Article

Exploring the relationship between nurses' communication satisfaction and patient safety culture

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Abstract

Background: Patient safety culture is associated with the values, attitudes, competencies and behaviors that support the safe conduct of individual or group activities in hospitals and other health organizations. Safety culture is influenced by various factors, one of which is communication, which plays a significant role in health services. Therefore, this study aims to analyze the relationship between nurse communication satisfaction and the quality of patient safety culture in hospitals.

Design and Methods: This is a cross-sectional design with the proportional random sampling method used to data from 51 nurses, which was analyzed using the Spearman rank test. The majority of the nurses were female, between 20-30 years old, with 1-5 years working experience.

Results: The results showed a significant relationship between nurse communication satisfaction and the quality of patient safety culture. Furthermore, the higher the nurses' level of communication satisfaction, the better the applied quality of patient safety culture ($r = 0.338$).

Conclusions: Nurse communication satisfaction affects the provision of effective health care, with the ability to create good cooperative relationships and foster trust between professions in order to improve the quality of service delivery and patient safety.

Introduction

Effective communication between nurses and doctors is a two-way process that involves sending appropriate and understandable messages accepted and understood by others, thereby enabling a supportive working environment and patient safety.[1] The Joint Commission stated that poor communication accounts for two-thirds of sentinel incidents in health care. Furthermore, inadequate communication between nurses and doctors leads to dissatisfaction and a lack of autonomy among nurses.[2] Doctors are easily frustrated when orders are not placed on time, and communication vagueness also contributes to their job dissatisfaction.[3] This tends to affect the quality of care and patient safety adversely. Donchin *et al.*[4] stated that 37% of all health sectors' errors are caused by the low communication quality between doctors and nurses in the Intensive Care Unit. The authors further stated that some of these errors are preventable events. Communication satisfaction comprises eight dimensions, namely the organization's general perspective, organizational integration, personal feedback, relationships with superiors, horizontal and informal communication, media quality, communication climate, and employee relations.[4] The research results regarding the communication satisfaction of nurses in the Intensive Care Unit room found that women had lower scores on the dimensions of the general perspective of the organization and media quality.[5] Nurses with master's degrees scored lower on the dimensions of media quality and communication climate compared to graduate and undergraduate graduates.[6]

An important factor affecting the quality of health care is applying a patient safety culture, with positive perceptions associated with lower rates of adverse events.[7] Patient safety is the act of avoiding, preventing or correcting a bad outcome or injury in the hospital treatment process. This area is important in health care due to the increase in adverse events that endanger patients' lives.[8,9] The 2013 Joint Commission International report stated that the adverse events associated with the health care industry in the United Kingdom and Australia were approximately 10% and 16.6%, respectively.[10] Based on the types of incidents that occurred, near-miss was 47.6%, while the negative event was approximately 46.2%. The National Committee of patient safety recorded a total of 137 incidents from January 2010 to April 2011. Out of the measured 11 provinces in Indonesia, East Java had the highest number at 27%. Furthermore, out of the 137 patient safety incidents, adverse events, near miss, and other incidents were in percentages of 55.47%, 40.15% and 4.38%, respectively.[11] There was an increase in the incidence of adverse events from 2007 to 2011, which prompted nurses and other health workers to reduce these incidents. Nurses play an essential role in improving patient safety because they are most often in direct contact with them.[12] Therefore, hospital staff are used to determine and assess the level of patient safety in the hospital.

Patient safety culture comprises of seven sub-cultural factors, namely leadership, teamwork, evidence-based, communication, learning, accuracy, patient focus.[13] Communication is a determining factor in providing quality services in a hospital and plays an essential role in various areas of life. In an organization, communication coordinates various activities to achieve set goals and develops an attitude of mutual understanding towards organiza-

Significance for public health

Inadequate communication between nurses and other health workers causes sentinel incidents in health services. This also contributes to job dissatisfaction, which tends to affect the quality of care and patient safety. One of the important factors affecting the quality of health services is by applying a patient safety culture. For instance, positive perceptions were associated with a lower incidence of adverse events in patients. It is important to analyze the determinants of patient safety culture is applicable in all health care settings. Therefore, this study describes the relationship between nurse communication satisfaction and patient safety culture.

tional members. Similarly, effective communication among health workers is a key feature of safe and reliable patient care.

Internal communication is an important factor in the successful achievement of organizational goals because it affects performance, satisfaction and employee involvement. Similarly, effective communication between nurses and doctors positively affects the quality of patient outcomes such as satisfaction, short length of stay, and reduces adverse events.[14-16]

A preliminary study carried out in the inpatient room of Wava Husada Hospital stated that 57.4% of the patients were not satisfied with communication in each team's work unit. These patients were unhappy with the slow response to information delivery by some of the staff using WhatsApp. The team coordinator stated that sometimes staff fail to carry out orders immediately because they were still working on other jobs. Sometimes, after completing these jobs, they forget to carry out the previously assigned orders. Interviews with nursing staff found that 4 out of 5 or 80% expressed dissatisfaction with communication, especially in terms of openness with supervisor and limitations in conveying ideas and opinions. Therefore, this study examines the relationship between communication satisfaction and patient safety culture.

Design and Methods

This is a cross-sectional research with the non-experimental design process used to identify the relationship between communication satisfaction and safety culture. The proportional random sampling method was used to obtain data from nurses employed at four medical/surgical units in a hospital located in the Malang region and 248-beds in March 2019. The units were selected based on a set of criteria, which included those that have worked in an inpatient unit for at least 2 months, performed nursing care directly to patients, and those that work more than 7.5 hours per week. Furthermore, data were obtained using the Communication Satisfaction Questionnaire (CSQ), which was tested for reliability with a value of r=0.990 and the Hospital Survey on Patient Safety Culture by AHRQ to measure safety culture. In addition, the Spearman Rank statistical test and SPSS for Windows version 16 statistical analysis were used to determine the correlation between the two variables with a significance limit of p<0.05.

Results and Discussions

Table 1 shows that out of the total number of nurses used in the research, 42 (82.4%) aged 20-30 years. Based on gender, the characteristics of respondents showed that 76.5% (39 nurses) were female. Meanwhile, the number of those that worked in hospitals for 1-5 years is 26 (51.0%). Table 2 shows the distribution frequency of patient safety culture. The Spearman rank correlation statistical test results also indicated a significant relationship between nurse communication satisfaction and the quality of patient safety culture. Therefore, the higher the level of nurse's communication satisfaction, the better the patient safety culture (p=0.015; α=0.05; r=0.338).

The satisfaction research on communication carried out on 51 nurses showed that most were in the high category. In the questionnaire item regarding communication satisfaction, "the extent to which my supervisor listens and pays attention to me" and "the disclosure of financial status by superiors" had the highest and lowest values, respectively. This is in accordance with the dimensions of

communication satisfaction, known as openness, which tends to affect the environment when not properly fulfilled. However, it is inversely proportional to another study whereby 110 respondents (70.5%) based on supervision and direction stated that nurse organizations' communication satisfaction in hospital inpatient rooms shows that organizational communication satisfaction is weak.[17] The result showed that this occurs when the communicator has less experience and knowledge in conveying messages.

The highest communication satisfaction is shown at the age of 20-30 years because the majority of respondents come from that age. Furthermore, age is also related to the length of work in the hospital. This is in accordance with another finding which stated that job satisfaction is influenced by communication satisfaction in an organization, which continues to increase in more professional staff along with rise in age.[18] The length of time a person has worked in a hospital and certain units indicates their ability to possess more experience working as nurses. Experience influences communication satisfaction, which supports the quality of speech. Therefore, people with good knowledge need adequate communication qualities to increase the enthusiasm of the interlocutor and enable them to understand the information provided. Therefore, good coordination has the ability to increase communication satisfaction among nurses and other health workers.[19]

Nurses need proper communication to carry out activities and achieve set goals in the care unit. When the communication sources are sufficient, job-related information's availability and adequacy enable nurses to feel satisfied. Communication satisfac-

Table 1. Demographic characteristics of respondents.

Characteristics	n	%
Age		
20-30 years	42	82.4
>30 years	9	17.6
Sex		
Male	12	23.6
Female	39	76.5
Hospital units		
Inpatient	34	66.7
Intensive care	11	21.6
Hemodialysis	6	11.7
Length of work		
<1 year	4	7.8
1-5 years	26	51.0
6-10 years	18	35.3
11-15 years	3	5.9

Table 2. Frequency distribution on perceptions of patient safety culture.

Characteristics	% positive response rate
Expectations and activities of supervisors / managers that support Safety	65.19
Organizational learning - continuous improvement	96.73
Teamwork in the hospital unit	81.86
Openness of communication	62.74
Feedback and communication about error	83.01
Response not punish to error	40.52
Staffing	41.18
Hospital management support for patient safety	68.63

tion refers to the extent to which nurses feel satisfied with the information provided in their environment.[6] The existing literature shows that when employees are satisfied with their communication rate, effective working relationships are established between supervisors, subordinates and peers. The research results on the quality of patient safety culture carried out on 51 nurses showed that the majority had a good quality of safety culture. In the questionnaire for the quality of patient safety culture, the highest score was on the item "our unit works together as a team to complete a job" this is shown by good coordination between team members in the unit when receiving patients and when communicating with doctors regarding the patient's condition. While the lowest score on the item was "Our unit has enough staff to handle the excessive workload", therefore this item has a major effect on the quality of patient safety culture that is not good. This is in accordance with the research carried out by Pujilestari *et al.* at the inpatient installation center. The research showed that out of a total of 75 nurses, 38 (50.7%) had a good safety culture quality, while 37 (49.3%) were in the poor category.[20] This is evidenced by the high level of awareness of nurses in ensuring patient safety. This study shows that the longer a person works in a certain unit, the better the patient safety culture's quality. Therefore, the length of work is directly related to nurses' performance because the longer a person works, the higher the productivity. Hence it can be concluded that nurses with longer work experience in a unit are able to implement a safety culture properly.[21]

In addition, there is a significant relationship between nurse communication satisfaction and the quality of patient safety culture. The higher the level of nurses' communication satisfaction, the more significant the quality of the patient safety culture that is implemented. This study's results are in accordance with the statements that safety culture is enhanced through programs, such as unit-based interventions, the participation of organizational leadership in setting patient safety as a priority, education in hospitals, increasing collaboration between disciplines and increasing openness of communication within and between units.[19,22,23]

Organizational climate is influenced by the way members behave and communicate. When the organizational climate in an organization is built positively or well developed, it increases positive behavior or attitudes, job satisfaction, and communication satisfaction among members.[23,24] An open communication climate is needed in hospital services because it is multidisciplinary and has the potential for conflict due to efficiency. In health care, 70-80% of the errors that occur are caused by poor communication and understanding within the team. Therefore, teamwork helps to reduce the problem of patient safety. Furthermore, interprofessional collaboration is needed to enhance the quality of outcomes in health service delivery. Collaborative communication is an important factor in nursing care, capable of improving patient safety.[22] The American Nurses Association stated that effective communication is used as a standard for professional nursing practice. Most nurses' communication satisfaction is good due to their freedom to express their opinions on ideas and input to other health workers. A good work environment can increase nurses' confidence in expressing opinions, thereby raising their ability to apply a positive attitude towards implementing patient safety procedures.[25]

The role of managers in determining the level of satisfaction of staff communication is very large. Managers have interpersonal roles that lead to achieving organizational goals, which is significantly dependent on their communication method. The nursing unit manager shows learning through supervision, encouragement or motivation, and the provision of information to improve staff work abilities and increase the nursing unit team's effectiveness through the communication process.[23] When the nursing unit team's effec-

tiveness increases, their performance in implementing a patient safety culture rises, thereby maximizing the services provided. The manager role in evaluating structured work shifts provides open communication opportunities for the health team. It simultaneously fosters a collaborative work environment and a positive atmosphere for staff regarding freedom of speech regarding emotional events, teamwork, roles and organizational aspects predetermined model. This can help team members increase their understanding of their roles and responsibilities. Also, it can be used to solve collaborative problems among teams, thereby increasing communication. Nurses need to implement effective professional communication because it is related to the provision of effective health.[26] Effective, responsible and respectful communication between nurses, doctors and other health workers enhances cooperative relations and increases trusting relationships between related professions.[2] Effective communication is needed in a nursing unit in a hospital to improve service quality and patient safety.

Conclusions

In conclusion, the majority of nurses' communication satisfaction in health care centers is high. However, hospitals need to implement effective communication between units and individual nurses, managers and other health workers to achieve professional services. This acts as the basis for the organization to build a safety culture that starts with communication.

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