

Correlation Of Knowledge With Nurse Confidence In Following Up Early Warning Scores In Hospitalization

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Abstract

Early Warning Score (EWS) is used to assess the physiological changes of patients in hospitalization where deterioration of the patient's condition can occur so nurses must have the knowledge and confidence to follow up the EWS. Nurses' knowledge and skills in identifying patient deterioration greatly affect the implementation of EWS. Nurse confidence affects the quality of service so it is necessary to explore how nurses' knowledge and confidence have been in the inpatient room which is the focus of this study. The purpose of this study was to analyze the correlation between knowledge and nurses' confidence in following up EWS in inpatient settings. The research design is quantitative with a correlational approach. Sampling was done by purposive sampling technique where the sample was 93 nurses. This research instrument consists of a demographic data questionnaire, EWS knowledge and nurse confidence. Data collection was carried out by distributing questionnaire links via g-form. Data analysis using the Spearman Test. The results obtained were that most respondents (68.8%) had sufficient knowledge, most respondents (61.3%) had high confidence and there was no correlation between knowledge and nurse confidence in following up EWS with a Sig (2-tailed) value of .330. It is necessary to study other factors that affect nurses' confidence in following up EWS with a larger number of samples.

Keywords: Confidence, EWS, Knowledge, Nurse

INTRODUCTION

Emergencies can occur not only when the patient is brought to the hospital, but also when the patient is hospitalized. Therefore, nurses must recognize changes in the clinical condition of patients in hospital wards that can lead to unexpected events (Prihati & Wirawati, 2019). Nurses who work outside the intensive care unit must have adequate knowledge and training to assess the category of critical condition

patients (Ekawati et al., 2020). Early warning score (EWS) is a tool or instrument that can be used to detect physiological changes experienced by patients, so as to improve patient survival (Baequny et al., 2021). The success of EWS in reducing the incidence of cardiac arrest is influenced by the good application of EWS instruments in accordance with established guidelines (Subhan et al., 2019). Factors that influence

the application of EWS are knowledge, confidence, experience, good relationships and compliance with EWS protocols. The results showed that nurses' knowledge and skills in identifying patient worsening greatly influenced the application of EWS (Pertiwi et al., 2020).

Knowledge is the most important field in shaping human behavior (Setiyadi et al., 2022). Self-confidence is a positive attitude of an individual that enables him to develop a positive assessment of both himself and the environment or situation he faces (Balicas et al., 2018). Some factors that affect a nurse's self-confidence are the nurse's knowledge and understanding related to care. This self-confidence can affect service quality (Lukitaningtyas, D., Kurniasih, E., & Pariyem, 2022). Nurses experience frustration in the use of EWS due to its inflexibility and become less compliant (Aderibigbe, 2018). Nurses see EWS as an integral part of the system, deteriorating patient conditions that require communicating to multidisciplinary colleagues that also make nurses self-limiting so that they prefer to rely on their own intuition and clinical judgment in taking follow-up (Rgn & Conway, 2023).

Some research results in the intensive care room show that there is no relationship between knowledge and nurse self-confidence (Tuti Asrianti Utami et al., 2021), even though nurses have less knowledge nurse self-confidence remains

high (Huriani et al., 2022). There is no research related to the relationship between knowledge and nurse self-confidence in hospitalization and is the focus of this study.

RESEARCH METHOD

The research design used was quantitative with a correlational approach. The population in this study were all nurses in the inpatient room. Sampling was done with purposive sampling technique where the sample was nurses in the inpatient room except in the intensive care room and emergency room with a total sample of 93 people. The research was conducted in one of the regional hospitals in West Java. There are 3 research instruments in this study, namely demographic data questionnaires, EWS knowledge and nurse self-confidence. Data collection was carried out by distributing questionnaire filling links via g-form. Data analysis used the Spearman test to analyze the relationship between knowledge and nurse confidence in following up on EWS in inpatient settings.

RESEARCH RESULT AND DISCUSSION

RESULT

Table 1. Frequency Distribution of Nurse Characteristics (n=93)

Variable	Sub Variables	F	%
Age	Late adolescence	11	11,8
	Early adulthood	64	68,8

	Late adulthood	17	18,3
	Early elderly	1	1,1
Education	Diploma	49	52,7
	S1 Nursing Ners	4	4,3
		40	43
Work Experience	<= 3 year	29	31,2
	>3 year	64	69,8
Training history	Yes	50	53,8
	No	43	46,2

Table 2. Frequency Distribution of Nurses' Knowledge of EWS (n=93)

Knowledge	F	%
Good	22	23,7
Enough	56	60,2
Less	15	16,1
Total	93	100

Table 3. Frequency distribution of nurses' self-confidence (n=93)

Self-confidence	F	%
High	57	61,3
Low	36	38,7
Total	93	100

Table 4. Correlation of Knowledge with Nurse Self-Confidence

Variables		Self-confidence	Knowledge
Spearman's rho	Self-confidence	Correlation Coeffi	.102
		Sig (2-tailed)	.330
		N	93
	Knowledge	Correlation Coeffi	1.000
		Sig (2-tailed)	.330
		N	93

Based on Table 1. Most respondents (68.8%) were early adults, most (52.7%) had a diploma, most had worked for > 3

years and most (53.8%) had attended training. Based on Table .2 most respondents (60.2%) have sufficient knowledge. Based on Table 3. most respondents (61.3%) have high self-confidence. Based on Table 4 shows that the Sig (2-tailed) value is .330. It can be concluded because $.330 > 0.05$ there is almost no correlation between knowledge and self-confidence. Table 4 shows the results that most of the respondents who are active in the organization are high (79.8%).

DISCUSSION

Based on Table 2, most respondents (60.2%) had sufficient knowledge. These results are in line with previous research where most nurses (63.33%) have a good level of knowledge about EWS. Factors related to the level of knowledge of nurses and midwives about EWS are age, tenure and training and factors that are not related are education level. These results are in line with research which shows that most respondents (68.8%) are early adults, most have worked for > 3 years and most (53.8%) have attended training. Other results showed that according to the level of knowledge, 36 (92.3%) respondents had sufficient knowledge (Prihati & Wirawati, 2019).

EWS implementation consists of 6 parts (vital sign recording, evaluation and reading of EWS score, EWS protocol, clinical response based on escalation

protocol, information transfer process through communication channels (SBAR), activation of medical emergency team (MET). The seven most important vital sign indicators that can be measured are respiratory rate, oxygen saturation, oxygenation, temperature, pulse rate, systolic blood pressure and level of consciousness. Nursing persistence and dedication since 2009 found that the benefits of implementing EWS improved patient outcomes significantly. EWS is proven to be accurate in detecting patient disorders. Therefore, nurses must have good knowledge to improve the application of EWS, because the application of EWS requires critical thinking and the ability to analyze numerical point classification as a basis for decision making (Lia Puji Astuti et al., 2018).

One of the indicators of health services in hospitals that need to be considered carefully is the patient mortality rate. The method in dealing with the increase in mortality cases is to detect patient emergencies as early as possible, for example by using EWS. The importance for a health worker (nurse) to understand the process of assessing and implementing EWS is related to the adverse effects that can occur due to negligence in assessing the patient's condition, namely the worsening of the patient's condition. This phenomenon is of particular concern, especially hospital management in order to seek optimization

of EWS capabilities in health workers. The results of previous studies show the level of knowledge of nurses with scores of 0-4 (11%), 5-9 (42%), 10-14 (42%), and 15-20 (5%). The results of statistical tests show that there is a relationship between the level of knowledge and compliance with running EWS (Fauzan et al., 2022).

Non-compliance with EWS implementation had a significant effect on patient mortality. Other risk factors that significantly affected patient mortality were patient severity, heart disease, stroke, pneumonia, and sepsis. Adherence to the EWS protocol had a statistically significant correlation with patient mortality. Good implementation of EWS will help the medical team to know the patient's condition early. Patient mortality is significantly affected by non-compliance with EWS implementation (Pramusinto & Setiyarini, 2022).

Henceforth, healthcare providers have the responsibility to assess all EWS prediction models that will be implemented in clinical workflows using local public data and educate healthcare providers about the anticipated strengths and weaknesses of EWS models (Bedoya et al., 2019). Based on the results of the analysis on the relationship between knowledge and the implementation of EWS conducted, the researcher obtained an Odds Ratio value = 2.42. This value indicates that nurses who have less knowledge have a 2.42 times

chance of implementing EWS according to the SOP (Ratag & Kartika, 2021). Nurses as caregivers should continue to improve their knowledge and skills in implementing EWS by attending training and workshops on EWS (Reyaan et al., 2022).

Based on Table 3, most of the respondents (61.3%) had high self-confidence. Nurses can decide and carry out appropriate nursing care to patients. Nursing care carried out by nurses based on critical thinking studies should also increase self-confidence (Self Certainty) in themselves, both patients and patients' families so that nurses not only have a role to help cure but rather to increase patient comfort in the hospital (Siregar, 2019).

Previous research states the results of providing education to nurses, leadership training, health coaching management, simulation, and communication training can increase self adequacy in experimental group nurses compared to the control group. Thus it can be concluded that interventions in the form of education and training can increase nurses' self adequacy. Nurses with high self-efficacy can increase their ability to face challenges and complete tasks at work (Diel et al., 2022) where in this study most respondents (53.8%) had attended training.

The knowledge and skills of nurses are more closely related to accuracy than the speed of nurses in conducting assessments in EWS. Nurses' knowledge of EWS and

nursing skills must be improved so that nurses can quickly and accurately assess patients using EWS. Appropriate methods must be developed to improve nurses' knowledge and skills related to EWS (Qolbi et al., 2020)

Based on Table 3.4 shows that the Sig (2-tailed) value is .330. It can be concluded because $.330 > 0.05$ there is almost no correlation between knowledge and self-confidence. The results of this study are not in line with Huriani's research on palliative patients (Huriani et al., 2022) which shows that nurses have less knowledge (97.8%), and have high self-confidence (56.3%). Nurses' knowledge about palliative care is not related to self-confidence $p > (0.005)$, to increase nurses' knowledge, it is hoped that training and education about palliative care will be provided, so that the knowledge gained will support confidence in nurses in the ICU.

Factors that influence the application of EWS include nurses' knowledge of EWS, confidence in making decisions, experience in handling patients who experience worsening, good relations with medical staff and compliance with EWS protocols. Continuous education along with EWS monitoring is needed and carried out evenly for nurses (Pertwi et al., 2020). Another study found that nurses in the NICU room had confidence in carrying out kangaroo method nursing care, so that babies with low birth weight could grow healthier. This

study recommends NICU nurses to have good knowledge about FMD so that nurses have confidence in implementing FMD (Tuti Asrianti Utami et al., 2021) as well as EWS follow-up where with increasing knowledge nurse confidence also increases.

The use of early warning scores is closely related to the role of nurses in determining daily vital signs. Nurses do nursing work, because nurses provide services through assessing and monitoring the patient's condition every day, if the disease gets worse, the nurse is the first to know about it, so it is called an EWS in nursing work (Prihati & Wirawati, 2019).

CONCLUSION

Based on the results of the study analyzing the relationship between knowledge and nurse confidence, it was found that there was a correlation between knowledge and nurse confidence in following up on EWS.

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