SOPs could improve nutritional support. significantly in patients treated in the ICU (Elke et al., 2019). Therefore, the importance of nurses' knowledge regarding the implementation of SOPs in accordance with those that have been determined (Alshime et al., 2021). Nurses need knowledge of enteral SOPs to be responsible for managing the provision of nutritional therapy to patients (Hoffmann et al., 2020).

Providing enteral nutrition therapy to patients in the ICU according to SOP with category 1) Bolus feeding: given using a syringe for a short time, using the gravity method 3-8x/day; 2) Intermittent feeding: given using a food bag for 30-45 minutes with or without an enteral feeding pump 3-8x/day can be increased to 60-120 ml/hour; 3) Continuous feeding: given cc / hour using a feeding pump 10-40 ml/hour can be increased to 10-20 ml/hour every 8 or 12 hours (Singer et al., 2019). Feeding via enteral nutrition can avoid complications in patients with appropriate nutritional techniques and according to SOP. Nurse knowledge is one of the supporting factors for nurses being able to implement appropriate SOPs. Therefore, it is necessary to disseminate information and provide SOP sheets for providing enteral nutrition to ICU nurses.

4. Conclusion

Based on the results of research entitled The Relationship between Nurses' Knowledge and the Application of SOPs for Providing Central Nutritional Therapy in the ICU, the p-value is $0.000 < \alpha 0.05$, meaning that H_0 is rejected and H_a is accepted, so it can be concluded that there is a significant relationship between knowledge and the application of SOPs for Providing Therapy. Central Nutrition in the ICU. Socialization and provision of SOP sheets for enteral nutrition need to be held to increase nurses' knowledge in providing enteral nutrition to patients in the ICU. So it is hoped that in the future nurses will be able to increase their knowledge regarding providing good enteral nutrition and no longer provide enteral nutrition that is not in accordance with the SOP that has been determined in the ICU Room at RSU Dr. Zainoel Abidin Aceh Government. Furthermore, it can be used as reference material, developing knowledge about the importance of nurses' knowledge in implementing SOPs for Providing Central Nutrition Therapy and a source of information for better further research.

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