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## Research Paper

## Consequences of the hospital nursing research culture: Perspective of staff nurses

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## ABSTRACT

**Objective:** Research plays a critical role in molding nursing as a profession. Healthcare organizations are challenged to build an organizational culture that cultivates the development of nursing research. Creating a culture of nursing research is constantly branded a vital component in advancing nursing science. Therefore, this study described nurses' perceptions about their hospital's nursing research culture.

**Methods:** Semi-structured personal interviews were used to collect data. Seventeen staff nurses were selected to participate in the study by purposive sampling method from December 2022 to April 2023 in the eastern Philippines. The researchers used Braun and Clarke's thematic approach to analyze the qualitative data.

**Results:** The analysis revealed three central themes and seven subthemes: influencing behavior and performance of the employee (help in research information and learning, flexibility and adaptability, collaboration and communication among employees), influencing staff nurses' research participation (leadership strategies, training and professional development), and affecting hospitals to adapt to change (organizational performance and success, employee engagement and job satisfaction).

**Conclusions:** The findings support the benefits of a positive nursing research culture in hospitals due to its critical role in shaping nurses' behavior and performance, participation in nursing research, and hospital adaptation to changes. Collectively, these themes contribute to a deeper understanding of the multifaceted impact that a culture of nursing research can have on various levels of the healthcare system.

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## What is known?

- The culture of nursing research can vary widely between hospitals due to factors that range from enthusiastic support to encountering obstacles or disinterest, affecting the overall effectiveness of research initiatives.
- A positive culture of nursing research in hospitals ensures that nursing practice is always evidence-based and on its highest quality and safety level.

## What is new?

- Various factors shape nurses' views on the nursing research culture of the hospital, impacting their engagement and performance, and motivating hospitals to embrace change in research practices.
- A strong nursing research culture can have individual and organizational benefits because it influences the behavior and performance of nurses, the participation of the research, and the hospital's adaptation to change.

## 1. Introduction

The research culture in nursing has seen considerable advances in recent years, exerting a critical influence on the shaping and evolution of nursing as a distinct and dynamic profession [1–3]. Nursing research culture is a subset of the overall organizational

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culture that encapsulates shared values, behaviors, goals, attitudes, practices, and beliefs within an organization [4]. Nursing research culture “should be a climate in which research is valued not only for improving patient care but also as a routine hospital activity” [5]. There are five key features for a culture of nursing research in hospitals: “Strong monodisciplinary nursing professionalism, academic thinking and socialization, research use as part of daily nursing practice, acceptance by colleagues and management, and facilitation of resources from management and organization.” (p. 1066) [6]. Two key prerequisites in cultivating a nursing research culture are focusing on an environment that encourages a spirit of inquiry and nurturing leadership capabilities that describe nursing research as an opportunity rather than a threat [6].

The significance of research within nursing expands beyond the healthcare setting, thus playing an active role in improving public health and overall quality of life [1]. This importance has been demonstrated by promoting health and social policies [2], overseeing the mitigation of environmental health hazards [7], improving the provision of global healthcare delivery [3], and generating economic benefits [8]. Ideally, the nursing research culture encompasses the values, attitudes, and practices related to research in healthcare settings [2]. As hospitals increasingly recognize the importance of evidence-based practice, nurses are at the forefront of hospitals' cultural shift, where research is encouraged and integrated into their daily routine [4,6]. As front-line health professionals, nurses play a crucial role in developing a research culture in healthcare settings [7]. This healthcare cultural transformation has significant implications for the nursing workforce by shaping their professional identities, influencing patient care practices, and contributing to overall healthcare quality. In the ever-evolving healthcare landscape, research into nursing practice has become a fundamental cornerstone to advance patient care, improve patient outcomes, and foster professional development worldwide [6].

With its rapidly growing healthcare sector, the Philippines has witnessed a transformative change in the role of nursing research within hospital settings [9]. The diaspora of Filipino nurses worldwide underscores the international impact of Philippine nursing education and practice [9]. Nursing in the country is a cornerstone of the healthcare system, with a large and dedicated workforce providing essential care in diverse settings. Although evidence-based practice is widely recognized as the cornerstone of modern healthcare, the degree to which nursing research is integrated into the daily practices of Filipino nurses is a complex matter [10]. Institutions of healthcare organizations grapple with the challenge of fostering an organizational culture that nurtures the development of nursing research [9–11].

Integrating nursing practice and research within hospital settings has far-reaching implications, influencing patient care, professional development, and overall quality of healthcare services. Despite these challenges, nurses exhibit palpable passion and unwavering dedication to providing optimal care to their patients. In the Philippines, nursing is characterized by a steadfast commitment to excellence and navigation through various factors [9]. Filipino nurses frequently commended their resilience and compassion and navigated various roles, including clinical duties, patient advocacy, and administrative responsibilities [9]. Revealing these inherent motivations and understanding the concept of nursing research culture demands comprehensive exploration, given its utmost significance.

Previous research has reported the importance of nursing research culture in healthcare settings [9–13], which has mainly focused on concept development [14], interventions to improve organizational culture [14], and exploring nurses' experiences with nursing research in clinical settings [6]. However, few studies have

explored this concept in clinical practice environments, especially in the Philippines, and the contributions and advancement of nursing in these public health areas underscore its essential role in addressing critical global health challenges [3]. Addressing this knowledge gap is crucial to building a research culture that empowers Filipino nurses, improving patient care quality, and continuously improving the health care delivery system. Recognizing the significance of the nursing research culture in healthcare settings, it is imperative to conduct a thorough and current evaluation of the current state of this culture. The study was conducted to gain insight and understanding of nurses' perceptions of their hospital's nursing research culture.

## 2. Methods

### 2.1. Design

The study had a descriptive phenomenological design. This design is well suited to explore the subjective lived experiences of nurses within the context of the specific hospital's research culture. Furthermore, the approach allows for a deep examination of contextual factors, revealing the unique dynamics within the hospital's research culture.

### 2.2. Participants and settings

This study was carried out in a hospital in the eastern Philippines. This hospital was vital to providing healthcare services and frequently acted as an essential hub in medical care, especially in more isolated or underprivileged areas. The research conducted at this hospital focuses on the experiences of healthcare professionals, specifically the nursing staff, who are on the front lines of patient care and research projects. In this study, a purpose sample of 17 staff nurses was interviewed. Nurses were invited to participate in the study if they met the following inclusion criteria: 1) registered nurse, 2) working as a full-time nurse in an acute care facility, 3) at least six months of work experience in their hospital, and 4) involved or had been involved in a research project in their hospital, and 5) able to communicate in the English language. Research experience is defined as the participation of nurses in conducting research projects in their hospital. Exclusion criteria include nurses who work part-time, nurses who occupy leadership or managerial positions in the hospital, nurses who do not provide direct nursing care to patients, and nurses who do not have experience in nursing research in their hospital.

### 2.3. Data collection

A semi-structured online interview was conducted from December 2022 to April 2023. The researchers sent an email inviting each eligible participant to participate in the study. The email contains information about the study's aim, purpose, and participation requirements. Subsequently, a researcher contacted these individuals to provide a more detailed overview of the study and to address any questions they might have after expressing their intention to participate. Once participants confirmed their willingness to join the study, a researcher sent an email, phone call or text message, depending on their preferences, to provide a link to an online website where they could review and sign the consent form. After completion of the written consent form, a researcher reached out to participants by phone or via a videoconferencing platform to discuss the study objectives, confirm their choice of videoconferencing platform (Zoom or Google Meet) for communication, and establish a date and time for further interaction. The interview started with the question: “How do you describe the

culture of nursing research in the hospital where you currently work?" Follow-up questions were asked based on the responses of the participants. The head of a research committee and a qualitative researcher validated the questions used in the study. The interviews were 40–60 min long. During data collection, only the interviewer and participants were present, and the participant and interviewer were in a private place, such as in their bedroom, to prevent any undesirable disturbance during the collection process. Interviews stopped until thematic data saturation was reached. Thematic saturation occurs when no other codes or themes emerge [15]. Regardless of platform, every interview was only audio recorded using separate audio recording software from the videoconferencing platform. The audio files from each interview are kept on a safe OneDrive server afterward. The recorded interviews were transcribed, coded, and analyzed to describe nurses' perceptions of their hospital's nursing research culture.

#### 2.4. Data analysis

The researchers used the thematic approach to analyze the qualitative data [15,16]. We used Braun and Clarke's inductive approach in this study [17]. The thematic analysis followed six steps. First, the researchers familiarized themselves with the transcribed data by performing reviews to ensure they understood it. Second, the researchers developed the codes representing the segments with shared meanings. To achieve this, the researchers reviewed the data and assigned the appropriate code to every corresponding segment. Third, themes emerged from generated codes. These themes were meticulously reviewed in the fourth step. Subthemes were also developed. The themes were then named to accurately reflect the contents of the theme and defined to provide clear and concise descriptions of the themes.

The three researchers manually coded the data and performed continuous checks throughout the process. After the researchers manually coded and developed the themes, two external qualitative researchers evaluated and validated the codes and themes. Furthermore, a copy of the identified codes and themes was provided to the participants to assess the relevance of these concepts to the information they provided. Modifications or revisions of codes and themes were made as necessary.

#### 2.5. Ethical considerations

This study was part of the research protocol approved by the BLINDED Institutional Research Ethics Committee (submission number: 635/30102022) and the BLINDED Local Ethics Committee. The study strictly adhered to the ethical principles stipulated in the Declaration of Helsinki and the ethics committee guidelines. Participants were adequately informed about significant information about the study, including the interview recording. Electronic informed consent was obtained from participants who agreed to participate in the study.

#### 2.6. Trustworthiness

To demonstrate the precision and reliability of the findings, the researchers demonstrated their objectivity and reliability. Using various data sources, developing relationships with participants, and participating in the research context helped promote credibility. To ensure applicability, the researchers thoroughly describe the environment, specify participant selection criteria, and use parallels. The researchers' meticulous documentation of every step maintained the study's reliability, extensive use of analysts in the

data interpretation, and participant validation of the findings. To achieve confirmability, researchers must be clear about their biases, use open-source coding and interpretation methods, and look to peer debriefing for external confirmation. Direct statements from participants were used to maintain objectivity, along with explanations of the researcher's role and any possible biases. To ensure credibility, the researchers returned to the participants to share their interpretation of the findings. The participants validated the accuracy of the interpretation based on their experience of the phenomenon under study.

### 3. Results

The participants were all staff nurses. The ages of the participants ranged from 23 to 45 years. Most participants were women ( $n = 12$ ) compared to men ( $n = 5$ ), and their service terms ranged from 2 to 24 years. Five participants hold master's degrees, while the remaining possess a Bachelor of Science in Nursing (BSN). All participants have research experience but lack experience in publication. Participants actively participated in research seminars and activities within their hospital (Table 1).

The culture of the research organization is common values, beliefs, conventions, and practices. It includes the mindsets, habits, and practices that influence how individuals and teams within an organization approach and carry out research tasks. The quality and productivity of research findings are directly impacted by organizational culture, which also significantly impacts researcher behavior and attitudes. While a poor or negative research culture can impede creativity, collaboration, and the advancement of research initiatives, a good research culture supports innovation, collaboration, and commitment to quality. In this study, there were 17 participants. A detailed study of the data yielded 89 initial codes. Nine categories are produced by grouping similar meanings and idea codes. Finally, we reach three central themes: influencing the behavior and performance of the employee, influencing staff nurses' research participation, and influencing hospitals to adapt to change.

#### 3.1. Influencing the behavior and performance of the employee

The results show that the organization's research culture significantly influences the participants' behavior and performance. The research organization's workplace culture is pleasant and encouraging, which helps in research information and learning, flexibility, adaptability to research, and collaboration and communication among employees. Participants are also inspired to perform above and beyond their line of work, which improves performance.

##### 3.1.1. Help with research information and learning

An organizational research culture in a workplace is important because it helps in information and learning, as a robust research culture encourages continuous learning. This setting encourages staff to learn new things, keep up with current events, and exercise critical thinking. A culture of intellectual growth, innovation, and curiosity among employees can result from this concentration on knowledge.

*"It helps us to learn or discover something, and this could be achieved by increasing our awareness through sufficient exposure to research."* (SN 15)

*"The organization has an existing research unit responsible for innovation."* (SN 8)

**Table 1**  
Characteristics of the participants (n = 17).

No.	Age (years)	Gender	Years of service	With research experience	Highest educational attainment	Position
1	45	Female	24	Yes	MAN	Staff nurse
2	27	Male	6	Yes	BSN	Staff nurse
3	35	Female	10	Yes	MAN	Staff nurse
4	40	Female	18	Yes	MAN	Staff nurse
5	43	Male	22	Yes	MAN	Staff nurse
6	28	Female	6	Yes	BSN	Staff nurse
7	38	Male	16	Yes	MAN	Staff nurse
8	35	Female	11	Yes	BSN	Staff nurse
9	25	Male	4	Yes	BSN	Staff nurse
10	23	Male	2	Yes	BSN	Staff nurse
11	25	Female	3	Yes	BSN	Staff nurse
12	35	Female	13	Yes	BSN	Staff nurse
13	27	Female	5	Yes	BSN	Staff nurse
14	29	Female	7	Yes	BSN	Staff nurse
15	32	Female	9	Yes	BSN	Staff nurse
16	36	Female	14	Yes	BSN	Staff nurse
17	26	Female	4	Yes	BSN	Staff nurse

Note: MAN = Master of Arts in Nursing. BSN = Bachelor of Science in Nursing.

*“Research professional education and training conducted by the research unit to help staff develop their skills and critical thinking.” (SN 2)*

Furthermore, the research culture of the organization strongly emphasizes the value of making decisions based on evidence. Encourage staff to use statistics, facts, and empirical evidence when making decisions rather than relying entirely on instinct or their beliefs. This might encourage people to thoroughly investigate, analyze, and evaluate facts before making decisions.

*“Nurses become optimistic about nursing research and take the opportunity to use evidence-based practice to drive clinical decisions and improve patient care.” (SN 7)*

*“Different search engines are available to give nurses knowledge about discoveries that will help improve their skills and practice.” (SN 11)*

The participants also mentioned that the organizational research culture often enforces strict methodology, data analysis, and reporting guidelines. Employees who operate in such an environment establish a standard of accuracy, focus, and dedication to upholding high standards in their work. A culture of excellence and responsibility may result from this.

*“It helps nurses to be informed of the research procedures or process; continuous involvement and crafting research would eventually lead to skill.” (SN 1)*

*“Research professional education and training conducted by the Research Unit.” (SN 3)*

*“It raises staff awareness of nursing research methodology, analysis, and reporting.”(SN 5)*

Participants noted integrity and ethical conduct, which they highly valued because of having a research culture. Responsible research techniques are also appreciated. The participants mentioned that they are expected to follow ethical standards, uphold the integrity of their research, and value openness and honesty in their work. This may impact how the organization develops values such as honesty, integrity, and ethical behavior.

*“Staff nurses are taught to recognize quality/credible sources to verify the information.” (SN 13)*

*“Institutional Review Board (IRB) approval should not take long. In our hospital, waiting for IRB approval takes 1–2 months. IRB Committees should consider the time, so that staff feels more motivated and supported.” (SN 14)*

### 3.1.2. Flexibility and adaptability

Organizational research culture is frequently linked to flexibility, adaptability, and a willingness to accept new concepts and methods.

*“An accessible resource to expound the knowledge of all staff about research. The recently launched journal club aims to introduce nursing research to nursing leaders, and staff will be involved soon.” (SN 16)*

### 3.1.3. Collaboration and communication among employees

Organizational research culture promotes collaboration among staff members and openness to new ideas. As a result, a culture of constructive criticism, teamwork, and group problem solving may evolve. It also encourages participants to share their thoughts, opinions, and insights.

*“This (research) facilitates sharing newly created and discovered knowledge and ideas with others and is a great way to improve someone’s current practice.” (SN 9)*

*“The institution should open more connections and networks to help nurses publish their research.” (SN 14)*

### 3.2. Influencing staff nurses’ research involvement

The existence of an organization’s research culture significantly shapes and impacts the research involvement and participation of the participants. Most participants mentioned that leaders who actively embody and advance the desired research cultural norms contribute to developing a more robust and supportive research organization culture. The support and encouragement of those leading the organization’s research culture help the participant’s autonomy and empowerment. Also, training and professional development were observed to help nursing staff participate and improve performance among employees in conducting research.

### 3.2.1. Leadership strategies

Most participants mentioned that leadership strategies significantly shape the organizational research culture. Having a leader who inspires and motivates their nursing staff to participate and motivates employees toward a shared vision in research reported higher levels of research engagement and satisfaction of nursing staff. These leaders established a culture of research participation in which nursing staff felt valued and encouraged to contribute their ideas.

*“Our institution supports any staff conducting research and encourages other staff to participate in research surveys.” (SN 6)*

*“They had built a research team that included consultants, nurses, instructors, professors, and technicians, and they had given them research only specific job roles.” (SN 2)*

*“Full support should be given to staff doing research from beginning to end.” (SN 17)*

Most participants also mentioned that organization research leaders give nursing staff freedom and autonomy, encouraging research participation and success. It fosters a sense of ownership and empowerment, raising involvement and performance when nurses can investigate research issues of interest, participate in decision-making, and apply their research results in practice.

*“They should have that desire to learn or discover something, which could be achieved by increasing their awareness through sufficient exposure.” (SN 16)*

*“Nurses should be positive and optimistic about publishing nursing research as this would greatly contribute to the worldwide collaboration of information to resolve existing gaps/concerns/issues.” (SN 10)*

Furthermore, participants mentioned that leaders who empower them to collaborate and have an interdisciplinary approach to research boost their morale and research productivity. This research leader approach generates possibilities for information sharing, idea development, and cooperative research projects by fostering collaborations between nurses, researchers, and other healthcare workers. This practice encourages cooperation and group effort, positively affecting study participation and results.

*“Nurse should be open and curious about research publications. They should have that desire to learn or discover something, which could be achieved by increasing their awareness through sufficient exposure.” (SN 3)*

*“Expert guidance is recommended for new researchers. I recommend the collaboration of researchers from other disciplines.” (SN7)*

Furthermore, most participants also mentioned that the leader's support and encouragement boost nursing staff members' performance and interest in conducting research. Participants are inspired to actively participate in research activities and advance knowledge when leaders support their efforts with resources, mentorship, and recognition.

*“The team leaders of the Nursing Care Group would always make sure that we are well informed about the study's possible outcomes. In this way, we are motivated to participate knowing that the study would benefit the institution and us professionals in the long run.” (SN 11)*

### 3.2.2. Training and professional development

Most participants mentioned that leaders prioritizing training and professional development could improve their research participation and performance. Participants state that if research leaders invest in offering research-related training, workshops, and opportunities for skill development, they will receive the knowledge and resources they need to conduct research. Eventually, their performance in research-related activities is subsequently improved in confidence, competence, and performance.

*“Ongoing education, training on research, or sending them to attend proper conferences or workshops and so on to assist them in developing their skills to carry out research and publication.” (SN 8)*

According to nurses, mentoring is a method for them to participate in the research process. In addition to enhancing nursing knowledge and patient care results, mentoring promotes the professional growth and reputation of the nursing profession. Opportunities for growth, assistance, and mentorship programs have all been identified as essential elements that may encourage nurses to participate actively in scientific research.

*“One of the measures that are being done in our institution is mentoring. The Research Unit mentors us in the research process, which increases our knowledge to be involved in research.” (SN 4)*

### 3.3. Influencing hospitals to adapt to change

Participants noted that organizational research cultures foster innovation, learning, and flexibility and could successfully manage and adapt to external changes and challenges. Research findings show that an organization's research culture can continuously improve and encourage risk-taking behavior to become more agile and resilient.

#### 3.3.1. Organizational performance and success

Most of the participants have mentioned that there is a strong link between organizational culture and performance outcomes. Positive research on corporate cultures can promote employee engagement and satisfaction, leading to higher productivity and customer satisfaction.

*“The institution supports developmental studies to help the organization's vision of quality care.” (SN 9)*

#### 3.3.2. Employee engagement and job satisfaction

The research organization's culture was critical to influencing employee engagement and job satisfaction. Research organization cultures that recognize and reward employee contributions and provide opportunities for growth and development are associated with higher employee satisfaction. This practice fosters a sense of belonging, trust and fairness, contributing to higher employee retention and lower turnover rates.

*“Research is given bigger value for promotion and professional growth. We were allowed to participate in paper presentations abroad, giving us more confidence in research.” (SN13)*

Additionally, recognizing and rewarding nursing personnel for their participation and performance in research increases employee engagement and job satisfaction. Awards, public acclaim, and opportunities for career progress are some recognitions that

can be effective motivators. The nursing staff is motivated to actively participate in research and pursue excellence in their performance when research organization culture fosters a practice that honors and celebrates research efforts.

*“Monetary incentives will motivate the researcher to proceed with the process of completing research up to publication and lower workloads, but some of the time off will be paid for the research.” (SN 10)*

*“With the help of the organization, free training and help from the administration will be a significant factor. A research fund will be crucial to having better research knowledge, thus improving the skills of nurses when it comes to research publication.” (SN 12)*

*“Every year, they give nurse excellence awards. One of the awards is Best Nurse Research.” (SN 6)*

#### 4. Discussion

The study examined how staff nurses perceived the consequences of having a positive nursing research culture in their institution and found three key themes that offer valuable perspectives on the various aspects of this organizational culture. Likewise, our focus shifts toward comprehensively exploring and interpreting these themes, aiming better to understand their implications for nursing practice and hospital dynamics.

The first thematic thread that emerged was an organizational culture that promotes nursing research and influences nurses' behavior and performance, underscoring the profound effect of a research-oriented culture on nurses' attitudes, beliefs, and actions. The results of this study show how a robust research culture can influence professional identities and duties, encouraging a dedication to evidence-based methods and ongoing learning. This finding is consistent with a Chinese study that showed that research-oriented cultures encourage continuous learning and enhance analytical and critical thinking abilities in newly graduated Chinese nurses [18]. In a separate study conducted in China, clinical nurses who can adapt to the changes brought about by research are more likely to make practical problems solving efforts [19]. Research-friendly workplace environments are frequently associated with greater job satisfaction, according to a study of nursing faculty members working in Canadian colleges and universities [20]. However, a study from Cyprus found that the amount of research information can occasionally be overwhelming to nurses, making it difficult to uncover relevant and valuable findings for the patients who comprise their group [21]. Due to their intensive clinical responsibilities, nurses may need more time to evaluate research information. Care for patients and participation in research can be challenging to balance. According to previous studies, nurses routinely deal with significant workloads [22,23]. Adding research duties can cause stress and, if not properly managed, may result in burnout. Hospitals may occasionally need more resources (that is, access to journals and research assistance) to enable seamless research integration [24,25]. Therefore, hospitals can improve patient care outcomes and raise the standard of nursing practice by matching individual nurse behavior and performance with scientific concepts.

The second theme highlighted the influence of the hospital's culture of nursing research on staff nurses' research involvement, which sheds light on the crucial link between a hospital's research culture and the active engagement of its nursing staff in research activities. A comparison of the findings with other studies confirms that nursing leaders embody and promote research values and create a supportive environment for research participation [21,26].

Henshall et al. further support that a positive research culture encourages and values research participation, empowering nurses to participate actively in research initiatives and contribute to knowledge development [27]. Furthermore, training and professional development equip nurses with essential research skills, improving their participation [21,25]. Although supportive leadership and a favorable research culture increase participation, several factors prevent nurses from participating in research initiatives. Previous research, for example, suggested that the influence of leadership on research participation may vary among nurses, as some may prioritize other aspects of their clinical work [28,29]. Not all healthcare facilities may have the resources to support research participation fully, limiting nurses' ability to participate in research activities [25]. Similarly, the demands of their clinical obligations can also limit nurses' ability to participate in research, making it difficult to balance research efforts with patient care [30]. Therefore, promoting a balanced and successful approach to research participation in nursing practice requires understanding and resolving these complex aspects.

The final central theme revolves around the research culture influencing hospital adaptation to changes. This theme provides an organizational perspective, shedding light on how a research-oriented culture can drive innovation, adaptation, and transformation within healthcare institutions. The theme highlighted how hospitals prioritizing nursing research can drive innovation, adaptation, and evolution in response to dynamic healthcare landscapes. Furthermore, these results align with an earlier study, which found that an environment focused on research encourages staff to think creatively, explore unique ideas, and adapt to changing circumstances [31]. Existing research supports that healthcare facilities with strong research cultures can better manage and respond to outside changes and problems [32,33]. Adapting evidence-based procedures and staying current with developments boosts an organization's resilience [33]. It is significant to remember that a culture that values research encourages a proactive approach to improving procedures and practices, leading to progressively better results over time.

However, specific points of contention arise. Resource limitations within some healthcare settings may prevent the development of a robust research culture that encourages flexibility [27,30]. Although a research culture encourages change, deeply established routines or cultural factors could lead to persistent resistance among nurses [34], which could require strategies beyond the focus of research to handle these transitions. The larger contextual perspective also comes into play as a potential influencing factor, with intricacies such as external regulations [33], economic fluctuations [27], and political forces [31] playing a crucial role in a hospital's adaptability in conjunction with its research culture. This theme emphasizes the necessity of a multidimensional strategy that recognizes the complex interplay of elements at play and the possibility and complexity of pushing hospitals to adapt through research culture.

The study findings reinforce the vital role a strong nursing research culture can play in advancing nursing practice, driving institutional innovation and ultimately contributing to improved patient outcomes and healthcare quality. A strong nursing research culture that affects staff performance and behavior has great potential to improve patient care. Hospitals should be aware that encouraging an environment where evidence-based practices are valued can result in better clinical outcomes. This suggests the necessity for focused professional development programs emphasizing the value of incorporating research findings into everyday practices while teaching nurses how to conduct research. Hospitals should prioritize high-quality care and research-driven nursing practices by including research competencies in performance

reviews and career progression pathways.

The results also imply that hospitals can increase the participation of staff nurses in research by leveraging the strength of a research culture. Developing a conducive environment for nursing personnel that encourages curiosity and inquiry should be a top priority for hospitals. This can involve creating specialized research committees, providing funding options for nurse-led research initiatives, and setting up frequent forums for exchanging research insights. Hospitals can enable nurses in this way to actively contribute to creating nursing knowledge, fostering both professional development and improvements in patient care.

The focus on encouraging a research culture in hospitals to adapt to change emphasizes how crucial it is to welcome innovation and evidence-based procedures. Hospitals should see the nursing research culture as a driving force behind evolution and constant development. Hospital leadership must encourage a culture of openness to new ideas, efficient adoption of evidence-based therapies, and a commitment to staying current with the latest research findings to achieve this. By doing this, hospitals can better adapt to changing healthcare paradigms, allocate resources efficiently, and improve the general standard of patient care.

## 5. Limitations

Acknowledging certain limitations associated with the research design and methodology used is essential. The recruitment of participants through online platforms, such as social networks, introduces a potential source of bias. The use of semi-structured online interviews is an additional factor that deserves consideration. Although geographically separated participants can participate in online interviews more quickly and conveniently, interviewers may miss the non-verbal cues and interpersonal dynamics that are present in face-to-face conversations. This could affect the richness and depth of the gathered data and limit the degree to which participants can express themselves. Another limitation of the study is related to the sample size, due to the study's design, which may limit the generalizability of the findings. This should be taken into account when interpreting the study findings.

## 6. Conclusions

This research study has revealed three central themes that provide valuable information for nurses on the nursing research culture within healthcare institutions. The findings support the benefits of a strong nursing research culture in hospitals due to its critical role in shaping nurses' behavior and performance, participation in nursing research, and the hospital's adaptation to changes. Collectively, these themes contribute to a deeper understanding of the multifaceted impact that a culture of nursing research can have on various levels of the healthcare system. The findings highlight the complex interactions between systemic, organizational and individual elements and the nursing research culture. The findings support the idea that developing a culture of nursing research involves more than just raising research activities; it creates an environment that encourages professional development, improves patient care, and drives healthcare organizations to continue to progress.

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## Data availability statement

The datasets generated during and/or analyzed during the current study are available from the corresponding author upon reasonable request.

## CRediT authorship contribution statement

**Ejercito Mangawa Balay-odao:** Conceptualization, Methodology, Validation, Formal Analysis, Investigation, Data curation, Writing - original draft, Writing - review & editing, Visualization, Supervision. **Jonas Preposi Cruz:** Conceptualization, Methodology, Validation, Formal Analysis, Investigation, Writing - original draft, Writing - review & editing, Visualization, Supervision, Project administration, Funding acquisition. **Joseph U. Almazan:** Conceptualization, Methodology, Validation, Formal Analysis, Investigation, Data curation, Writing - original draft, Writing - review & editing, Visualization.

## Declaration of competing interest

The authors declare that they have no competing interests.

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## Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijnss.2024.03.007>.

## References

- [1] Franks-Meeks S. Participation in nursing research: we can do better. *Nursing* 2020;50(1):1–3. <https://doi.org/10.1097/01.NURSE.0000651812.87874.cb>.
- [2] Ellenbecker CH, Edward J. Conducting nursing research to advance and inform health policy. *Pol Polit Nurs Pract* 2016;17(4):208–17. <https://doi.org/10.1177/1527154417700634>.
- [3] Baltzell K, McLemore M, Shattell M, Rankin S. Impacts on global health from nursing research. *Am J Trop Med Hyg* 2017;96(4):765–6. <https://doi.org/10.4269/ajtmh.16-0918>.
- [4] Braithwaite J, Herkes J, Ludlow K, Testa L, Lamprell G. Association between organisational and workplace cultures, and patient outcomes: systematic review. *BMJ Open* 2017;7(11):e017708. <https://doi.org/10.1136/bmjopen-2017-017708>.
- [5] Thompson DR. Fostering a research culture in nursing. *Nurs Inq* 2003;10(3):143–4. <https://doi.org/10.1046/j.1440-1800.2003.00175.x>.
- [6] Berthelsen CB, Hølge-Hazelton B. 'Nursing research culture' in the context of clinical nursing practice: addressing a conceptual problem. *J Adv Nurs* 2017;73(5):1066–74. <https://doi.org/10.1111/jan.13229>.
- [7] Polivka BJ, Chaudry RV. A scoping review of environmental health nursing research. *Publ Health Nurs* 2018;35(1):10–7. <https://doi.org/10.1111/phn.12373>.
- [8] Cruz Rivera S, Kyte DG, Aiyegbusi OL, Keeley TJ, Calvert MJ. Assessing the impact of healthcare research: a systematic review of methodological frameworks. *PLoS Med* 2017;14(8):e1002370. <https://doi.org/10.1371/journal.pmed.1002370>.
- [9] Elmaco J. Philippine nurse migration: assessing vulnerabilities and accessing opportunities during the COVID-19 pandemic. *Rev Int Polit Développement* 2022;14(9):208–33. <https://doi.org/10.4000/poldev.4853>.
- [10] Appiah S. Quality of nursing education programme in the Philippines: faculty members perspectives. *BMC Nurs* 2020;19(1):1–7. <https://doi.org/10.1186/s12912-020-00508-9>.
- [11] Diño Jr MJS, Bracero PJB, Buencamino A, Cajayon S, Catajan MWQ, De Leon MLL, et al. "Should I stay or should I go?": a mixed methods study on nurse retention during challenging times. *Belitung Nursing Journal* 2022;8(6):481–90. <https://doi.org/10.33546/bnj.2327>.
- [12] Berthelsen CB, Hølge-Hazelton B. Caught between a rock and a hard place: an intrinsic single case study of nurse researchers' experiences of the presence of a nursing research culture in clinical practice. *J Clin Nurs* 2018;27(7–8):1572–80. <https://doi.org/10.1111/jocn.14209>.

- [13] Wilkes L, Jackson D. Enabling research cultures in nursing: insights from a multidisciplinary group of experienced researchers. *Nurse Res* 2013;20(4):28–34. <https://doi.org/10.7748/nr2013.03.20.4.28.e310>.
- [14] Polivka BJ, Chaudry RV. A scoping review of environmental health nursing research. *Publ Health Nurs* 2018;35(1):10–7. <https://doi.org/10.1111/phn.12373>.
- [15] Braun V, Clarke V. Reflecting on reflexive thematic analysis. *Qual Res Sport Exerc Health* 2019;11(4):589–97. <https://doi.org/10.1080/2159676x.2019.1628806>.
- [16] King N. Using templates in the thematic analysis of text. In: Cassell C, Symon G, editors. *Essential guide to qualitative methods in organizational research*. London, UK: Sage; 2004. p. 257–70.
- [17] Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;3(2):77–101. <https://doi.org/10.1191/1478088706qp0630a>.
- [18] Sun YF, Yin YH, Wang JC, Ding ZH, Wang DP, Zhang YY, et al. Critical thinking abilities among newly graduated nurses: a cross-sectional survey study in China. *Nurs Open* 2023;10(3):1383–92. <https://doi.org/10.1002/nop2.1388>.
- [19] Li YM, Luo YF. The influencing factors of clinical nurses' problem solving dilemma: a qualitative study. *Int J Qual Stud Health Well-Being* 2022;17(1):2122138. <https://doi.org/10.1080/17482631.2022.2122138>.
- [20] Boamah SA, Kalu ME, Havaei F, McMillan K, Belita E. Predictors of nursing faculty job and career satisfaction, turnover intentions, and professional outlook: a national survey. *Healthcare* 2023;11(14):2099. <https://doi.org/10.3390/healthcare11142099>.
- [21] Pitsillidou M, Roupa Z, Farmakas A, Noula M. Factors affecting the application and implementation of evidence-based practice in nursing. *Acta Inf Med* 2021;29(4):281–7. <https://doi.org/10.5455/aim.2021.29.281-287>.
- [22] Albougami AS, Almazan JU, Cruz JP, Alquwez N, Alamri MS, Adolfo CA, et al. Factors affecting nurses' intention to leave their current jobs in Saudi Arabia. *Int J Health Sci* 2020;14(3):33–40. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7269627/pdf/IJHS-14-33.pdf>.
- [23] Al-Dossary RN, AlMahmoud S, Banakhar MA, Alamri M, Albaqawi H, Al Hosis K, et al. The relationship between nurses' risk assessment and management, fear perception, and mental wellbeing during the COVID-19 pandemic in Saudi Arabia. *Front Public Health* 2022;10:992466. <https://doi.org/10.3389/fpubh.2022.992466>.
- [24] Muinga N, Magare S, Monda J, English M, Fraser H, Powell J, et al. Digital health systems in Kenyan public hospitals: a mixed-methods survey. *BMC Med Inf Decis Making* 2020;20(1):2. <https://doi.org/10.1186/s12911-019-1005-7>.
- [25] Szarfman A, Levine JG, Tønning JM, Weichold F, Bloom JC, Soreth JM, et al. Recommendations for achieving interoperable and shareable medical data in the USA. *Commun Med* 2022;2:86. <https://doi.org/10.1038/s43856-022-00148-x>.
- [26] Nikpour J, Hickman RL, Clayton-Jones D, Gonzalez-Guarda RM, Broome ME. Inclusive leadership to guide nursing's response to improving health equity. *Nurs Outlook* 2022;70(6 Suppl 1):S10–9. <https://doi.org/10.1016/j.outlook.2022.02.006>.
- [27] Henshall C, Jones L, Armitage C, Tomlinson L. Empowering nurses through inclusive leadership to promote research capacity building: a James Lind Alliance priority setting Partnership in Community Nursing. *J Adv Nurs* 2022;78(9):2765–74. <https://doi.org/10.1111/jan.15342>.
- [28] Azar KMJ. The evolving role of nurse leadership in the fight for health equity. *Nurse Lead* 2021;19(6):571–5. <https://doi.org/10.1016/j.mnl.2021.08.006>.
- [29] Mrayyan MT, Algunaimeeyn A, Abunab HY, Kutah OA, Alfayoumi I, Khait AA. Attributes, skills and actions of clinical leadership in nursing as reported by hospital nurses: a cross-sectional study. *BMJ Lead* 2023. <https://doi.org/10.1136/leader-2022-000672>.
- [30] Landon L, Crane S, Nance S, Stegenga K, Cherven B, Perez Prado LN, et al. Engaging clinical nurses in research: nurses' experiences delivering a communication intervention in a behavioral oncology clinical trial. *Nurs Adm Q* 2019;43(2):175–85. <https://doi.org/10.1097/NAQ.0000000000000341>.
- [31] Cheraghi MA, Pashaeypoor S, Dehkordi LM, Khoshkest S. Creativity in nursing care: a concept analysis. *Florence Nightingale J Nurs* 2021;29(3):389–96. <https://doi.org/10.5152/FNJJN.2021.21027>.
- [32] Metallo C, Agrifoglio R, Lepore L, Landriani L. Explaining users' technology acceptance through national cultural values in the hospital context. *BMC Health Serv Res* 2022;22(1):84. <https://doi.org/10.1186/s12913-022-07488-3>.
- [33] Brandenburg C, Noble C, Wenke R, Hughes I, Barrett A, Wellwood J, et al. Relationship between research culture and research activity of medical doctors: a survey and audit. *J Multidiscip Healthc* 2021;14:2137–50. <https://doi.org/10.2147/JMDH.S319191>.
- [34] Mareš J. Resistance of health personnel to changes in healthcare. *Kontakt* 2018;20(3):e262–72. <https://doi.org/10.1016/j.kontakt.2018.04.002>.