

Clinical Decision-Making and Related Factors Among Nurses in the Inpatient Unit: A Correlational Study in Aceh, Indonesia

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Abstract:

Background: Clinical decision-making as a generic skill can help enhance the quality of nursing care and influence patient outcomes. Complicated health situations will add to the complexity of the issue and the importance of clinical decision-making by nurses. This study aimed to determine the factors related to clinical decision-making in nursing in the inpatient unit.

Materials and Methods: This correlative study utilized a cross-sectional design. It involved 152 nurses working in the Banda Aceh ward hospital by single random sampling. The questionnaire incorporates socio-demographic characteristics and decision-making instruments, the Swedish Version of the Melbourne Decision Making Questionnaire (MDMQ-S). The questionnaires were distributed on-line and the data analysis was used as a statistical correlation test.

Results: The study shows that nursing educational level (p -value = 0,007) and training (p -value = 0,038) were significantly associated with Decision-Making in Nursing Practice. However, age (p -value = 0.322), gender (p -value = 1.000), and marital status (p -value = 0.051) were insignificant factors associated with nursing practice decision-making. The researchers suggest that the hospital provide routine training for nurses in order to improve decision-making in nursing practice.

Key Word: Clinical decision-making, nurses, factors related, MDMQ-S

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I. Introduction

Clinical decision-making is a thought process nurses use when making judgments in managing patient care [1]. Nurses' Skills in clinical decision-making as a generic competency can improve the quality of patient nursing care [2]. Nurses need to make clinical decisions because nurses are professionals who must make clinical decisions for patients at all times [3].

Nurses with strong decision-making skills can improve the quality of care and vice versa, and poor decision-making skills can lead to errors in nursing interventions. Decision-making is not a fixed procedure, but a continuous or continuous process, that is, it is continually practiced in everyday practice. The nature of the decisions depends largely on the situation, which nurses unconsciously consider in their day-to-day practice. Complicated health conditions will increase the complexity of the problem and the importance of nurse decision-making. Nurses can use many sources including experience, knowledge, patient stories, and sound advice from colleagues, physicians, and other related health teams[4].

Nurses use their ability to synthesize information to validate the accuracy of the data created. Then carefully assess what measures need to be taken. Critical thinking leads to the most appropriate conclusions and alternatives to the situation and is used to plan patient-centered care [5]. Clinical problem solving and decision making require critical and creative thinking skills. Both are the reach of cognitive processes used in the application of the nursing process [6].

Clinical decision-making is regarded as a complex and important process at all levels of the management process and consists of different levels of complexity. The effectiveness of clinical decision-making depends on the accuracy of the nurse's judgments and conclusions prior to the procedure. Various studies have been carried out on clinical decision-making in nursing. Most of those studies have been done in the intensive care unit where the patient's dependence on nurses is very high. Some research evidence suggests that the role of nurses in clinical decision-making is still weak. The nurse's inability to recognize important signs

in patients results in inaccurate assessments. This affects high medical costs, high length of stay and increased mortality. The failure of nurses to recognize this signal is inseparable from the low ability of nurses to think critically, lack of experience and the application of the concepts of advocacy and autonomy that has not been maximized. An understanding of how nurses make decisions will be invaluable for nurses as they attempt to make their nursing care more effective.

II. Material And Methods

Quantitative research uses a cross-sectional study. The study population was composed of nurses working in the patient care setting. The sample size was 152, which was the total sampling. The data collection googles-form and data analysis using descriptive Correlational study. The instrument in the study used the Swedish Version of the Melbourne Decision-Making Questionnaire (MDMQ-S), consisting of 16 questions.

III. Result

The study recruited 152 nurses in the Aceh Government Hospital inpatient room. Based on the study results, it was found that most of the respondents were 31 – 45 years old (58.6%), were female (84.9%), and their level of education was Diploma in nursing (52.6). Furthermore, the respondent's marital status was married (75.7), and more than half never got training regarding Decision Making in Nursing Practice (73.7). In addition, the majority of respondents were low in Decision Making in Nursing Practice (55.3%) (table 1).

Table 1. Characteristics of Nurses in the Inpatient Ward of the Aceh Hospital (n = 152)

No	Karakteristik	f	%
Ages			
1	≤ 30 years old	51	33.6
2	31 – 45 years old	89	58.6
3	> 45 years old	12	7.9
M= 33.63; Md= 32.00; Mode= 30; SD= 5.24; Min= 24; Max= 56)			
Gender			
1	Male	23	15.1
2	Female	129	84.9
Nursing Educational Level			
1	Diploma	80	52.6
2	Bachelor Degree	72	47.4
Marital Status			
1	Not Married Yet	24	15.8
2	Married	115	75.7
3	Widow	13	8.6
Training of Decision Making in Nursing Practice			
1	No	112	73.7
2	Yes	40	26.3
Decision Making in Nursing Practice			
1	Low	84	55.3
2	High	68	44.7

The results of data analysis on the relationship between Age, gender, educational level, and marital status with decision making in nursing practice in the inpatient ward of the Aceh Government Hospital are following table 2. The relationship between age and decision making in nursing practice in the inpatient ward shows that out of 89 nurses aged 31-45, 47 (52.8%) had low decision making in nursing practice. Furthermore, the gender relationship with decision making in nursing practice in the inpatient ward shows that out of 80 people, 71 female (52.8%) have low decision making in nursing practice. In addition, the educational level relationship with decision making in nursing practice in ward hospitalization shows that out of 72 people, 53 nurses with a diploma in nursing (66.3%) have low decision making in nursing practice. Meanwhile, the relationship between marital status and decision making in nursing practice in the inpatient ward showed that out of 115 people, 67 married nurses (58.3%) had low decision making in nursing practice. Meanwhile, the relationship between training and Decision Making in Nursing Practice in inpatient ward shows that out of 112 people, 68 nurses who never got training (60.7%) have low decision making in nursing practice. Furthermore, the results of the hypothesis test showed that there was a significant relationship between educational level (.007) and training (.038) with decision making in nursing practice in the inpatient ward of the Aceh

Government Hospital. Conversely, there is no significant relationship between age (.322), gender (1.000) and marital status (.051) with decision making in nursing practice inpatient ward in Aceh general hospital.

Table 2. The Relationship between Related Factors with Decision Making in Nursing Practice

Related Factors	Decision Making in Nursing Practice		Total	P-Value	
	Low	High			
Ages	≤ 30 years old	32 (62.7%)	19 (37.3%)	51 (100%)	.322
	31 – 45 years old	47 (52.8%)	42(47.2%)	89 (100%)	
	> 45 years old	5 (41.7%)	7 (58.3%)	12 (100%)	
Gender	Male	13 (56.5 %)	10 (43.5 %)	23 (100%)	1.000
	Female	71(55.0 %)	27 (33.8 %)	80 (100%)	
Nursing Educational Level	Diploma	53 (66.3%)	46 (40,4%)	72 (100%)	.007
	Bachelor Degree	31 (43.1%)	41 (56.9%)	38 (100%)	
Marital Status	Not Married Yet	14 (58.3%)	10 (41.7%)	24 (100%)	.051
	Married	67 (58.3 %)	48 (41.7%)	115 (100%)	
	Widow	3 (23.1%)	10 (76.9%)	13 (100%)	
Training of Decision Making in Nursing Practice	No	68 (60.7%)	44 (39.3%)	112 (100%)	.038
	Yes	16 (40.0%)	24 (60.0%)	40 (100%)	

IV. Discussion

The level of decision-making in clinical nursing at Aceh General Hospital shows a significant relationship between the level of education (.007) and training (.038) with decision-making in nursing practice in the Aceh Government Hospital inpatient ward. Conversely, there is no significant relationship between age (.322), gender (1.000), and marital status (.051) with decision-making in the nursing practice inpatient ward in Aceh general hospital. Clinical decision-making requires experienced and competent nurses with relevant nursing skills. Understanding the decision-making process nurses engage in when dealing with patients and knowing why they make decisions provides sufficient insight into how variation in nurse clinical decision-making occurs and how to improve nurse clinical decision-making. Furthermore, the nurse-patient relationship may also influence the clinical decision-making process. Wu, Yang, Liu, and Ye [1]found that the nurse-patient relationship correlates significantly positively with nurse work stressors. Nurses who perceive a lower nurse-patient relationship tend to be more stressed, which impacts their clinical decision-making skills.

Nursing decision-making is carried out at all stages of the nursing process, so a nurse must think critically and communicate well as an important element in clinical decision-making. Nurses who use critical thinking in care are more confident in decision-making and can defend their decisions. Professional nurses apply critical thinking to client care situations to make sound clinical judgments. Professional nurses are expected to have this ability, which is considered an important part of clinical practice [6].

Decision-making in nursing is a process that involves a systems approach that must be adapted to the environment. Many studies have shown that nurses' critical thinking skills and poor decision-making can delay causing interventions for patients [7]. This means that nurses' low critical thinking skills will have an impact on low clinical decision-making as well. When these activities are developed and enhanced to personal and professional practice, they are not mere introspections but are intellectually destructive activities organized and structured to lead to improved practice and better patient outcomes.

Clinical decision-making is one of the processes related to personal characteristics such as age, gender, working experience, level of education, and work in the unit[8]. Gradually, over time, knowledge and experience can be developed and lead to increased skills and abilities to make appropriate and intellectual decisions and judgments[9].

Smith found a relationship between education level, length of work and experience, and critical thinking skills in terms of consistency and accuracy in making appropriate nursing care decisions for patients [10]. The higher the nurse's ability to think critically, the better the quality of nursing care, so that she can choose safe and effective care to make decisions. The nurse, as an educated practitioner, must have the intellectual capacity to use rational and thoughtful thinking when taking into account observations and information about each patient's condition. During practice, the nurse encounters a variety of different situations involving clients and their development. Nurse-client relations are the foundation of patient-centred care. It also calls for a good understanding of a high level of education[11].

Moreover, knowledge is a very important domain for the formation of her actions, so knowledge of nursing for a nurse is very important in decision making. According to Peter F. Drucker in *The New Realities*, knowledge is information that can change someone or something, where knowledge is the basis for action, or knowledge that makes an individual or an institution have the skills to take the right action. Nurses require evidence to establish that a nursing intervention is appropriate, effective and has a positive impact on the client. Nurses use high-quality research evidence in clinical decision-making such as professional responsibility to clients. And can also reinforce the nursing profession's identity[12].

Furthermore, some of the characteristics of a good clinical decision maker are being able to find patterns from each clinical situation encountered, being able to interpret every complaint and sign of symptoms from patients, and using trained intuition because they have a lot of work experience[13]. In Other case, the length of work factor is related to seniority, meaning that the longer a person works the more experienced he is so that work productivity increases and experience will increase the clinical decision-making process by 8 times [14]. The professional knowledge base is a combination of discipline-based theories and concepts and practical processes based on impressions, interpretations, and experience. Maharmeh, Alasad, Salami, Saleh, and Darawad[4] concluded that the longer nurses work in critical care settings, the greater their level of trust, certainty, and autonomy in their critical thinking about care plans.

However, those methods and skills are underutilized due to a lack of training facilities or resources, not having enough time for searching for information, and a lack of authority to change patient care procedures, which is still an obstacle in the decision-making process within nursing care (Nibbelink& Brewer, 2018).

The experience increases nurses' strength, confidence and awareness of the decisions taken[4]. The experience will increase the ability of nurses to make the right decisions to encourage the achievement of the desired outcomes for patients and health organizations [15]. Clinical experience is an indicator of the skills required for clinical nursing decision-making (Wu, Yang, Liu, & Ye, 2016). In addition, experience in the decision-making process is a process of maturity. Experienced nurses are willing to risk crossing the line between nurse and doctor by making unfounded decisions or challenging some of the controversial decisions made by doctors. A nurse who does not have enough experience is not likely to act as she did.

V. Conclusion

The level of decision-making in clinical nursing at Aceh General Hospital shows a significant relationship between the level of education (.007) and training (.038) with decision-making in nursing practice in the Aceh Government Hospital inpatient ward. Conversely, there is no significant relationship between age (.322), gender (1.000), and marital status (.051) with decision-making in the nursing practice inpatient ward in Aceh general hospital.

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