

The effect of empowerment to improve patient safety culture among hospital nurses

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ABSTRACT

A decline in the quality of services provided to patients and an increase in patient care costs are caused by a decline in their ability to work. Patient safety culture is a product of individual and group values, attitudes, competencies, and behavioral patterns that determine the commitment, style, and capabilities of a health service organization towards patient safety programs. This study examined the effects of empowerment on patient safety culture and employed descriptive, cross-sectional, analytical methodology. Proportionate random sampling was the sample method used at a hospital in Samarinda, Indonesia, with 119 respondents. Hospital surveys regarding patient safety culture and empowerment were used to gather data. Partial least squares and structural equation modeling were used for data analysis. Regarding opportunity indications for activities, the empowerment average had the highest score, 15.8 (SD=2.987). For teamwork within the unit, the patient safety culture had the highest average score of 13.3 (SD=1.777). The initial sample estimate value of 0.677 indicated that empowerment had a positive impact on patient safety culture. The T-Test result was 15.180, indicating that the value was greater than 1.98. Nurses' autonomy in their work can be supported through empowerment. The stronger the empowerment, the more patient-safety culture the hospital will have.

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1. INTRODUCTION

Certain health organizations are afraid of disclosing mistakes or negative occurrences because they believe that they will be held accountable and viewed as an acceptance. Their commitment, style, and capacity to execute patient safety programs are determined by their patient safety culture, which is a byproduct of individual and collective values, attitudes, competencies, and behavioral patterns [1]. Promoting an open culture and thoughtful mindset toward mistakes and unforeseen events is one way to reduce adverse events in health services [2]. Unexpected incidents in health services can occur when staff members are under stress. If someone makes a mistake, other workers hold them accountable [3]. Consequently, to address the reasons behind the mistake and avoid placing blame squarely on the mistake maker, open communication within the team [4]. Staff members must acknowledge that we have fallible people. However, the initial course of action must be to understand what went wrong before examining the reasons contributing to staff errors that affect patient safety [5].

Enhancing the patient safety culture in healthcare institutions requires empowerment. The values, attitudes, and practices that define a hospital's dedication to patient safety are referred to as the 'patient safety culture' [6]. Organizations can foster a culture in which people are actively encouraged to recognize and prevent potential damage, errors, and adverse events by empowering healthcare professionals [2]. Healthcare professionals who feel empowered have a greater sense of responsibility for and ownership of patient safety [7]. People are more inclined to speak up, voice concerns, and play an active role in patient safety activities when they feel empowered [8]. This strengthens the organization's capacity to recognize and manage possible hazards and cultivates a cooperative, learning-focused culture that promotes ongoing development [9].

Providing health care professionals with the information and abilities they need to identify and reduce patient safety hazards is one way to give them more authority [10]. Individuals can be given the skills necessary to recognize possible risks, put best practices into practice, and take preventative action by participating in training sessions, workshops, and instructional materials [11]. Healthcare workers may feel more confident about their ability to support patient safety by expanding their knowledge [12]. Establishing a welcoming environment in which people feel empowered to challenge the accepted wisdom and provide novel solutions is another aspect of empowerment. Healthcare organizations can establish safe places where professional opinions are respected and various viewpoints are encouraged by promoting open communication and active listening [4]. This promotes a culture of ongoing learning and development, and permits a more thorough understanding of patient safety concerns.

Providing resources and decision-making abilities for healthcare professionals to make decisions regarding patient safety is another aspect of empowerment. The ability to implement evidence-based practices, participate in QI projects, and spend money on improving patient safety measures [13]. Enable people to take charge of patient safety and make good changes by having faith in their knowledge and judgment [14].

Patient safety culture encompasses the following dimensions: open communication, feedback and communication about mistakes, frequency of incident reporting, handover and transition, organizational support for patient safety, non-punitive or non-judgmental response to mistakes, organizational learning (continuous learning), staffing, expectations from supervisors and managers, actions taken to improve patient safety, cross- and intra-unit collaboration, and overall perception of patient safety [15]. The drop in nurses' job satisfaction is the cause of both the increase in patient care expenditure and the deterioration in the quality of services provided to patients [16]. External rewards, service schedules, possibilities for professional growth, accolades or awards, responsibilities received, work-life balance, connections with coworkers, and interactions in the workplace are used to gauge how satisfied nurses are with their jobs [17]. The unit's employees cooperate, show respect for one another, and encourage each other.

Certain employment attributes such as workplace adaptability, flexibility, and creativity in relation to decision-making procedures, as well as visible work and the concentration of organizational goals within each organizational unit, are sources of formal authority. Informal power is derived from social connections, professional communication growth, and ease of information-sharing with sponsors, associates, managers, and other departments [18]. Empowerment initiatives are critical for improving nurses' patient-safety culture. This study aimed to assess the influence of empowerment on nurses' patient safety culture. The novelty of this study is that it specifically focuses on the impact of empowerment initiatives on nurses' patient safety culture, as previous studies have primarily examined other factors.

2. METHOD

2.1. Design and sampling

This study was a cross-sectional study, and used a descriptive analytical design. Because the treatment results can be compared with the conditions before treatment, the results can be confirmed more accurately. Samarinda Regional Hospital was used as the location for this study. The sample size was 119, calculated using the Slovin formula. This study used all nursing, experience with at least one year, respondents to the survey on inpatient ward nursing units. The specific sampling location is shown in Figure 1.

2.2. Instrument and analysis

Data analysis was performed using SEM partial least squares (PLS) version 4. This study used an empowerment instrument [19], namely, the Condition for work effectiveness-II (CWEQ-II) questionnaire. The hospital survey on patient safety culture (HSOPC), created by the Health Research and Quality Agency, was used to gauge patient safety culture.

2.3. Validity and reliability

Seven valid measurement items were used to assess empowerment. The seven measurement items had strong correlations with empowerment, as indicated by the outer loading value, which ranged from

0.906-0.952. With a Cronbach's alpha value of 0.973, which is greater than 0.70; a composite reliability value of 0.973 above 0.70; and convergent validity, as demonstrated by an AVE of $0.859 > 0.50$, the degree of reliability of the empowerment variable was deemed satisfactory. Access to help was where empowerment was most expressed among the seven valid assessment measures ($LF=0.952$).

2.4. Ethical clearance

This study was approved by the Samarinda Hospital Ethics Committee of Indonesia (No. 462/DIR/IX). The committee's approval ensured that the research conducted at Samarinda Hospital adhered to ethical guidelines and safeguarded the rights and well-being of the participants involved. This research approval was a testament to the hospital's commitment to upholding ethical standards in medical research.

2.5. Location

The location of the research area is clearly defined in four different perspectives, providing a comprehensive view for further analysis. Figure 1 offers a detailed visual representation of the location from various scales, aiding in better understanding the geographical context of the study. The research location is shown in Figure 1 with the following details Figure 1(a). Location Map Viewed from the National Territory (Indonesia). Figure 1(b). Location map seen from the Kalimantan Island area. Figure 1(c). Location map seen from East Kalimantan Province. Figure 1(d). Location map seen from within the city of Samarinda. For more detail, it can be seen in the Figure 1.

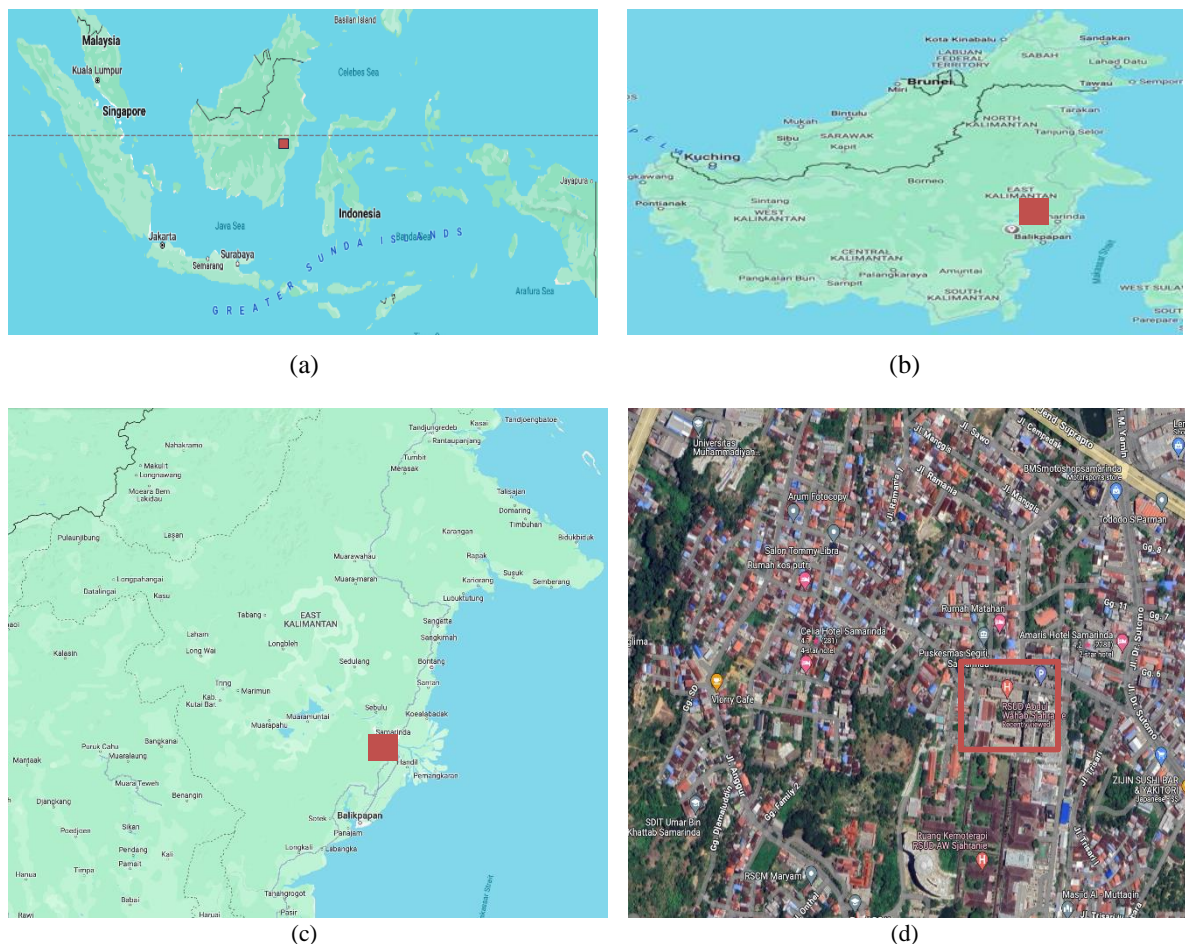


Figure 1. Location of the study (a) Location map viewed from the national territory (Indonesia); (b) Location map seen from the Kalimantan Island area; (c) Location map seen from East Kalimantan Province; (d) Location map seen from within the city of Samarinda

3. RESULTS AND DISCUSSION

Demographic characteristics of respondent details can be seen in Table 1. These findings suggest that respondents felt the most empowered when it came to activity opportunities, as indicated by the highest score of 15.8. However, there seems to be room for improvement in terms of overall empowerment, with an average score of 7.9. Similarly, while cooperation within the unit was perceived positively with a score of 13.3, there was a lower frequency of reporting events with a score of 8.9, indicating potential areas for enhancement in the patient safety culture. More details can be seen in Table 2.

All patient safety culture empowerment indicators were significant, as indicated by a value of $0.00 < p < 0.05$. The patient safety culture has improved with greater empowerment in the hospitality industry. Through opportunities and access to resources, support, and information, nurses develop a sense of empowerment. Patient safety culture is influenced by several factors including staffing, managers' expectations and behaviors, nurses' views, and management support. More details can be seen in Table 3.

Seven valid measurement items were used to assess empowerment. The seven measurement items had strong correlations with empowerment, as indicated by the outer loading value, which ranged from 0.906-0.952. With a Cronbach's alpha value of 0.973, which is greater than 0.70; a composite reliability value of 0.973 above 0.70; and convergent validity, as demonstrated by an AVE of $0.859 > 0.50$, the degree of reliability of the empowerment variable was deemed satisfactory. Access to help was where empowerment was most expressed among the seven valid assessment measures (LF=0.952). More details can be seen in Table 4. Patient safety culture is classified as an endogenous component of the structural model, while empowerment is an exogenous element. With an R^2 value of 0.458, it can be deduced that 45.80% of the variability in the empowerment component accounted for the variability in the patient safety culture construct. Whereas, the remaining 54.20% was explained by variables not included in the study.

Examine the connection between "patient safety culture" and "empowerment". This association has an initial value of 0.677, sample mean of 0.681, standard deviation of 0.045, and computed t-statistic of 15.180. There is a highly significant difference between the sample and the sample mean, as indicated by the extremely low p-value of 0.000. The results of this analysis demonstrated a substantial correlation between the two variables, with the level of patient safety culture empowerment being considerably different from the sample average. The significance of this association was further supported by low p-values.

Education, clinical expertise, knowledge, and self-assurance can contribute to employee empowerment. Nonetheless, a number of elements, including inadequate leadership and management, lack of training or opportunities for professional growth, and lack of respect and support from coworkers can lower the degree of empowerment in the workplace. More details can be seen in Figure 2.

The dimensions that build a patient safety culture involve many parties in the hospitality sector, including management and lower-, middle-, and upper-level management as well as nurses who implement a patient safety culture in their services to patients. Thus, there is support from the management in terms of both advice and infrastructure related to the latest information regarding the goals achieved by the hotel in improving patient safety [20]. Nurses' perceptions of structural empowerment influenced their effectiveness at work. Other things that can be done with the support that nurses receive can also influence organizational effectiveness [21]. Nurses who have worked for more than ten years and have experience show higher patient safety culture scores in service [22]. Various strategies have been adopted to support patient safety culture. Little evidence suggests that patient safety culture influences the patient safety climate [23]. The dimensions that have a positive perception of patient safety culture are "aspects related to patient safety and quality," "exchange of information between other units," and "teamwork" [24].

Encouraging and enhancing patients' general well-being while giving them the tools they need to take charge of their health and making wise decisions are the responsibility of empowering nurses. The three main goals of empowering nurses are to promote independence, self-care behaviors [25], and high-quality care [26]. Patients are educated by empowering nurses regarding their medical issues, available treatments, and ways to avoid them [27]. By providing patients with clear and simple information, they empower themselves to play an active role in their care, make healthy decisions, and gain a better understanding of their health [28].

Nurse empowerment is crucial in healthcare settings, because it can lead to increased job satisfaction and better services. By using collaborative decision-making, empowerment nurses actively involve patients in creating treatment plans that reflect their choices and aspirations [29]. To guarantee that treatment is patient-centered and guided by mutual consent, patients pay attention to their concerns, values, and beliefs [30]. Empowerment nurses focus on illness prevention and health promotion [31]. They provide patients with the knowledge they need to take charge of their health by teaching them stress management, exercise, diet, and other health-related topics [11].

Empowerment nurses assist patients in overcoming obstacles associated with their medical problems by providing emotional support and encouragement. They enable patients to look for the right services and support systems, and encourage self-advocacy [32]. Nurse empowerment guarantees continuity

of care by promoting efficient communication and collaboration among healthcare teams, nurse empowerment guarantees continuity of care [33]. They support patients by following their treatment programs, navigating the healthcare system, and obtaining required resources [34].

The ultimate goal of nursing empowerment is to improve it. Their goal is to empower patients with the means to actively engage in their healthcare, make informed decisions, and assume responsibility for health outcomes [35]. By embracing the principle of empowerment, nurses act as catalysts for positive change, helping patients to become agents of their health and well-being. Patient safety culture in healthcare organizations consists of mentality, beliefs, dispositions, and shared principles that prioritize patient safety and support progress. This relates to the health practitioner's steadfastness and dedication to ensuring the health and safety of individuals throughout their healthcare experience [36]. A strong patient safety culture prevents medical errors, adverse events, and harm. It emphasizes open communication, collaboration, and continuous improvement to improve patient outcomes and reduce risks [37].

Patient safety depends on efficient communication between medical personnel, departments, and patients. This promotes the sharing of ideas, transmission of critical information, and the early detection of possible hazards. Patient safety can be increased by healthcare providers working together and showing respect for one another [38]. Errors can be reduced, and a safety culture is supported by promoting interdisciplinary teamwork, creating a friendly work atmosphere, and appreciating the value of each team member's contribution [39].

Improving patient safety requires a culture that encourages the reporting of mishaps, near-misses, and unfavorable events without concern for reprisals. A detailed investigation is required to determine the underlying reasons for these occurrences and create preventative measures [40]. To avoid repeating the same mistakes, companies must share and learn from each other [41]. Strong leadership commitment is necessary to create and preserve a patient safety culture [42]. Establishing safety standards, allocating resources, promoting openness, and providing employees with continuous education and training are crucial tasks for leaders [43].

By promoting shared decision-making, gaining informed permission, and involving patients and their families in the decision-making process, the patient safety culture prioritizes patient-centered care. People can actively participate in their healthcare, foster an atmosphere that encourages teamwork, and enhances patient outcomes [44]. A patient safety culture must prioritize ongoing quality improvement and the use of evidence-based procedures. It is easier to identify areas for improvement, implement changes, and assess their effects on patient safety when processes and results are routinely monitored, measured, and evaluated [45].

Establishing and preserving a patient safety culture requires sustained support from medical facilities, employees, clients, and government organizations. This calls for constant learning and development, open lines of communication, and dedication to responsibility and openness [46]. Healthcare organizations can enhance care quality, foster patient trust, and ultimately save lives by prioritizing patient safety [47].

Table 1. Demographic characteristics respondent

Characteristics		Frequency (n=119)	Percentage (%)
Sex	Male	6	5
	Female	113	95
Age	25-35 years	101	84.9
	36-45 years	18	15.1
Education	Diploma	61	51.3
	Bachelor	5	4.2
	Registered nurse	53	44.5
Total career	1-5 years	84	70.6
	6-10 years	34	28.6
	>10 years	1	8
Marital status	Married	82	68.9
	Single	37	31.1

Table 2. Distribution of respondents' responses

Variable	Indicator	Mean	Median	Max	Min	SD
Empowerment	Access other resources	11.580	12	4	15	2.431
	Access to support	12.025	12	3	15	2.332
	Access to information	12.126	12	6	15	2.113
	Access to resources	11.782	12	6	15	2.246
	Opportunities for activities	15.815	16	6	20	2.987
	Opportunities obtained	12.277	12	7	15	2.192
	Overall empowerment	7.908	8	4	10	1.495
Patient safety culture	Management support for patient safety	9.866	9	7	12	1.256
	Event reporting frequency	8.924	9	6	12	2.115
	Hands-off and transitions	10.555	8	5	16	3.222
	Manager expectations and actions	12.790	12	8	16	1.758
	Teamwork across hospital units	11.328	12	8	16	2.858
	Teamwork within units	13.370	12	11	16	1.777
	Communication openness	9.109	9	6	12	1.974
	Organizational learning	9.891	9	9	12	1.228
	Nurse's perception	11.168	11	8	16	2.940
	Nonpunitive responsibility	7.908	7	3	12	2.383
	Staffing	10.983	10	8	16	2.808
	Feedback and communication	9.353	9	6	12	1.794

Table 3. Outer weight loading and outer variance inflation factor (VIF)

Variable	Indicator	Outer		p-value		Outer VIF
		Weight	Loading	Weight	Loading	
Empowerment	Access other resources	0.151	0.933	0.000	0.000	7.941
	Access to support	0.158	0.952	0.000	0.000	9.857
	Access to information	0.156	0.935	0.000	0.000	7.811
	Access to resources	0.157	0.906	0.000	0.000	6.792
	Opportunities for activities	0.157	0.935	0.000	0.000	9.143
	Opportunities obtained	0.144	0.906	0.000	0.000	5.505
	Overall empowerment	0.156	0.919	0.000	0.000	7.112
Patient safety culture	Management support for patient safety	0.115	0.863	0.000	0.000	6.369
	Event reporting frequency	0.086	0.844	0.000	0.000	4.189
	Hands-off and transitions	0.103	0.858	0.000	0.000	5.997
	Manager expectations and actions	0.126	0.819	0.000	0.000	3.196
	Teamwork across hospital units	0.095	0.890	0.000	0.000	6.391
	Teamwork within units	0.114	0.813	0.000	0.000	4.448
	Communication openness	0.083	0.839	0.000	0.000	4.136
	Organizational learning	0.113	0.843	0.000	0.000	6.858
	Nurse's perception	0.085	0.873	0.000	0.000	5.880
	Nonpunitive responsibility	0.089	0.815	0.000	0.000	4.440
	Staffing	0.107	0.903	0.000	0.000	7.570
	Feedback and communication	0.067	0.784	0.000	0.000	4.120

Table 4. Outer loading, Cronbach's alpha composite reliability, and average variance extracted

Variable	Indicator	Outer loading	Cronbach's alpha	Composite reliability	AVE
Empowerment	Access other resources	0.933	0.973	0.973	0.859
	Access to support	0.952			
	Access to information	0.935			
	Access to resources	0.906			
	Opportunities for activities	0.935			
	Opportunities obtained	0.906			
	Overall empowerment	0.919			
Patient safety culture	Management support	0.863	0.964	0.970	0.716
	Event reporting frequency	0.844			
	Hands-off and transitions	0.858			
	Manager expectations and actions	0.819			
	Inter-unit cooperation	0.890			
	Cooperation in units	0.813			
	Open communication	0.839			
	Organizational learning	0.843			
	Nurse's perception	0.873			
	Nonpunitive responsibility	0.815			
	Staffing	0.903			
	Feedback and communication	0.784			

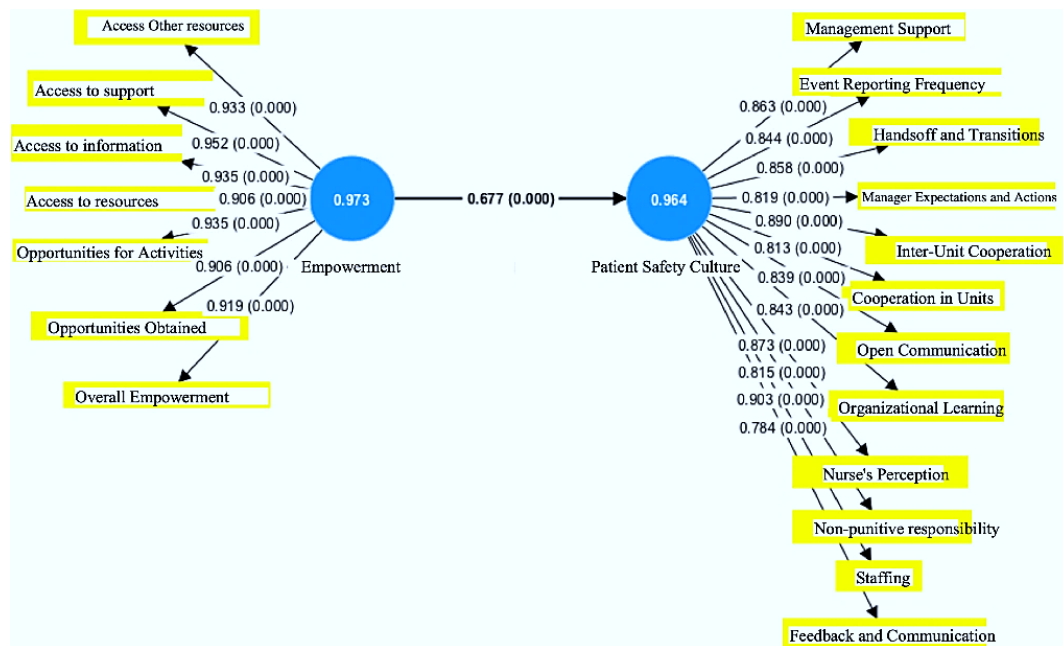


Figure 2. Path coefficient and p-value

4. CONCLUSION

The culture of patient safety is greatly impacted by empowerment. A strong correlation coefficient indicated that a hospital's patient safety culture was positively correlated with the level of empowerment. In summary, empowerment is critical in enhancing the culture of patient safety. Organizations actively participate in risk identification and prevention by empowering healthcare practitioners. Consequently, a culture of cooperation and learning has developed, promoting ongoing development, and eventually lifting the bar for patient care safety.

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