

Head Nurses' Supervision and Its Correlation with Patient Safety in Aceh Hospital Setting, Indonesia

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Abstract: The application of patient safety in hospital requires an active role from the head nurse in the form of guidance or supervision. The Application of an adequate supervision of the head nurse will have an impact on the application of optimal patient safety. This study aims to determine the relationship of head nurses' supervision and the implementation of patient safety in hospital ward. This correlative study utilised cross sectional design. It involved 124 nurses who work in the ward of public hospital in Banda Aceh by single random sampling. Data was collected by a self-report questionnaires. The study shows that there was a relationship of the head nurses' supervision and the implementation of patient safety (p-value = 0,000). The correlation was significant when viewed based on sub variables of 1) implementer (p-value = 0,000); 2) target (p-value = 0,000); 3) goal (p-value = 0,000). However, the correlation was insignificant viewed based on other sub-variables of frequency (p-value = 0,131); 2) and techniques (p-value = 0,164). The researchers suggest that the hospital should conduct the training for the head nurses to increase the knowledge of supervision and improve the application of patient safety in the hospital ward.

1 INTRODUCTION

Globally, healthcare systems have improved significantly in many aspects resulting in better patient outcomes. However, there is also a growing recognition that patients do not always receive a consistent and high quality of healthcare. Healthcare services in hospitals provide hundreds of different types of drugs, tests, many high-tech devices and various health professions that are ready to provide services to patients. However, the diversity of health services might lead to 'adverse events' in patient safety if not managed properly. The report from the Institute of Medicine (IOM) in 2000 "To Err Is Human, Building a Safer Health System" showed that hospitals in Utah and Colorado found adverse event in patient safety about 2.90%, which 6.60% of them died. Adverse events in New York was 3.70% with a 13.60% mortality rate in the hospital. The mortality rate of adverse events in hospitalized patients across the United States, reach to 33.60 million per year ranges from 44,000 - 98,000 per year (IOM, 2004).

In Indonesia, patient safety is a new issue applied in hospitals as standard for quality of delivery of care. There are few studies regarding patient safety focusing on the prevalence of adverse events. The incidence of patient safety is still high. Hospital Patient Safety Committee reported that patient safety incidents from September 2006 to December 2007 contained 145 cases. Since 2008 - 2011 the number of patient safety incidents is still high. In 2008 there were 61 cases and increased to 114 cases in 2009. In 2010 decreased to 103 cases and January - April 2011 fell to 34 cases. In addition, Banten Province found to have the highest number of patient safety incidents in 2011 where 23.67% among the 3 other provinces in Indonesia namely DKI Jakarta 5.15%, Lampung 3.90%, and East Java 1.30% (Hospital Patient Safety Committee of Indonesian, 2011).

The number of incidence during hospitalization reflects the implication of patient safety. The Ministry of Health of the Republic of Indonesia has issued regulation about patient safety during hospitalization. Based on these regulations, every hospital is required to pursue the fulfillment of

patient safety goals (Minister Health of Republic of Indonesia, 2011). The same thing is also stated by the Commission on Accreditation of Hospitals that the goal of patient safety is one of the conditions that must be applied in all accredited hospitals (Accreditation of Hospital Committee, 2012).

The Joint Commission International (2011) has established six areas of patient safety goals that can be used to assess head nurses' management towards patient safety. These include (a) identifying patients correctly, (b) improving effective communication, (c) maintaining the safety of high alert medications, (d) ensuring correct procedure (e) reducing the risk of health care associated infections, and (f) reducing the risk of patient harm resulting from falls. Furthermore, head nurses must have the competency to design, communicate, and apply these patient safety goals to all nurses and other healthcare providers under their supervision (IOM, 2004).

Head nurses are at the middle level of nursing management system. They are working closely with the staff nurses as well as perform day-to-day managerial tasks (Marquis & Huston, 2015). Head nurses perform a hierarchy of management functions beginning with planning, organizing, staffing, directing, and controlling. The implementation of patient safety goals in hospital ward to all nurses required head nurses' supervision (Huber, 2006 in Sugiharto, Keliat, & Tutik, 2012). According to Mudayana (2015) explained that the implementation of patient safety at Muhammadiyah Hospital in Yogyakarta in the hospital ward indicated that nurses had not been implemented the patient safety properly (50.8%) and the collaboration between work units was still inappropriately implemented (65.1%).

Head nurses' supervision considered enable to increase patient safety goals. A study by Nur, Noor and Irwandy (2013) in Hasanuddin University Hospital showed that the implementation of good supervision (59,40%) by head nurses will increase the motivation of nurse (70,60%) increases nurse performance in applying patient safety (73,70%). Furthermore, according to Yuswardi, Boonyoung, and Thiangchanya (2015) note that 14 hospitals in Aceh against 123 head nurses stated that high head management of patients regarding patient safety could improve the quality of health services in order to reduce the adverse events in patient safety, errors and deaths in patients. With this reason, it is challenging for the head nurses to manage their unit to be a safety ward. To date, there is unknown study regarding this matter. Therefore, it is substantial to

explore head nurses' supervision and its relation with patient safety in Aceh province.

2 METHOD

A descriptive study was conducted to examine the head nurses' supervision and its relation with patient safety of Aceh province, Indonesia from Mei to July 2017. The subjects were nurses who had been working in hospital wards who have met the following criteria: (a) being a nurse for at least one year and (b) holding at least diploma degree in nursing. There were 124 nurses participated in this study.

The instruments used for data collection was the questionnaire designed by the reserchers. It consisted of three parts which is the demographic data to collect personal and work-related data including age, gender, level of education, the duration of working experience in current area. The second part was the head nurses' supervision regarding patient safety questionnaire. The third part was the applying patient safety. It is a 38 - item questionnaires which consisted five dimensions elaborating supervision of patient safety. Each statement was rated on a three-point Likert scale, ranging from 1 (do not perform as the item stated) to 3 (perform exactly as the item stated). The total scores and the dimension scores were calculated and presented as the average scores. The high scores indicate the high level of head nurses' supervision regarding patient safety. This newly developed questionnaires was content validated by experts. Internal consistency reliability was tested, yielding the satisfactory coefficient of .89 for the entire scale, and .87 to .92 for the dimension scales.

3 FINDINGS

Table 1 shows that the demographic data consisted of 124 nurses. More than half participants were at 26 - 35 years (77.42%). Most of them (79.04%) were women, more than half head nurses (56.45%) were had a diploma degree in nursing and most of them (61.30%) had worked as a nurse for two to ten years.

Table 1: Demographic Characteristics (n = 124).

Demographic Data	f	%
Age		
17-25 year	24	19,35
26-35 year	96	77,42
36-45 year	4	3,23
Gender		
Male	26	20,96
Female	98	79,04
Education		
Diploma	70	56,45
Ners	54	43,55
Working Time		
Establishment stage (< 2 years)	48	38,70
Advancement stage (2-10 years)	76	61,30

Table 2 Application of Patient Safety (n=124).

Variable	p-value
Supervision	0,000
Implementer	0,000
Target	0,000
Frequency	0,131
Aim	0,000
Technique	0,164

Table 2 shows that relationship of head nurses' supervision and the application of patient safety. A chi-square analysis was conducted to test whether there is any significant association of head nurses supervision and applying the patient safety. The result revealed that in general the implementation of head nurses supervision has the relationship (p-value = 0,000) with the application of patient safety. In detail it can be seen that the sub variable of implementer (p-value = 0,000), target (p-value = 0,000) and target (p-value = 0,000). Conversely, the result of frequency (p-value = 0,131) and technique (p-value = 0,164) have no relationship with the application of patient safety.

4 DISCUSSION

The result of this study are described sequentially. The finding of the study using statistical chi-square test ($\alpha = 0.05$) indicated that in general the

implementation of head nurses' supervision has a relationship (p-value = 0.000) with the application of patient safety. The result of this study are supported by Rasdini, Wedri and Mega (2014) showed that there was a relationship (p-value = 0.000) of application of patient safety and supervision of nursing service in inpatient ward Sanglah Denpasar. This study indicated that the nurses have good interaction in supervision to improve nurse professionalism and provide safe service for patient through active communication between nurses, supervisors and patients.

A good relationship of the supervisor and the nurses will improve the achievement of service standards. Therefore, the nurses' guidance in providing quality of care for patient safety could raise their awareness of supervisors to enhance the role and responsibility of the nurses. Similarly, Sugiharto, Keliat and Tutik (2012) mentioned that supervision as a formal and professional process undertaken by the supervisors or leaders to support, guide, direct, evaluate, and develop the nurse

knowledge and competence to complete the task with full responsibility for achieving hospital and patient safety goals.

Head nurses perform high level in management regarding patient safety as their role of nursing manager in managing staff, financial and any resources to ensure safety and quality of care for patients. The good harmony of work relationship will grow the work environment. According to Kerfoot (2009) that head nurses were obligated to provide safety work environment.

The work environment has a role in improving nurses' performance. Conversely, less attentive work environment will have a negative impact and reduce nurses' performance. This study is similar to the research conducted by Oktariani and Murharyati (2015) which suggests that nurses who have a poor working environment have a risk of applying good patient safety 2.9 times greater than those who have a good work environment. The creation of a pleasant work environment and meeting the needs of nurses will provide satisfaction and increase their morale especially in providing services that prioritize patient safety.

Thus head nurses may realize that the supervision of the head nurses will influenced the application of patient safety. Supervision is carried out to ensure the work is carried out in accordance with the patient safety. Thus, the maximum service could be given to the patients. A good relationship between the head nurses and the nurses will create a harmonious work environment that enable leading to improve service according to work standards.

Furthermore, the common reason for the head nurses perform the implementer has a relationship with the application of patient safety (p-value 0,000). The result of this research is supported by Rumampuk, Budu and Nontji (2013) which shows that there is a relationship (p-value = 0.04) of the role of head nurses to supervise the application of patient safety at Gunung Maria Tomohon General Hospital. This study shows that the head nurses in the hospital is guiding, directing and assisting the nurses.

A supervisor provides a way out of the problems faced related to health services. According to Sugiharto, Keliat and Tutik (2012) pointed out that the supervision is not only to supervise the performance of the nurses in accordance with the instruction or the provisions but also to provide solutions for things that have not been successfully implemented. A supervisor has the advantages in the organization because the function of supervision is considered to be the managers' job. But for the

success of supervision, the more priority is the advantage in terms of knowledge and skills (Suarli & Bahtiar, 2009).

Head nurses as the supervisor in hospital ward is required to be able to run the supervision properly to the nurses. Therefore, to increase the supervision competency of the head nurse is through supervision training. This result similar to the results of Widiyanto, Hariyati and Handiyani (2013) showed that the quality of supervision after the training better than before. This result suggests that supervision training becomes an important part of improving the quality of the head nurses to be a good supervisor.

The result of statistical test from the sub variable of target is found that p-value 0,013 <0.05 meaning there is correlation of target of supervision and applying the patient safety. The study is similar to Mua, Hariyati and Afifah (2011) noted that the head nurses' supervision significantly improves the performance of nurses in the hospital ward in Palu; since the head nurses of space instills a sense of responsibility and compliance of nurse implementers to the standard of care which has been set.

The nurses who perform their duties well and full of responsibility certainly has a high work discipline. According to Langingi, Kandou and Umboh (2015) noted that the discipline of work will affect the performance of nurses. A disciplined nurse will follow and adhere to the application of patient safety to the maximum and the rules set by the organization. High discipline should always be maintained and enhanced so that if there are nurses who are not disciplined then the head of space can give sanctions for him.

The result of statistical test in terms of supervision frequency is found that p-value 0.131 > 0.05, there is no correlation of supervision frequency with applying the patient safety. This is similar to Rozani (2009) mentioned that there is no correlation (p-value = 0.102) of frequency factor with work motivation of nurse executor in the hospital ward of Dr. Zainoel Abidin Banda Aceh. The study shows that often the head nurses to supervise when the problem is found only and usually only conducted on young nurses who do not have a long experience. Thus, the nurses who have long working period in the ward no longer need supervision since it is considered already understood, although the fact is the science of nursing always growing.

The researcher argued that there are no certain guidelines regarding the number of times supervision should be conducted. It has an impact on some nurses who do not get supervision. In addition,

the excessive workload factors will also reduce nurses' performance productivity. According to Astriana, Noor and Sidin (2014) explained that high workload decreases nurses' performance in the implementation of patient safety programs in the hospital ward of Haji Makassar Hospital.

In contrast, Sarwili (2015) explains that the longer working period of a nurse, the more experience gained in his work. Therefore, they could reduce the caution in work. Therefore, supervision which is not scheduled properly will have an impact on the inability to improve the performance of nurses in the midst of an ever-evolving environment that will affect the implementation of patient safety.

Supervision is conducted in order to enable the nurses always follow the development of science in health services that prioritize patient safety. Suarli and Bahtiar (2009) suggested that supervision should be conducted at regular intervals. If supervision is only conducted once, it is said as not good supervision. This is happened since the organization and environment is always developing. This indicates that there are no defined guidelines regarding the duration of the supervision should be performed. Thus, some nurses are not supervised by their supervisors.

The result of the aim of supervision has the correlation (p -value 0,000) with applying patient safety. According to Hadisah (2015) noted that there was a relationship (p -value = 0.002) of the supervision's purpose and the implementation of nursing care in the hospita; wards of Dr. Zainoel Abidin Banda Aceh. This study shows that the supervision performed by the head nurses to improve the performance of nurses in providing nursing care in order to decrease mistakes made by the nurses.

Supervision from the head nurses could provide continuous learning opportunities in providing health care services to ensure patient safety at the hospital. This is consistent with that proposed by Arikunto (2004) mention that the implementation of supervision is not to find fault but it contains more coaching elements so that the work done can be known for its shortcomings in order to be informed of the parts that need to be improved.

Furthermore, techniques of supervision has no correlation with applying the patient safety (p -value = 0.164). In contrast, the study of Helendina, Sitanggang and Rustika (2014) at Premier Jatinegara Hospital showing a relationship (p -value = 0.015) of supervision performed by head nurse and the behavior of the nurses. The study shows that the supervision has an important role in shaping the

behavior of nurses, particularly in terms of documentation.

Several factors might be contributed to insignificant techniques of supervision with applying the patient safety. The supervision techniques that include direct and indirect supervision techniques performed by the head nurses did not affect the application of patient safety. The knowledge of nurses could influence in applying the patient safety. According to Wahyuningsih, Sidin, and Noor (2014) that there is a relationship (p -value = 0,02) of knowledge and performance of nurses in implementing work safety in the hospital ward of Syekh Yusuf Hospital. Motivation is one of an important role in the application of patient safety. Motivation is the energy that encourages a person to perform the job tasks to achieve the established goals. This is inherent with the results of Nivalinda, Hartini and Santoso (2013) research which suggested the higher the motivation, the better the application of patient safety culture.

5 CONCLUSION

This study has shown that there was a relationship of supervision of the head nurses and the implementation of patient safety. The form of sub variables based on sub variable of implementer, target and goal. But the correlation was insignificant when viewed based on other sub-variables of frequency and techniques.

ETHICS APPROVAL

This study had the ethical approved from Ethics Committee of Faculty of Nursing, Syiah Kuala University in Banda Aceh, Indonesia.

CONFLICT OF INTEREST

The authors state that they have no conflict of interests.

AUTHORS' CONTRIBUTIONS

Y and DJ conceptualizing and designing the study. DJ conducted data collection and Y analysed the data also prepared for the article's first draft. All

authors commented on the first draft and contributed to the revisions of the manuscript. All authors read and approved the final manuscript.

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