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# The Relationship Between Patient Safety Culture and Patient Satisfaction Level At Public Health Center Ajung Jember Regency

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## Abstract

Safety culture is an aspect of organizational culture that refers to how health workers see and treat safety in a health service, which has implications for patient satisfaction. This study aimed to identify relationship between patient safety culture and the level of patient satisfaction at Public Health Center Ajung Jember Regency.The research design used was cross-sectional, involving inpatients at Public Health Center Ajung Jember Regency as many as 45 respondents. The sampling technique uses simple random sampling. Data was collected using the Indonesian version of the Hospital Survey of Patient Safety Culture and Service Quality questionnaire. Statistical analysis using Spearman rho test with significance ≤0.05. Most patients expressed a high category of patient safety culture (57.8%), with more than half (51.1%) expressing satisfaction with services. There was a relationship between patient safety culture and patient satisfaction (p-value = 0.000; $\alpha$ = 0.05; r = 0.694). Discussion: Patient satisfaction will also increase by implementing a good patient safety culture. Therefore, training on the implementation of patient safety culture is very necessary to be held for nurses at public health center; in this case, the policy stakeholders who are obliged to hold the training.

## Introduction

Work culture is an organizational management concept related to employee attitudes, beliefs, and perceptions relative to the principles and practices espoused by the institution (Mannion & Davies, 2018). Work culture in a care setting determines how nursing staff and other professionals work together to achieve organizational goals, whether in clinics, hospitals, health centers, or other health institutions (Doha & Harhash, 2020). One aspect of work culture is implementing a patient safety culture (Khoshakhlagh, 2019).

Safety culture is an aspect of organizational culture that refers to how health workers see and treat safety in a health service (Danielsson & Nilsen, 2019). Patient safety culture makes patient care safer, which includes risk assessment, identification and management of patient

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risk, incident reporting and analysis, ability to learn from incidents and their follow-up, and implementation of solutions to minimize risk generation and prevent injuries caused by mistakes due to acting or not taking action that should be taken (Mohammed, 2021). The change in the paradigm of quality service or quality towards a new paradigm, namely quality and safety, is not only the quality of service that must be improved but, more importantly, to maintain patient safety consistently and continuously so that patient safety will be better (Marsch & Khodos, 2022).

*World Health Organization* (2019) reports that global estimates of patient safety in hospitalized patients reach 5-10%. A study by Shahabinejad (2020) revealed that in the African Region, the incidence of patient safety reaches 3-17%. In a study by Kaware & Ibrahim (2022) in the Americas, patient safety incidents reached 980,000 annually. Kementrian Kesehatan RI (2020) revealed that in Indonesia, the percentage of health service facilities that conduct patient safety reporting and audits only reaches 20%, and service quality indicators are found that patient identification compliance only reaches 66.67%, the average response time reaches 10.5%, the average waiting time for outpatient services reaches 10.5%. A preliminary study conducted at UPTD Public Health Center Ajung Jember Regency in November 2022 showed that the implementation of a patient safety culture in the form of patient re-identification as much as 76% did not meet the indicator target and the reporting of case incidents only reached 75%, and only 35% carried out *double checks* for invasive measures, and it was also known that the patient satisfaction rate only reached 70% below the national target of 85% (Internal Quality and Safety Data Public Health Center Ajung patient, 2021).

The challenge of achieving safer health care has been increasingly recognized over the past few decades after several reports of the frequency of adverse events were preventable (Gammon, 2019). The importance of developing a safety culture has been emphasized as investigations into failures in healthcare have identified a weak patient safety culture as a common factor contributing to adverse events (Luo & Cooper, 2022). Patient safety has become a top priority and global issue for healthcare facilities. It is an important component of health service quality, a basic principle of patient service and a critical component of quality management that is principled in patient-*centered, patient safety, and good governance* so that it will have an impact on improving service quality and ultimately will contribute to patient satisfaction (Hadi, 2017).

Nursing services are professional services that are oriented towards patient safety. Nurses have a role in maintaining the quality of service and patient safety. Factors that become challenges for nurses in providing safe nursing care and contributing to the implementation of

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patient safety culture are the clinic environment, labor issues, teamwork, communication, nurses' perspectives on patient safety, patient perspectives on patient safety, technology, and blame culture for errors that will ultimately have an impact on patient satisfaction levels (Hadi, 2017). Patient satisfaction is one indicator that shows the effectiveness of health service quality in accreditation standards. Patient satisfaction allows healthcare providers to identify improvement cases (Afsar & Karbasi, 2021).

Higher patient satisfaction with medical services increases patient behavioural goals such as sticking to treatments recommended by healthcare personnel, paying attention to follow-up visits and recommending treatment centers to others (Okafor & Anthony, 2018). Hospital and Public Health Center managers are required to take more effective measures to improve quality and patient safety. Improvement of safety culture is a priority in the management program. The environment to be adjusted so that personnel can express their opinions and mistakes as well as the opinions and mistakes of their colleagues without blame and criticism thus clarifying the status of the safety culture that governs the centre and its strengths or weaknesses for managers and supervisors and can also have the ability to improve patient conditions by increasing staff awareness of patient safety (Akogolo, 2019).

The implementation of patient safety culture is the core of health services, so further study is needed on the relationship between patient safety culture and patient satisfaction level at Public Health Center Ajung, Jember Regency.

**Research Methods**

This study used a cross-sectional design with the population of patients at Public Health Center Ajung Jember Regency involving as many as 45 respondents. The sampling technique in this study used accidental sampling. Respondents who met the inclusion criteria in the specified research time period were used as research subjects. The study was conducted in April – May 2023. Data were taken using the *Hospital Survey of Patient Safety Culture* (HSOPSC) and *Service Quality (ServQual) questionnaires.* Data analysis for respondent characteristics was analyzed using frequency distribution and hypothesis using Spearman rho at p value significance level≤ 0.05.

**Result**

**Table 5.1** Frequency Distribution of Age Characteristics of Patients at Public Health Center Ajung, Jember Regency in 2023 (n=45)

| Age | Frequency | Percentage |
| --- | --- | --- |

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| | | |
|---|---|---|
| 21-30 years | 5 | 11,1 |
| 31-40 years | 17 | 37,8 |
| 41-50 years | 23 | 51,1 |
| total | 45 | 100 |

Based on Table 5.1, it can be known that the age characteristics of patients at public health centre Ajung, Jember Regency are more than half aged between 41-50 years, namely 23 respondents (51.1%).

**Table 5.2** Frequency Distribution of Patient Education Characteristics at Public Health Center Ajung Jember Regency in 2023 (n=45)

| Education | Frequency | Percentage |
|---|---|---|
| Primary School | 35 | 77,8 |
| Junior School | 5 | 11,1 |
| High School | 5 | 11,1 |
| Total | 45 | 100 |

Table 5.2 shows the characteristics of patient education at the public health centre Ajung, Jember Regency. Most were elementary school graduates, namely as many as 35 respondents (77.8%).

**Table 5.3** Frequency Distribution of Patient Sex Characteristics at Public Health Center Ajung, Jember Regency in 2023 (n=45)

| Gender | Frequency | Precentage |
|---|---|---|
| Male | 10 | 22,2 |
| Female | 35 | 77,8 |
| Total | 45 | 100 |

Based on Table 5.3, it can be seen that the gender characteristics of patients at Public Health Center Ajung Jember Regency are mostly women, namely as many as 35 respondents (77.8%).

**Table 5.4** Distribution of Patient Safety Culture at Public Health Center Ajung Jember Regency in 2023 (n=45)

| Patient Safety Culture | Frequency | Percentage |
|---|---|---|
| Low | 4 | 8,9 |
| Medium | 15 | 33,3 |
| High | 26 | 57,8 |
| Total | 45 | 100 |

Based on table 5.4, it can be seen that the patient safety culture in patients at Public Health Center Ajung Jember Regency shows that most of them are high, namely as many as 26 respondents (57.8%).

**Table 5.5** Distribution of Patient Safety Culture at Public Health Center Ajung Jember Regency in 2023 (n=45)

| Patient Satisfaction Level | Frequency | Percentage |
|---|---|---|
| Not satisfied | 5 | 11,1 |
| Quite satisfied | 17 | 37,8 |
| Satisfied | 23 | 51,1 |

| | Total | 45 | 100 |
|---|---|---|---|

Based on Table 5.5, it can be seen that the level of patient satisfaction at Public Health Center Ajung, Jember Regency shows that more than half of them expressed satisfaction, namely as many as 23 respondents (51.1%)

**Table 5.6 Cross-tabulating the relationship of patient safety culture to levels Kepuasan Patients at public health center Ajung, Jember Regency in 2023 (n=45)**

| Budaya Keselamatan Pasien | Tingkat Kepuasan Pasien | | | | | | Total | | p-value | r |
|---|---|---|---|---|---|---|---|---|---|---|
| | Tidak puas | | Cukup | | Puas | | | | | |
| | f | % | f | % | f | % | f | % | 0,000 | 0,694 |
| Rendah | 4 | 93,3 | 0 | 0 | 0 | 0 | 4 | 100 | | |
| Sedang | 1 | 6,7 | 11 | 73,3 | 3 | 23,1 | 15 | 100 | | |
| Tinggi | 0 | 0 | 6 | 23,1 | 20 | 76,9 | 20 | 100 | | |
| Jumlah | 5 | 11,1 | 17 | 37,8 | 23 | 51,1 | 45 | 100 | | |

Table 5.6 shows that in the low category patient safety culture, all expressed dissatisfaction, namely as many as 4 respondents (100%). In the moderate category of patient safety culture, it showed that most expressed quite satisfied with 11 respondents (73.3%). In the high category patient safety culture, most expressed satisfaction, with 20 respondents (76.9%).

The analysis results in Table 5.8 above show that the p-*value* = 0.000; $\alpha$ = 0.05; r = 0.694. The hypothesis is based on statistical assumptions; if the significance value is >0.05, then H1 is rejected, and if the significance value is <0.05, then H1 is accepted. The analysis results in this study showed that the significance value <0.05; H1 was accepted, which means that there is a relationship between patient safety culture and patient satisfaction at public health center Ajung, Jember Regency. And it is also known that the value of r = 0.694 which indicates that the direction of the relationship is positive with a strong correlation between the independent variable and the dependent variable which is assumed that the higher the application of patient safety culture, it will be followed by an increase in patient satisfaction, and vice versa if the implementation of patient safety culture is felt to be low it will be followed by a decrease in patient satisfaction (dissatisfied patients).

**Discussion**

**Patient Safety Culture at Public Health Center Ajung Jember Regency**

The study results showed that the patient safety culture at Public Health Center Ajung Jember Regency was mostly in the high category (57.8%). This shows that implementing the patient safety culture by the Public Health Center Ajung Jember Regency staff has been carried

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out optimally. It also means that the organization, in this case the healthcare facility, has supported and promoted patient safety, which refers to the values, beliefs, and norms shared by health practitioners and other staff in the health facility.

According to Luo & Cooper (2022) A patient safety culture is said to be good when the safety of care in some situations has been maintained and coordinated with successfully adapted and implemented patient safety measures such as measuring and understanding the risks and causes of harm and to develop solutions that prevent, mitigate or mitigate the impact of harm. Something similar is explained by Mohamed & Mahrous (2018). Effective leadership in accepting a patient safety culture to ensure quality and patient safety by encouraging and practicing teamwork building, leading to a strong proactive safety culture and a commitment to learning from mistakes. In addition, building a safety culture system needs to consider staff and make them feel that their blame will not be placed on them, but will be used as a constructive discussion. When an event is reported, it should be handled systematically and professionally rather than sacrificing the person. Staff are worried that their mistakes or mistakes will be stored in their personnel files and staff must be reassured that this will not happen

Referring to secondary data at Public Health Center Ajung, Jember Regency, the average staff is 34-48 years old with an average of more than 5 years of work. According to a study by Alqattan & Cleland (2018), healthcare workers younger than 34 are less likely to have a good patient safety culture compared to those aged ≥34. We assume this could be because the age, experiences, social interactions, attitudes, perceptions and values staff share within the organisation related to patient safety increase with age.

The results of this study show that the culture of patient safety has been well implemented; this is in line with Li & Zhao (2018) that the average patient perceives the safety culture carried out by health staff has been good. The same thing was revealed by Alqattan & Cleland (2018) That the implementation of a patient safety culture has been done well; this is attributed to a mutually supportive organizational culture to continue to implement a safety culture on patients.

However, the findings in this study also do not deny the implementation of a low patient safety culture. Therefore, patient safety interventions in the health care system at Public Health Center  Ajung Jember Regency need to be targeted at several strategies within the organization, starting with policy development and extending to risk assessment and management and the implementation of processes to reduce the risk, incidence and impact of preventable side effects. In particular, improving patient safety culture must focus on system/organizational

factors. This provides an understanding that at Public Health Center  Ajung Jember Regency, the implementation of patient safety culture has been carried out well; this gives the idea that according to patients, nurses have carried out patient safety culture in their unit, carried out identification procedures, mediated in case of drug reactions, carried out real support from all personnel with results in the form of feeling safe, feeling handled well,  As well as all the information needed in making medical decisions can be easily available.

**Patient Satisfaction Level at Public Health Center Ajung Jember Regency**

The study's results showed that the patient satisfaction level at Public Health Center Ajung Jember Regency showed more than half expressed satisfaction (51.1%). This provides evidence that the patient feels a high level of satisfaction. This shows that patient satisfaction is an important measure of healthcare quality because it offers information about the nurse's success in meeting the expectations most relevant to the patient and a key determinant of the patient's perspective.

According to Astuti, (2019) Patient satisfaction reflects the patient's evaluative perception of the service received at a certain time. It also refers to patients who are satisfied with nursing services are projections of exceeding expectations where the perceived reality is better than the expectations the patient wants. Kotler *et al* (2016) Explain that patient satisfaction is the difference between reality and customer expectations for the subscription they receive or obtain. Two main factors affect satisfaction: *expected service and perceived* service or the expected quality of service and the quality of service received or felt. If the services received or perceived are as expected, then the quality of services is perceived as good and satisfactory. Conversely, if the service received is lower than expected, the quality of the service is perceived as poor quality. Quality should start from customer needs and end at customer perception.

This study consistently shows the same results as previous studies. The results of this study are supported by research by Fadli et al., (2020) that most patients are satisfied with the nurse's services. Similar things are expressed by Butar-butar & Simamora (2016) that most patients have been satisfied with the services provided by the nurse during the care period.

Based on age, it is known that most participants are in middle adulthood. The older a person is, the more his mindset and perception develop. This gives a reason that a person will be more meaningful to every condition and situation experienced with the older age.

Based on the level of education, it can be seen that most of the participants are elementary school graduates. Moghaddam *et al.,* (2021) Explain that most structured health information

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will positively impact society related to education. Baumgaertner & Ridenhour (2020) That in this digital era, the first source of health information received by the public is through digital networks (internet), but the concern in the future is that the ease of digital access is not accompanied by wise use of the information received. In line with these findings, Lee & Wu (2014) Explain that there is a significant relationship between education level and individual ability to receive health information through health communication. According to Piovesan & Molino (2014), The level of education influences the understanding of abstractions from patients, mainly related to the patient's understanding of the explanations given by health workers so that interaction through communication is established.

Based on gender, this study's results showed that most participants were female. Harahap & Putra (2020) Explained that both men and women have psychological responses to different reasons so that the consequences are different for receiving care and anything emotionally felt that women are more able to say than men. Further afield, Potter & Perry (2010) explained that women use language to seek clarity, minimize differences, and build and support intimacy, while men use language to gain independence. This assumes that women are more accepting and open to various situations and can provide adaptive responses in various situations; this is because women involve the emotional side and do not put forward logic alone in accepting situations.

## The Relationship between Patient Safety Culture and Patient Satisfaction Level at Public Health Center Ajung Jember Regency

The results showed that in the low category, patient safety culture showed that all expressed dissatisfaction (100%). Moderate patient safety cultures showed that most were moderately satisfied (73.3%). Most expressed satisfaction in the high category patient safety culture (76.9%). This study revealed that there is a relationship between patient safety culture and patient satisfaction level at Public Health Center Ajung Jember Regency (p-*value* = 0.000; $\alpha = 0.05$; r = 0.694)

According to Gunawan & Hariyati (2019), strengths, weaknesses, and culture predict patient safety in nursing practice. Strengths consist of four dimensions of teamwork within the unit: organizational learning and continuous Improvement, hospital management's support of patient safety, and frequency of reported events. On the other hand, weaknesses include assumptions about overall patient safety, handover and transfer, open communication, staffing, nonpunitive response to errors, and teamwork across hospital units. Predictors of patient safety

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culture are feedback and communication about mistakes and expectations and supervisor/manager actions that promote safety.

The study showed a positive relationship between patient safety culture and satisfaction levels. This shows that if the patient safety culture is implemented optimally, it will increase patient satisfaction. These findings align with studies by Pezang & Hutchinson (2018) that there is a positive relationship between patient safety culture and satisfaction during treatment.

We assume that implementing a patient safety culture involves the special ability of nurses to provide care. The logical implication of low implementation of a safety culture modulates declining patient satisfaction. However, if the patient safety culture is carried out optimally, it will impact psychological support from patients, impacting patient perceptions of patient satisfaction. Giving satisfaction to patients can only be obtained if patients get what they want. The higher the patient safety culture, the patient will feel safe, significantly supporting higher patient satisfaction. In addition, the perceived influence positively affects satisfaction and strongly affects recommendations for a share in care during the treatment period.

This shows that by implementing a good patient safety culture, the level of patient satisfaction will also increase because nurses need to continue to practice patient safety culture, especially as one of the indicators in accreditation. Therefore, training on implementing patient safety culture is very necessary, in this case, policymakers who are obliged to hold the training. In addition, priorities for Improvement include nonpunitive responses to errors, staff, and open communication. Teamwork within the unit and organizational learning with continuous Improvement is important to be done well to positively impact the culture of patient safety.

This study consistently shows that if patient safety culture is implemented well, patients tend to express satisfaction. This shows that the result patient safety culture creates a sense of security for patients, a sense of comfort and the ease of obtaining information and gives a quick response if there is an incident It is done by identifying the patient, it builds a positive perspective that will ultimately make patients feel satisfied with all the services provided

**Conclusion**

The identification results related to the patient safety culture at Public Health Center Ajung Jember Regency showed that most stated to be in the high category. The identification results related to the level of patient satisfaction at Public Health Center Ajung Jember Regency showed that more than half expressed satisfaction. The analysis results showed a significant relationship between patient safety culture and patient satisfaction levels at Public Health

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Center Ajung, Jember Regency. This means that the higher the implementation of patient safety culture, an increase will follow it in patient satisfaction, and vice versa if the implementation of patient safety culture is felt to be low, it will be followed by a decrease in patient satisfaction (dissatisfied patients).

## RECOMMENDATIONS

It is recommended for nursing education to continue to develop and build a patient safety culture since nursing students receive initial lectures so that souls will be formed that can carry out a patient safety culture public health centers should make reports and report forms regularly and require staff to make incident reports regularly every month and periodically develop patient safety through *root case analysis*. Practical training should be carried out on patient safety culture for all staff. It is recommended that nurses provide a patient safety culture and can be honest about patient safety incidents. Continue to develop humane care, dare to report safety incidents, and learn to be responsible. The results of this study can be used as initial data and motivation to conduct further research in the scope of nursing management, especially related to patient safety. As well as using other approaches so that it is known how much influence between variables, such as the use of liner regression analysis

### Author Contributions

First author: designing the whole concept of the study, collecting and analyzing the data, and writing the manuscript

Second and third author: giving a guidance for the researcher during the process of research preparation and implementation, supervising and ensuring that research project is carried out in accordance with the methodology research.

### Acknowledgment

### Conflict of Interest

The authors have reported no conflicts of interest.

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