

# Knowledge, Attitude, and Support and Motivation Influenced An Initial Nutrition Screening

Ai Hadiyani<sup>1</sup>, Idrus Jus'at<sup>2</sup>, Kemala Rita<sup>3</sup>

Universitas Esa Unggul, Jakarta Barat

Article information	Abstract
<p><b>Article history:</b>            Received: April 30th, 2023            Revised: August 05th, 2023            Accepted: August 20th, 2023</p> <p><b>Corresponding author:</b>            Name: Idrus Jus'at            Address: Jalan Arjuna Utara No.9,            Kebon Jeruk, Jakarta 11510            E-mail: <a href="mailto:idrussusat@esaunggul.ac.id">idrussusat@esaunggul.ac.id</a></p> <p>International Journal of Nursing and Health Services (IJNHS), Volume 6, Issue 4, August 20<sup>th</sup>, 2023            DOI: <a href="https://doi.org/10.35654/ijnhs.v6i4.718">10.35654/ijnhs.v6i4.718</a>            E-ISSN: 2654-6310</p>	<p><b>Background:</b> Initial nutritional screening by nurses is the gateway to identifying patients at risk of dietary problems in hospital patients. <b>Objective:</b> The study aimed to analyze the effect of knowledge, attitudes, and hospital management support on nurses' implementation of early nutrition screening through motivation as an intervening variable. <b>Method:</b> The method used in this study is a quantitative method with a cross-sectional approach. Purposive sampling was used in this study. The sample measurement used the G Power application, and the sample size used in this study was 134 respondents. The data analysis method used in this study is multiple linear regression analysis. <b>Result:</b> The results of this study indicate that knowledge and hospital management support have a significant effect on the implementation of early nutrition screening. Attitude was not significantly associated with early nutrition screening. Motivate did not mediate the knowledge, attitude, and hospital management support simultaneously on the implementation of early nutrition screening. <b>Conclusion:</b> Improving knowledge and supporting from management were positive effect on implementation of early nutrition screening. However, attitude was not positive effect early nutrition screening. <b>Recommendation.</b> Further study needs to conduct the study in difference population and setting to ensure the finding and need to address the factors associated with implementation of early nutrition screening.</p> <p><b>Keywords:</b> knowledge, attitude, hospital management support, motivation, initial nutrition screening</p> <p>This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License CC BY -4.0</p>



## **Background**

Nutritional problems among hospital patients are complex and require comprehensive management (1). Malnutrition has influenced clinical adverse outcomes, e.g., muscle wasting, higher infection rates, longer length of hospital stay, morbidity, and mortality rates (2-3).

A study reported that 40% of the hospital food served to patients is left on the plates and returned. Therefore, patients eat less than 80% of their energy and protein requirements (4).

Loss of appetite may develop during hospital stays due to an underlying disease or treatment or preexisting as a primary condition (1). A previous study found that from 201 inpatients at the hospital, 82 (40%) people have a risk of nutritional problems (5). The high prevalence of nutritional problems in hospitalized patients indicates the importance of early dietary screening (5).

Early nutrition screening is the first step to identifying patients' risk for nutrition problems or undetected malnutrition. Thereby, prevention of nutrition-related issues could be identified, and early intervention when problems are confirmed (6).

A previous systematic study was conducted to apply a screening tool for measuring the initial nutrition problem, such as simple, quick-to-perform tools, and is the first line of action in detecting at-risk patients (7)

Even though early nutrition screening is critical in detecting malnutrition, there are some challenges. Nutritional screening should be part of a defined clinical protocol that results in a plan of action if the screening result is positive.

Knowledge and attitude positively affect the implementation of early nutrition screening (8). Another study also mentioned that all healthcare providers, including hospital management, must collaborate to prevent malnutrition (9).

Therefore, implementation could be done well.

Although those factors positively affect the implementation of early nutrition screening. Few studies examine those factors in the performance of early nutrition screening. Therefore, this study will investigate the effect of knowledge, attitudes, and hospital management support on implementing early nutrition screening.

## **OBJECTIVE**

This study examines the effect of knowledge, attitudes, and hospital management support on nurses implementing early nutrition screening through motivation as an intervening variable.

## **METHOD**

### **Design**

A quantitative study with a cross-sectional study was applied in this study to examine the correlation between knowledge, attitudes, and hospital management support on the implementation of early nutrition screening by nurses through motivation as an intervening variable. This study was conducted at Dr. Dradjat Prawiranegara Hospital in Serang between October to November 2022

### **Sample, Sample Size, and Sampling Technique**

The sample in this study was the executive nurse in the adult patient care room responsible for nursing care to inpatients. The sample size in this study based on the G-Power application was 134 nurses.

The sampling technique in this study uses purposive sampling, namely, samples taken based on specific criteria. The inclusion criteria in this study were 1) Implementing Nurses on duty in the Adult Patient Care Room and 2) being willing to be respondents in this study. While the

exclusion criteria in this study were 1) nurse practitioners who served in the baby, children, and central surgery installation rooms, 2) heads of rooms and team leaders were also excluded from this study.

### **Instrument for data collection**

Malnutrition screening tools are used to measure the Implementation of Nutrition Screening is measured. This questionnaire consists of 3 dimensions, including 1) Identification of time, cause, and amount of weight loss; 2) Identification of time, cause, volume, and frequency of decreased appetite; 3) Identify the type of patient's particular condition. This questionnaire also has 15 items questions and uses the Likert scale such as strongly agree=5, agree=4, undecided=3, disagree =2, strongly disagree=1.

Nurse motivation in nutrition implementation was measured using the nurse motivation questionnaire. This questionnaire consisted of 5 dimensions, including 1) psychological needs, 2) safety and security needs, 3) belongingness and love needs, 4) esteem or status needs, and 5) self-actualization. This questionnaire also has 15 items questions and uses the Likert scale such as strongly agree=5, agree=4, undecided=3, disagree=2, strongly disagree=1.

A nurse knowledge questionnaire was used to measure nurses' knowledge of nutrition. This questionnaire also has 16 items questions and uses the Likert scale such as strongly agree=5, agree=4, undecided=3, disagree=2, strongly disagree=1.

The nurse attitude questionnaire was used to measure the attitude of nurses on implementing nutrition screening. This questionnaire consisted of 3 dimensions: cognitive, affective, and conation. This questionnaire also has 10 items questions and uses the likert scale such as strongly agree=5, agree=4, undecided=3, disagree=2, strongly disagree=1.

A hospital management support questionnaire was used to measure the

support of hospital management on resources, authority, or power necessary for the successful implementation of nutrition screening. The questionnaire consisted of 5 dimensions, including 1) the health care system, 2) supporting facilities and infrastructure, 3) human data sources, 4) work culture, and 5) the service payment system. This questionnaire also has 12 items questions and uses the Likert scale such as strongly agree=5, agree=4, undecided=3, disagree=2, strongly disagree=1.

All the instruments were validated by distributing 30 samples for testing. The Cronbach alpha also showed all the instruments were reliable such as 1) the Transformational Leadership Style Questionnaire was 0.928; 2) mentoring function questionnaire was 0.935; 3) nurse competence questionnaire was 0.861; 4) and patient safety questionnaire was 0.875.

### **Data collection process**

Data were collected within one month. The method used in data collection techniques in this study is the survey method, namely by completing the questions in the questionnaire that has been provided. Feedback is provided for incomplete respondents in filling out the questionnaire.

All variables were measured using a reliable questionnaire. All respondents willing to participate in this study should sign the informed consent. The completeness of the questionnaire will be analyzed using computer software.

### **Data analysis**

The descriptive analysis was used to describe the characteristic of respondents and the dimensions of variables. Path analysis measured the association between the dependent variable and independent variables. This technique tests the magnitude of the contribution shown by the path coefficients in each path diagram of the causal

relationship between variables X1, X2, and X3 to Y and their impact on Z.

The F test is used to see the effect of all independent variables simultaneously (simultaneously) on the dependent variable. The t-test is used to test whether one independent variable has a partially significant impact or not. The significance value in this study uses a p-value = 0.05 or 5%

## RESULT

### Characteristic of respondents

Table 1 describes the characteristic of respondents. The result found that 67.9% of respondents were female. Some respondents (44.8%) were 20-30 years old. It was followed by 31-40 years (42.5%). More than half of respondents graduated with a diploma of three (56.7%), followed by a diploma of four level (37.3%). Regarding the working status, more than half of the respondents are non-civil servants (56%). Only 44% of them worked as civil servants. More than half of respondents had been working for more than three years (55.2%)

**Table 1. Characteristic of Respondents**

No	Variables	n	%
1	<b>Gender</b>		
	Male	43	32.1
	Female	91	67.9
2	<b>Aged</b>		
	20 - 30 year	60	44.8
	31 - 40 year	57	42.5
	41 - 50 year	15	11.2
	> 50 year	2	1.5
3	<b>Education background</b>		
	Diploma of 3	76	56.7
	Diploma of 4	8	6
	Bachelor	50	37.3
5	<b>Working status</b>		
	Civil servant	59	44
	Non-civil servant	75	56
4	<b>Working duration</b>		
	< 3 year	34	25.4
	3 - 5 year	26	19.4
	> 5 year	74	55.2

### The effect of knowledge, attitude, and hospital management support on initial nutrition screening implementation simultaneously

Table 2 shows the effect of knowledge, attitude, and hospital management support on initial nutrition screening implementation simultaneously. The result found a positive impact of knowledge, attitude, and hospital management support on initial nutrition screening implementation, with a p-value < 0.05 with an F score of 4.763. The R-square was 0.113, which is indicated that only 11.3% of independent variables affect dependent variables.

**Table 2. Regression Analysis Model 1**

Model	Mean square	F	Sig.
Regression	80.333	4.763	.003
Residual	16.865		
R Square		0.113	

### The effect of knowledge, attitude, and hospital management support on initial nutrition screening implementation partially

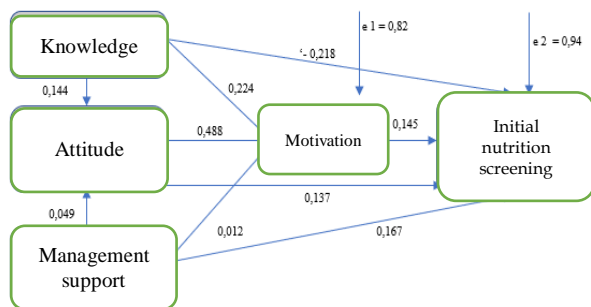
Table 3 partially describes the effect of knowledge, attitude, and hospital management support on initial nutrition screening implementation. The result found that knowledge (p-value <.05) and hospital management support (p-value <.05) were a significant effect on initial nutrition screening implementation. Whereas the attitude was significantly association with the initial nutrition screening implementation (p-value>.05). The motivation could not mediate the independent variables with the dependent variable (p-value>.05)

**Table 3. Regression Analysis Model 2**

	B	t	Sig.
(Constant)	19.279	4.263	0.000
Knowledge	-.360	-2.510	.013
Attitude	.118	1.408	.162

Hospital management support	.446	2.016	.045
Motivation	.103	1.441	1.52

a. Dependent Variable: initial nutrition screening implementation



## DISCUSSION

This study's main finding showed a positive association between the effect of knowledge, attitude, and hospital management support on initial nutrition screening implementation simultaneously. It was due to increasing knowledge, positive attitude, and support from hospital management that impacted positive motivation to implement the initial nutrition screening. It was consistent with a previous study that mentioned that knowledge, attitude, and positive motivation were strongest for implementing the initial nutrition screening (10).

The direct effect also showed that knowledge significantly affects initial nutrition screening among nurses. It was due to the increasing knowledge among nurses influencing their skills in screening. Previous studies also showed that better knowledge influenced the skill in initial nutrition screening (11-12). Another study also mentioned that high knowledge is a strong predictor in implementing nutrition screening and nutritional care (13).

Management support from hospitals in this study was significantly association with initial nutrition

screening among nurses. Even though based on the interview found that no comprehensive training for improving the capability and competency of nurses in nutrition screening. However, management support and collaboration between other professionals influenced the confidence of nurses to implement the initial screening for nutritional status.

It was consistent with a study that found that management support from hospitals and the support of service institutions is the biggest support for dietitians in the implementation of nutrition care (14). Another study also described the knowledge health service management support can increase the ability to implement nutritional screening by nurses (15-16).

The results of this study indicate that attitude does not affect the implementation of the initial nutrition screening by a nurse. However, this is contrary to previous studies mentioned that a person's attitude begins with believing that nutrition screening is necessary for identifying the risk of patient nutritional problems so that nurses will have a positive attitude to carry out nutrition screening of patients (11).

Another factor, such as motivation, was significantly associated with initial nutritional screening implementation. Although motivation is a strong factor in doing the screening, nurses need more motivation in this study since low appreciation might be due to the initial nutritional screening implementation. A study mentioned that high motivation, values, and beliefs, as well as sufficient knowledge and skills, are needed to perform nutritional screening in the initial nursing assessment process (17).

## CONCLUSION

In conclusion, simultaneously, knowledge, attitude, and management

support from the hospitals showed a positive effect on implementing nutritional screening by nurses. However, only two variables showed significance in partially direct initial nutritional screening, such as knowledge and management support. Two showed no significance during the partial analysis of initial nutritional screening, including attitude and motivation. Motivation could not mediate the effect of knowledge, attitude, and management support on screening implementation.

### IMPLICATION

The results of this study have positive implications for hospital management to increase the coverage of nutrition care through the implementation of early nutrition screening by nurses for inpatients. The knowledge updates related to screening and nutritional care through case surgery, seminars, and workshops need to be scheduled for all nurses serving inpatients. Management needs to evaluate the staffing system in the inpatient room. In addition, hospital management should improve collaboration systems between caregiving professionals so that patient services can be well integrated through hospital information systems, especially in-patient care.

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