Patient Safety Culture in The Inpatient Installation of Dr. R. Hardjanto Hospital Balikpapan

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Abstract
Patient safety has become a global concern in healthcare systems, particularly in hospital settings where the risk of adverse events remains significant. This study aims to analyze the patient safety culture among nurses in the inpatient installation of Dr. R. Hardjanto Hospital Balikpapan and its relationship with the implementation of healthcare services. A descriptive quantitative design was applied in this study. The population consisted of all nurses working in the inpatient installation, with a total sample of 75 respondents selected using proportionate stratified random sampling. Data were collected through structured questionnaires measuring various dimensions of patient safety culture, including teamwork, communication, leadership support, non-punitive response to errors, and incident reporting. The results showed that 50.7% of respondents had a high level of patient safety culture, while 49.3% were categorized as low. Several dimensions such as organizational learning (85.3%), feedback on errors (84%), and teamwork across units (92%) were categorized as high. However, some aspects including non-punitive response to errors (42%), staffing adequacy (44%), and patient handover (49.3%) were still considered low. In terms of service implementation, 69.3% of respondents demonstrated good performance, while 30.7% showed poor performance. The findings also revealed that nurses with a high level of patient safety culture consistently performed better in delivering healthcare services. This study concludes that patient safety culture significantly influences the quality of healthcare service delivery. Strengthening weak dimensions of patient safety culture, improving leadership roles, ensuring adequate staffing, and promoting a non-punitive reporting environment are essential to enhance patient safety outcomes. These findings provide valuable insights for hospital management to develop strategies aimed at improving patient safety culture and service quality.

Introduction

Patient safety has become a global issue, particularly in hospital settings. Since the Institute of Medicine (IOM) in the United States published the report "To Err is Human: Building a Safer Health System," attention to patient safety has significantly increased. The report revealed that adverse events in hospitals contributed to high mortality rates, ranging from 44,000 to 98,000 deaths annually among hospitalized patients. Studies conducted in Utah, Colorado, and New York showed adverse event rates of 2.9%–3.7%, with mortality rates reaching up to 13.6%.

The World Health Organization (WHO) also reported in 2004 that adverse events in hospitals across several countries, including the United States, the United Kingdom, Denmark, and Australia, ranged from 3.2% to 16.6%. These findings prompted many countries to develop patient safety systems aimed at reducing medical errors and improving healthcare quality.

Hospitals continuously strive to improve quality through structural, process, and outcome-based approaches, supported by various standards such as hospital service standards, ISO certification, and clinical indicators. Currently, patient safety standards are guided by the Joint Commission International (JCI), which outlines key patient safety goals, including accurate

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patient identification, effective communication, medication safety, correct procedures, infection prevention, and risk reduction.

Improving patient safety requires strong organizational culture. Patient safety culture is considered an essential component in predicting and preventing errors in healthcare services. According to the Agency for Healthcare Research and Quality (AHRQ), patient safety culture includes several dimensions, such as leadership support, teamwork, communication openness, feedback on errors, non-punitive response to errors, adequate staffing, and incident reporting frequency. Dr. R. Hardjanto Hospital Balikpapan is one of the healthcare institutions that has implemented patient safety programs as part of its quality improvement efforts. Despite these efforts, incidents are often underreported due to fear of blame or negative consequences. This condition limits the hospital management's ability to identify potential risks and improve safety systems.

Therefore, this study aims to describe the patient safety culture among nurses in implementing patient safety practices in the inpatient installation of Dr. R. Hardjanto Hospital Balikpapan.

Methods

This study was conducted at Dr. R. Hardjanto Hospital Balikpapan on 01 mei 2026. The research design used was a descriptive quantitative approach aimed at providing an objective overview of patient safety culture among nurses. The study population consisted of all nurses working in the inpatient installation. A total of 75 nurses were selected as respondents using proportionate stratified random sampling to ensure representation across different units.

Data collection was carried out using both primary and secondary data sources. Primary data were obtained through questionnaires designed to assess nurses' perceptions of patient safety culture in their daily practice. Secondary data included hospital profiles, staffing data, adverse event reports, and nosocomial infection records. The collected data were processed and analyzed using computerized statistical software. The analysis technique applied was univariate analysis, which was used to describe the frequency distribution of respondent characteristics and research variables. The results were presented in tables and narrative form.

Results and Discussion

The majority of respondents were female, accounting for 60 respondents (80%), while male respondents totaled 15 (20%). Most respondents were aged between 20–29 years, with 35 respondents (46.7%), while the smallest proportion was in the 50–59 years age group, consisting of 8 respondents (10.6%). Most respondents held a Diploma III (D3) in Nursing (54.7%). In terms of work experience, the majority had 1–5 years of experience (41.3%), while the smallest group had 6–10 years of experience (12.1%).

Table 1. Distribution of Respondent Characteristics

Characteristics	n	%
Gender		
Male	15	20.0
Female	60	80.0
Age (years)		
20–29	35	46.7
30–39	21	28.0
40–49	11	14.7
50–59	8	10.6
Education		
Diploma (D3) Nursing	41	54.7
Bachelor (S1) Nursing	34	45.3
Work Experience		
<1 year	10	13.3
1–5 years	31	41.3
6–10 years	9	12.1
>10 years	25	33.3
Total	**75**	**100**

The aspect of supervisor/manager expectations and actions in promoting patient safety was categorized as low, with 37 respondents (49.3%) having low perceptions. Organizational learning for continuous improvement was categorized as high (85.3%). Teamwork within units (70.7%), communication openness (72%), and feedback on errors (84%) were also categorized as high. However, non-punitive response to errors was categorized as low (42%).

Table 2. Distribution of Patient Safety Culture Dimensions

No	Variables	High	%	Low	%
1	Supervisor/Manager Expectations	38	50.7	37	49.3
2	Organizational Learning	64	85.3	11	14.7
3	Teamwork Within Unit	53	70.7	2	29.3
4	Communication Openness	54	72.0	2	28.0
5	Feedback On Errors	63	84.0	1	16.0
6	Non-Punitive Response	43	57.3	3	42.7
7	Adequate Staffing	42	56.0	3	44.0
8	Overall Perception ff Safety	42	56.0	3	44.0
9	Management Support	70	93.3	5	6.7
10	Teamwork Across Units	69	92.0	6	8.0
11	Patient Handover	38	50.7	3	49.3
12	Incident Reporting Frequency	64	85.3	1	14.7

Adequate staffing and overall perception of patient safety were still relatively low (44%). Meanwhile, management support (93.3%) and teamwork across units (92%) were high. Patient handover and transfer processes were nearly balanced between high and low categories. Overall, service implementation was categorized as good in 52 respondents (69.3%) and poor in 23 respondents (30.7%).

Table 3. Distribution of Service Implementation

No	Vareiables	N	%
1	God	52	69.3
2	Poor	23	30.7
Total		**75**	**100**

Cross-tabulation results showed that good service implementation was consistently associated with higher patient safety culture.

Table 4. Cross-tabulation of Patient Safety Culture and Service Implementation

No	Variable	Good (%)	Poor
1	Supervisor Support (High)	71.1	28.9
2	Organizational Learning (High)	73.4	26.6
3	Teamwork Within Unit (High)	77.4	22.6
4	Communication Openness (High)	81.5	18.5
5	Feedback On Errors (High)	71.4	28.6
6	Non-Punitive Response (High)	74.4	25.6
7	Adequate Staffing (High)	76.3	23.8
8	Overall Perception (High)	73.8	26.2
9	Management Support (High)	70.0	30.0
10	Teamwork Across Units (High)	66.7	33.3
11	Patient Handover (High)	78.9	21.1
12	Incident Reporting (High)	73.3	26.6

According to organizational theory, organizational variables indirectly influence individual performance and behavior. Organizational culture plays a significant role in shaping employee motivation and performance. A strong culture fosters shared values and behaviors that enhance comfort and productivity in the workplace. Patient safety culture has a direct relationship with healthcare service implementation, which ultimately ensures patient safety. Transformational leadership also plays an important role in influencing safety culture within healthcare organizations.

Most dimensions of patient safety culture were implemented well. However, several aspects—such as patient handover, staffing adequacy, supervisor support, and non- punitive response—remained relatively low (40–49%). Patient handover is a critical process involving the transfer of accurate information during transitions of care. Ineffective communication during handover can disrupt continuity of care and increase the risk of medical errors, particularly medication errors. Leadership plays a key role in promoting patient safety culture. Low perceptions regarding supervisor support indicate that some staff perceive insufficient involvement of management in reinforcing safety practices.

The non-punitive response to errors remains a challenge, as fear of blame discourages reporting. This limits organizational learning and improvement opportunities. Adequate staffing is also essential, as insufficient staffing increases workload and contributes to human error. Hospitals with inadequate nurse-to-patient ratios are at higher risk of adverse events. The findings also indicate that although most respondents provided good service, some unsafe

practices still occurred, such as improper injection practices, lack of supervision in infusion therapy, and inadequate patient assistance. These findings align with previous studies indicating that better implementation of patient safety practices leads to improved outcomes, including reduced incidents and increased awareness of patient safety.

Conclusion and Recommendations

The results of this study indicate that out of 75 respondents, 37 respondents (49.3%) were categorized as having a low level of patient safety culture, while 38 respondents (50.7%) were categorized as having a high level of patient safety culture Among the 37 respondents with low patient safety culture, 23 nurses (62.2%) demonstrated poor service implementation, while 14 nurses (37.8%) showed good service implementation. In contrast, all respondents (100%) with a high level of patient safety culture demonstrated good service implementation.

These findings clearly demonstrate that patient safety culture has a significant influence on the quality of healthcare service delivery. Nurses with a strong patient safety culture tend to perform better in implementing safe and effective healthcare practices. This suggests that improving patient safety culture is essential to achieving better service outcomes and minimizing the risk of adverse events in hospital settings. Furthermore, the study highlights that certain dimensions of patient safety culture, such as non-punitive response to errors, adequate staffing, supervisor support, and patient handover processes, still require improvement. Weaknesses in these areas may hinder optimal service delivery and increase the potential for errors in patient care.

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