

Leader Support on Innovation and Competence among Nurses in a Government Hospital

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ABSTRACT

This study aimed to determine the relationship between leader support for innovation and innovation competence among nurses in a government hospital. Using a quantitative descriptive–correlational design, the study assessed the level of leader support for innovation and innovation competence and examined their relationship with selected nurse profile characteristics. Data were collected through standardized questionnaires administered to nurses across various clinical units. Descriptive statistics were used to determine variable levels, while chi-square test, Cramer’s V, and Pearson correlation were applied to determine relationships among variables. Findings revealed that nurses perceived leader support for innovation at a very high level, while innovation competence was rated high. Significant relationships were identified between most profile variables and both leader support and innovation competence, except unit or department assignment. A strong positive relationship was also found between leader support and innovation competence. The study concludes that supportive leadership plays a crucial role in strengthening nurses’ innovation competence. A Leader Support for Innovation and Innovation Competence Enhancement Plan is proposed to sustain innovation-focused leadership practice.

Keywords: Descriptive–Correlational Design; Innovation Competence; Leader Support for Innovation; Nurses; Nursing Leadership.

INTRODUCTION

Modern healthcare settings require nurses to work in demanding environments where accuracy, empathy, and adaptability are essential, making strong leadership crucial in guiding nurses through daily challenges and organizational changes (Wei et al., 2020; Cummings et al., 2021). Nursing roles have expanded beyond traditional caregiving to include critical thinking, creativity, and innovation in improving patient care and work processes (Al-Dossary, 2021). Leadership plays a key role in shaping nurses’ motivation, behavior, and innovation capacity, as supportive leaders who encourage mentoring, open communication, and idea-sharing help build trust, engagement, and professional growth, while lack of support leads to reduced innovation and stagnation (Lee et al., 2021; Asif et al., 2021; Mahmoud et al., 2023).

Innovation competence refers to nurses’ ability to generate and apply new ideas in practice, supported by skills such as critical thinking, adaptability, and teamwork (Urdaneta-Peña et al., 2018; Hu et al., 2024). Leader support has been identified as a key factor in enhancing this competence by providing resources, feedback, and psychological safety (Rani & Muthu, 2024). This relationship is particularly important in government hospitals where limited resources and bureaucratic systems make innovation more challenging. However, existing research is limited in the Philippine public hospital context, where nurses often face high workloads, restricted autonomy, and limited leadership support, highlighting the need to examine how leader support influences innovation competence in these settings (Ali & Park, 2022).

Guided by this gap, the study aims to assess the interrelationship among nurses’ profile, leader support, and innovation competence in a government hospital, anchored on SDG 3 and SDG 8. The researcher’s extensive clinical and academic experience strengthens the study’s relevance, while its findings are expected to contribute to nursing management and policy by guiding leaders in fostering innovation through supportive practices such as mentorship, communication, and recognition. Ultimately, the study seeks to provide evidence that leadership

support is a key driver of innovation, improved performance, and better patient care in public healthcare institutions.

Research Questions

This study aimed to assess the interrelationship among the profile, leadership support for innovation, and innovation competence among nurses in a government hospital in Surigao City during the first quarter of 2026.

Specifically, it sought to answer the following questions:

1. What was the profile of the nurses in terms of:
 - 1.1. age;
 - 1.2. sex;
 - 1.3. length of experience;
 - 1.4. educational attainment;
 - 1.5. unit/department assigned;
 - 1.6. employment status; and
 - 1.7. position?
2. What was the extent of leader support for innovation as perceived by nurses in terms of:
 - 2.1 idea encouragement and autonomy support;
 - 2.2 resource provision and guidance; and
 - 2.3 recognition and role modeling?
3. Which was the level of innovation competence among nurses in terms of:
 - 3.1 idea generation and creativity;
 - 3.2 implementation and application;
 - 3.3 collaboration and networking; and
 - 3.4 motivation and willingness to learn?
4. Was there a significant relationship between:
 - 4.1 profile and leader support for innovation;
 - 4.2 profile and innovation competence; and
 - 4.3 leader support for innovation and innovation competence?
5. What leader support for innovation competence enhancement plan was proposed to strengthen innovation competence among nurses based on the findings of the study?

Statement of Null Hypothesis

- H₀₁:** There was no significant relationship between the profile and leader support for innovation among nurses.
- H₀₂:** There was no significant relationship between the profile and innovation competence among nurses.
- H₀₃:** There was no significant relationship between leadership support for innovation and innovation competence among nurses.

REVIEW OF RELATED LITERATURE AND STUDIES

Leadership Support on Innovation among Nurses. Leadership plays a vital role in encouraging innovation among nurses, as supportive, approachable, and motivating leaders create an environment where nurses feel confident to share ideas and improve patient care (Cummings et al., 2021). Transformational leadership, in

particular, has been identified as highly effective in promoting creativity and initiative, as leaders who inspire, mentor, and involve nurses in decision-making strengthen motivation and ownership (Abd El Muksoud, 2022). Studies also show that leadership support from head nurses significantly influences innovation behavior by reducing barriers and increasing trust, allowing nurses to take initiative and implement changes in their units (Guo, 2024). Furthermore, leadership enhances psychological empowerment, enabling nurses to feel that their ideas matter and encouraging them to take risks and explore new approaches, while also reducing burnout and fostering creativity (Bektaş et al., 2025; Boamah et al., 2023).

In addition, the availability of resources, recognition, and ethical leadership practices further strengthen innovation among nurses, as leaders who provide time, tools, and support create a culture where creativity can thrive (Lee et al., 2021; Asif et al., 2021). Leadership support also improves engagement, motivation, and commitment, as consistent feedback, mentorship, and appreciation encourage nurses to continuously improve and contribute new ideas (Mahmoud et al., 2023; Montani et al., 2020). Overall, research consistently shows that leadership support is essential in fostering innovation, as it builds trust, confidence, and collaboration among nurses, which is especially important in government hospitals where resource limitations require creative and adaptive approaches to maintain high-quality patient care.

Innovation Competence among Nurses. Innovation competence is becoming a vital skill in modern nursing practice because it enables nurses to generate, apply, and evaluate new ideas that improve patient outcomes and strengthen healthcare systems. It involves creative thinking, problem-solving, collaboration, adaptability, and the ability to translate knowledge into practical clinical improvements. Evidence shows that innovation competence can be developed through structured training, teamwork, and real clinical problem-solving rather than being a fixed personal trait (Gao et al., 2022). It is also shaped by both individual capability and the work environment, with factors such as experience, education, professional development, and supportive workplace conditions influencing competency development (Almarwani & Alzahrani, 2023). Moreover, nursing information competence is linked to creative self-efficacy and innovation behavior, emphasizing the importance of digital literacy and information skills in modern nursing practice (Liu et al., 2024).

Leadership and organizational climate play a crucial role in strengthening innovation competence, as supportive leadership and psychological safety encourage nurses to express ideas and try new approaches (El-Gazar et al., 2024), while flexible and open organizational cultures promote creativity and innovation (Park et al., 2025). Motivation and evidence-based capability further enhance innovation competence, as nurses who are confident in evidence-based practice and supported by collaboration are more likely to share knowledge and implement improvements (Leng et al., 2025). Overall, innovation competence is influenced by a combination of knowledge, creativity, technological skills, leadership support, motivation, and a supportive workplace culture, which is especially important in government hospitals where nurses must adapt and innovate despite limited resources.

Leadership support on innovation competence. Leadership support plays a vital role in shaping nurses' innovation competence, as studies consistently show that when leaders encourage creativity, provide resources, and recognize innovative efforts, nurses demonstrate higher levels of innovation competence (Lee et al., 2021; Mahmoud et al., 2023). Supportive leadership fosters trust and psychological safety, allowing nurses to share ideas, take risks, and develop innovative solutions in clinical practice (Newman et al., 2022). Transformational leadership further strengthens this relationship by promoting empowerment, autonomy, and motivation, which enhance nurses' creativity, problem-solving abilities, and engagement (Bektaş et al., 2025). Leadership training, mentoring, and participative management also contribute to innovation competence by involving nurses in decision-making and encouraging experimentation, resulting in both immediate innovative behavior and long-term professional growth (Rani & Muthu, 2024; Mahmoud et al., 2023).

Moreover, innovation competence is influenced by psychological empowerment, trust, motivation, and organizational commitment, which are strengthened through supportive leadership practices (Montani et al., 2020; Alshaabani et al., 2023). Leadership behaviors that promote open communication, recognition, and mutual respect enhance nurses' willingness to learn and innovate, making innovation a natural part of professional practice (Hu et al., 2024; El-Gazar et al., 2024). Evidence also shows that nurses in supportive environments exhibit higher innovation competence, as leaders who emphasize collaboration, empathy, and empowerment foster continuous learning and resilience (Boamah et al., 2023; Cummings et al., 2021). In government hospitals

where resources are limited, leadership support becomes even more critical, as it enables nurses to innovate despite constraints, ultimately improving patient care, teamwork, and the overall responsiveness of healthcare systems.

Profile Associated on Leader Support for Innovation Competence. Nurses' personal and professional profiles influence how they perceive leader support and develop innovation competence, as factors such as age, sex, years of experience, educational attainment, unit assignment, employment status, and position shape their confidence, learning opportunities, and interaction with leaders (Cummings et al., 2021; Mahmoud et al., 2023). Age and experience are associated with differences in competence and support, with experienced nurses demonstrating stronger clinical judgment and receiving greater autonomy and trust from leaders, while younger nurses may be more open to change but less confident in expressing ideas (Montani et al., 2020; Almarwani et al., 2023; Heydari et al., 2023). Educational attainment also contributes to innovation competence, as higher education enhances critical thinking, research skills, and confidence in proposing improvements, with leaders more likely to provide opportunities to highly educated nurses (Gao et al., 2021; Liu et al., 2024).

Unit assignment, employment status, and position further affect innovation competence and perceived leader support. Nurses working in collaborative units with supportive leadership report higher innovation behaviors, while those in rigid environments may feel less encouraged to innovate (Park et al., 2025; Hu et al., 2024). Permanent staff and those in higher positions tend to receive more training, mentoring, and involvement in decision-making, which strengthens their competence and confidence, whereas contractual nurses may feel less secure and less supported (Ubas-Sumagasyay et al., 2020; Mahmoud et al., 2023). Overall, the literature shows that profile characteristics are linked to variations in innovation competence and leader support, highlighting the need for inclusive leadership strategies that ensure all nurses are supported and empowered to contribute to innovation, especially in government hospitals with resource constraints (Cummings et al., 2021; Newman et al., 2022).

RESEARCH METHODOLOGY

Design. The study employed a quantitative descriptive–correlational–predictive research design. In this study, the descriptive design was used to determine the profile of nurse-respondents in terms of age, sex, educational attainment, position, unit or department, employment status, and length of experience, as well as their levels of leader support for innovation and innovation competence. The correlational design was used to examine the relationship between leader support for innovation and innovation competence and to determine whether the nurses' profile was significantly related to these variables.

Environment. This study was conducted in a government hospital located in Surigao City, Surigao del Norte, which served as a referral hospital for the Caraga Region.

Respondents. The respondents of this study were 205 registered nurses.

Sampling Design. This study used simple random sampling to select the nurse respondents.

Inclusion Criteria and Exclusion Criteria. The study included registered nurses presently employed at the hospital, whether permanent or job order, were eligible for inclusion if they had been employed for at least six months at the time of data collection and were assigned to clinical areas where they were actively involved in direct patient care, such as wards, intensive care units, the emergency department, operating and recovery rooms, outpatient units, and specialty areas. Nurses were included regardless of age, sex, marital status, religious affiliation, educational attainment, or employment status, provided that they met the stated conditions and were willing to participate and give informed consent.

Instrument. This study utilized a three-part questionnaire consisting of demographic variables and two adapted standardized instruments. Part I gathered the respondents' profile in terms of age, sex, length of experience, educational attainment, position, unit or department, and employment status to describe the respondents and determine their relationship with leader support for innovation and innovation competence. Part II used the Leader Support for Innovation Questionnaire (LSIQ) developed by Vincent-Höper and Stein (2019), a 12-item

instrument measured on a five-point Likert scale, with higher scores indicating stronger perceived leader support. The instrument covered three dimensions: idea encouragement and autonomy support, resource provision and guidance, and recognition and role modeling, and was scored by computing the mean, with interpretation ranging from very low to very high. The LSIQ demonstrated excellent reliability with Cronbach’s alpha ranging from 0.91 to 0.94, while the adapted version yielded 0.92.

Part III utilized the Innovation Competence Questionnaire (ICQ) adapted from Urdaneta-Peña et al. (2018), consisting of ten items measured on a five-point Likert scale, where higher scores reflected stronger innovation competence. The instrument covered four dimensions: idea generation and creativity, implementation and application, collaboration and networking, and motivation to participate in innovation. Scoring was based on the overall mean with interpretation from very low to very high innovation competence. The ICQ demonstrated strong reliability with Cronbach’s alpha ranging from 0.86 to 0.93, and the adapted version yielded 0.90, confirming its suitability for assessing innovation competence among nurses.

Data Gathering Procedures. The data gathering procedures included pre-data gathering, actual data gathering, and post-data gathering phases. The process began with the approval of the research title and assignment of an adviser, followed by securing permissions from the Dean and the Medical Center Chief of the Hospital, conducting a design hearing, and obtaining ethical clearance. During actual data gathering, respondents were recruited using proportionate stratified random sampling, and questionnaires were distributed through a face-to-face intercept method in coordination with unit supervisors. The purpose of the study was explained, informed consent was obtained, and completed questionnaires were collected, checked for completeness, and retrieved until the required sample size was achieved. In the post-data gathering phase, data were encoded and forwarded to a statistician for analysis, with results presented in tables and interpreted with supporting literature, followed by final defense and proper disposal of questionnaires to ensure confidentiality.

Statistical Treatment of Data. Statistical treatment included frequency distribution and percentage for profile variables, mean and standard deviation for levels of leader support and innovation competence, chi-square test and Cramer’s V for relationships between profile and variables, and Pearson r to determine the correlation between leader support and innovation competence.

Ethical Considerations. Ethical considerations are an essential component of any research study. The study was submitted to the ethics committee of both the university and the hospital. Ethical approval was sought prior to the start of data gathering to ensure that the welfare of the respondents was protected.

Presentation, Analysis, and Interpretation of Data

Table 1 Profile of the Respondents

Profile	f	%
Age		
18 to 35 years old	146	71.20
36 years old and above	59	28.80
Sex		
Male	63	30.70
Female	142	69.30
Length of Experience		
Less than 1 year	23	11.20
1 to 3 years	65	31.70
4 to 6 years	41	20.00
7 years and above	76	37.10
Educational attainment		
Bachelor’s Degree	153	74.70
With Masteral Units	46	22.40
Master’s Degree	6	2.90

Unit or Department		
PICU	12	5.90
Pedia	10	4.90
OB Ward	13	6.30
ICCU	15	7.30
HDU	14	6.80
Peritoneal	9	4.40
EREID	14	6.80
Emergency	15	7.30
OR	15	7.30
NICU	13	6.30
Fam Med Ward	12	5.90
Surgical Ward	15	7.30
Medical Ward 3A	15	7.30
Medical Ward 3B	12	5.90
Medical Ward 5A	13	6.30
Medical Ward 5B	8	3.90
Employment status		
Job order	82	40.00
Regular	123	60.00
Position		
Staff Nurse	82	40.00
Nurse I	52	25.40
Nurse II	71	34.60

Note. n=205.

As shown in Table 1, the profile of the respondents shows that most nurses belong to the younger age group, reflecting an early-career workforce consistent with current trends in nursing recruitment, while older nurses continue to contribute experience, resulting in a mixed-age workforce that supports knowledge transfer but requires effective leadership (Smiley et al., 2025). The predominance of female nurses aligns with global workforce patterns (WHO, 2025), with both male and female nurses contributing to patient care. The combination of novice and experienced nurses strengthens patient care, as newer nurses are more open to innovation but require supervision, while experienced nurses demonstrate stronger clinical judgment and crisis management, highlighting the need for structured mentorship. Most respondents hold a bachelor’s degree, with limited graduate education, suggesting the need for stronger institutional support for professional development. Nurses were assigned across various clinical units, where differences in workload and complexity influence competence and innovation practices, while the mix of employment status and positions reflects typical government hospital structures, with job order nurses facing stability concerns and regular nurses showing stronger organizational attachment. Overall, the findings indicate a diverse workforce where leadership support, mentoring, equitable development opportunities, and unit-specific strategies are essential to enhance innovation and competence (Smiley et al., 2025; WHO, 2025).

Table 2 Leader Support for Innovation

Dimensions	Mean score	SD	Interpretation
Idea encouragement and autonomy support			
1. My head nurse encourages me to share new ideas to improve patient care.	4.19	0.655	Agree
2. My unit head supports me when I try out new ways of performing nursing tasks.	4.16	0.740	Agree
3. My head nurse gives me freedom to try new approaches in my nursing duties.	4.27	0.674	Strongly agree

4. My head nurse allows flexibility when implementing new nursing interventions.	4.26	0.647	Strongly agree
Factor mean	4.22	0.586	Very high
Resource provision and guidance			
1. My supervisor provides resources or training to help implement innovative practices.	4.18	0.648	Agree
2. My head nurse provides time to explore new solutions for patient care problems.	4.23	0.701	Strongly agree
3. My head nurse provides guidance when I am developing new patient care ideas.	4.27	0.658	Strongly agree
Factor mean	4.22	0.601	Very high
Recognition and role modeling			
1. My supervisor values creativity and initiative among the staff.	4.29	0.673	Strongly agree
2. My supervisor recognizes and appreciates when staff develop new methods to improve quality of care.	4.15	0.627	Agree
3. My unit head promotes teamwork in generating innovative ideas.	4.30	0.599	Strongly agree
4. My supervisor motivates the staff to think creatively about hospital procedures.	4.32	0.605	Strongly agree
5. My supervisor acts as a role model for promoting innovation in nursing practice.	4.30	0.622	Strongly agree
Factor mean	4.27	0.534	Very high
Grand mean	4.24	0.546	Very high

Note. n=205.

Legend: 4.21 – 5.00 Very high (strongly agree); 3.41 – 4.20 High (agree); 2.61 – 3.40 Moderate (neutral); 1.81 – 2.60 Low (disagree); 1.00 – 1.80 Very low (strongly disagree)

The results in Table 2 show that leader support for innovation was very high (grand mean = 4.24), indicating that nurses generally perceived their leaders as consistently supportive of innovation in everyday nursing practice, where leaders create an environment that encourages idea-sharing, participation, and continuous improvement. All dimensions were rated very highly, with idea encouragement and autonomy support reflecting that nurses feel trusted to contribute suggestions and exercise independence within standards; resource provision and guidance (4.22) indicating that leaders provide practical support such as coaching, direction, and assistance in implementing changes; and recognition and role modeling (4.27) showing that leaders actively appreciate staff contributions and model innovative behaviors, reinforcing motivation and engagement. These findings suggest that innovation is already integrated into nursing work through participative leadership, mentoring, and acknowledgment of efforts, which strengthens ownership, confidence, and accountability among nurses.

However, these results should be interpreted within the realities of government hospital practice, where heavy workloads, limited staffing, and time pressures may restrict the actual implementation of innovative ideas despite strong leadership support. While supportive leadership provides the emotional and professional foundation for innovation, it does not eliminate structural barriers, indicating the need for administrative systems that create opportunities for feedback, problem-solving, and quality improvement. Overall, the findings highlight that leader support is strongly present and serves as a foundation for competence and innovation, but sustaining and strengthening this through participative decision-making, coaching, recognition, and adequate organizational support is essential to ensure that innovation becomes part of the normal culture of nursing practice.

Table 3 Innovation Competence

Dimensions	Mean score	SD	Interpretation
Idea generation and creativity			
1. I often suggest new ways to improve nursing procedures in my unit.	3.87	0.778	Agree
2. I can evaluate whether a new idea will be effective in our hospital setting.	4.02	0.649	Agree
Factor mean	3.94	0.670	High
Implementation and application			
1. I collaborate with colleagues to develop innovative patient care strategies.	4.18	0.727	Agree
2. I take initiative to apply new methods in clinical practice.	4.12	0.747	Agree
3. I am enthusiastic about participating in innovation projects in the hospital.	4.18	0.633	Agree
Factor mean	4.16	0.655	High
Collaboration and networking			
1. I am willing to learn new approaches to improve patient care.	4.49	0.599	Strongly agree
2. I can think creatively when solving nursing problems.	4.29	0.610	Strongly agree
Factor mean	4.39	0.559	Very high
Motivation and willingness to learn			
1. I work well with others when introducing new practices.	4.22	0.559	Strongly agree
2. I look for opportunities to improve existing nursing practices.	4.22	0.623	Strongly agree
3. I am confident in implementing changes that enhance quality of care.	4.28	0.576	Strongly agree
Factor mean	4.24	0.557	Very high
Grand mean	4.18	0.555	High

Note: n=205.

Legend: 4.21 – 5.00 Very high (strongly agree); 3.41 – 4.20 High (agree); 2.61 – 3.40 Moderate (neutral); 1.81 – 2.60 Low (disagree); 1.00 – 1.80 Very low (strongly disagree).

Table 3 presents that nurses demonstrated a high level of innovation competence (grand mean = 4.18), suggesting that they perceive themselves as capable of contributing to improvements in nursing practice, although this reflects a developing stage rather than a fully advanced level. Stronger responses were observed in collaboration and networking as well as motivation and willingness to learn, indicating high openness to teamwork, shared learning, and participation in improvement efforts, where innovation often emerges through group-based and practical actions in hospital settings. The dimension of implementation and application also showed a high result, suggesting that nurses are beginning to translate ideas into practice through incremental and realistic changes, while idea generation and creativity, although still high, was relatively lower, indicating that independent production of new and original ideas is still developing due to constraints such as workload, time pressure, and staffing limitations. Overall, the findings show that nurses have a strong foundation for innovation, particularly in teamwork and readiness to learn, but innovation competence remains an evolving capability that requires continued leadership support, structured opportunities, and organizational encouragement to progress from developmental participation toward more independent and sustained innovation practice.

Table 4 Relationship between Profile and Leader Support for Innovation

Variables	chi value	p value	Cramer's V value	Decision	Interpretation
Age	97.639	.000	.690	Reject Ho	Significant
Sex	1.215E2	.000	.770	Reject Ho	Significant
Length of experience	3.019E2	.000	.701	Reject Ho	Significant
Educational attainment	85.998	.002	.459	Reject Ho	Significant

Unit of Department	3.858E2	.551	--	Failed to reject Ho	Not significant
Employment status	76.062	.000	.609	Reject Ho	Significant
Position	1.637E2	.000	.632	Reject Ho	Significant

Legend: Significant if p value is < .05. Dependent Variable: Leaders support for innovation. Cramer’s V values: A value of >0.25 is very strong, >0.15 is strong, >0.10 is moderate, >0.05 is weak, and >0 is no association.

Table 4 presents that personal and professional characteristics of nurses were significantly associated with their perception of leader support for innovation, indicating that leadership is experienced differently depending on nurses’ background, exposure, and level of involvement in unit activities, consistent with findings that demographic and professional factors influence leadership perception (Lee & Seo, 2024; Bektaş et al., 2025). Age, sex, length of experience, educational attainment, employment status, and position all shaped how nurses interpreted leadership support, with younger nurses seeking more guidance, experienced nurses valuing autonomy, and those with higher positions, longer experience, or regular employment having greater exposure to leadership activities, resulting in stronger perceived support. Similarly, nurses with higher educational attainment were more engaged in innovation-related activities, which enhanced their perception of leadership support, while differences in communication dynamics also influenced how support was experienced. In contrast, unit or department was not significantly related, suggesting consistent leadership practices across clinical areas despite varying workloads and conditions. Overall, the findings imply that perceptions of leader support are shaped more by individual and professional characteristics than by unit assignment, highlighting the need for adaptive, inclusive, and equitable leadership approaches that provide differentiated support, equal opportunities, and sustained leadership engagement to ensure all nurses feel supported in innovation efforts while maintaining organizational consistency (Lee & Seo, 2024; Bektaş et al., 2025).

Table 5 Relationship between Profile and Innovation Competence

Variables	chi value	p value	Cramer’s V value	Decision	Interpretation
Age	98.320	.000	.693	Reject Ho	Significant
Sex	1.131E2	.000	.742	Reject Ho	Significant
Length of experience	3.582E2	.000	..763	Reject Ho	Significant
Educational attainment	1.303E2	.000	.565	Reject Ho	Significant
Unit of Department	3.845R2	.569	--	Failed to reject Ho	Not significant
Employment status	1.027E2	.000	.708	Reject Ho	Significant
Position	2.004E2	.000	.699	Reject Ho	Significant

Legend: Significant if p value is < .05. Dependent Variable: Innovation competence. Cramer’s V values: A value of >0.25 is very strong, >0.15 is strong, >0.10 is moderate, >0.05 is weak, and >0 is no association.

The results in Table 5 show that most profile variables were significantly related to nurses’ innovation competence, indicating that personal and professional characteristics influence their ability to generate ideas, implement improvements, collaborate, and engage in innovation activities, supported by literature emphasizing the role of professional maturity, empowerment, and exposure to leadership and learning opportunities (Bektaş et al., 2025; Lee & Seo, 2024). Age differences reflect complementary strengths, with younger nurses showing adaptability and openness to technology, while experienced nurses contribute clinical judgment and practicality (Zhang et al., 2022); sex-related differences highlight the influence of workplace dynamics and the need for inclusive environments; and length of experience, educational attainment, employment status, and position shape confidence and participation, as those with more experience, higher education, regular employment, and higher roles have greater exposure to leadership, training, and decision-making, enhancing competence. In contrast, unit or department was not significant, suggesting consistent competence across clinical areas despite situational differences, possibly due to standardized systems and shared organizational culture (Yan et al., 2022; Zhang et al., 2022). Overall, the findings imply that innovation competence is shaped more by individual qualifications, exposure, and organizational involvement than by unit assignment, highlighting the need for equitable opportunities, mentorship, inclusive learning, and leadership practices that promote empowerment, psychological safety, and sustained innovation across all nurses (Lee & Seo, 2024; Bektaş et al., 2025).

Table 6 Leader Support for Innovation and Innovation Competence

Variables	r value	p value	Decision	Interpretation
Leader Support for Innovation vs. Innovation Competence	.823	.000	Reject Ho	Significant

Legend: Significant if p value is $\leq .05$. Dependent Variable: Innovation competence. Pearson r interpretation: A value greater than .5 is strong (positive), between .3 and .5 is moderate (positive), between 0 and .3 is weak (positive), 0 is none, between 0 and $-.3$ is weak (negative), between $-.3$ and $-.5$ is moderate (negative), and less than $-.5$ is strong (negative).

The results in Table 6 show a strong and significant positive relationship between leader support for innovation and innovation competence ($r = .823$, $p = .000$), indicating that higher perceived leadership support increases nurses' confidence and ability to engage in innovative practices. Hospital observations support this, as nurses with approachable, supportive supervisors were more active in proposing improvements and participating in innovation activities, especially when leaders encouraged feedback, provided guidance, and acknowledged contributions. Leadership support manifested through simple actions such as listening, coaching, and recognizing efforts, which enhanced motivation, collaboration, and confidence, consistent with findings that supportive leadership strengthens psychological safety and innovative behavior (Lee & Seo, 2024) and that empowerment and transformational leadership enhance innovation competence (Bektaş et al., 2025; Zhang et al., 2022). However, operational challenges such as heavy workload, staffing shortages, and time constraints may limit innovation despite strong leadership support (Yan et al., 2022). Overall, the findings highlight that innovation competence is not solely an individual trait but is significantly shaped by leadership and the work environment, emphasizing the need for leadership practices that promote empowerment, guidance, recognition, and engagement to translate nurses' skills into innovative actions that improve patient care and organizational outcomes.

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study concludes that nurses in the government hospital generally experienced a very high level of leader support for innovation and demonstrated high innovation competence. It further concludes that significant relationships existed between profile characteristics and both leader support for innovation and innovation competence, indicating that these variables are influenced by personal and professional factors. Moreover, the study concludes that there was a strong positive significant relationship between leader support for innovation and innovation competence, showing that supportive leadership is an important factor in strengthening nurses' capacity to engage in innovative practices.

Recommendations

The study recommends the implementation of a Leader Support for Innovation and Innovation Competence Enhancement Plan by nursing management to sustain empowerment, mentorship, psychological safety, and staff participation in innovation activities, including strengthening supportive leadership practices, promoting open communication, recognizing staff contributions, and ensuring inclusive access to innovation opportunities across all nurses. In nursing practice, nurses are encouraged to actively engage in problem-solving, idea generation, and quality improvement initiatives supported by leadership. In nursing education, the findings may be integrated into leadership, management, and innovation courses to prepare future nurse leaders and enhance professional development. In terms of nursing policy, hospital administrators may develop policies that support innovation through leadership training, mentoring programs, recognition systems, and protected time for innovation activities. For nursing research, the study may be published and extended through further investigations on mediating or moderating factors, qualitative exploration of nurses' experiences, and replication in other settings to strengthen generalizability.

Leader Support for Innovation and Innovation Competence Enhancement Plan

Rationale

Innovation in nursing is essential for improving patient care, efficiency, and adaptability, but it is strongly influenced by leadership support. The study found very high leader support and high innovation competence, with a strong relationship between the two, indicating that supportive leadership enhances nurses' innovation capability. Significant differences across profile characteristics further suggest the need for inclusive strategies. Thus, a structured enhancement plan was developed to sustain leadership support and strengthen innovation competence.

General Objective

The main purpose of this enhancement plan is to further strengthen leader support for innovation and improve innovation competence among nurses in a government hospital.

Specific Objectives

Specifically, this enhancement plan aims to:

- a. Sustain the very high level of leader support for innovation among nurse leaders;
- b. Improve the high level of innovation competence among nurses toward a very high level;
- c. Strengthen collaboration, creativity, and motivation for innovation among nursing staff; and
- d. Sustain leadership practices that foster innovation culture within the nursing workforce.

Area	Objective	Key Activities	Responsible	Time Frame	Success Indicators
Sustain Leader Support for Innovation	Maintain and strengthen supportive leadership practices	Leadership trainings, mentoring/coaching, open communication, regular innovation meetings, recognition of leaders	Nurse Managers, Chief Nurse, HR, Administrators	Q3 onwards	Training records, regular meetings, positive staff feedback
Improve Innovation Competence of Nurses	Increase innovation competence from high to very high	Webinars, continuous education, innovation workshops, unit-based projects, interdisciplinary collaboration, reassessment	Staff Nurses, Nurse Managers, Education Dept.	Q3 onwards	Participation certificates, completed projects, improved survey results
Strengthen Leadership–Innovation Link	Sustain leadership practices that promote innovation competence	Monitoring and evaluation, integration of innovation in staff development	Nurse Managers, Chief Nurse, HR	Q3 onwards	Increased staff participation, positive evaluation results
Establish Recognition for Innovation	Motivate nurses through recognition systems	Awards, public acknowledgment, inclusion in performance evaluation, incentive programs	Nurse Managers, HR, Administrators	Q3 onwards	Established recognition system, number of recognized nurses, increased innovation participation

REFERENCES

1. Abd El Muksoud, N. O. (2022). Leadership behaviors and innovative work behaviours among nurses. *Zagazig Nursing Journal*, 18(2).
2. Al-Dossary, R. (2021). The role of transformational leadership in enhancing nurses' innovative behavior: A systematic review. *Nursing Open*, 8(5), 2341–2351. <https://doi.org/10.1002/nop2.837>
3. Almarwani, A. M., & Alzahrani, N. S. (2023). Factors affecting the development of clinical nurses' competency: A systematic review. *Nurse Education in Practice*, 73, 103826. <https://doi.org/10.1016/j.nepr.2023.103826>
4. Alshaabani, A., Naz, F., Magda, R., & Rudnák, I. (2023). Social exchange theory and employee creativity: The mediating role of organizational commitment and trust. *Sustainability*, 15(4), 3318. <https://doi.org/10.3390/su15043318>
5. Amabile, T. M. (2020). Creativity, artificial intelligence, and a world of surprises. *Perspectives on Psychological Science*, 15(6), 1186–1190. <https://doi.org/10.1177/1745691620927478>
6. Anderson, N., Potočnik, K., & Zhou, J. (2021). Innovation and creativity in organizations: A state-of-the-science review. *Journal of Management*, 47(3), 272–300. <https://doi.org/10.1177/0149206320965543>
7. Asif, M., Qing, M., Hwang, J., & Shi, H. (2021). Ethical leadership, trust, and creativity: The mediated mechanism and cultural implication. *International Journal of Environmental Research and Public Health*, 18(1), 445. <https://doi.org/10.3390/ijerph18010445>
8. Atasoy, I., Özdemir, S. Ç., & Evli, M. (2023). Relationship between individual innovativeness and 21st century skills of nursing and midwifery students: A cross-sectional study. *Nurse Education Today*, 126, 105830. <https://doi.org/10.1016/j.nedt.2023.105830>
9. Bektaş, G., Ünal, B. Ö., & Narlı, M. (2025). The effect of transformational leadership on nurses' innovative behaviors: The mediating effect of psychological empowerment. *BMC Nursing*, 24, Article 684. <https://doi.org/10.1186/s12912-025-03467-1>
10. Boamah, S. A., Spence Laschinger, H. K., Wong, C., & Clarke, S. (2023). Transformational leadership and its impact on nurses' job satisfaction, burnout, and patient safety outcomes: A review of recent evidence. *Journal of Nursing Management*, 31(2), 217–226. <https://doi.org/10.1111/jonm.13765>
11. Chen, J., Zhang, Q., Fong, P., & Meng, L. (2025). Investigating nurses' competencies for development of "Internet + nursing service": A cross-sectional study. *Nursing Open*, 12(7), e70275.
12. Cummings, G. G., Tate, K., Lee, S., Wong, C. A., Paananen, T., & Micaroni, S. P. M. (2021). Leadership styles and outcome patterns for the nursing workforce and work environment: A systematic review. *International Journal of Nursing Studies*, 115, 103842. <https://doi.org/10.1016/j.ijnurstu.2020.103842>
13. El-Gazar, H. E., Baghdadi, N. A., Mohammed, S., & Zoromba, M. A. (2024). Sparking nurses' creativity: The roles of ambidextrous leadership and psychological safety. *BMC Nursing*, 23, Article 777. <https://doi.org/10.1186/s12912-024-02277-1>
14. Gao, L., Lu, Q., Hou, X., Ou, J., & Wang, M. (2022). Effectiveness of a nursing innovation workshop at enhancing nurses' innovation abilities: A quasi-experimental study. *Nursing Open*, 9(1), 418–427. This is the version indexed in major databases; your current Gao entry appears inaccurate and should be replaced.
15. Guo, Y., Fan, W., Dong, X., Yang, C., Wang, M., Gao, H., Lv, P., & Ma, K. (2024). The impact of nursing heads leadership on research innovation behavior of junior nurses with master's degree: The mediation of perceived barriers and the moderation of motivation. *Journal of Healthcare Leadership*, 16, 583–593. <https://doi.org/10.2147/JHL.S479562>
16. Hammond, M. M., Neff, N. L., Farr, J. L., Schwall, A. R., & Zhao, X. (2023). Predictors of individual-level innovation at work: A meta-analysis. *Psychology of Aesthetics, Creativity, and the Arts*, 17(2), 207–223. <https://doi.org/10.1037/aca0000517>
17. Heydari, N., Torabizadeh, C., Rakhshan, M., & Salimi, G. (2023). Individual innovation from the perspective of nursing students: A qualitative study. *BMC Nursing*, 22, Article 163. <https://doi.org/10.1186/s12912-023-01311-y>
18. Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607–610. <https://doi.org/10.1177/001316447003000308>
19. Lee, S. E., & Seo, J. K. (2024). Effects of nurse managers' inclusive leadership on nurses' psychological

- safety and innovative work behavior: The moderating role of collectivism. *Journal of Nursing Scholarship*, 56(4), 554–562. <https://doi.org/10.1111/jnu.12965>
20. Liu, L., Liu, M., Lv, Z., Ma, F. Y., Mao, Y., & Liu, Y. (2024). The mediating and moderating role of nursing information competence between nurses' creative self-efficacy and innovation behavior in a specialized oncology hospital. *BMC Nursing*, 23, Article 760. <https://doi.org/10.1186/s12912-024-02360-7>
21. Mahmoud, A. B., Reisel, W. D., & Fuxman, L. (2023). Leader support, nurse engagement, and innovative work behavior: A global perspective. *Frontiers in Psychology*, 14, 1128902. <https://doi.org/10.3389/fpsyg.2023.1128902>
22. Ndirangu-Mugo, E. (2024). Psychological safety. *Nurse Leader*, 23(1). <https://doi.org/10.1016/j.mnl.2024.10.012>
23. Newman, A., Tse, H. H. M., Schwarz, G., & Nielsen, I. (2022). The effects of supportive leadership on employees' innovative behavior: A meta-analytic review. *Human Resource Management Review*, 32(1), 100823. <https://doi.org/10.1016/j.hrmr.2021.100823>
24. Park, C. E., Kang, J., Myung, S. H., Yoo, H. S., & Cho, I. Y. (2025). Factors influencing future core nursing competency: Focusing on King's Dynamic Interaction System Model in South Korea: A cross-sectional study. *Child Health Nursing Research*, 31(2), 120–130. <https://doi.org/10.4094/chnr.2025.006>
25. Polit, D. F., & Beck, C. T. (2021). *Nursing research: Generating and assessing evidence for nursing practice* (11th ed.). Wolters Kluwer.
26. Rani, A., & Muthu, V. (2024). Developing innovation competence among nurses through transformational leadership and training interventions. *Nurse Education in Practice*, 78, 103748.
27. Urdaneta-Peña, K., Salminen, L., & Tynjälä, P. (2018). Conceptualizing nurses' innovation competence: A framework for contemporary practice. *Journal of Nursing Scholarship*, 50(6), 664–671. <https://doi.org/10.1111/jnu.12420>
28. Yan, D., Li, M., Zhang, Y., & Zhang, Y. (2022). A qualitative study of facilitators and barriers to nurses' innovation at work. *Journal of Nursing Management*, 30(7), 3449–3456. <https://doi.org/10.1111/jonm.13811>
29. Zhang, M., Chen, H., Wang, N., Li, Y., & Liu, Y. (2022). Does transformational leadership and psychological empowerment improve nurses' innovative behaviour during COVID-19 outbreak? A cross-sectional study. *Journal of Nursing Management*, 30, 4116–4125.