

The Relationship Between the Level of Knowledge of Paramedics About Patient Safety and Situation Awareness of Unexpected Events at Nala Husada Dental Hospital

Ghita Hadi Hollanda¹, Aulia Dwi Maharani¹, Aprilia^{2,3}, Meinar Nur Ashrin⁴

¹Dental Public Health and Dental Prevention Department, Faculty of Dentistry, Universitas Hang Tuah

²Conservative Dentistry Department, Faculty of Dentistry, Universitas Hang Tuah

³Nala Husada Dental Hospital

⁴Prosthodontic Department, Faculty of Dentistry, Universitas Hang Tuah

ABSTRACT

Purpose of the research: Patient safety is a very needed system, considering that currently, many patients are very concerned about their management. With this system, it is hoped to minimize errors in patient handling. Almost every medical action has potential risks. A large number of drugs, examinations, and procedures, as well as many patients and hospital staff, is a potential for medical error to occur. Errors that occur in the medical care process will result in or potentially result in injury to the patient. Situation awareness (SA) is often essential for making good decisions, especially in complex and dynamic situations. SA is more than just being aware of an event's current state but also placing the event in the expected context. SA is categorized as a non-technical skill whose unit of analysis is not only health service providers but also interactions between various health service providers in a service unit.

Method: observational analytic research with a cross-sectional approach. The research population was all paramedics at Nala Husada Dental Hospital, with a sample of 17 people.

Result: Paramedics at Nala Husada Dental Hospital have a high level of knowledge but still feel insecure and need to feel better about doing it. A high level of expertise does not guarantee that a person has strong self-confidence or belief in acting.

Conclusion: All respondents have a high level of knowledge regarding patient safety and have under-confident characteristics in implementing patient safety. There is no relationship between knowledge level and actual accuracy and between knowledge level and perceived accuracy.

KEYWORDS: paramedics, patient safety, situation awareness, dental hospital

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INTRODUCTION

Patient safety in hospitals is a service system that provides patient care to be safer, including measuring risk, identifying and managing patients, incident analysis, learning and following up on incidents, and applying solutions to reduce risk. "Safety is a Fundamental Principle of Patient Care and a Critical Component of Hospital Quality Management."¹ Patient safety is a critical system considering that currently, many patients who are handled are very concerned; this system is expected to minimize errors in handling patients in the emergency room and outpatients.

Healthcare providers must know the physical environment, patient condition, and potential risks associated with a particular procedure or treatment. They must also be aware of their abilities, limitation, and biases that may impact their decision-making.² This is to avoid medical errors (medical errors), which occur in The medical care process that results in or has the potential to cause injury to patients and unexpected events. Unexpected events (KTD) are events that result in unexpected injuries in patients due to an action (commission) or because they do not act (omission) and not because of an "underlying disease" or a patient's condition.³

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then the application of nine life-saving solutions for Hospital patient safety, or nine solutions, direct or gradual, according to the ability and condition of each hospital is one the ways. Errors in handling patients can be prevented in various ways, one of which is by improving the patient safety security system or by legal protection. Therefore the government has made a law for conservation for medical personnel and patients, namely by passing Law No. 29/2004 concerning Medical Practices, legally protecting patients' rights and obligations.⁴ While we can minimize the possibility of service risk by regulating various hospital rights and obligations, managers and doctors who serve.

Almost every medical action holds potential risk. The number of types of drugs, types of examinations, and procedures, as well as the number of patients and hospital staff, which is quite large, is possible for medical errors (medical errors). Errors in this medical care process will result in or potentially cause injury to the patient and can be a near miss or advert on the Hospital Event (unexpected events).

Situation Awareness is a state of knowledge resulting from a process. Situation awareness (SA) is often essential for making good decisions, especially in complex and dynamic situations. Endsley describes SA into three

levels: perception, information, understanding its meaning, and projection of its status shortly.

This process is called Situation Assessment or the process of attaining, acquiring, or maintaining situational awareness. The core portion follows Endsley's proposition that Situation Awareness has three levels of mental representation: perception, understanding, and projection. So, SA is not only about being aware of the current state of events but also being able to place the event in the expected context so that one can understand what it means. It involves understanding what might happen in the near future, given current events.⁶

It is crucial to distinguish situational awareness, as a state of knowledge, from the processes used to attain that state. These processes, which may vary widely between individuals and contexts, will be called situational assessments or the processes of achieving, obtaining, or maintaining SA. Thus, situational awareness is a state of knowledge, and situational judgment is a process or process required to achieve SA.

Table 1. Frequency Distribution of Knowledge Level of Respondents at Nala Husada Dental Hospital

Knowledge Level		Frequency	Percent	Valid Percent
Knowledge Level	poor	0	0.0	0.0
	intermediate	0	0.0	0.0
	excellent	17	100.0	100.0
Total		17	100.0	100.0

Table 2. Analysis of Correlation between Knowledge Level and Actual Accuracy

Correlations		Knowledge Level	Actual Accuracy
Knowledge Level	Pearson Correlation	1	.097
	Sig. (2-tailed)		.712
	N	17	17
Actual Accuracy	Pearson Correlation	.097	1
	Sig. (2-tailed)	.712	
	N	17	17

Based on Table 1.2 showed that there was no relationship between the level of knowledge and actual accuracy (sig value = 0.712 > 0.05).

Table 3. Analysis of Correlation between Knowledge Level and Perceived Accuracy

Correlation		Knowledge Level	Perceied Accuracy
Knowledge Level	Pearson Correlation	1	.262
	Sig. (2-tailed)		.310
	N	17	17

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Perceived Accuracy	Pearson Correlation	.262	1
	Sig. (2-tailed)	.310	
	N	17	17

Table 1.3 showed no relationship between the level of knowledge and perceived accuracy (sig value = 0.310 > 0.05).

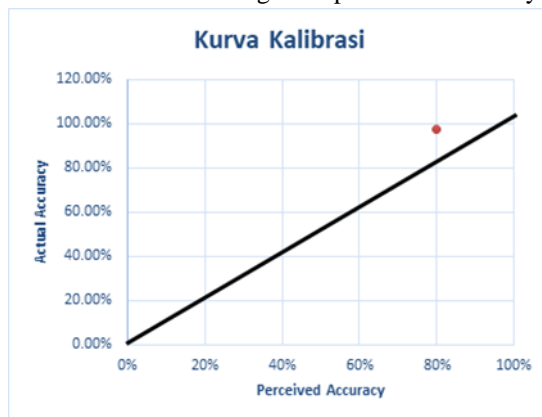


Figure 1. Calibration Curve

DISCUSSION

The high level of knowledge is made possible by the high level of education of paramedics (diploma and bachelor levels). The higher a person's education, the more information he receives, and in the end, the more knowledge he has. Conversely, if a person's education level is low, it will hinder the development of their attitude toward receiving information and newly introduced values. It is supported by the results of several studies that show a higher level of education can be a significant knowledge level.⁷

The situation awareness calibration of paramedics/respondents is under-confident, which means that respondents are excellent and suitable in the process of implementing patient safety but still feel insecure and don't feel good about doing it, in contrast to the over-confident characteristics where paramedics /respondents already feel good and confident in the implementation of patient safety but in reality, the method of performance is not appropriate.

Based on the results of the comparison of actual accuracy and perceived accuracy values, there was a difference of 17.06%. The difference is close to the well-calibrated line and close to synchronous. The best comparison between actual and perceived accuracy is if the two values are balanced to form a well-calibrated curve. It means there was no relationship between the level of patient safety knowledge of paramedics/ respondents and situation awareness.

Nala Husada Dental Hospital paramedics have a high level of knowledge and practice regarding patient safety but still feel insecure and need to feel better about doing it. A high level of expertise does not guarantee that a person has strong self-confidence or belief in carrying out or carrying out an action. According to Asrori (2020), self-confidence is an aspect of individual personality that functions as actualization in developing self-potential. Not a few paramedics feel insecure about their abilities. You will

find hidden, rarely realized strengths even if you look deeper.⁸

Paramedics who have self-confidence will undoubtedly believe in themselves and be able to make decisions even in difficult situations. Conversely, paramedics who are not confident tend to be unsure of their abilities and need help making decisions. According to Lauster in Mohebi S. (2019), five aspects can form self-confidence: being optimistic, objective, responsible, confident in one's abilities, and rational and realistic.^{9,10} These aspects of self-confidence are also related to one another. Promising students have a high sense of optimism, real-life goals, and confidence in their efforts and abilities. They sure students also own objective thinking. Looking at everything with the truth that there are students will undoubtedly have a sense of responsibility for what is assessed and done. Optimism can allow individuals to always face feelings of fear to try and think about a big future.^{11,12} Adolescents with high self-confidence will always be optimistic in every activity and have realistic goals so that they can plan for the future and believe that they can achieve the goals that have been set. Someone who can self-disclosure will get several benefits, including accessible communication with others, understanding their strengths and weaknesses in themselves, and good interpersonal communication skills.¹³

CONCLUSIONS

Nala Husada Dental Hospital paramedics have a high level of knowledge regarding patient safety at Nala Husada Dental Hospital. Situation awareness of paramedics regarding unexpected events at Nala Husada Dental Hospital has under-confident characteristics and has an error or deviation value of 17.06%. There is no relationship between the level of knowledge of paramedics regarding patient safety and situation awareness of unexpected events at Nala Husada Dental Hospital.

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