

The Relationship between the Transformational Leadership Style of the Head of the Room and the Psychological Safety of Nurses at PKU Muhammadiyah Hospital, Sukoharjo

Irvani Faizzah Nadhif¹, Muhlizardy²

Universitas 'Aisyiyah Surakarta

Corresponding Author e-mail: irvani2021@gmail.com

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Abstract: *Transformational leadership of head nurses plays an important role in creating a psychologically safe work environment for nurses. However, psychological safety remains a challenge in healthcare settings, particularly in relation to open communication, expressing opinions, and reporting errors. This study aimed to determine the relationship between the transformational leadership style of head nurses and nurses' psychological safety at PKU Muhammadiyah Hospital, Sukoharjo. This study employed a quantitative observational analytical design with a cross-sectional approach. The study population consisted of 90 nurses, and 73 respondents were selected using proportionate stratified random sampling. Data were collected using questionnaires measuring transformational leadership and psychological safety. The data were analyzed using descriptive statistics and Spearman's rank correlation test with a significance level of $p < 0.05$. The results showed that the majority of nurses perceived the transformational leadership style of head nurses as good (61.6%), while 52.1% of nurses reported a moderate level of psychological safety. Spearman's rank correlation analysis demonstrated a statistically significant positive relationship between transformational leadership and nurses' psychological safety, with a moderate correlation strength ($r = 0.587$; $p < 0.001$). These findings indicate that higher levels of perceived transformational leadership are associated with higher levels of psychological safety among nurses. Therefore, strengthening transformational leadership competencies among head nurses through leadership training, coaching, and mentoring may contribute to creating a work environment that supports open communication, teamwork, and patient safety.*

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Introduction

Hospitals are health service organizations that have an important role in providing safe, quality services that are oriented towards patient safety.(WHO, 2011; Ministry of Health, 2023)The success of healthcare services is not only determined by the availability of facilities and infrastructure, but also influenced by the quality of human resources, especially nurses as healthcare workers who provide direct services to patients 24 hours a day. In carrying out these services, nurses are required to be able to communicate effectively, work together in teams, and have the courage to express opinions and report errors that have the potential to endanger patient safety. Therefore, a work environment is needed that can provide a sense of psychological safety for each nurse so that they can carry out their duties optimally.(Edmondson, 1999).

Psychological safety is an individual's belief that the work environment is safe for taking interpersonal risks, such as expressing opinions, asking questions, or reporting mistakes without fear of punishment or negative consequences.(O'Donovan and McAuliffe, 2020)In healthcare, psychological safety is an important component in building a culture of patient safety because it encourages healthcare workers to communicate openly and actively participate in organizational learning.(WHO, 2020)Nurses who have high psychological safety tend to be more confident in expressing ideas, asking for help when facing complex clinical situations, and reporting patient safety incidents, thus preventing repeated errors.(Cho and Steege, 2025; El-sayed et al., 2025)On the other hand, low psychological safety can cause nurses to choose to remain silent, be reluctant to report errors, and reduce the effectiveness of communication within the health care team.(Lee and Dahinten, 2021).

Various studies have shown that psychological safety remains a challenge in healthcare environments. Data from hospital studies indicate that approximately 27%–44% of healthcare workers do not feel safe in communicating and reporting errors, while approximately 58.5% of healthcare workers lack adequate psychological safety. This situation results in decreased open communication, an increased risk of missed nursing care, and the emergence of turnover intention. These findings demonstrate that psychological safety is a crucial factor that requires attention in human resource management in hospitals.

One factor that plays a role in shaping psychological safety is the leadership style of the ward head. The ward head is the first-line leader who interacts directly with nurses, thus influencing the work environment, communication, motivation, and safety culture in the service unit.(Lisser et al., 2024). Transformational leadership style emphasizes the leader's ability to provide role models (idealized influence), inspirational motivation, intellectual stimulation, and individualized consideration.(Mekonnen and Bayissa, 2023)Through these four dimensions, the room head is expected to be able to create a work environment that supports open communication, learning from mistakes, and mutual trust among team members.

Previous research has shown that transformational leadership has a positive relationship with various organizational outcomes, such as increased job satisfaction, innovative behavior, psychological empowerment, and the creation of a work environment that supports psychological safety. Research by Cho and Steege (2025) found that psychological safety is associated with a decrease in missed nursing care and intention to leave among hospital nurses. Mekonnen and Bayissa (2023) reported that transformational leadership contributes to increasing organizational readiness for change in healthcare workers. Meanwhile, El-Gazar et al. (2024) showed that psychological safety plays a significant role in enhancing nurse creativity in the workplace. However, research specifically analyzing the relationship between the transformational leadership style of ward heads and nurse psychological safety in hospitals in Indonesia is still limited.

Based on initial observations at PKU Muhammadiyah Hospital in Sukoharjo, there are 90 nurses spread across various service units. Interviews with 15 nurses and two ward heads revealed several challenges, such as a lack of firmness among ward heads in enforcing regulations, nurses lacking confidence in expressing their opinions, and an uneven distribution of workload. These conditions indicate that the ward head's role extends beyond the technical aspects of service delivery, but also



includes building interpersonal relationships, providing support to nurses, and creating a psychologically safe work environment.

This study is novel in that it directly examines the relationship between the transformational leadership style of ward heads and nurses' psychological safety in the context of hospitals in Indonesia, specifically at PKU Muhammadiyah Hospital, Sukoharjo. Unlike previous studies that primarily examined leadership variables related to job satisfaction, organizational readiness, or the creativity of healthcare workers, this study positions psychological safety as the primary outcome analyzed. The results are expected to provide empirical evidence regarding the importance of transformational leadership in building a psychologically safe work environment and provide input for hospital management in improving the leadership quality of ward heads and the quality of nursing services. Based on this description, this study aims to analyze the relationship between the transformational leadership style of ward heads and nurses' psychological safety at PKU Muhammadiyah Hospital, Sukoharjo.

Research methods

This study is a quantitative study with an observational analytical design using a cross-sectional approach to analyze the relationship between the transformational leadership style of ward heads and nurses' psychological safety. Measurements were conducted at the same time without intervention. The study was conducted at PKU Muhammadiyah Hospital, Sukoharjo in May 2026. The population was 90 nurses with a minimum work period of 6 months. A sample of 73 respondents was determined using the Slovin formula and taken using a proportionate random sampling technique from various service units (PICU, Pediatric Ward, Adult Ward, ICU, OC, ER, and Polyclinic).

Inclusion criteria included active nurses in the service unit and willing to be respondents, while exclusion criteria were nurses on leave, study/training assignments, and ward heads. Data were collected using the Multifactor Leadership Questionnaire (MLQ) to measure transformational leadership and the Psychological Safety questionnaire based on Edmondson, which has been tested for validity and reliability. Both instruments use a Likert scale of 1–5. Data analysis used SPSS. Univariate analysis was used to describe the characteristics of respondents and research variables, while bivariate analysis used the Spearman Rank test with a significance level of $p < 0.05$.

Results and Discussion

A total of 73 nurses at PKU Muhammadiyah Hospital in Sukoharjo participated in this study. The majority of respondents were female (65.8%), aged 25–35 years (79.5%), had a professional nursing education (67.1%), and had worked for 1–5 years (46.6%). These characteristics indicate that most respondents were productive-age nurses with a professional educational background and relatively adequate work experience in nursing services.

Table 1 Respondent Characteristics

No	Respondent Characteristics	Frequency (f= 73)	Percentage (%)
1	Gender		
	Man	25	34.2
	Woman	48	65.8
2	Age		
	< 25 Years	7	9.6
	25 – 35 Years	58	79.5
	36 – 45 Years	7	9.6
3	Last education		
	D3	24	32.9
	Nurses	49	67.1
4	Length of working		
	6 Months – 1 Year	8	11.0

15 years	34	46.6
6 – 10 Years	22	30.1
>10 Years	9	12.3

1. Transformational Leadership Style of Room Head

Table2. Frequency Distribution of Transformational Leadership

Transformational Leadership	Frequency (n)	Percentage (%)
Not enough	7	9.6
Enough	21	28.8
Good	45	61.6
Total	73	100

Based on these results, it can be seen that the majority of nurses have a positive perception of the ward head's transformational leadership style. Analysis of each dimension shows that all dimensions of transformational leadership are predominantly in the good category. The Inspirational Motivation dimension has the highest proportion of the good category (65.8%), indicating that the ward head is considered capable of providing motivation, inspiration, and clear direction to nurses in carrying out nursing services.

2. Psychological Safety of Nurses

Table3 Frequency Distribution of Psychological Safety

Psychological Safety	Frequency (n)	Percentage (%)
Low	6	8.2
Currently	38	52.1
Tall	29	39.7
Total	73	100

The findings indicate that most nurses feel safe enough to communicate, express their opinions, and work together as a team. However, some respondents still experience low psychological safety, requiring attention from hospital management.

3. The Relationship between Transformational Leadership Style and Psychological Safety

Table4. Distribution Relationship

Transformational Leadership	Psychological Safety			Total	<i>p-value</i>	<i>r</i>
	Low	Currently	Tall			
Not enough	6	1	0	7	0,000	0.587
Enough	0	14	7	21		
Good	0	23	22	45		
Total	6	38	29	73		

The statistical test results showed a *p* value <0.001, indicating a significant relationship between the ward head's transformational leadership style and nurses' psychological safety. The correlation coefficient value of *r* = 0.587 indicates a positive relationship with moderate to strong correlation strength. Thus, the better the implementation of the transformational leadership style by the ward head, the higher the psychological safety perceived by nurses. The cross-tabulation results showed that respondents who rated transformational leadership as being in the poor category mostly had low psychological safety, while respondents who rated transformational leadership as being in the good category mostly had moderate to high psychological safety.

Discussion

This study shows that the majority of nurses rated the ward head's transformational leadership style as good (61.6%). These findings indicate that the ward head at PKU Muhammadiyah Hospital, Sukoharjo, has implemented leadership behaviors that reflect transformational leadership characteristics, such as providing role models, motivation, intellectual stimulation, and individual attention to nurses. In Bass and Avolio's theory, transformational leadership is a leadership style that can

inspire subordinates to achieve organizational goals through building trusting relationships, effective communication, and empowering team members.

The predominance of good scores across all dimensions of transformational leadership, particularly Inspirational Motivation, indicates that ward heads are considered capable of providing clear direction, building work morale, and encouraging nurses to achieve service goals together. This condition may also be influenced by the relatively close interpersonal relationship between ward heads and nurses in the hospital, resulting in more intensive communication and more readily perceived support from leaders by staff. This finding aligns with research by Mekonnen and Bayissa (2023) which states that transformational leadership contributes to creating a positive work environment by increasing motivation, job satisfaction, and staff engagement. Furthermore, research by Pujiyanto and Saifudin (2026) shows that transformational leadership behavior can strengthen the teamwork climate and organizational commitment of nurses.

Despite this, the psychological safety level of nurses in this study was mostly in the moderate category (52.1%). This result indicates that most nurses felt safe communicating and working together as a team, but did not yet feel fully free to express opinions, admit mistakes, or ask for help in all work situations. This condition indicates that the development of psychological safety is influenced not only by individual characteristics, but also by factors of the work environment and organizational culture. Edmondson explained that psychological safety develops when team members feel that the work environment supports openness, mutual respect, and does not impose negative consequences for expressing ideas or reporting errors. The results of this study are also supported by Lissner et al. (2024) and Cho and Steege (2025), who stated that the quality of communication, interpersonal relationships, and leadership support are important factors in developing the psychological safety of healthcare workers.

Respondent characteristics also provide insight into the research results. The majority of respondents were aged 25–35, had a nursing education, and had worked for 1–5 years. This group of young adults with professional education generally possesses strong adaptability, critical thinking, and professional communication skills, potentially supporting the development of psychological safety. However, the predominance of the moderate category indicates that individual characteristics alone are insufficient to create a sense of psychological safety without the support of a conducive work environment. Therefore, the role of ward heads and organizational culture remain crucial factors in building psychological safety in the hospital environment.

The results of the bivariate analysis showed relationship between the transformational leadership style of the ward head and the psychological safety of nurses ($r = 0.587$; $p < 0.001$). The positive correlation coefficient value indicates that the better the implementation of the transformational leadership style by the ward head, the higher the psychological safety perceived by nurses. The strength of the relationship is in the moderate category indicating that transformational leadership is one of the factors contributing to the formation of psychological safety, although there may still be other factors, such as organizational culture, team communication, workload, and individual characteristics that also influence it.

The results of this study are consistent with those of El-Gazar et al. (2024) and Cho and Steege (2025), which showed that supportive, open, and trust-building leadership is closely linked to increased psychological safety in nurses. Research by Mekonnen and Bayissa (2023) also reported that transformational leadership can improve the psychological readiness of healthcare workers in facing organizational change. These findings reinforce the notion that leader behavior not only influences managerial aspects but also shapes the psychological well-being of healthcare workers, impacting communication quality, team collaboration, and patient safety.

Cross-tabulation in this study shows that respondents who rated transformational leadership as being in the poor category mostly had low psychological safety, while respondents who rated transformational leadership as being in the good category mostly had moderate to high psychological safety. Initial observations also indicated that there were still obstacles such as a lack of firmness from ward heads in enforcing regulations, unequal distribution of workload, and some nurses who lacked

confidence in expressing their opinions. These conditions indicate that improving transformational leadership behavior, particularly in building open communication and providing support to staff, is still needed to improve nurse psychological safety.

Analysis of each dimension of transformational leadership showed that Idealized Influence had the strongest relationship with psychological safety ($r = 0.445$; $p < 0.001$). This finding suggests that exemplary behavior, integrity, and the ward leader's ability to build trust are the leadership aspects that contribute most to nurses' sense of psychological safety. According to Bass and Avolio's theory in (Mekonnen and Bayissa, 2023) Leaders who set an example will gain the trust of their subordinates, making team members more confident in expressing their opinions, asking questions, and admitting mistakes without fear. This finding is also supported by research by Lisa et al. (2020), which showed that the Idealized Influence dimension is associated with positive nurse behavior in the workplace.

Practically, the results of this study indicate that developing the leadership competencies of ward heads is one strategy that hospitals can implement to improve nurses' psychological safety. This effort can be realized through transformational leadership training, strengthening effective communication skills, coaching, and ongoing mentoring. In addition to improving interpersonal relationships between ward heads and nurses, this strategy is expected to build a work culture of openness, mutual trust, and support error reporting and collaborative learning. A work environment that fosters high psychological safety will encourage nurses to be more active in collaborating, expressing ideas, and participating in efforts to improve service quality and patient safety.

Conclusion and Suggestions

This study shows that there is relationship between the transformational leadership style of the ward head and the psychological safety of nurses at PKU Muhammadiyah Hospital, Sukoharjo ($p < 0.001$; $r = 0.587$), where the better the transformational leadership, the higher the psychological safety of nurses.

Based on these results, hospitals are advised to continue improving the leadership competencies of ward heads through ongoing training, coaching, and mentoring to create a work environment that supports open communication, team collaboration, and improved service quality and patient safety. Furthermore, further research is recommended to use a longitudinal or mixed methods design and include other variables such as organizational culture, workload, and patient safety climate to obtain a more comprehensive picture of the factors influencing nurse psychological safety.

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