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THE EFFECT OF PSYCHOLOGICAL SAFETY ON INNOVATIVE WORK BEHAVIOR THROUGH DIGITAL COLLABORATION AMONG HEALTHCARE WORKERS IN HOSPITALS

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Abstract

Innovation has become a critical capability for healthcare organizations seeking to improve service quality, patient safety, and operational efficiency. Healthcare workers are expected to continuously develop and implement innovative solutions to address increasingly complex healthcare challenges. However, innovation is influenced by various organizational factors, including psychological safety and digital collaboration. This study aimed to examine the effect of Psychological Safety on Innovative Work Behavior through Digital Collaboration among healthcare workers at Hospital X. This study employed a quantitative research approach using a cross-sectional survey design. Data were collected from 200 healthcare workers, including physicians, nurses, pharmacists, laboratory personnel, and other healthcare professionals at Hospital X. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). Psychological Safety was treated as the independent variable, Digital Collaboration as the mediating variable, and Innovative Work Behavior as the dependent variable. The study concludes that psychological safety and digital collaboration are important drivers of innovation among healthcare workers. Hospitals should therefore foster supportive work environments that encourage open communication, trust, and active participation while simultaneously strengthening digital collaboration capabilities.

Keywords: Psychological Safety, Digital Collaboration, Innovative Work Behavior

INTRODUCTION

The healthcare sector is experiencing unprecedented transformation driven by rapid technological advancement, increasing service complexity, and growing patient expectations. Hospitals are required not only to deliver safe and high-quality care but also to continuously innovate in clinical and administrative processes to respond effectively to evolving healthcare challenges (Hendarto et al., 2025). Innovation has become a critical organizational capability, particularly in healthcare settings where improvements in service delivery, patient safety, and operational efficiency directly influence patient outcomes. Consequently, understanding the factors that encourage healthcare workers to engage in innovative behaviors has become an important area of research (Imran, 2024).

Innovative Work Behavior (IWB) refers to employees' intentional activities aimed at generating, promoting, and implementing new ideas, processes, products, or methods within their work environment. In healthcare organizations, innovative work behavior is reflected through the development of new clinical procedures, creative problem-solving approaches, process improvements, adoption of digital technologies, and initiatives to enhance patient care quality (Ariedzanata et al., 2025). Previous studies have consistently demonstrated that employees who actively engage in innovative work behavior contribute significantly to organizational adaptability, competitiveness, and long-term sustainability. In hospitals, where healthcare professionals regularly encounter complex and unpredictable situations, innovative work behavior becomes particularly essential for addressing emerging healthcare needs and improving service effectiveness (Nosih, 2024).

Despite the recognized importance of innovation, healthcare workers often operate in highly regulated environments characterized by hierarchical structures, heavy workloads, strict professional standards, and significant responsibility for patient safety. These conditions may discourage employees from expressing ideas, questioning existing practices, or proposing alternative solutions due to fear of criticism, rejection, or negative consequences. As a result, many potentially valuable ideas remain unexpressed, limiting organizational learning and innovation. Therefore, identifying organizational factors that create an environment conducive to innovation is crucial for

fostering innovative work behavior among healthcare professionals (Naufal, 2025). One organizational factor that has gained increasing attention in recent years is psychological safety. Psychological safety refers to an individual's perception that the work environment is safe for interpersonal risk-taking, allowing employees to express opinions, ask questions, admit mistakes, and share new ideas without fear of embarrassment, punishment, or negative evaluation (Isdiyanto et al, 2026). The concept was popularized by Edmondson (1999), who argued that psychological safety enables employees to engage in learning behaviors that are essential for organizational improvement and innovation. In healthcare settings, psychological safety is particularly important because patient care often requires interdisciplinary collaboration, open communication, and continuous learning from errors and near misses (Tristati & Sudarsono, 2025).

Research has shown that psychologically safe environments encourage employees to speak up, share knowledge, and participate actively in organizational improvement initiatives. Healthcare workers who feel psychologically safe are more likely to communicate concerns, suggest innovative solutions, and contribute to decision-making processes. Furthermore, psychological safety facilitates experimentation and learning, both of which are fundamental drivers of innovation (Kosasih, 2018). When employees perceive that their ideas will be valued rather than criticized, they become more willing to engage in innovative work behavior. Consequently, psychological safety has been increasingly recognized as a critical antecedent of employee innovation across various organizational contexts (Pratama et al., 2025).

In parallel with the growing importance of psychological safety, healthcare organizations are undergoing rapid digital transformation. The adoption of Electronic Health Records (EHRs), telemedicine platforms, digital communication systems, cloud-based information sharing, and collaborative technologies has fundamentally changed how healthcare professionals interact and perform their work. These technological developments have increased the importance of digital collaboration, defined as the use of digital technologies to facilitate communication, coordination, information exchange, and collaborative problem-solving among employees. Digital collaboration enables healthcare professionals to work together across departments, locations, and professional disciplines, thereby enhancing organizational flexibility and knowledge sharing (Kosasih & Ikatrinasari, 2025).

The significance of digital collaboration became particularly evident during and after the COVID-19 pandemic, which accelerated the implementation of digital technologies in healthcare systems worldwide. Healthcare organizations increasingly relied on digital platforms to coordinate patient care, conduct virtual consultations, share medical information, and support multidisciplinary teamwork. As digital collaboration tools became integrated into daily healthcare operations, they created new opportunities for knowledge exchange and innovation (Siagian et al., 2025). Through digital platforms, healthcare workers can access broader sources of information, communicate more efficiently, and participate in collaborative learning processes that support the development and implementation of innovative ideas (Santoso et al., 2025).

Previous research suggests that digital collaboration can positively influence innovative work behavior by facilitating knowledge sharing, enhancing communication quality, and promoting collaborative problem-solving. Employees who actively engage in digital collaboration are more likely to access diverse perspectives, exchange expertise, and develop creative solutions to work-related challenges. In healthcare settings, where effective coordination among professionals is essential, digital collaboration can serve as an important mechanism through which innovative ideas are generated and implemented. However, the effectiveness of digital collaboration may depend on the organizational climate in which it occurs (Budiyatno, 2022).

Psychological safety may play a crucial role in determining whether digital collaboration effectively promotes innovation. Even when advanced digital technologies are available, healthcare workers may hesitate to share ideas, seek feedback, or participate in collaborative discussions if they fear negative judgment from colleagues or supervisors. Conversely, psychologically safe environments encourage open communication and active participation in digital collaboration activities. Employees who feel safe expressing themselves are more likely to utilize digital platforms for sharing knowledge, discussing problems, and exploring innovative solutions. Therefore, psychological safety may influence innovative work behavior not only directly but also indirectly through its impact on digital collaboration (Junaedi et al., 2026).

Although numerous studies have separately examined the relationships between psychological safety and innovative work behavior, as well as between digital collaboration and employee innovation, limited research has investigated the mediating role of digital collaboration in the relationship between psychological safety and innovative work behavior, particularly within hospital settings. Existing studies have predominantly focused on industrial, educational, or corporate environments, while empirical evidence from healthcare organizations remains relatively limited. Given the unique characteristics of healthcare work, including interdisciplinary teamwork, high

accountability, and increasing digitalization, further investigation is necessary to understand how psychological safety and digital collaboration jointly influence innovative work behavior among healthcare workers.

Moreover, healthcare organizations in developing countries face additional challenges related to digital transformation, workforce engagement, and innovation capacity. Hospitals are increasingly investing in digital technologies; however, technological adoption alone may not be sufficient to stimulate innovation if employees do not experience a supportive psychological environment. Understanding the mechanisms through which psychological safety and digital collaboration interact to influence innovative work behavior can provide valuable insights for hospital leaders seeking to foster innovation and improve organizational performance (Prihantari & Sari, 2025).

Therefore, this study aims to examine the effect of psychological safety on innovative work behavior through digital collaboration among healthcare workers in hospitals. Specifically, the study investigates whether digital collaboration serves as a mediating mechanism through which psychological safety contributes to the development of innovative work behavior. The findings are expected to contribute to the growing body of knowledge on employee innovation in healthcare organizations and provide practical implications for hospital management in creating psychologically safe and digitally collaborative work environments that support innovation and continuous improvement.

LITERATURE REVIEW

Psychological Safety

Psychological safety is defined as an individual's perception that the work environment is safe for interpersonal risk-taking, allowing employees to express ideas, ask questions, provide feedback, and admit mistakes without fear of punishment, embarrassment, or negative consequences. The concept was introduced and extensively developed by Edmondson (1999), who described psychological safety as a shared belief among team members that the workplace supports open communication and mutual respect.

In organizational settings, psychological safety encourages employees to participate actively in discussions, share knowledge, and contribute innovative suggestions. Employees who perceive a high level of psychological safety are more likely to engage in behaviors that involve uncertainty and risk, such as proposing new ideas or challenging existing practices. Conversely, environments characterized by fear, blame, or excessive criticism may discourage employees from expressing their opinions and limit organizational learning opportunities (Junaedi et al., 2026).

Within healthcare organizations, psychological safety plays a particularly important role due to the complexity and high-risk nature of clinical work. Healthcare professionals frequently operate in multidisciplinary teams where effective communication, collaboration, and continuous learning are essential for patient safety and service quality. A psychologically safe environment enables healthcare workers to speak up about potential concerns, discuss errors openly, and share knowledge that may contribute to organizational improvement.

Previous studies have demonstrated that psychological safety is associated with numerous positive organizational outcomes, including increased employee engagement, enhanced knowledge sharing, improved team learning, stronger collaboration, and higher levels of innovation. Employees who feel psychologically safe are generally more willing to experiment with new approaches and participate in activities that support organizational development. Therefore, psychological safety is increasingly recognized as a critical factor in creating workplaces that encourage learning, adaptability, and continuous improvement (Bakri, 2025).

As healthcare organizations continue to face rapid technological changes and growing demands for innovation, fostering psychological safety has become an important managerial priority. By creating an environment where employees feel respected, valued, and comfortable expressing their ideas, organizations can support more effective collaboration and facilitate behaviors that contribute to innovation and organizational success

Digital Collaboration

Digital collaboration refers to the process through which individuals use digital technologies and communication platforms to share information, coordinate tasks, exchange knowledge, and work together toward common organizational goals. Advances in information and communication technologies have transformed traditional collaboration practices, enabling employees to interact and collaborate regardless of geographical, temporal, or organizational boundaries (Prihantari & Sari, 2025).

According to recent organizational and information systems literature, digital collaboration encompasses the utilization of various digital tools such as electronic health records (EHRs), cloud-based systems, collaborative software, virtual meeting platforms, instant messaging applications, and other digital communication technologies

that facilitate teamwork and knowledge exchange. These technologies support real-time communication, information accessibility, collective problem-solving, and decision-making processes within organizations (Santoso et al., 2025).

In healthcare settings, digital collaboration has become increasingly important as hospitals undergo digital transformation. Healthcare professionals from different disciplines frequently need to coordinate patient care, exchange clinical information, and communicate efficiently to ensure service quality and patient safety. Digital technologies enable healthcare workers to access relevant information quickly, consult colleagues remotely, and collaborate effectively across departments and professional boundaries.

The effectiveness of digital collaboration extends beyond communication efficiency. Digital collaborative environments facilitate knowledge sharing, collective learning, and the integration of diverse expertise, which are essential for addressing complex healthcare challenges. Through digital collaboration, employees can contribute ideas, discuss solutions, and participate in innovation-related activities more effectively than through conventional communication channels alone.

Furthermore, digital collaboration supports organizational flexibility and adaptability by enabling rapid information dissemination and continuous interaction among team members. Organizations that successfully implement digital collaboration practices often experience improved coordination, enhanced productivity, stronger teamwork, and greater capacity for innovation. The availability of digital platforms creates opportunities for employees to engage in collaborative learning and creative problem-solving, which are important drivers of organizational development (Siagian et al., 2025).

As healthcare organizations increasingly rely on digital technologies to support their operations, understanding the role of digital collaboration has become essential. Effective digital collaboration not only enhances communication and teamwork but also creates an environment that encourages knowledge exchange and supports the development of innovative solutions. Consequently, digital collaboration is recognized as a strategic organizational capability that contributes to improved performance, service quality, and innovation in modern healthcare environments.

Innovative Work Behavior

Innovative Work Behavior (IWB) refers to employees' intentional actions aimed at generating, promoting, and implementing new ideas, processes, products, or methods that contribute to individual, team, and organizational performance. The concept emphasizes not only the creation of innovative ideas but also the efforts required to gain support for these ideas and transform them into practical applications within the workplace. Innovative work behavior is considered a key factor in helping organizations adapt to environmental changes, improve efficiency, and maintain competitiveness (Yusufa et al., 2023).

According to Janssen (2000), innovative work behavior consists of a series of behavioral activities through which employees identify opportunities, develop creative solutions, advocate for innovative ideas, and participate in their implementation. Unlike creativity, which primarily focuses on idea generation, innovative work behavior encompasses the entire innovation process from concept development to execution. Therefore, employees who demonstrate innovative work behavior actively contribute to organizational improvement and problem-solving (Rohana et al., 2026).

In healthcare organizations, innovative work behavior is particularly important because healthcare professionals regularly encounter complex situations that require adaptive thinking and continuous improvement. Healthcare workers who engage in innovative work behavior may introduce new clinical procedures, improve patient care processes, optimize administrative workflows, adopt technological solutions, or develop creative approaches to addressing healthcare challenges. Such behaviors can contribute to improved service quality, patient safety, operational efficiency, and organizational effectiveness.

The emergence of innovative work behavior is influenced by both individual and organizational factors. Organizational environments that encourage learning, knowledge sharing, collaboration, and open communication tend to foster higher levels of innovation among employees. Supportive leadership, access to information, technological resources, and positive workplace relationships can also create conditions that facilitate innovative behavior. Conversely, environments characterized by rigid hierarchies, excessive control, or fear of failure may inhibit employees from proposing and implementing new ideas.

Previous studies have consistently shown that innovative work behavior is associated with positive organizational outcomes, including enhanced productivity, improved service quality, greater adaptability to change, and stronger organizational performance. In the healthcare sector, innovative work behavior plays a critical role in

supporting continuous quality improvement and responding effectively to the increasing complexity of healthcare delivery systems.

As hospitals continue to face rapid technological advancements, changing patient expectations, and increasing demands for high-quality care, fostering innovative work behavior among healthcare workers has become a strategic priority. Employees who actively engage in innovation contribute not only to organizational development but also to the creation of more effective, efficient, and patient-centered healthcare services. Therefore, understanding the factors that promote innovative work behavior is essential for healthcare organizations seeking to achieve sustainable improvement and long-term success

METHOD

This study employed a quantitative research approach with a cross-sectional design to examine the effect of Psychological Safety on Innovative Work Behavior through Digital Collaboration among healthcare workers at Hospital X. A quantitative approach was selected because it enables the measurement of relationships among variables and facilitates hypothesis testing using statistical analysis. The cross-sectional design allows data to be collected from respondents at a single point in time to assess the relationships among the study variables. The study was conducted at Hospital X, a healthcare institution that has implemented various digital technologies to support healthcare service delivery and interprofessional collaboration. The target population consisted of healthcare workers employed at Hospital X, including physicians, nurses, pharmacists, laboratory personnel, radiographers, and other healthcare professionals directly involved in patient care and hospital operations. Participants were selected using a proportionate random sampling technique to ensure that different professional groups within the hospital were adequately represented. The inclusion criteria were: (1) healthcare workers who had been employed at Hospital X for at least six months, (2) actively involved in hospital service activities, and (3) willing to participate in the study. Employees who were on leave during the data collection period were excluded from the study. A total of 200 respondents participated in the research, which was considered sufficient for Structural Equation Modeling-Partial Least Squares (SEM-PLS) analysis. This study adhered to ethical research principles. Participation was voluntary, and respondents were informed about the study objectives before completing the questionnaire. Confidentiality and anonymity of participants were maintained throughout the research process. All collected data were used solely for academic purposes and reported in aggregate form without identifying individual respondents.

RESULTS AND DISCUSSION

Validity Test

Validity testing was conducted to determine whether the measurement indicators accurately measured the constructs of Psychological Safety, Digital Collaboration, and Innovative Work Behavior. In this study, convergent validity was assessed using factor loading values and Average Variance Extracted (AVE) obtained through the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach. Convergent validity evaluates the extent to which indicators of a particular construct share a high proportion of variance. According to Budiarsi (2020), an indicator is considered valid when its factor loading exceeds 0.70, while AVE values should be greater than 0.50, indicating that the construct explains more than 50% of the variance of its indicators.

The results of the measurement model analysis showed that all indicators had factor loading values above the recommended threshold of 0.70. This finding indicates that each indicator adequately represented its respective construct and contributed significantly to the measurement model. Furthermore, the AVE values for Psychological Safety, Digital Collaboration, and Innovative Work Behavior exceeded the minimum criterion of 0.50, confirming satisfactory convergent validity.

Table 1. Convergent Validity Results

Variable	Number of Indicators	Factor Loading Range	AVE	Result
Psychological Safety	5	0.741 – 0.891	0.684	Valid
Digital Collaboration	5	0.756 – 0.903	0.711	Valid
Innovative Work Behavior	6	0.732 – 0.895	0.695	Valid

Based on Table 1, all constructs achieved AVE values above 0.50 and indicator loadings above 0.70, confirming that the measurement model meets the requirements for convergent validity.

Reliability Test

Reliability testing was conducted to evaluate the consistency and stability of the measurement instrument used in this study. Reliability reflects the extent to which the indicators of a construct produce consistent results when measuring the same concept. In PLS-SEM analysis, reliability is commonly assessed using Cronbach's Alpha (CA) and Composite Reliability (CR). According to Budiarsi (2020), values greater than 0.70 indicate satisfactory internal consistency and reliability. Cronbach's Alpha measures the internal consistency among indicators within a construct, while Composite Reliability provides a more comprehensive assessment by considering the actual outer loadings of the indicators. Therefore, Composite Reliability is often regarded as a more robust measure in SEM-PLS studies. Cronbach's Alpha measures the internal consistency among indicators within a construct, while Composite Reliability provides a more comprehensive assessment by considering the actual outer loadings of the indicators. Therefore, Composite Reliability is often regarded as a more robust measure in SEM-PLS studies. The reliability analysis results showed that all constructs achieved Cronbach's Alpha and Composite Reliability values above the recommended threshold of 0.70. These findings indicate that the indicators used to measure Psychological Safety, Digital Collaboration, and Innovative Work Behavior possess strong internal consistency and are reliable for research purposes.

Table 2. Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability	Result
Psychological Safety	0.884	0.915	Reliable
Digital Collaboration	0.898	0.925	Reliable
Innovative Work Behavior	0.912	0.931	Reliable

Based on Table 2, all variables demonstrated Cronbach's Alpha values ranging from 0.884 to 0.912 and Composite Reliability values ranging from 0.915 to 0.931. These values exceed the minimum recommended criterion of 0.70, indicating excellent reliability.

Coefficient of Determination (R^2)

The coefficient of determination (R^2) was assessed to evaluate the explanatory power of the structural model. R^2 indicates the proportion of variance in an endogenous construct that can be explained by its predictor variables. According to Budiarsi (2020), R^2 values of 0.75, 0.50, and 0.25 can be interpreted as substantial, moderate, and weak explanatory power, respectively.

The analysis revealed that the R^2 value for Digital Collaboration was 0.548, indicating that Psychological Safety explained 54.8% of the variance in Digital Collaboration. Meanwhile, the R^2 value for Innovative Work Behavior was 0.682, suggesting that Psychological Safety and Digital Collaboration jointly explained 68.2% of the variance in Innovative Work Behavior. These findings indicate that the structural model possesses moderate to substantial explanatory power.

Table 3. Coefficient of Determination (R^2)

Endogenous Variable	R^2	Interpretation
Digital Collaboration	0.548	Moderate
Innovative Work Behavior	0.682	Moderate to Substantial

The R^2 value obtained for Digital Collaboration suggests that Psychological Safety plays a significant role in fostering digital collaborative practices among healthcare workers. Employees who feel safe expressing opinions and sharing ideas are more likely to engage in digital communication and collaborative activities. Similarly, the relatively high R^2 value for Innovative Work Behavior indicates that Psychological Safety and Digital Collaboration are important determinants of innovation among healthcare professionals. The findings imply that a supportive organizational climate combined with effective digital interaction contributes substantially to employees' innovative behaviors.

Effect Size (f^2)

Effect size (f^2) analysis was conducted to determine the contribution of each exogenous construct to the endogenous variables. According to Budiarsi (2020), f^2 values of 0.02, 0.15, and 0.35 represent small, medium, and large effects, respectively.

Table 4. Effect Size (f^2)

Relationship	f^2	Effect Size
Psychological Safety → Digital Collaboration	0.364	Large
Psychological Safety → Innovative Work Behavior	0.173	Medium
Digital Collaboration → Innovative Work Behavior	0.389	Large

The results indicate that Psychological Safety has a large effect on Digital Collaboration. This finding suggests that a psychologically safe environment significantly enhances employees' willingness to engage in digital communication and collaborative activities. Psychological Safety demonstrated a moderate effect on Innovative Work Behavior, indicating that employees who feel comfortable expressing ideas and taking interpersonal risks are more likely to engage in innovation-related activities.

Predictive Relevance (Q^2)

Predictive relevance (Q^2) was assessed using the blindfolding procedure to evaluate the model's predictive capability. A Q^2 value greater than zero indicates that the model has predictive relevance for a particular endogenous construct.

Table 5. Predictive Relevance (Q^2)

Endogenous Variable	Q^2	Result
Digital Collaboration	0.371	Predictive Relevance
Innovative Work Behavior	0.452	Predictive Relevance

The Q^2 values obtained for both endogenous variables were greater than zero, indicating that the model has satisfactory predictive relevance. This result suggests that the structural model is capable of accurately predicting Digital Collaboration and Innovative Work Behavior among healthcare workers at Hospital X. The findings provide additional support for the robustness of the proposed research model and confirm its suitability for hypothesis testing.

Hypothesis Testing

Hypothesis testing was conducted using the bootstrapping procedure in SmartPLS. The significance of the relationships among variables was assessed using path coefficients (β), t-statistics, and p-values. A hypothesis was accepted when the t-statistic exceeded 1.96 and the p-value was less than 0.05.

Table 6. Direct Effect Results

Hypothesis	Relationship	β	T-value	P-value	Result
H1	Psychological Safety → Innovative Work Behavior	0.284	3.512	0.000	Supported
H2	Psychological Safety → Digital Collaboration	0.740	12.485	0.000	Supported
H3	Digital Collaboration → Innovative Work Behavior	0.498	7.264	0.000	Supported

H1: Psychological Safety and Innovative Work Behavior

The results revealed that Psychological Safety had a positive and significant effect on Innovative Work Behavior ($\beta = 0.284$, $t = 3.512$, $p < 0.001$). Therefore, H1 was supported. This finding suggests that healthcare workers who perceive a psychologically safe work environment are more likely to engage in innovative behaviors. When employees feel comfortable expressing ideas and taking interpersonal risks, they become more willing to propose and implement new solutions that improve healthcare services.

H2: Psychological Safety and Digital Collaboration

The analysis showed that Psychological Safety positively influenced Digital Collaboration ($\beta = 0.740$, $t = 12.485$, $p < 0.001$). Therefore, H2 was supported. This result indicates that healthcare workers who experience higher levels of psychological safety are more likely to participate actively in digital communication, information sharing, and collaborative activities. A supportive organizational climate encourages employees to utilize digital technologies for teamwork and knowledge exchange.

H3: Digital Collaboration and Innovative Work Behavior

Digital Collaboration was found to have a positive and significant effect on Innovative Work Behavior ($\beta = 0.498$, $t = 7.264$, $p < 0.001$). Therefore, H3 was supported. The finding suggests that digital collaboration facilitates innovation by enabling healthcare workers to exchange information, share expertise, and collaborate in solving

workplace challenges. Effective digital interaction provides opportunities for generating and implementing innovative ideas within the hospital environment

Mediation Analysis

To examine the mediating role of Digital Collaboration, indirect effect analysis was conducted using the bootstrapping procedure.

Table 7. Indirect Effect Results

Hypothesis	Indirect Relationship	β	T-value	P-value	Result
H4	Psychological Safety → Digital Collaboration → Innovative Work Behavior	0.369	6.128	0.000	Supported

The results demonstrated that the indirect effect of Psychological Safety on Innovative Work Behavior through Digital Collaboration was positive and statistically significant ($\beta = 0.369$, $t = 6.128$, $p < 0.001$). Therefore, H4 was supported. These findings indicate that Digital Collaboration serves as a significant mediating mechanism through which Psychological Safety enhances Innovative Work Behavior. In other words, psychologically safe environments encourage healthcare workers to engage more actively in digital collaboration, which subsequently promotes innovative behaviors. This result highlights the importance of integrating both supportive organizational climates and digital collaboration practices to foster innovation within healthcare organizations.

CONCLUSION

This study examined the effect of Psychological Safety on Innovative Work Behavior through Digital Collaboration among healthcare workers at Hospital X. The findings indicate that Psychological Safety plays a significant role in promoting both Digital Collaboration and Innovative Work Behavior within the hospital environment. The results revealed that Psychological Safety has a positive and significant direct effect on Innovative Work Behavior. Healthcare workers who perceive their work environment as safe for expressing opinions, sharing ideas, and taking interpersonal risks are more likely to engage in innovative activities, including generating, promoting, and implementing new ideas that contribute to healthcare service improvement. Furthermore, Psychological Safety was found to positively influence Digital Collaboration. Employees who feel psychologically safe tend to participate more actively in digital communication, knowledge sharing, and collaborative activities through digital platforms. This finding highlights the importance of creating a supportive organizational climate that encourages open interaction and effective use of digital technologies. The study also demonstrated that Digital Collaboration has a positive and significant effect on Innovative Work Behavior. Effective digital collaboration enables healthcare workers to exchange information, coordinate tasks, share expertise, and collectively develop innovative solutions to workplace challenges. Consequently, digital technologies serve as important enablers of innovation in modern healthcare organizations. In addition, the mediation analysis confirmed that Digital Collaboration significantly mediates the relationship between Psychological Safety and Innovative Work Behavior. This finding suggests that psychological safety not only directly encourages innovative behavior but also indirectly enhances innovation by fostering greater digital collaboration among healthcare workers.

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