

Organizational Behavior and Leadership Styles Among Hospital Administrators on Nurses' Safety

Jovi Magsayo^{1*}, Gloria M. Cunanan^{1,2} and George Michael M. Lim^{1,3}

¹*Liceo de Cagayan University*

^{*}jmagsayo05009@liceo.edu.ph, ²gcunanan@liceo.edu.ph, ³glim@liceo.edu.ph

Date Submitted:
February 24, 2026

Date Accepted:
April 16, 2026

Date Published:
July 13, 2026

DOI:
10.5281/zenodo.21337905

ABSTRACT

This study examined the organizational behavior and leadership styles of hospital administrators and their relationship with nurses' safety in selected private hospitals in Iligan City. A quantitative descriptive-correlational design with predictive analysis was employed among 150 registered nurses selected from a population of 357 through stratified random sampling across major hospital units. Data were gathered using a researcher-adapted and expert-validated questionnaire based on the Hospital Survey on Patient Safety Culture and selected leadership constructs. Weighted mean and standard deviation described the variables, Pearson product-moment correlation tested their relationships, and multiple regression identified predictors of nurses' safety. Organizational behavior was rated high overall ($M = 4.27$, $SD = 0.62$), with patient safety culture receiving the highest

domain mean ($M = 4.32$). Leadership styles were also rated high ($M = 4.15$, $SD = 0.62$), led by transformational leadership ($M = 4.27$), while nurses' safety was high ($M = 4.22$, $SD = 0.634$). Nurses' safety was strongly and positively related to organizational behavior ($r = .799$, $p < .001$) and leadership styles ($r = .815$, $p < .001$). The regression model was significant, $F = 54.60$, $p < .001$, and explained 72.9% of the variance in nurses' safety. Patient safety culture ($\beta = .314$, $p = .004$), servant leadership ($\beta = .259$, $p = .005$), and situational leadership ($\beta = .217$, $p = .031$) emerged as significant predictors. The findings indicate that nurse safety is strengthened when hospital systems combine a well-established patient safety culture with supportive, service-oriented, and adaptive leadership. Hospital administrators should therefore align patient and personnel safety initiatives, strengthen non-punitive reporting and staff support, and develop servant and situational leadership competencies.

Keywords: *nurse safety, hospital administration, organizational behavior, patient safety culture, leadership styles, private hospitals*

INTRODUCTION

Nurses work in clinical environments where biological exposure, physical strain, emotional pressure, workload demands, and the possibility of adverse events are routine occupational realities. Their safety therefore depends not only on individual competence or adherence to protocols but also on the organizational systems that determine whether hazards are anticipated, reported, investigated, and corrected. A supportive organizational environment provides clear safety expectations, adequate resources, effective communication, and leadership responsiveness, whereas weak systems may discourage reporting, normalize unsafe workarounds, and intensify stress. Because the well-being of nurses is inseparable from continuity and quality of care, workforce safety has become an important institutional and patient-safety concern.

Organizational behavior shapes these conditions through the shared values, norms, practices, and expectations that guide how people work. Within hospitals, safety culture expresses the organization's enduring commitment to safety; safety climate reflects employees' current perceptions of how safety is implemented; and

patient safety culture concerns the beliefs and practices that prevent harm during care delivery. Research has consistently associated supportive cultures, open communication, and leadership engagement with safer work practices and stronger safety outcomes (Haskins, 2022; Sorra & Gray, 2018; Zhu et al., 2023). Conversely, staffing limitations, punitive responses to errors, and weak management visibility may undermine both nurse and patient safety (Alabdullah & Karwowski, 2024; Alquwez et al., 2020).

Leadership is a central mechanism through which organizational expectations are translated into daily practice. Transformational leaders create a shared vision, encourage professional development, and empower staff to participate in improvement. Transactional leaders provide role clarity, performance monitoring, and corrective action that support compliance in highly regulated environments. Servant leaders emphasize listening, empathy, staff growth, and ethical stewardship, while situational leaders adjust their level of direction and support according to staff readiness and clinical demands. These styles are not necessarily mutually exclusive; hospitals may require an appropriate combination of inspiration, structure, service, and adaptability to sustain safe nursing practice (Cummings et al., 2018; Ystaas et al., 2023).

International evidence demonstrates that organizational culture and leadership practices influence nurses' job satisfaction, psychological safety, burnout, safety participation, and patient outcomes. Transformational leadership has been linked with improved patient-safety outcomes and stronger nursing work environments (Boamah et al., 2018; Jankelová & Joniaková, 2021), while servant leadership has been associated with lower burnout and stronger professional commitment (Khan et al., 2025; Wei et al., 2024). Safety climate also affects employee engagement and compliance, especially when workers perceive that leaders consistently prioritize safety (Huang et al., 2016; Wu et al., 2020).

Despite this evidence, Philippine research that jointly examines organizational behavior, multiple leadership styles, and nurses' safety remains limited. Context matters because private hospitals vary in bed capacity, specialization, staffing patterns, administrative structures, and resource availability. The day-to-day experiences of nurses in these settings may therefore differ from those reported in larger international health systems. A locally grounded analysis can identify which organizational and leadership factors are most closely associated with safety and which factors retain predictive importance when considered simultaneously.

This study investigated organizational behavior and leadership styles among hospital administrators in relation to nurses' safety in selected private hospitals in Iligan City. It determined the levels of safety culture, safety climate, patient safety culture, transformational leadership, transactional leadership, servant leadership, situational leadership, and nurses' safety. It also examined the relationships among these variables and identified the organizational and leadership factors that significantly predicted nurses' safety. The findings are intended to support evidence-based leadership development, integrated safety planning, and institutional policies that protect nurses while strengthening patient care.

Literature Review

Organizational Behavior in Healthcare

Organizational behavior refers to the shared values, assumptions, norms, and practices that shape how employees interpret their work and respond to institutional expectations. In healthcare organizations, these cultural patterns affect communication, teamwork, accountability, learning from mistakes, professional autonomy, and the distribution of resources. Zhu et al. (2023) observed that organizational culture has become a central area of healthcare research because of its relationship with operational effectiveness, staff satisfaction, and patient safety. Efremov et al. (2025) likewise emphasized that culture determines how formal policies are enacted and whether employees perceive safety and quality as authentic priorities or as compliance requirements only.

A positive organizational environment supports nurses by promoting open communication, clear responsibilities, adequate staffing, professional development, and opportunities to participate in decisions. These conditions strengthen trust and encourage staff to report hazards, near misses, and unsafe practices. In contrast, organizational environments characterized by silence, blame, inconsistent supervision, or inadequate support can increase stress and weaken safety behavior. Cummings et al. (2018) found that leadership and work-environment

patterns are closely related to nursing workforce outcomes, reinforcing the view that organizational behavior is not an abstract institutional characteristic but a daily experience that affects staff performance and well-being.

Schein's three-level perspective provides a useful interpretation of hospital culture by distinguishing visible practices, declared values, and underlying assumptions. Safety signs, reporting systems, training programs, and protocols represent visible artifacts; formal commitments to quality and safety represent espoused values; and deeply held assumptions determine whether staff genuinely believe that reporting is safe, that errors can be discussed, and that management will act on concerns. Misalignment among these levels can explain why an institution may possess comprehensive written policies while nurses continue to experience fear, insufficient support, or unsafe workload conditions.

Safety Culture, Safety Climate, and Patient Safety Culture

Safety culture represents the enduring organizational values and behavioral expectations that prioritize the prevention of harm. It includes management commitment, employee involvement, learning from incidents, accountability, and continuous improvement. A mature safety culture encourages staff to identify risks and view errors as opportunities for system learning rather than automatic grounds for blame. Reviews of healthcare institutions show that teamwork and organizational learning are often rated more positively than staffing and non-punitive error response, suggesting that safety culture may be strong in some dimensions while remaining vulnerable in others (Alabdullah & Karwowski, 2024).

Safety climate is the more immediate, perceptual expression of culture. It reflects what workers currently observe regarding supervisor responsiveness, equipment availability, workload, policy enforcement, communication, and emergency preparedness. Zohar and Luria (2016) explained that safety climate operates across organizational and unit levels, while Huang et al. (2016) demonstrated that stronger hospital safety climates are associated with better safety performance among healthcare workers. Because climate is sensitive to leadership behavior and changing operational conditions, it can reveal gaps between institutional values and frontline experience.

Patient safety culture focuses on preventing harm during care through transparent communication, teamwork, standardized procedures, reporting systems, and learning from adverse events. Although its primary emphasis is patient protection, it is closely connected with nurse safety because the same systems that reduce medication errors, infections, and procedural failures also improve working conditions, reduce stress, and support professional confidence. Alquwez et al. (2020) and Hessels and Wurmser (2020) reported meaningful links between patient safety culture and nurse-related outcomes. Thus, patient and personnel safety should be treated as mutually reinforcing rather than separate administrative agendas.

Transformational and Transactional Leadership

Transformational leadership is characterized by idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. In hospitals, these behaviors allow leaders to communicate a compelling safety vision, model ethical conduct, recognize staff contributions, and encourage nurses to propose improvements. Evidence associates transformational leadership with greater job satisfaction, empowerment, and patient-safety outcomes (Boamah et al., 2018; Jankelová & Joniaková, 2021). Ystaas et al. (2023) further concluded that transformational leadership contributes to positive nursing work environments and patient outcomes by strengthening trust, communication, and staff engagement.

Transformational leadership can also strengthen psychological safety, which enables nurses to speak up about risks, errors, and concerns without fear of humiliation or retaliation. Leaders who listen, provide feedback, and involve nurses in decisions help establish a climate in which safety problems become shared organizational responsibilities. Wahyudyasa et al. (2023) linked transformational leadership and mentoring with patient safety culture, while Lappalainen et al. (2019) associated nurse-manager leadership with medication safety. These findings indicate that inspirational leadership is most effective when translated into concrete support and accessible communication.

Transactional leadership emphasizes clear expectations, monitoring, rewards, and corrective action. It can be valuable in healthcare because many clinical tasks require precise adherence to standards and timely

accountability. Alqatawenah (2020) reported that transactional leadership can support safety performance through safety climate. However, a predominantly compliance-oriented approach may be insufficient for complex issues that require openness, innovation, and emotional support. Transactional practices therefore appear most useful when combined with leadership behaviors that develop trust, professional growth, and shared ownership of safety.

Servant and Situational Leadership

Servant leadership places the needs, growth, dignity, and well-being of followers at the center of leadership practice. Hospital administrators who listen to staff, demonstrate empathy, remove obstacles, provide resources, and support professional development can reduce the distance between formal leadership and frontline nursing experience. Gunawan et al. (2021) found that servant leadership is positively related to nurse job satisfaction, while Wei et al. (2024) identified its relevance to burnout reduction and patient-safety outcomes. These effects are important because fatigue, disengagement, and emotional exhaustion can increase vulnerability to errors and occupational hazards.

Servant leadership also supports psychological safety by communicating that staff concerns are legitimate and that leadership is accountable for creating workable conditions. When nurses trust administrators, they are more likely to report hazards and participate in improvement. Khan et al. (2025) described the joint role of servant leadership and safety climate in building professional commitment, and Moisoglou (2025) linked servant leadership with work engagement among healthcare professionals. In this sense, service-oriented leadership can become a structural safety intervention rather than merely an interpersonal preference.

Situational leadership emphasizes adaptation to the competence, confidence, and readiness of staff and to the urgency and complexity of clinical situations. New or inexperienced nurses may require explicit direction and close coaching, whereas experienced nurses may benefit from greater delegation and autonomy. This flexibility is especially relevant in emergency, critical-care, and high-workload settings. When leaders appropriately adjust their level of direction and support, they can prevent task overload, strengthen confidence, and maintain safe performance during changing conditions.

Nurses' Safety and Its Organizational Determinants

Nurses' safety includes physical protection from infection, injury, hazardous exposure, violence, and ergonomic risks, as well as psychological and professional safety. Psychological safety involves confidence that concerns can be raised, mistakes can be discussed, and support will be available after stressful incidents. These dimensions are interconnected: excessive workload, weak communication, inadequate equipment, and punitive reporting systems can simultaneously increase physical risk and emotional strain.

Research indicates that nurses' safety depends on the interaction of organizational demands and resources. Abdi et al. (2023) showed that psychosocial safety climate, job demands, resources, satisfaction, and emotional exhaustion contribute to nurses' safety performance. Haskins (2022) likewise emphasized the responsibility of nurse leadership in sustaining a culture of safety. When leaders visibly respond to reported concerns and provide sufficient support, nurses are better positioned to comply with protocols, participate in learning, and remain engaged in their roles.

Leadership and organizational behavior should therefore be examined together. Leadership shapes the credibility of policies, while organizational systems determine whether leaders possess the resources and processes needed to act. A strong safety culture without responsive leadership may remain symbolic, whereas supportive leaders operating within weak systems may be unable to sustain improvements. The most useful institutional analysis identifies the cultural and leadership factors that are independently associated with safety after their overlapping effects are considered.

Theoretical and Conceptual Synthesis

The study integrated organizational culture and leadership perspectives with a human-centered understanding of nursing safety. Organizational behavior was represented by safety culture, safety climate, and patient safety culture. Leadership styles were represented by transformational, transactional, servant, and situational leadership. These variables were expected to influence the physical, psychological, and professional safety experienced by nurses.

The conceptual model treated organizational behavior and leadership styles as independent variables and nurses' safety as the dependent variable. The model did not assume that one leadership style alone would account for safety. Instead, it recognized that safety may be strengthened through a combination of institutional culture, structured practices, supportive relationships, and leadership adaptability. The predictive analysis was used to identify which variables retained significant contributions when examined simultaneously.

Conceptual Framework

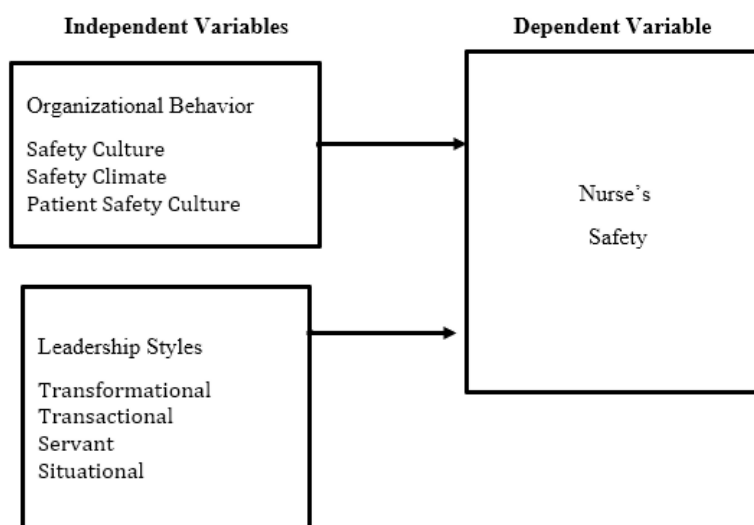


Figure 1. *Schematic Presentation of the Interplay of the Study Variables*

METHODS

Research Design

The study used a quantitative, non-experimental descriptive-correlational design with a predictive component. The descriptive component summarized nurses' assessments of organizational behavior, leadership styles, and safety. The correlational component determined the magnitude and direction of the associations among these variables, while multiple regression identified the variables that significantly predicted nurses' safety when considered together. This design was appropriate because the variables were observed in their existing hospital context without manipulation (Babbie, 2020; Creswell & Creswell, 2023). Predictive findings were interpreted as statistical associations rather than proof of causation.

Research Locale

The study was conducted in four selected private hospitals in Iligan City, Lanao del Norte, Philippines. The sites included two Department of Health-accredited Level II hospitals with intensive-care and operating-room services and two Level I hospitals providing essential medical, surgical, maternal, and child-health services. The variation in hospital capacity and clinical specialization allowed the study to include nurses working in different levels of operational complexity while maintaining the common context of private hospital administration.

Participants and Sampling Technique

The target population consisted of 357 registered nurses employed in the participating hospitals. Using a 95% confidence level, a 5% margin of error, and a 50% response distribution, the study obtained a sample of 150 nurses. Stratified random sampling was applied across major hospital units to ensure representation from high-acuity, emergency, surgical, maternal, neonatal, and general inpatient areas. Eligible participants were licensed registered nurses who were at least 21 years old, were employed full time, had rendered at least six months of continuous service, and provided direct patient care. Administrative and supervisory personnel, probationary staff,

nurses on extended leave, and individuals involved in active disciplinary proceedings were excluded to preserve the focus on frontline nursing experience.

Table 1. *Distribution of Participants by Hospital Unit*

Hospital Unit	Number of Participants
Intensive Care Unit	28
Neonatal Intensive Care Unit	18
Emergency Room/Emergency Department	25
Labor and Delivery	22
Operating Room	27
Medical, Surgical, and Pediatric Wards	30
Total	150

Research Instrument

Data were collected using a researcher-adapted structured questionnaire aligned with the conceptual framework and research questions. Items were drawn and contextualized from the Hospital Survey on Patient Safety Culture developed by the Agency for Healthcare Research and Quality (2019) and selected constructs from the Multifactor Leadership Questionnaire (Bass & Avolio, 1995). The instrument contained three major parts: organizational behavior, leadership styles, and nurses' safety. Organizational behavior covered safety culture, safety climate, and patient safety culture. Leadership styles covered transformational, transactional, servant, and situational leadership. The nurses' safety section assessed physical, psychological, and institutional dimensions of workplace safety.

Responses were recorded on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Mean scores of 4.51–5.00 were interpreted as very high, 3.51–4.50 as high, 2.51–3.50 as moderate, 1.51–2.50 as low, and 1.00–1.50 as very low. The questionnaire underwent face and content validation by three experts: two academicians with expertise in nursing research and quantitative methodology and one hospital-based nurse leader with administrative experience. Their comments resulted in revisions to wording, item alignment, and logical flow. The source manuscript also reports pilot testing and approval of the final instrument before the main data collection.

Data Gathering Procedure

Approval was obtained from the graduate school, the institutional research ethics board, and the administrators of the participating hospitals. After authorization, the researcher coordinated with the Nursing Service Offices to identify eligible nurses and arrange questionnaire distribution. The instruments were personally delivered and retrieved according to schedules that minimized interference with clinical duties. Participants received an explanation of the study, the voluntary nature of participation, confidentiality procedures, and their right to omit an item or withdraw without penalty. Completion required approximately 10–15 minutes, and a flexible submission period accommodated rotating hospital shifts.

Data Analysis

The completed questionnaires were checked, coded, organized, and analyzed quantitatively. Weighted mean and standard deviation described the levels of organizational behavior, leadership styles, and nurses' safety. Pearson product-moment correlation determined the strength and direction of the linear relationships among the variables. Multiple regression analysis identified which organizational-behavior and leadership-style variables significantly predicted nurses' safety and estimated the proportion of variance explained by the model. Statistical significance was evaluated at the .05 level, consistent with established quantitative-analysis procedures (Field, 2018; Pallant, 2020; Polit & Beck, 2021).

Ethical Consideration

The study observed the principles of voluntary participation, informed consent, confidentiality, privacy, non-maleficence, and respect for persons. Participation involved minimal risk because the study required only a one-time survey and did not manipulate clinical conditions. Names were not required, and responses were assigned identification codes. Data access was limited to the researcher and statistician, results were reported in aggregate

form, and site-specific information was handled to avoid institutional stigma. The protocol followed the Data Privacy Act of 2012, and participants could withdraw at any time without explanation or consequence. No compensation was provided, thereby reducing the possibility of undue inducement.

RESULTS AND DISCUSSION

Organizational Behavior of Hospital Administrators

Table 2. *Summary of Organizational Behavior*

Domain	Mean	SD	Interpretation
Safety Culture	4.31	0.625	High
Safety Climate	4.18	0.625	High
Patient Safety Culture	4.32	0.597	High
Overall	4.27	0.620	High

Table 2 shows that organizational behavior was rated high across all domains, with an overall mean of 4.27 (SD = 0.620). Patient safety culture obtained the highest mean ($M = 4.32$, $SD = 0.597$), closely followed by safety culture ($M = 4.31$, $SD = 0.625$). Safety climate received the lowest domain mean but remained high ($M = 4.18$, $SD = 0.625$). The consistently high scores indicate that respondents generally perceived their hospitals as having established safety values, supportive practices, and systems that promote patient and staff protection.

At the indicator level, accountability for a safe work environment ($M = 4.48$), teamwork in following safety procedures ($M = 4.47$), and the priority given to safety in daily operations ($M = 4.45$) were among the strongest aspects of safety culture. In patient safety culture, encouragement to report incidents received a very high rating ($M = 4.54$). These results suggest that reporting and shared responsibility were visible organizational expectations. The pattern is consistent with research emphasizing open communication, teamwork, and leadership commitment as foundations of effective safety culture (Alabdullah & Karwowski, 2024; Sorra & Gray, 2018).

The comparatively lower safety-climate mean points to operational areas requiring attention. Workload distribution supporting safe care received the lowest indicator mean ($M = 3.91$), followed by management's prompt response to unsafe conditions ($M = 3.98$) and staffing adequacy ($M = 4.04$). Although these ratings were still high, they indicate that frontline perceptions may be more sensitive to real-time workload and resource conditions than to formal safety policies. This distinction supports the view that safety climate reflects immediate experience and can expose gaps between espoused safety values and daily implementation (Huang et al., 2016; Zohar & Luria, 2016).

Leadership Styles of Hospital Administrators

Table 3. *Summary of Leadership Styles*

Leadership Style	Mean	SD	Interpretation
Transformational	4.27	0.629	High
Transactional	4.09	0.635	High
Situational	4.20	0.619	High
Servant	4.02	0.608	High
Overall	4.15	0.620	High

The leadership styles of hospital administrators were rated high overall ($M = 4.15$, $SD = 0.620$). Transformational leadership received the highest mean ($M = 4.27$, $SD = 0.629$), followed by situational leadership ($M = 4.20$, $SD = 0.619$), transactional leadership ($M = 4.09$, $SD = 0.635$), and servant leadership ($M = 4.02$, $SD = 0.608$). The findings indicate that nurses observed multiple leadership approaches rather than a single dominant style, suggesting that administrators combined vision, structure, adaptation, and staff support in managing hospital operations.

Within transformational leadership, opportunities for professional growth ($M = 4.37$), trust and respect ($M = 4.35$), and confidence in team abilities ($M = 4.35$) were highly visible. This pattern supports evidence that

transformational leadership strengthens safety through empowerment, staff development, and shared purpose (Boamah et al., 2018; Ystaas et al., 2023). Transactional leadership was most evident in the emphasis on discipline and punctuality ($M = 4.27$) and in setting clear expectations and procedures ($M = 4.25$). However, rewards for excellent performance received a lower mean ($M = 3.61$), suggesting that compliance and monitoring were more visible than formal recognition.

Situational leadership indicators showed that administrators knew when to direct staff or allow autonomy and adjusted decisions according to urgency and complexity (both $M = 4.25$). Servant leadership was strongest in promoting ethical behavior and integrity ($M = 4.22$) and empowering staff through delegation ($M = 4.17$), although listening, empathy, and prioritization of staff needs had comparatively lower means. The high but relatively lower servant-leadership score suggests that service-oriented practices were present but could be more consistently expressed through active listening, staff recognition, and timely resource support. This interpretation is aligned with evidence linking servant leadership with engagement, professional commitment, and reduced burnout (Gunawan et al., 2021; Khan et al., 2025; Wei et al., 2024).

Level of Nurses' Safety

Table 4. *Selected Indicators and Overall Level of Nurses' Safety*

Indicator	Mean	SD	Interpretation
Patients receive safe and effective care	4.38	0.652	High
Team can manage safety risks	4.30	0.740	High
Safety incidents or hazards can be reported easily	4.27	0.672	High
Adequate personal protective equipment is provided	4.14	0.828	High
Support is available after stressful safety incidents	4.05	0.925	High
Overall, Nurses' Safety	4.22	0.634	High

Nurses' safety was rated high, with an overall mean of 4.22 ($SD = 0.634$). The highest-rated item was the perception that patients in the unit received safe and effective care ($M = 4.38$), followed by confidence in the team's ability to manage safety risks ($M = 4.30$). Nurses also reported that safety incidents and hazards could be reported easily ($M = 4.27$), that they felt physically safe ($M = 4.26$), and that they were aware of protocols for workplace accidents ($M = 4.26$). These results indicate broad confidence in institutional and team-level safety processes.

The lowest-rated item concerned the availability of support after stressful safety incidents ($M = 4.05$). Regular drills and training ($M = 4.13$), adequate personal protective equipment ($M = 4.14$), and confidence that leadership would address concerns ($M = 4.17$) were also below the overall mean. Although all remained within the high range, these areas represent practical opportunities for improvement. The greater variability for post-incident support suggests that nurses' experiences may not have been uniform across units or hospitals.

The findings reinforce the multidimensional nature of nurse safety. Clinical protocols and hazard-reporting systems were positively perceived, but emotional recovery, leadership responsiveness, and resource sufficiency remained important. Abdi et al. (2023) emphasized that job resources and psychosocial safety climate influence nurses' safety performance through satisfaction and emotional exhaustion. Strengthening post-incident debriefing, counseling access, staffing support, and equipment availability may therefore help convert high safety perceptions into more resilient and consistent workplace protection.

Relationships Among Organizational Behavior, Leadership Styles, and Nurses' Safety

Table 5. *Correlations Between Nurses' Safety and the Study Variables*

Variable	r with Nurses' Safety	p-value	Interpretation
Organizational Behavior (overall)	.799	< .001	Significant
Leadership Styles (overall)	.815	< .001	Significant
Safety Culture	.732	< .001	Significant
Safety Climate	.733	< .001	Significant
Patient Safety Culture	.760	< .001	Significant

Transformational Leadership	.697	< .001	Significant
Transactional Leadership	.731	< .001	Significant
Situational Leadership	.770	< .001	Significant
Servant Leadership	.770	< .001	Significant

Organizational behavior and leadership styles were strongly and positively related to nurses' safety. The correlation between organizational behavior and nurses' safety was $r = .799$ ($p < .001$), while the relationship between leadership styles and nurses' safety was $r = .815$ ($p < .001$). Organizational behavior and leadership styles were also strongly related to each other ($r = .837$, $p < .001$), indicating that administrative leadership and the organizational environment developed as an interconnected system.

All organizational domains and leadership styles had significant positive relationships with nurses' safety. Among the organizational domains, patient safety culture had the strongest correlation ($r = .760$), followed by safety climate ($r = .733$) and safety culture ($r = .732$). Among leadership styles, situational and servant leadership had the strongest correlations (both $r = .770$), followed by transactional leadership ($r = .731$) and transformational leadership ($r = .697$). The findings suggest that nurses felt safer when leaders adapted to clinical circumstances, attended to staff needs, and worked within an organization that consistently prioritized patient safety.

The correlations support the rejection of the first null hypothesis. They also reinforce the proposition that leadership and organizational culture cannot be managed as separate improvement programs. Leadership behaviors influence whether safety systems are trusted and enacted, while institutional practices provide the structures within which leaders respond. This integrated interpretation is consistent with literature connecting transformational and adaptive leadership, safety climate, and nurse outcomes (Cummings et al., 2018; Jankelová & Joniaková, 2021; Wu et al., 2020).

Predictors of Nurses' Safety

Table 6. *Multiple Regression Analysis Predicting Nurses' Safety*

Predictor	B	SE	β	t	p
Safety Culture	0.181	0.097	.178	1.871	.063
Safety Climate	-0.046	0.123	-.046	-0.378	.706
Patient Safety Culture	0.334	0.115	.314	2.891	.004*
Transformational Leadership	0.016	0.087	.016	0.189	.851
Transactional Leadership	0.003	0.101	.003	0.026	.979
Situational Leadership	0.222	0.102	.217	2.176	.031*
Servant Leadership	0.270	0.095	.259	2.842	.005*

Note. $R = .854$; $R^2 = .729$; $F = 54.60$; $p < .001$. * $p < .05$.

The regression model was statistically significant, $F = 54.60$, $p < .001$, and explained 72.9% of the variance in nurses' safety ($R^2 = .729$). This indicates that organizational behavior and leadership styles, considered together, accounted for a substantial proportion of differences in nurses' safety perceptions. The second null hypothesis was therefore rejected.

Three variables made unique significant contributions. Patient safety culture was the strongest predictor ($\beta = .314$, $p = .004$), followed by servant leadership ($\beta = .259$, $p = .005$) and situational leadership ($\beta = .217$, $p = .031$). The findings indicate that safety was most strongly predicted by a hospital-wide commitment to preventing patient harm, leaders' attention to staff needs and development, and leaders' capacity to adjust direction and support according to clinical conditions. The predictive role of patient safety culture is consistent with evidence that the systems protecting patients also influence occupational stress, reporting behavior, and nurse outcomes (Alquwez et al., 2020; Hessels & Wurmser, 2020).

Safety culture, safety climate, transformational leadership, and transactional leadership were significantly correlated with nurses' safety at the bivariate level but did not retain unique statistical significance in the full regression model. This does not mean that these variables were unimportant. Their effects may overlap with the stronger predictors because leadership styles and organizational domains were themselves highly interrelated. For

practice, the result suggests that broad leadership development should continue, but priority interventions should strengthen patient safety systems, servant-leadership behaviors, and context-responsive supervision.

CONCLUSION

The study concludes that the participating hospitals demonstrated high levels of organizational behavior, leadership practice, and nurses' safety. Patient safety culture was the strongest organizational domain, transformational leadership was the highest-rated leadership style, and nurses generally felt safe and supported in their work. However, workload distribution, staffing conditions, management response to unsafe conditions, post-incident support, and some servant-leadership behaviors remained comparatively weaker areas that warrant institutional attention.

Organizational behavior and leadership styles were strongly associated with nurses' safety, confirming that safety is produced through the interaction of institutional systems and administrative practice. The regression findings further showed that patient safety culture, servant leadership, and situational leadership were the most important unique predictors. Nurse safety is therefore not an incidental outcome or the responsibility of frontline staff alone. It is a predictable organizational condition that can be strengthened when hospitals integrate patient and personnel safety, provide leaders who serve and support staff, and adapt supervision to workforce readiness and clinical demands.

Recommendation

Hospital administrators should adopt an integrated safety framework that treats patient safety and personnel safety as mutually reinforcing objectives. Incident reporting, infection control, medication safety, occupational health, staffing, equipment availability, and post-incident support should be coordinated rather than managed as isolated programs. Regular safety walk-rounds, interdisciplinary huddles, non-punitive review of near misses, transparent feedback, and measurable follow-up actions can help close the gap between formal safety culture and the safety climate experienced by nurses.

Leadership-development programs should give particular attention to servant and situational leadership. Administrators and nurse managers should be trained in active listening, empathy, staff recognition, coaching, delegation, readiness assessment, and the adjustment of leadership behavior to clinical urgency and staff competence. These competencies should be incorporated into performance evaluation, mentoring, succession planning, and continuing professional development. Transformational and transactional practices should also be maintained to provide strategic vision, professional growth, role clarity, and accountability.

Nursing service units and human-resource departments should review workload distribution, staffing patterns, access to protective equipment, emergency preparedness, psychological support, and mechanisms for recovery after stressful incidents. Future studies may use longitudinal, qualitative, or mixed-method designs to examine how safety culture and leadership change over time, compare public and private hospitals, and explore whether burnout, psychological safety, staffing adequacy, or work engagement mediate the relationship between leadership and nurse safety.

References

- Abdi, F., Jahangiri, M., Kamalinia, M., Cousins, R., & Mokarami, H. (2023). Developing a model for predicting safety performance of nurses based on psychosocial safety climate and role of job demands and resources, job satisfaction, and emotional exhaustion as mediators. *BMC Psychology*, 11, 187. <https://doi.org/10.1186/s40359-023-01223-1>
- Agency for Healthcare Research and Quality. (2019). Hospital Survey on Patient Safety Culture: User's guide (Version 2.0). U.S. Department of Health and Human Services. <https://www.ahrq.gov/sops/quality-patient-safety/patientsafetyculture/hospital/index.html>
- Alabdullah, H., & Karwowski, W. (2024). Patient safety culture in hospital settings across continents: A systematic review. *Applied Sciences*, 14(18), 8496. <https://doi.org/10.3390/app14188496>

- Alqatawenah, A. S. (2020). Transactional leadership and safety performance among nurses: The mediating role of safety climate. *International Journal of Nursing Sciences*, 7(1), 20–26. <https://doi.org/10.1016/j.ijnss.2019.11.001>
- Alquwez, N., Cruz, J. P., Almoghairi, A. M., Al-Otaibi, R. S., Almutairi, K. O., Tumala, R. B., & Almazan, J. U. (2020). Nurses' perceptions of patient safety culture in Saudi hospitals: A cross-sectional study. *BMC Health Services Research*, 20, 221. <https://doi.org/10.1186/s12913-020-5039-4>
- Babbie, E. (2020). *The practice of social research* (15th ed.). Cengage Learning.
- Bass, B. M., & Avolio, B. J. (1995). *Multifactor Leadership Questionnaire (MLQ) manual*. Mind Garden.
- Boamah, S. A., Spence Laschinger, H. K., Wong, C., & Clarke, S. (2018). Effect of transformational leadership on job satisfaction and patient safety outcomes. *Nursing Outlook*, 66(2), 180–189. <https://doi.org/10.1016/j.outlook.2017.10.004>
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- Cummings, G. G., Tate, K., Lee, S., Wong, C. A., Paananen, T., Micaroni, S. P. M., & Chatterjee, G. E. (2018). Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review. *International Journal of Nursing Studies*, 85, 19–60. <https://doi.org/10.1016/j.ijnurstu.2018.04.016>
- Efremov, L., Dimitrievska, V., Kallach, L., & Nakhil, S. (2025). The role of organizational culture in healthcare: A rapid review. *Rapid Reviews in Healthcare Management*, 10(1), 1–15.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). SAGE Publications.
- Gunawan, J., Juthamane, S., & Aunguroch, Y. (2021). The relationship between servant leadership of nurse managers and nurses' job satisfaction: A systematic review. *Nursing Reports*, 11(1), 76–88. <https://doi.org/10.3390/nursrep11010008>
- Haskins, M. (2022). Nurse leadership: Sustaining a culture of safety. *Health SA Gesondheid*, 27, 2009.
- Hessels, A. J., & Wurmser, T. A. (2020). Relationship between patient safety culture and nurse outcomes: A systematic review. *Journal of Nursing Care Quality*, 35(2), 151–157. <https://doi.org/10.1097/NCQ.0000000000000418>
- Huang, Y.-H., Lee, J., Cheung, J. H., & Krause, N. (2016). The impact of safety climate on healthcare workers' safety performance: A multi-level study in hospitals. *Safety Science*, 85, 100–108. <https://doi.org/10.1016/j.ssci.2016.01.009>
- Jankelová, N., & Joniaková, Z. (2021). The impact of transformational leadership style on nurses' job satisfaction and patient safety outcomes. *International Journal of Environmental Research and Public Health*, 18(8), 4380. <https://doi.org/10.3390/ijerph18084380>
- Khan, M. M., Muhammad, B., & Ahmed, S. (2025). Building nurses' professional commitment: The joint effect of servant leadership and safety climate. *Nursing Open*, 12(1), e2341. <https://doi.org/10.1002/nop2.2341>
- Lappalainen, M., Härkänen, M., & Kvist, T. (2019). The relationship between nurse manager's transformational leadership style and medication safety. *Scandinavian Journal of Caring Sciences*, 34(2), 357–369. <https://doi.org/10.1111/scs.12737>
- Moisoglou, I. (2025). The role of servant leadership in work engagement among healthcare professionals. *Healthcare*, 13(20), 2565.
- Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS* (7th ed.). McGraw-Hill Education.
- Polit, D. F., & Beck, C. T. (2021). *Nursing research: Generating and assessing evidence for nursing practice* (11th ed.). Wolters Kluwer.
- Sorra, J., & Gray, L. (2018). AHRQ's hospital survey on patient safety culture: The relationship between organizational behavior and employee safety outcomes in healthcare. *Journal of Patient Safety*, 14(3), 145–152. <https://doi.org/10.1097/PTS.0000000000000288>
- Wahyudyasa, P. T. J., Hasyim, H., & Kusumapradja, R. (2023). Transformational leadership style and mentoring functions toward patient safety culture. *International Journal of Nursing and Health Sciences*, 6(4), 748–755. <https://doi.org/10.15640/ijnhs.v6n4a12>
- Wei, H., King, A., & Ma, C. (2024). The impact of servant leadership on nurse burnout and patient safety outcomes: A systematic review. *International Journal of Nursing Studies*, 148, 104–115. <https://doi.org/10.1016/j.ijnurstu.2023.104652>
- Wu, Y., Chen, L., & Xu, H. (2020). Safety climate, employee engagement, and turnover intention in healthcare: A moderated mediation model. *Healthcare*, 8(4), 348. <https://doi.org/10.3390/healthcare8040348>

- Ystaas, L. M. K., Nikitara, M., Ghobrial, S., Latzourakis, E., Polychronis, G., & Constantinou, C. S. (2023). The impact of transformational leadership in the nursing work environment and patients' outcomes: A systematic review. *Nursing Reports*, 13(3), 1271–1290. <https://doi.org/10.3390/nursrep13030108>
- Zhu, J., Wang, L., & Liu, S. (2023). Organisational culture research in healthcare: A bibliometric analysis. *Heliyon*, 9(2), e12345. <https://doi.org/10.1016/j.heliyon.2023.e12345>
- Zohar, D., & Luria, G. (2016). A multilevel model of safety climate: Cross-level relationships between organization and group-level climates. *Journal of Applied Psychology*, 101(4), 616–628. <https://doi.org/10.1037/apl0000087>