RESEARCH ARTICLE

Patient Safety Culture through Organizational Factors and Structural Empowerment: A Study at a Regional General Hospital in Balikpapan, Indonesia

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ARTICLE INFO	ABSTRACT
  *Corresponding Author nikenkurniasari1986 @gmail.com	Patient safety is a major global health issue that affects patients in all health care settings in both developed and developing countries. Patient safety culture is an important component of the quality of health services. This study aims to analyze the most effective path of the influence of organizational culture, organizational commitment and structural empowerment on patient safety culture at the Regional General Hospital of Beriman Balikpapan. The type of research conducted is quantitative research in which observational studies with a cross-sectional study design are used. The sample included 202 nurses at the Regional General Hospital of Beriman Balikpapan. Data analysis was performed via AMOS software with the path analysis method. This method is used to determine direct or indirect relationships or influences and is presented in the form of a path diagram. The authors reported the influence of organizational culture on organizational commitment (β=0.289), the influence of structural empowerment on organizational commitment (β= 0.330), the influence of organizational commitment on patient safety culture (β=0.111), the influence of organizational culture on patient safety culture (β=0.354), the influence of structural empowerment on patient safety culture (β=0.424), the influence of organizational culture on structural empowerment (β=0.510), the influence of organizational culture on patient safety culture through organizational commitment (β=0.267), and the influence of structural empowerment on patient safety culture through organizational commitment (β=0.037). Hospital management at the Regional General Hospital of Beriman Balikpapan should consider the variables of organizational culture, organizational commitment, and structural empowerment to improve patient safety culture. The organizational culture variable toward patient safety culture through structural empowerment is the most effective route in this research.

INTRODUCTION

Healthcare organizations must always pay attention to patient safety to improve patient safety and the security of their services because safety is considered a determining component of quality in the health care setting, with the recognition of building a culture of safety (Mahran, 2016). Major health care organizations, such as the National Patient Safety Foundation (NPSF), WHO, Institute for Health Care Improvement (IHI), and Joint Commission International (JCI), encourage health care organizations to promote and improve a culture of safety, which can constitute a dynamic strategy for prospective safety improvement (Abood, S. A., & Aboelmagd, 2018).

Patient safety is a major global health issue that affects patients in all health care settings in both developed and developing countries. The WHO (2013) reported that an estimated average of 10% of all hospitalizations result in unintentional patient harm, and it is estimated that up to 75% of these gaps in health care delivery are preventable. In addition to the suffering it causes to patients, unsafe health care places a heavy economic burden, with an estimated 5–10% of total health spending diverted to correcting unsafe practices that result in patient harm (Mahran, 2016).

In addition, approximately 1 in every 10 patients is harmed in health care, and over 3 million deaths occur each year because of unsafe care. In low- to middle-income countries, as many as 4 in 100 people die from unsafe care (Lachman et al., 2022). Over 50% of harm (1 in every 20 patients) is preventable; half of this harm is caused by medicines (Panagioti et al., 2019). Some estimates suggest that as many as 4 in 10 patients are harmed in primary and outpatient care, whereas up to 80% (23.6–85%) of these injuries are avoidable.

According to data from the Quality Committee of the Regional General Hospital of Beriman Balikpapan, 8 cases of near miss, 10 cases of no harm event, and 7 cases of adverse event were recorded as patient safety incidents at the Regional General Hospital of Beriman Balikpapan in 2021. In 2022, there were 16 cases of near miss, 12 cases of no harm event, and 9 cases of adverse event. In 2023, there were 45 cases of potential for harm, 15 cases of near miss, 14 cases of no harm event, and 10 cases of adverse event. In the first quarter of 2024, there were 9 incidents, namely, 1 case of near miss, 5 cases of no harm event, 1 case of adverse event, and 2 case of Sentinels.

One strategy used to reduce adverse events in a health service is to stimulate a culture of openness and stimulate a reflective attitude toward mistakes made or the occurrence of unexpected events (Wagner et al., 2013). An adverse event in a health service is a condition that can occur in a stressful situation experienced by employees in a health service. If an error occurs, other employees tend to blame the person who made the error; therefore, open communication is needed in a team, the causes of the error are discussed, and the person who makes the error is not immediately blamed. An understanding is needed between staff that, as humans are not free from mistakes, the first response that must be given is to understand what happened and then analyze what factors caused staff to make mistakes related to patient safety (Duffy, 2017). Thus, it is necessary to analyze the factors that influence patient safety culture, especially factors related to the organization of a hospital. According to the literature, organizational characteristic factors such as organizational culture, leadership style and degree of leader involvement, communication systems, patient and family participation, and human resource empowerment can influence the success of patient safety implementation (Chiu et al., 2008). Among them, organizational culture is the most important factor. This is because the spread of culture through word of mouth, role models and other considerations can communicate the behavior and attitudes that are preferred or expected by the organization. This is because a good organizational culture influences the behavior of members of the organization (Schein, 2019).

With a good organizational culture, it is hoped that it will increase employee commitment to participating in realizing patient safety in their organization, namely, the hospital. Several studies have discussed the positive aspects of organizational commitment and its influence on work productivity, motivation, turnover intentions, and absenteeism. Therefore, organizational commitment is a powerful tool for employees and organizations to increase their productivity and work effectiveness (Aranki et al., 2019). There is a need to empower staff in an organization to realize patient safety, so it is necessary to analyze the influence of factors related to structural empowerment. As mentioned in Parizadeh & Beshlideh (2020) research, an organization's security culture creates a context that prioritizes patient safety as one of the organization's most important priorities and that strengthens behavior that promotes patient safety.

For this reason, this study aims to analyze the influence of Organizational Culture, Organizational Commitment and Structural Empowerment on Patient Safety Culture at the Regional General

Hospital of Beriman Balikpapan as a step to improve patient quality and safety as well as continuous improvement in the hospital.

METHODS

Location and research design

This type of research is quantitative and uses an observational analytical design with a cross-sectional approach. This research will be conducted at the Regional General Hospital of Beriman Balikpapan from May–September 2024.

Population and sample

The research population consists of staff working at the Regional General Hospital of Beriman Balikpapan, which consists of the Emergency installation, Outpatient installation, Inpatiet installation, ICU, Central surgical installation, Perinatology, Pharmacy, Radiology, Laboratory, CSSD Laundry, Nutrition, Medical Records, Maintenance of facilities unit, Environmental health unit, Information Technology unit, Verifiers, Management, Committee, General Administration. The total number of employees at the Regional General Hospital of Beriman Balikpapan is 409 employees. The sampling in this study was carried out via a probability sampling technique, namely, proportional random sampling of 202 respondents.

Data collection method

The instrument used in data collection was a questionnaire. The questionnaire used in this study was first tested for validity and reliability. All statements were declared valid and reliable on the basis of the results of the validity and reliability tests using the SPSS program, where all statements were declared valid and reliable.

Data analysis

Univariate analysis was conducted to obtain an overview of the research problem by describing each variable used in the study and the characteristics of the respondents. Univariate analysis consists of descriptive analysis of respondent characteristics, descriptive analysis of research variables and cross-tabulation analysis between respondent characteristics and research variables. Bivariate analysis was conducted to determine the relationship between the two variables, namely, between the independent variable and the dependent variable, via the chi square test because the data scale for the variables in this study is nominal and the frequency of respondents or samples used is quite large. Multivariate analysis uses paths because there are exogenous independent variables and endogenous dependent variables, and the adequate sample size is 200 (JR, Hair et al., 2010). Path analysis allows researchers to measure direct and indirect influences between independent variables and dependent variables. This is important because, in many studies, the effect of a variable on other variables may not always be direct but rather through mediating variables, thereby providing a more comprehensive picture of the structure of the relationships between variables in a phenomenon (Kline, 2015). In this research, AMOS (Analysis of Moment Structures) software is used, which is statistical software that is often used for path analysis.

RESULTS

Univariate analysis

Frequency distribution of the general characteristics of the respondents

A total of 202 respondents were included in this study. These characteristics aim to assess several general characteristics of the sample, including age, gender, profession, education, work unit, employment status, work experience, working hours, and safety training. The general characteristics of the respondents can be seen in the following table:

Table 1. Distribution of Respondents Based on Respondent Characteristics at the Regional General Hospital in Balikpapan 2024

Characteristics	Subject	
	n	**%**
Sex		
Man	157	77.7
Women	45	22.3
Gender		
17-25 Years	12	5.9
26-35 Years	111	55.0
36-45 Years	63	31.2
46-55 Years	15	7.4
>55 Years	1	.5
Profession		
Doctor	21	10.4
Specialized Doctor	17	8.4
Nurse	67	33.2
Midwife	13	6.4
Pharmacist	16	7.9
Laboratory Analyst	7	3.5
Radiographer	1	.5
Nutritionists	6	3.0
Sanitary	1	.5
Medical Record Staff	10	5.0
Physiotherapist	2	1.0
Administration Staff	13	6.4
Technician	5	2.5
Others	23	11.4
Last Education		
Junior/Senior High School	18	8.9
Diploma	93	46.1
Bachelor	71	35.1
Master	20	9.9
Work unit		
Emergency installation	18	8.9
Outpatient installation	27	13.4
Inpatient installation	53	26.2
Central surgical installation	8	4.0
Care unit installation	10	5.0
Perintalogy	12	5.9
Nutrition	4	2.0
Laboratory	9	4.5
Radiology	3	1.5
Pharmacy	13	6.4
Environmental Health	2	1.0
Maintenance of facilities unit	6	3.0
Information Technology unit	3	1.5

Verifier	4	2.0
Administration	4	2.0
Management	8	4.0
Committee	2	1.0
Others	16	7.9
Employment status		
Civil servant	89	44.1
Government employees with agreements	30	14.9
Contract/temporary	83	41.1
Work experience		
1-3 Years	47	23.3
>3-5 Years	22	10.9
>5-7 Years	11	5.4
7-10 Years	85	42.1
>10 Years	37	18.3
Working hours		
< 20 hours a week	4	2.0
20-39 hours a week	47	23.3
40-59 hours a week	141	69.8
60-79 hours a week	6	3.0
80-99 hours a week	2	1.0
100 hours a week	2	1.0
Safety training		
Ever	130	64.4
Never	72	35.6

Table 1 above shows that most respondents are aged 26--35 years, namely, 111 respondents (55%). In terms of gender, most respondents were male, namely, 157 respondents (77.7%). In terms of profession, most were nurses, with 67 respondents (33.2%). In terms of education, most respondents had a diploma education, namely, 93 respondents (46.1%). In terms of work units, most of the others are inpatient installations, namely, 53 respondents (26.2%). In terms of employee status, most of the others are civil servants, namely, 89 respondents (44.1%). In terms of work experience, most respondents had 7--10 years of experience, namely, 82 respondents (40.6%). In terms of working hours, most are 40--59 hours, namely, 141 respondents (69.8%). Judging from safety training, the majority had participated, namely, 130 respondents (64.4%).

Frequency distribution of research variables

Table 2. Distribution of Respondents on the basis of Research Subject

Variable	Subject	
	N	%
Organizational Culture		
Strong	128	61.9
Weak	74	38.1
Total	202	100.0
Structural Empowerment		
High	132	65.3

Variable	Subject	
	N	**%**
Low	70	34.7
Total	202	100.0
Organizational Commitment		
High	135	66.8
Low	67	33.2
Total	202	100.0
Patient Safety Culture		
High	125	63.4
Low	77	36.6
Total	202	100.0

As shown in Table 2 above, most respondents stated that they were in the high organizational culture category (61.9%), in the high structural empowerment category (65.3%), in the high organizational commitment category (66.9%), and in the good patient safety culture category (63.4%).

Bivariate Analysis

Table 3. Relationship between Organizational Culture and Organizational Commitment

Organizational Culture	Organizational Commitment				Total		*p*
	High		**Low**				
	n	**%**	**N**	**%**	**n**	**%**	
Strong	106	82.8%	22	17.2%	128	100.0%	
Weak	29	39.2%	45	60.8%	74	100.0%	0.000
Total	135	66.8%	67	33.2%	202	100.0%	

Table 3 shows that the statistical test results obtained a p value = 0.000 because the p value $<\alpha$ = 0.000 <0.05; thus, Ho is rejected, which means that there is a statistically significant relationship between the organizational culture variable and organizational commitment at Beriman Balikpapan Hospital.

Table 4. Relationship between Structural Empowerment and Organizational Commitment

Structural Empowerment	Organizational Commitment				Jumlah		*p*
	High		**Low**				
	n	**%**	**N**	**%**	**n**	**%**	
High	108	81.8%	24	18.2%	132	100.0%	
Low	27	38.6%	43	61.4%	70	100.0%	0.000
Total	135	66.8%	67	33.2%	202	100.0%	

Table 4 shows that the statistical test results obtained a p value = 0.000 because the p value $<\alpha$ = 0.000 <0.05; thus, Ho is rejected, which means that there is a statistically significant relationship between the structural empowerment variable and organizational commitment.

Table 5. Relationship between Organizational Commitment and Patient Safety Culture

Organizational Commitment	Patient Safety Culture				Total		*p*
	High		**Low**				
	n	**%**	**N**	**%**	**n**	**%**	

High	100	74.1%	35	25.9%	135	100.0%	**0.000**
Low	25	37.3%	42	62.7%	67	100.0%	
Total	125	61.9%	77	38.1%	202	100.0%	

Table 5 shows that the statistical test results obtained a p value = 0.000 because the p value <α = 0.000 <0.05; thus, Ho is rejected, which means that there is a statistically significant relationship between the Organizational Commitment variable and Patient Safety Culture at the Regional General Hospital of Beriman Balikpapan.

Table 6. Relationship between Organizational Culture and Patient Safety Culture

Organizational Culture	Patient Safety Culture				Jumlah		*p*
	High		Low				
	n	%	N	%	n	%	
Strong	105	82%	23	18%	128	100.0%	0.000
Weak	20	27%	54	73%	74	100.0%	
Total	125	61.9%	77	38.1%	202	100.0%	

Table 6 shows that the statistical test results obtained a p value = 0.000 because the p value <α = 0.000 <0.05; thus, Ho is rejected, which means that there is a statistically significant relationship between the Organizational Culture variable and Patient Safety Culture.

Table 7. Relationship between Structural Empowerment and Patient Safety Culture

Structural Empowerment	Patient Safety Culture				Total		*p*
	High		Low				
	n	%	N	%	n	%	
High	110	83.3%	22	16.7%	132	100.0%	0.000
Low	15	21.4%	55	78.6%	70	100.0%	
Total	125	61.9%	77	38.1%	202	100.0%	

Table 7 shows that the statistical test results obtained a p value = 0.000 because the p value <α = 0.000 <0.05; thus, Ho is rejected, which means that there is a statistically significant relationship between the structural empowerment variable and patient safety culture.

Table 8. Relationship between Organizational Culture and Structural Empowerment

Organizational Culture	Structural Empowerment				Total		*p*
	High		Low				
	n	%	N	%	n	%	
Strong	107	83.6%	21	16.4%	128	100.0%	0.001
Weak	25	33.8%	49	66.2%	74	100.0%	
Total	132	65.3%	70	34.7%	202	100.0%	

Table 8 shows that the statistical test results obtained a p value = 0.001 because the p value <α = 0.001 <0.05; thus, Ho is rejected, which means that there is a statistically significant relationship between the organizational culture variable and structural empowerment.

Multivariate analysis

Multivariate tests are conducted to analyze the direct and indirect effects between variables, namely, between exogenous variables and endogenous variables through intermediate variables. The following are the results of path analysis on the variables of interest in this study.

Table 9. Results of Variable Path Analysis

| Influence Between Variables	Coefficient path	p-value	C.R.	Conclusion	Label
Organizational culture → Organizational commitment	0.289	0.001	7.336	Positive and Significant	Direct
Structural empowerment → Organizational commitment	0.330	0.001	5.121	Positive and Significant	Direct
Organizational commitment →Patient safety culture	0.111	0.047	2.097	Positive and Significant	Direct
Organizational culture → Patient safety culture	0.354	0.001	4.988	Positive and Significant	Direct
Structural empowerment → Patient safety culture	0.424	0.001	7.159	Positive and Significant	Direct
Organizational culture → Structural empowerment	0.510	0.001	7.526	Positive and Significant	Direct
Organizational culture → Organizational commitment → Patient safety culture	0.267	0.391	0.856	Positive and Not Significant	Indirect
Structural empowerment → Organizational commitment → Patient safety culture	0.037	0.392	0.854	Positive and Not Significant	Indirect
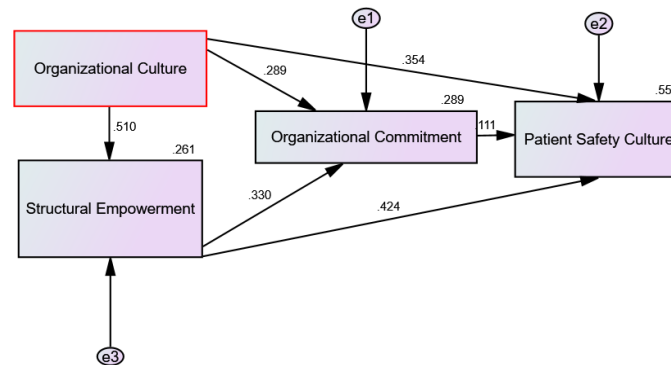
Figure 1. Path analysis among variables

DISCUSSION

Research hypothesis 1 (H1) states that there is an influence of organizational culture on organizational commitment. A statistical analysis revealed that organizational culture has an effect on organizational commitment. The coefficient value of the effect of organizational culture on organizational commitment is positive at 0.289. This means that the better the organizational culture is, the better the organizational commitment will be at 0.289. The C. R value> 1.96 (5.121> 1.96) and p value 0.001 (0.001 <0.05). Therefore, the alternative hypothesis (Ha) is accepted, and the null hypothesis (Ho) is rejected; in other words, there is a direct influence of organizational culture on organizational commitment.

Research by Abdallah (2019) revealed that an organizational culture that emphasizes appreciation for employee contributions, transparency, and a supportive work environment increases employees' affective commitment. This culture makes employees more emotionally attached to the organization. Research by Ongko & Chalidyanto (2023) showed that when organizational culture is aligned with employee values, organizational commitment increases, which has a positive effect on job satisfaction and organizational performance. Affective and continuance commitment increases when employees perceive that the company culture is supportive and fair. Research by Naidoo & Martins (2022) showed that an organizational culture

that supports employees with a positive and motivating work environment has a significant effect on organizational commitment. Employees feel more attached and committed to organizations that are concerned with their well-being.

According to P. Robbins, (2007) the original culture of an organization is derived from the founders' philosophy. This culture in turn strongly influences the criteria used for hiring employees. The actions of the current top management set the general climate of what is acceptable behavior and what is not. The socialization of employees depends on the degree of success achieved in matching values of new employees to those of the organization's, in the selection process and on the methods of socialization preferred by the top management. It has further emphasized that once the culture is created, there are various practices within the organization that help in keeping it alive. Three such factors are the selection process, actions of top management and the methods of socialization.

A Strong culture means a high performance culture, representing the core values that are shared by a majority of the organizational members. Strong culture is the system of shared meaning held by organizational members that distinguishes the organization from others. Strong culture exists where members respond to stimulus because of their alignment to organization values. There is a weak culture when there is little alignment with organizational values and hence the control has to be exercised through detailed procedures and bureaucracy. A strong culture is reflected in the form of healthy behavior, keenness to work hard and a strong desire and willingness to do their best. Behavior towards work efficiency is largely controlled by internal ability and willingness to work hard. It is based on sincerity of participation, involvement, devotion to duty, earnest desire to work and discharge of responsibilities with confidence and competence. Thus culture acts as a blue print, influencing all aspects of life (Parashar, 2021).

Research hypothesis 2 (H2) states that structural empowerment influences organizational commitment. A statistical analysis revealed that structural empowerment has an effect on organizational commitment. The coefficient value of the structural empowerment path on organizational commitment is positive at 0.330. This means that the better structural empowerment is, the better the organizational commitment will be at 0.330. The p value is 0.001 (0.001 <0.05). Therefore, the alternative hypothesis (Ha) is accepted, and the null hypothesis (Ho) is rejected; in other words, there is a direct influence of structural empowerment on organizational commitment.

Research by Aranki et al. (2019) revealed that access to career development opportunities and resources is positively related to organizational commitment. Employees who feel more structurally empowered show greater commitment to the organization. Research by Christina & Irianto (2023) shows that trust in leaders plays an important role in strengthening the relationship between structural empowerment and organizational commitment. Employees who have access to resources and support are more likely to trust their leaders and commit to the organization. Employees who feel more empowered in terms of access to resources and growth opportunities tend to be more emotionally attached to the organization. Research by Aladwan et al. (2021) shows that structural empowerment involving access to information, development opportunities, and managerial support contributes to increased organizational commitment. Employees who feel that they have more control over their work and are supported by management show greater commitment.

Research hypothesis 3 (H3) states that there is an influence of organizational commitment on patient safety culture. The statistical analysis revealed that organizational commitment has an effect on patient safety culture. The path coefficient value of organizational commitment to patient safety culture is positive at 0.111. This means that the better the organizational commitment is, the better the patient safety culture will be at 0.111. The p value is 0.001 (0.001 <0.05). Therefore, the alternative hypothesis (Ha) is accepted, and the null hypothesis (Ho) is rejected; in other words, there is a direct influence of organizational commitment on patient safety culture.

Bai & Vahedian (2023) examined how organizational commitment among healthcare workers impacts patient safety culture. They found a positive correlation, emphasizing the importance of fostering commitment through supportive management practices to enhance safety standards. Wang et al. (2022) conducted research in a hospital setting and reported that greater organizational commitment leads to improved patient safety culture. They suggested that engaged employees are more likely to participate in safety initiatives. Li et al. (2021) explored the role of organizational commitment in fostering a safe culture within nursing teams. Their findings highlighted that committed nurses significantly contribute to a proactive safety environment.

Research hypothesis 4 (H4) states that there is an influence of organizational culture on patient safety culture. The statistical analysis revealed that organizational culture has an effect on patient safety culture. The path coefficient value of the effect of organizational culture on patient safety culture is positive at 0.354. This means that the better the organizational culture is, the better the patient safety culture will be at 0.354. The p value is 0.001 (0.001 <0.05). Therefore, the alternative hypothesis (Ha) is accepted, and the null hypothesis (Ho) is rejected; in other words, there is a direct influence of organizational culture on patient safety culture.

The dimensions of the organizational culture variable related to patient safety culture are as follows. Research by McFadden et al. (2015) shows that attention to detail in organizational culture is closely related to improved patient safety outcomes. This is because attention to detail can reduce errors in providing care. Research by Neff & Gerber (2020) shows that risk-taking, which is valued in organizational culture, can lead to innovations that support patient safety. Research by J. Huang & Chen (2018) shows that an organizational culture that focuses on people's orientation improves patient safety culture. Employees are encouraged to seek new solutions and develop safer practices. Employees feel more supported and engaged, leading to increased safety awareness. Kalisch, Beatrice (2010) reported that effective teamwork in a healthcare environment improved patient safety culture. Team involvement in the patient care process contributes to better safety outcomes. Research by Baker (2006) revealed that stability in organizational culture helps build trust among team members, which is important for collaboration in maintaining patient safety.

Bagnasco (2020) explored how a positive organizational culture among healthcare staff enhances the perception of patient safety, suggesting that supportive work environments foster safer practices. Sharma, S. (2021) highlighted the role of transformational leadership in shaping organizational culture, which positively impacts patient safety culture through improved staff engagement and communication. Silva et al. (2021) conducted a systematic review showing that a positive organizational culture correlates with enhanced patient safety practices across various healthcare settings, underscoring its importance. Zohar & Luria (2019) reported that organizations with a strong safety climate were more effective at reducing adverse events, emphasizing the direct relationship between organizational culture and patient safety.

Research hypothesis 5 (H5) states that structural empowerment influences patient safety culture. The statistical analysis revealed that structural empowerment has an effect on patient safety culture. The path coefficient value of structural empowerment on patient safety culture is positive at 0.424. This means that the better the structural empowerment is, the better the patient safety culture will be at 0.424. The p value is 0.001 (0.001 <0.05). Therefore, the alternative hypothesis (Ha) is accepted, and the null hypothesis (Ho) is rejected; in other words, there is a direct influence of structural empowerment on patient safety culture.

Morse, A., & Wong (2019) examined how structural empowerment, conceptualized through support, opportunities, resources, and information, affects nurses' perceptions of the patient safety climate. This highlights the importance of empowering leadership in enhancing safety culture. Huang & Liu (2021) research investigates the relationship between structural empowerment and safety culture perceptions among nurses in Taiwan. The findings suggest that a higher level of structural empowerment significantly enhances the perception of a positive safety culture. Nacarelli, T. & Sell (2021) study analyzes how structural empowerment impacts

the culture of patient safety in a hospital environment. These findings indicate that empowered staff report significantly better perceptions of safety culture. Jensen & Ingerslev (2021) This quantitative study explores how structural empowerment influences safety culture in healthcare settings. The findings suggest a positive correlation, indicating that structural empowerment strategies lead to improved patient safety outcomes.

Research hypothesis 6 (H6) states that organizational culture influences structural empowerment. A statistical analysis revealed that organizational culture has an effect on structural empowerment. The path coefficient value of Organizational culture on Structural empowerment is positive at 0.510. This means that the better the organizational culture is, the better the structural empowerment will be at 0.510. The p value is 0.001 (0.001 <0.05). Therefore, it can be concluded that the alternative hypothesis (Ha) is accepted and that the null hypothesis (Ho) is rejected; in other words, Organizational culture has a direct influence on structural empowerment.

This variable is also the most effective path in this research because it has the highest coefficient value among the other variables and is in the medium category. A supportive and inclusive organizational culture can strengthen structural empowerment by creating an environment where employees feel empowered to actively participate in decisions. decisions, innovation, and personal growth. Ahabior, G. & Mensah (2021) This study explored the relationship between organizational culture and employee performance in the Ghanaian public sector. The findings indicate that a positive organizational culture significantly fosters structural empowerment, thereby enhancing employee performance and engagement. The research highlights the importance of cultural values in empowering employees to make decisions that contribute to organizational goals. Naidoo & Martins (2022) This research focused on how organizational culture influences employee engagement in a South African IT firm. The results revealed that organizations with a supportive culture were more likely to empower employees structurally, leading to higher levels of engagement and job satisfaction. Gallagher, S., Brown, C., & Brown, (2020) This paper analyzed how various elements of organizational culture affect employee empowerment in a healthcare setting. A collaborative culture enhances structural empowerment by encouraging shared decision-making among employees, which is crucial for improving patient care and outcomes. Mahdiyeh et al. (2021) The authors explored how organizational culture impacts productivity and empowerment in the Ministry of Youth and Sports in Iran. They concluded that a culture focused on employee welfare and development leads to higher levels of structural empowerment, positively influencing overall organizational effectiveness.

Research hypothesis 7 (H7) states that organizational culture influences patient safety culture through organizational commitment. The coefficient value of the path from organizational culture toward patient safety culture through organizational commitment is positive at 0.267, and the p value is not significant at 0.391 (0.391>0.05). This means that every one-unit increase in the organizational culture variable indirectly contributes to an increase of 0.267 units in patient safety culture through an increase in the organizational commitment variable. Therefore, the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted; in other words, there is an indirect influence of organizational culture on patient safety culture through organizational commitment.

Saeed et al. (2022) conducted research in several general hospitals to explore the relationship between organizational culture and patient safety culture, with organizational commitment as a mediating variable. The results of the study showed that a positive organizational culture contributes to increasing organizational commitment, which in turn improves patient safety culture. Churruca et al. (2021) conducted a study in several private hospitals to examine how organizational culture affects patient safety culture by considering the role of organizational commitment. This study revealed that a supportive organizational culture, such as open communication and collaboration, increases organizational commitment, which in turn has a positive effect on patient safety culture. Kakemam, et al. (2021) analyzed the effect of organizational culture in a teaching hospital on patient safety culture, with organizational

commitment as a mediating variable. The results showed that a strong organizational culture contributed to a higher level of organizational commitment, which then improved patient safety culture.

Research hypothesis 8 (H8) stated that structural empowerment affects patient safety culture through organizational commitment. The coefficient value of the structural empowerment path toward patient safety culture through organizational commitment is positive at 0.037, and the p value is not significant at 0.392 (0.392>0.05). This means that every one-unit increase in the structural empowerment variable indirectly contributes to an increase of 0.037 units in patient safety culture through an increase in the organizational commitment variable. Therefore, the null hypothesis (Ho) is rejected, and the alternative hypothesis (Ha) is accepted; in other words, there is an indirect influence of structural empowerment on patient safety culture through organizational commitment.

Hafezi et al. (2022) conducted a study in several general hospitals to examine how structural empowerment can influence patient safety culture by emphasizing the role of organizational commitment. The study showed that structural empowerment positively contributes to organizational commitment, which in turn improves patient safety culture. Vipyana & Syah (2023) conducted a study in a teaching hospital to examine how structural empowerment and organizational commitment interact to influence patient safety culture. This study revealed that organizational commitment functions as a significant mediator in the relationship between structural empowerment and patient safety culture. Karlien et al. (2022) conducted a qualitative study to understand how staff perceive the influence of structural empowerment on patient safety culture through organizational commitment. The results of the interviews revealed that staff who felt empowered had a higher level of commitment and were more proactive in implementing patient safety practices.

CONCLUSION AND SUGGESTIONS

The results of the study indicate that there is a direct influence of Organizational culture on Organizational commitment, a direct influence of Structural Empowerment on Organizational commitment, a direct influence of Organizational commitment on Patient Safety Culture, a direct influence of Organizational culture on Patient Safety Culture, a direct influence of Structural Empowerment on Patient Safety Culture, a direct influence of Organizational culture on Structural Empowerment, an indirect influence of Organizational culture on patient safety culture through Organizational commitment, an indirect influence of Structural Empowerment on patient safety culture through Organizational commitment. It is recommended that hospital management consider the four variables, namely Organizational Culture, Organizational Commitment, Structural Empowerment, Patient Safety Culture.

It is known that the organizational culture variable on patient safety culture through structural empowerment is the most effective route in this research. By implementing a strong organizational culture, empowering and providing support to staff, patient safety culture can be achieved in Beriman Balikpapan Regional Hospital. This approach is important because a strong organizational culture and management support for staff empowerment can create a safer environment for patient safety. By managing organizational culture, organizational commitment and structural empowerment effectively, hospitals can improve the achievement of patient safety culture and overall service quality. The limitation of the research was used questionnaires that sometimes the answers given by the respondents could not describe overall perception of the hospital staff. It is hoped that future researchers can conduct research with qualitative research methods to dig deeper into phenomena related to organizational culture, organizational commitment, structural empowerment and patient safety culture. Besides that, research is recommended using other variables that influence patient safety culture in hospitals.

REFERENCES

Abdallah, W. (2019). Identifying organizational learning dimensions that promote patient safety culture: A study of hospital pharmacies in Kuwait. *University of Bradford*.

Abood, S. A., & Aboelmagd, A. N. (2018). A Comparative Study on Factors Influencing Patient Safety Culture among Staff Nurses. *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*, *7*(3), 1–8. https://doi.org/https://doi.org/http://dx.doi.org/10.9790/1959-0703030108

Ahabior, G. ., & Mensah, J. (2021). The Impact of Corporate Culture on Employee Performance: A Case Study of Public Sector in Ghana. *African Journal of Economic Review*, *9*(1), 72–91.

Aladwan, M. A., Salleh, H. S., Anuar, M. M., ALhwadi, H., & Almomani, I. (2021). relationship among service quality, patient satisfaction and patient loyalty: case study in Jordan Mafraq hospital. *Linguistics and Culture Review*, *5*(S3), 27–40. https://doi.org/10.21744/lingcure.v5nS3.1368

Aranki, D. H., Suifan, T. S., & Sweis, R. J. (2019). The Relationship between Organizational Culture and Organizational Commitment. *Modern Applied Science*, *13*(4), 137. https://doi.org/10.5539/mas.v13n4p137

Bagnasco, A. (2020). Organizational culture and patient safety culture: A scoping review. *Journal of Nursing Management*, *28*(2), 255–266.

Bai, A., & Vahedian, M. (2023). Beyond the Screen: Safeguarding Mental Health in the Digital Workplace Through Organizational Commitment and Ethical Environment. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4623055

Baker, L. . (2006). Observation: A Complex Research Method. *LIBRARY TRENDS*, *55*(1), 171–189.

Chiu, C.-H., Pan, W.-H., & Wei, C.-J. (2008). Does Organizational Culture Impact Patient Safety Management. *Asian Journal of Health and Information Sciences*, *3*(1–4), 88–100.

Christina, E., & Irianto, J. (2023). The Influence of Authentic Leadership and Organizational Culture on Performance through Satoria Pharma's Employee Satisfaction. *RSF Conference Series: Business, Management and Social Sciences*, *3*(3), 467–476. https://doi.org/10.31098/bmss.v3i3.711

Churruca, K., Ellis, L. A., Pomare, C., Hogden, A., Bierbaum, M., Long, J. C., Olekalns, A., & Braithwaite, J. (2021). Dimensions of safety culture: A systematic review of quantitative, qualitative and mixed methods for assessing safety culture in hospitals. *BMJ Open*, *11*(7), 1–13. https://doi.org/10.1136/bmjopen-2020-043982

da Silva, L. C., Caldas, C. P., Fassarella, C. S., & de Souza, P. S. (2021). Effect of the organizational culture for patient safety in the hospital setting: A systematic review. *Aquichan*, *21*(2). https://doi.org/10.5294/aqui.2021.21.2.3

Duffy, W. (2017). Improving Patient Safety by Practicing in a Just Culture. *AORN Journal*, *106*(1).

Gallagher, S., Brown, C., & Brown, D. (2020). The Role of Organizational Culture in Empowering Employees: Insights from Healthcare. *Journal of Health Management*, *22*(3), 205–220.

Hafezi, A., Babaii, A., Aghaie, B., & Abbasinia, M. (2022). The relationship between patient safety culture and patient safety competency with adverse events: a multicenter cross-sectional study. *BMC Nursing*, *21*(1), 1–8. https://doi.org/10.1186/s12912-022-01076-w

Huang, H. L., & Liu, Y. (2021). The Effect of Structural Empowerment on Nurses' Perceptions of Safety Culture: A Cross-Sectional Study. *International Journal of Environmental Research and Public Health*, *17*(3), 949.

Huang, J., & Chen, H. (2018). The impact of organizational culture on patient safety in hospitals: The role of people orientation. *International Journal of Environmental Research and Public Health*, *15*(9), 1954.

Jensen, J. S., & Ingerslev, K. (2021). Exploring the Impact of Structural Empowerment on Patient Safety Culture: A Quantitative Study. *BMC Nursing*, *22*(1), 1–10. https://doi.org/https://doi.org/10.1186/s12912-023-01031-5

JR, J. F. H. et al. (2010). *Multivariate Data Analysis.pdf* (Seventh Ed). Pearson Prentice Hall.

Kakemam, E., Gharaee, H., Reza, M., Nadernejad, M., Khakdel, Z., Raessi, P., & Kalhor, R. (2021). Nurses' perception of patient safety culture and its relationship with adverse events: a national questionnaire survey in Iran. *BMC Nursing*, *20*, 1–10.

Kalisch, Beatrice, H. L. and M. R. (2010). Nursing staff teamwork and job satisfaction. *Journal of Nursing Management*, *1*(8), 938–947.

Karlien, B., Nababan, D., Ester, M., Sitorus, J., Tarigan, F. L., & Brahmana, N. B. (2022). Analisis Faktor-Faktor Yang Berhubungan Dengan Budaya Keselamatan Pasien di rumah Sakit Putri Hijau Medan. *PREPOTIF Jurnal Kesehatan Masyarakat*, *6*(3), 2168–2179.

Kline, R. . (2015). *rinciples and practice of structural equation modeling*. Guilford publications.

Lachman, P., Brennan, J., Fitzsimons, J., Jayadev, A., & Runnacles, J. (2022). The economics of patient safety. *Oxford Professional Practice: Handbook of Patient Safety*, 43–54. https://doi.org/10.1093/med/9780192846877.003.0005

Li, N., Zhang, L., Li, X., & Lu, Q. (2021). The influence of operating room nurses' job stress on burnout and organizational commitment: The moderating effect of overcommitment. *Journal of Advanced Nursing*, *77*(4), 1772–1782.

Mahdiyeh, N., Nakhei, M., & Kebriaei, A. (2021). Impact of Organizational Culture on Productivity: A Study among Employees of Ministry of Youth and Sports, Iran. *International Journal of Research Publication and Reviews*, *5*(1), 48–61.

Mahmoud Mahran, S. (2016). Patient Safety Culture and Application of Medication Safety Rules as Perceived by Nurses. *American Journal of Nursing Science*, *5*(2), 52. https://doi.org/10.11648/j.ajns.20160502.13

McFadden, K. L., Stock, G. N., & Gowen, C. R. (2015). Leadership, safety climate, and continuous quality improvement. *Health Care Management Review*, *40*(1), 24–34. https://doi.org/10.1097/HMR.0000000000000006

Morse, A., & Wong, A. (2019). Leaders and patient safety: Leader-member exchange and structural empowerment influencing patient safety climate. *Creating Healthy Work Environments*, 22–24.

Nacarelli, T., & Sell, C. (2021). Empowerment impacts the culture of patient safety. *BMC*, *1*(1).

Naidoo, S., & Martins, N. (2022). Investigating the Relationship between Organizational Culture and Employee Engagement. *International Journal of Human Resource Studies*, *12*(2), 100–115.

Neff, G., & Gerber, R. (2020). Innovation in healthcare: An analysis of its impact on patient safety culture. *Journal of Healthcare Management*, *65*(1), 21–33.

Ongko, T., & Chalidyanto, D. (2023). Fostering path to a just culture in healthcare organizations: Influential factors and challenges. *Jurnal Aisyah : Jurnal Ilmu Kesehatan*, *8*(4). https://doi.org/10.30604/jika.v8i4.2413

P. Robbins, T. J. (2007). *Essentials of Organizational Behavior*. Pearson/Prentice Hall.

Parashar, D. R. (2021). Organizational Culture. *Elementary Education Online*, *20*(January), 6630–6639. https://doi.org/10.17051/ilkonline.2021.01.685

Parizadeh, S., & Beshlideh, K. (2020). Determination of the Relationship between StructuralEmpowerment and Patient's Safety Culture among theEmployees of a Public Hospital in Ahvaz. *Work*, *10*(2), 19–23.

Saeed, H., Md Som, H., & Mahmood, R. (2022). Leadership Styles, Organizational Culture, and Innovation in Healthcare: A Conceptual Framework. *International Journal of Academic Research in Business and Social Sciences*, *12*(8), 1390–1408. https://doi.org/10.6007/ijarbss/v12-i8/14551

Schein, E. H. (2019). Organizational Culture. *American Pyschologist*, *45*, 109–119.

Sharma, S., et al. (2021). "Transformational leadership and patient safety culture: The mediating role of employee engagement." *International Journal of Healthcare Management*, *14*(4), 905–911.

Vipyana, B., & Syah, T. Y. R. (2023). Pengaruh Perceived Organizational Support terhadap Self Efficacy, Work Engagement dan Career Satisfaction pada Pegawai Rumah Sakit di Jakarta. *Judicious*, *4*(1), 38–49. https://doi.org/10.37010/jdc.v4i1.1241

Wagner, C., Smits, M., Sorra, J., & Huang, C. C. (2013). Assessing patient safety culture in hospitals across countries. *International Journal for Quality in Health Care*, *25*(3), 213–221. https://doi.org/10.1093/intqhc/mzt024

Wang, X., Li, C., Chen, Y., Zheng, C., Zhang, F., Huang, Y., & Birch, S. (2022). Relationships between job satisfaction, organizational commitment, burnout and job performance of healthcare professionals in a district-level health care system of Shenzhen, China. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.992258

Zohar, D., & Luria, G. (2019). The effects of organizational culture on patient safety. *Safety Science*, *120*, 60–69.