



Increasing Knowledge About Patient Safety Culture Among Nurses In Karawang District

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ABSTRACT

Patient safety culture is an important multidimensional concept in healthcare. Despite efforts to improve safety culture, there are still many preventable medical incidents. Nurses play a vital role in maintaining patient safety due to the intensity and duration of their interactions with patients. This study aims to improve nurses' knowledge of patient safety culture through comprehensive training, so as to reduce adverse events and improve the quality of health services. The training was conducted online on April 5-6, 2024 with 243 participants from various hospitals in Karawang Regency. The activity included pre-test, material delivery, case study simulation, and post-test to measure the participants' knowledge improvement. The results showed that there was a significant increase in nurses' knowledge of patient safety culture after the training. The pre-test and post-test showed that the training was effective in improving nurses' understanding and competence related to patient safety. It can be concluded that the patient safety culture training for nurses is effective and able to improve nurses' knowledge and skills in maintaining patient safety. With this improvement, it is expected that nurses can optimally implement patient safety culture, reduce the risk of adverse events, and improve the quality of health services in hospitals.

Keywords: Nurses, Patient Safety Culture, Training

1. Introduction

Patient safety culture is a multidimensional concept defined in the context of healthcare, as the product of individual and group values, attitudes, perceptions, competencies and standards of behavior that determine the administration's commitment, style and ability to manage patient safety. Safety culture requires an understanding of the values, attitudes, beliefs and norms that are important to the healthcare organization and what attitudes and behaviors are appropriate and expected for patients. Meanwhile, hospital safety culture assessment is being used as a management tool and encouraged by policy makers and health managers in countries around the world.

Culture assessment has many uses: (i) building staff awareness about patient safety; (ii) evaluating the current state of the patient safety culture (PSC) in the hospital; (iii) identifying strong points of the safety culture and areas for improvement; (iv) analyzing trends in safety culture over time; (v) evaluating the impact of safety culture initiatives and interventions to improve patient safety and (vi) making comparisons within and between healthcare organizations (Bader et al., 2019). Organizations with a strong safety culture are characterized by good communication among staff, mutual trust and a general perception of the importance of safety and the effectiveness of preventive measures.

The role of nurses in improving quality of care and patient safety is vital, given their intensity in caring for patients throughout the day for 24 hours as well as their direct involvement with patients' families and

other healthcare professionals. According to Polo et al (2018) and Vaismoradi (2018), The nurses' constant presence allows them to monitor the patient's condition more thoroughly and be responsive to changes in the patient's condition, thereby preventing complications and medical errors. In addition, nurses' involvement in communication and coordination with the patient's family as well as the rest of the medical team ensures that any treatment decisions are made with complete and appropriate information, ultimately improving the overall quality of care and patient safety (Rahayu & Mutripah, 2023). This role emphasizes the importance of supporting and developing the professionalism of nurses in the health system.

Improved nursing care can play an important role in preventing deaths caused by medical errors, as evidenced by research (Hwang et al., 2019). Research (Chahramanian et al., 2017; Padgett et al., 2017; VanDenKerkhof et al., 2017) showed that improving the quality of care provided by nurses has the potential to significantly reduce mortality from medical errors. In addition, research by Lawati et al (2018) revealed that an improved patient safety culture in hospitals and other healthcare facilities correlates with reduced rates of complications and adverse events. These findings confirm the importance of developing and maintaining a strong safety culture and providing high-quality nursing care to improve patient health outcomes and reduce the risk of death from medical errors.

The implementation of a patient Safety Culture is critical to the quality of healthcare and is one of the key parameters monitored by all healthcare organizations worldwide (Amiri et al., 2018; WHO, 2019). The WHO created the Patient-Friendly Hospital Initiative (PSFHI) to establish and promote a culture of patient safety in healthcare facilities. The PSFHI consists of five domains, namely leadership and governance, patient and community engagement, sound evidence-based clinical services, safe environment, and lifelong learning (WHO, 2019). The prevalence of preventable adverse events occurring in the healthcare system remains a concern despite the concerted focus on implementing a patient safety culture over the past 15 years (Amiri et al., 2018; Galvão et al., 2018). Approximately 400,000 patient deaths either during or immediately after hospitalization are attributed to preventable adverse events such as adverse drug events, preventable deaths, decubitus ulcers, near misses, and patient mistaken identity (WHO, 2019). Nurses are very instrumental in the care process who are practicing in hospitals can also make mistakes.

Increased knowledge of patient safety culture among nurses is key to improving healthcare quality and patient safety. Abu-El-Noor et al (2019) emphasized that a strong patient safety culture in Palestinian hospitals improves safety incident reporting, while Guinea et al (2019) showed that simulation-based learning was effective in educating nurses about safety risks. Okuyama et al (2018) found that positive perceptions of patient safety decreased adverse events, and Tourani et al (2015) underscores the importance of continuous training using TOPSIS techniques to prioritize dimensions of safety culture in emergency wards.

These studies emphasize that a comprehensive approach, which includes education, practical training, and continuous evaluation, is needed to create a safer work environment for nurses and patients. So nurses need to have good knowledge related to patient safety, so that adverse events can be prevented. Therefore, a regulatory strategy is needed to improve the knowledge of nurses through a training activity related to the implementation of a patient safety culture. Through training efforts, it is expected that nurses have an increase in patient safety and can create a culture of patient safety. It is further hoped that this training can improve the quality of health services provided by nurses related to the implementation of a patient safety culture so that patients avoid injury or unexpected events.

2. Methodology

This study is a quantitative study using the quasi-experiment method. The study was conducted to measure changes in nurses' knowledge about patient safety culture before and after training. The training was conducted online for two days on April 5-6, 2024. The training participants were 243 nurses from various hospitals in Karawang Regency, including Karawang General Hospital, Proklamasi Hospital, Mandaya Hospital, Iza Hospital, Primaya Hospital, Paru Hospital, Delima Asih Hospital, Islamic Hospital, and other hospitals. Data were collected through pre-test and post-test administered to the participants. The pre-test was conducted on the first day before the material was given to measure the participants' initial knowledge of patient safety culture. The post-test was conducted on the second day after all materials and case study

simulations were delivered to measure knowledge improvement. Data obtained from the pre-test and post-test results were analyzed using descriptive statistics to see changes in the average knowledge score of participants before and after training. Knowledge improvement was analyzed by comparing pre-test and post-test scores, and calculating the percentage of improvement.

On the first day, a pre-test was conducted to measure nurses' initial knowledge of patient safety culture. After that, the material presented included basic concepts of patient safety, the role of nurses in patient safety, and strategies for implementing patient safety culture. On the second day, participants were given case study simulations to simulate and solve according to their role as clinical supervisors with a main focus on patient safety. Then, a post-test was conducted to measure participants' knowledge after the training and simulation.

3. Results and Discussion

3.1. First Day of Material Delivery and Pre-test

Understanding the implementation of patient safety is fundamental in implementing how to guide students about patient safety. Therefore, on the first day, a pre-test was carried out before giving material with the intention of measuring the extent of understanding of clinical supervisors in hospitals related to the role of clinical supervisors, patient safety, implementation in the process of guidance to students who are practicing in hospitals, and understanding of management. Next was the provision of the materials mentioned above.

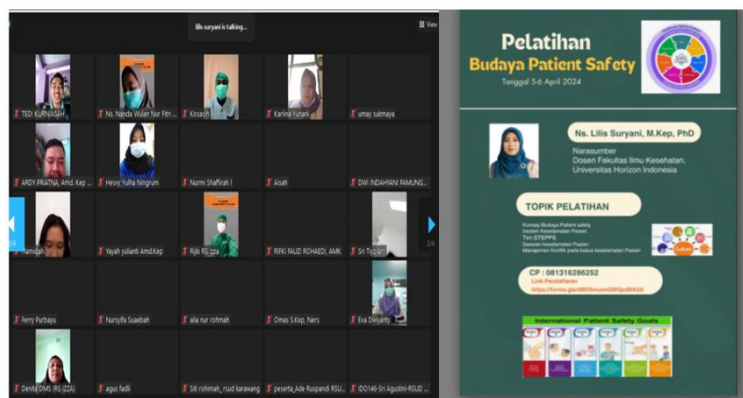


Figure 1. Activities Documentation and Training Poster

Understanding the application of patient safety is essential for mentoring students in healthcare settings. Pre-testing, as done in studies on hospital staff education (Guspianto et al., 2023), can assess clinical supervisors' understanding of their role, patient safety principles, and how to effectively mentor students. The multifaceted nature of patient safety, including risk assessment, incident reporting, and learning from mistakes (Rotua et al., 2023), underscores the importance of supervisor understanding in ensuring safe clinical practice. The important role of nursing faculty in promoting patient safety among students during clinical practicum, Betriana & Nilmanat (2023) highlights the importance of effective mentorship. Factors that influence patient safety culture in hospitals, such as leadership, teamwork, and organizational learning (Bauty & Dhamanti, 2023), further emphasizes the need for supervisors to understand these concepts for successful student guidance and improved patient care.

3.2. Second Day Simulation Case Study and Post Test

On the second day of the training, the 243 participants were divided into 8 groups, each consisting of representatives from hospitals such as Proklamasi Hospital, Mandaya Hospital, Iza Hospital, Primaya Hospital, Paru Hospital, Delima Asih Hospital, Islamic Hospital, and RSUD. Each group was given a case study to simulate and solve according to their role as clinical supervisors, with the main focus on patient safety. The enthusiasm of the participants was very high, they looked active in carrying out the role of clinical supervisor and tried to understand every aspect needed. This shows their seriousness in honing their skills to achieve the expected competency targets. However, there are some important things that must be considered in order for clinical supervisors to be effective in carrying out their roles.

One of the main challenges is to ensure that clinical supervisors have a deep understanding of patient safety. If this understanding is not achieved, it is difficult for them to transfer appropriate knowledge to trainees. A deep understanding of patient safety covers various aspects, from safe medical procedures to handling emergency situations quickly and appropriately. Paulsen (2018) revealed the importance of adequate nurse staffing in improving patient safety, suggesting that staff shortages can negatively impact quality of care and safety. Singh et al (2019) highlights how administrative factors influence fall prevention in patients with spinal cord injury in rehabilitation hospitals, suggesting that managerial policies and practices have an important role in safety strategies. Tawfik et al (2019) correlated the strength of the safety climate in the NICU with patient length of stay, indicating that a strong safety climate can positively influence care outcomes.

Walsh et al (2017) identified the economic impact of medical errors, showing that these errors not only affect patients but also add to the cost burden of the health system. Wang & Tao (2017) comparing patient safety culture in surgical departments with general hospitals, showed significant variations in safety practices between different departments. Zhao et al (2019) evaluated hospital safety attitudes and the influence of demographic factors on those attitudes, emphasizing the importance of understanding demographic variables in assessing and improving safety culture. Zhou et al (2018) identified differences in safety climate in public hospitals in China by department and job type, highlighting how specific contexts can influence patient safety perceptions and practices. These combined findings emphasize the importance of integrated and context-sensitive strategies in improving patient safety culture.

The post-test results showed an increase in knowledge about patient safety and the role of clinical supervisors. This indicates that the training provided was effective in improving participants' competencies. However, to ensure this improvement is sustainable, there needs to be continuous evaluation and monitoring of the application of the knowledge gained in daily practice in the hospital. This improvement can be understood through the collaborative learning theory proposed by Vygotsky & Cole (1978), which emphasizes that knowledge is built through social interaction and shared experiences. In the context of this training, simulation-based learning allows participants to learn from each other and deepen their understanding of patient safety. In addition, the patient safety theory referred to in the training, as outlined by the World Health Organization (WHO), emphasizes the importance of error prevention and risk management in health care (WHO, 2009). The increase in participants' knowledge of these principles indicates that the training was effective in introducing and applying patient safety standards.

Furthermore, the theory of clinical mentoring, as outlined by Kilminster et al (2007), indicates that effective mentorship requires structured monitoring and consistent support. Excessive workload on clinical supervisors may hinder their ability to provide optimal mentorship. The findings in this training reflect the importance of balanced time and workload management to ensure that clinical mentorship is successful and patient safety is maintained. Additional research, such as that conducted by Lateef (2010), shows that simulation-based learning can improve clinical skills and understanding of patient safety. Simulation allows participants to practice in a safe environment without risk to real patients, reinforcing their knowledge of safety procedures. In addition, Zappetti & Avery (2019) found that high workload and stress can reduce the effectiveness of clinical mentorship, emphasizing the importance of balanced workload management to maintain mentorship quality and patient safety.

Overall, the training was successful in improving participants' knowledge through a theory-based approach to collaborative learning and simulation, and with attention to clinical supervisor workload. By ensuring that clinical supervisors have reasonable workloads and opportunities for continuous development, this training helps to optimize clinical supervision and keep patient safety a top priority in healthcare.

4. Conclusion

Patient safety culture training for nurses is very useful and can answer problems that occur in the field. Several hospitals in the Karawang area as partners have very positively welcomed the activities that have been carried out through training and mentoring and evaluation activities, so that nurses can be more optimal in carrying out and implementing a patient safety culture, so as to avoid things that can pose a threat to patients while carrying out care to patients.

To develop a sustainable patient safety culture, it is recommended to conduct ongoing training for nurses on a regular basis so that their knowledge and skills are always up to date and in accordance with the latest developments in the field of patient safety. In addition, mentoring programs involving senior nurses or experts in patient safety can help junior nurses in applying their knowledge effectively in daily practice. Balanced workload management for clinical supervisors is also important, with a balanced distribution of tasks to ensure they are not overburdened with administrative tasks or patient care responsibilities. The implementation of technology in task management and inter-team communication can also help reduce manual workload and improve efficiency and patient safety.

Evaluation and monitoring of the implementation of a patient safety culture in hospitals should be conducted regularly, involving the measurement of patient safety indicators and assessment of nurses' performance in applying safety principles. Evaluation results can be used to identify areas that require improvement and develop action plans to address any issues found. Encouraging more intensive collaboration between nurses, doctors and other healthcare professionals in designing and implementing patient safety strategies can improve coordination and communication, which has a positive impact on patient safety.

In addition, involving patients' families in the care process will ensure that all parties involved understand the importance of patient safety and contribute to creating a safe environment for patients. Finally, it is important to conduct further research to identify factors that influence the success of patient safety training and explore new methods and technologies in training, such as virtual simulation or game-based training, to improve effectiveness and participant engagement. Implementation of these recommendations is expected to enhance the culture of patient safety in hospitals and improve the overall quality of healthcare services.

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