

Research Capabilities of Staff Nurses in a Selected Private Hospital: Basis for Research Capacity Enhancement Program

Leonardo R. Piñon
Madeeda Hospitals Riyadh Saudi Arabia
leonardopinon2025@gmail.com

Date Submitted:
July 5, 2026

Date Accepted:
July 6, 2026

Date Published:
July 7, 2026

DOI:
10.5281/zenodo.21202184

ABSTRACT

Clinical nursing research is essential for the advancement of nursing as a discipline and the delivery of evidence-based healthcare. However, staff nurses often face barriers in conducting research, including limited knowledge, skills, and negative attitudes. Understanding the research capabilities of staff nurses is crucial for developing effective capacity enhancement programs. This study aimed to determine the level of research capabilities of staff nurses in a selected private hospital in terms of knowledge, skills, and attitude towards conducting clinical nursing research, and to propose a research capacity enhancement program based on the findings. This study employed a quantitative non-experimental design utilizing descriptive correlational technique. A total of 100 staff

nurses from two Level II private hospitals in the Province of Rizal participated in the study. Data were collected using an adapted survey questionnaire measuring demographic profile and research capabilities across three domains: knowledge (11 items), skills (17 items), and attitude (9 items). Statistical analysis included percentage, weighted mean, and Pearson's correlation coefficient. The majority of respondents were female (65%), aged 31-35 years (43%), single (63%), and had 1-3 years of hospital experience (31%). Staff nurses demonstrated "Capable" levels in all three domains: knowledge (mean=2.91), skills (mean=2.85), and attitude (mean=3.16). Attitude towards research received the highest rating, particularly believing that clinical action research is necessary for professional training (mean=3.46). The lowest indicators included utilizing technology for statistical analysis (mean=2.75) and applying APA 7th edition format (mean=2.69). No significant relationship was found between demographic profile and research capabilities ($p>0.05$). Staff nurses perceived themselves as capable in conducting research, with attitude being the strongest domain. However, specific gaps exist in technological and technical skills. The findings support the development of a Research Capacity Enhancement Program focusing on research methodology training, technology utilization, and manuscript preparation.

Keywords: *clinical nursing research, research capabilities, staff nurses, knowledge, skills, attitude, capacity enhancement*

INTRODUCTION

Clinical nursing research plays a critical role in the development and progress of nursing as a discipline. It is an integral part of nursing and can advance its progress (McKee et al., 2017). Nurses are expected to implement scientific research on topics related to health care and deliver high-quality health

care based on recent research in accordance with evidence-based practices. Specially, now that we are in a post covid era where social distancing is now open and not limited for nurses' advancement to conduct studies for their research skills and preparation for their future graduate studies. Despite this advancement, staff nurse's attitude towards evidence-based practice and nursing research, clinical staff nurses have infrequently applied scientific knowledge. This observation is an obstacle to increasing the quantity and in improving the quality of nursing research for staff nurses career advancement. Lack of knowledge, skills and proper attitudes are individual barriers that prevent nurses from implementing evidence-based research in a hospital setting (Wu. Et al., 2019).

According to (Wu. et al., 2019) from their study Research-training needs of Clinical Nurses: A nationwide study among tertiary Hospital in China conducted from 1st to 31st of May, 2017 showed a significant disparity in nurses' scientific research output and self-reported research skills from that current expectation of nursing professional. Staff Nurses reported high needs for training in scientific research methodology, whereas differences were found by demographic and in job-related characteristics of nurses' staff. A large survey from this study showed that nurses scientific research participation rates (with 4.1%, 7.9%, 5.4% and 2.0% in research projects, research attendance, papers published and patents respectively) and their self-rated research skills were very low as supported by the study of (M. Wang et al., 2019) which found that 82.9% of nurses had a weak research ability. Some factors should be considered to improve the quantity and improve also the quality of clinical research conducted by clinical nurses, educators, and managers. Therefore, Programs should tailor training in research methodology to fit nurse's specific situations, including their internal attributions (research methodology skills) and external factors (demographic and job-related characteristics).

According to (Castro-Palaganas, 2017) in an article from the Philippine Nursing Journal Title Advancing Nursing Research in Practice, Advocacy and Policy states that development in nursing research reveals the increasing conduct of systematic literature reviews, meta-analyses of published data, and meta-analyses of individual data (pooled reanalyzes). These are means of jointly summarizing and assessing different studies on single topic due to the rising number of scientific publications. Anchored to this article is a study of (Agatep & Villalobos, 2020) title Research Capabilities among Selected Graduate School Students in the Philippines revealed that their respondents typically are in their early adulthood, taking up Master's degree, and serving Rank and File employees and attended school-based research training/seminars. Their respondents perceived their capabilities in writing research proposal as "Moderately Capable". Their respondent perceived their research capabilities in writing a publishable research paper as "Moderately Capable". "Moderately Capable" result when it comes to the availability of facilities, time, training, funding, other resource, and support from agency in doing research as "Moderately Available".

Nurses need to have adequate knowledge and skills commensurate with role's responsibility because deficiencies in experimental design and inaccurate reporting information can lead to biased estimates of treatment effects.

This Study will help nurses to assessed as to where are they now in terms of their Nursing research capabilities. This study will help nurses to enhance their research skills for their professional growth whether in the field of education or administration in accordance with the Republic Act 9173 or the Philippine Nursing Act of 2002 Article V Sec. 27 Qualification of Nursing Faculties and Article VI Sec. 29 Qualification of Nursing Service Administrators respectively.

The researcher has been employed at a Level II, private hospital institution for more than 3 years now. As a Staff nurse, the researcher observed that there are nurses that do not want to engage to any research conducted by the institution. Their resistance to participate in clinical researching hinders them to progress in their career and advance to their position for their administrative growth.

In order to understand nurses' negative attitude towards research endeavors, the researcher was motivated to explore research capabilities of staff nurses in a selected Private hospital. Results of the study will define the need of the researcher to formulate Research Capacity Enhancement Program.

Statement of the Problem

This study aims to determine the level of research capabilities of staff nurses in a selected private hospital as a basis for research capacity enhancement program.

Specifically, it will seek to answer the following questions:

1. What is the demographic profile of the respondents in terms of:
 - 1.1 Age,
 - 1.2 Gender,
 - 1.3 Civil Status,
 - 1.4 Length of Stay in the Hospital?
2. What is the level of research capabilities of staff nurses towards clinical nursing research in terms of the following indices:
 - 2.1 Knowledge in conducting research,
 - 2.2 Skills in conducting research,
 - 2.3 Attitude towards research?
3. Is there a significant relationship between the level of research capabilities of staff nurse and their demographic profile?
4. Based on the findings, what research capacity enhancement program/s for nurses can you proposed?

Theoretical Framework

The research endeavor anchored its foundation on theories that are found fundamental and vital. This study utilized Sister Calista Roy's Adaptation Model Theory in Nursing (2023) and Albert Bandura's Social-Cognitive Theory in Behavioral Learning (2019).

In the theory created by Sister Calista Roy, she designed the Adaptation Model Theory in Nursing wherein it focuses on the individual's ability to adapt to changes in the environment. Sister Callista Roy's model sees the individual as a set of interrelated systems that maintain a balance between these various stimuli.

In the context of research capabilities, this theory suggests that staff nurses who are able to effectively adapt to the changing healthcare landscape and incorporate research into their practice are more likely to advance in their careers. By developing research capabilities, nurses can enhance their ability to adapt to new knowledge and evidence-based practices, which can lead to career progression opportunities.

Anchor to this nursing theory is Albert Bandura's Social-Cognitive Theory in Behavioral Learning which emphasizes the idea that individual's behavior is influenced by both personal factors and the social environment. This theory stressed the importance of observational learning, imitation, and modeling. Bandura's work emphasizes the importance of social influences, but also a belief in personal control. People with high assurance in their capabilities approach difficult tasks as challenges to be mastered rather than as threats to be avoided.

In the context of research capabilities, this theory suggests that nurses research capabilities and career progression are influenced by their self-efficacy belief, observational learning, and the support and resources available to them in the hospital setting. Nurses with high self-efficacy beliefs in their research abilities may be more likely to engage in the research activities and pursue career progression opportunities.

Conceptual Framework

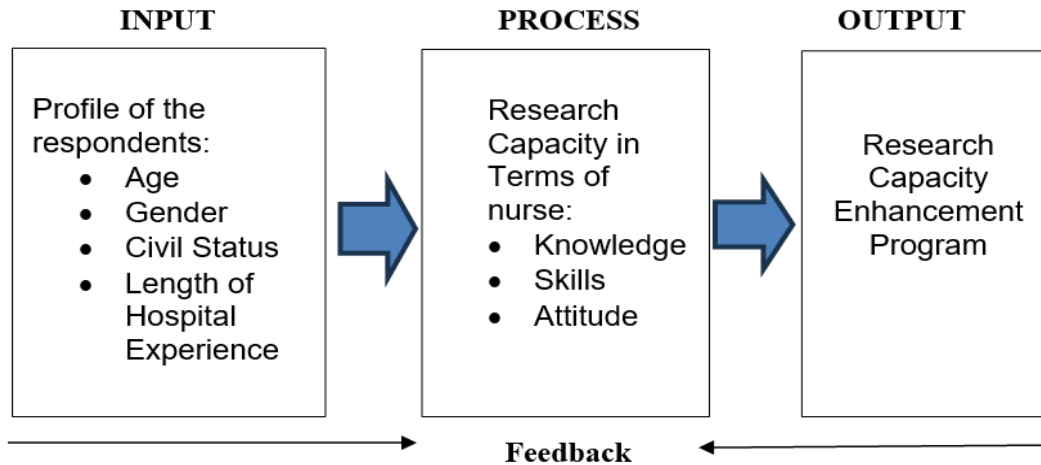


Figure 1. *Paradigm of the Study*

Research Capabilities of Staff Nurse in A Selected Private Hospital: Basis For Research Capacity Enhancement Program

Above figure shows the Input, Process and Output paradigm of the study. The first box stands for the input variables which includes the demographic profile of the respondents which are age, gender, civil status, and length of stay in the hospital.

The second box involves the process and the part which pertains to the measurements done for the study. The process involves the assessment of the research capabilities of nurses relative to their knowledge, skills, and attitude in conducting research.

The Output which is the third box was presented on the result of the survey. All information gathered from the survey were statistically analyzed and summarized. The result provides an assessment of the research capabilities of staff nurses in a selected private hospital. Based from the findings and recommendation of the study the researcher crafted a Proposed Research Capacity Enhancement Program for staff nurses. The program will help staff nurse in the conduct of their research endeavor and hopefully increase research involvement and proliferation of research outputs.

Literature Review

Clinical Research Capability

Implies advancing current capabilities about health care by continually developing and testing new ideas about diseases, products, procedures, and strategies inside the context of clinical researching.

According to Welch L et al. (2022), Accessible funding and support for nursing research is a key challenge but would enable nurses to collaborate and lead patient-centered research to improve patient care and outcomes.

There were some gaps between the clinical research nurse' self-assessed competencies in knowledge and behavior, with the widest gaps along the ethical principles, leadership and professional development, protocol compliance, and document management categories. Therefore, there is a pressing need to enhance professional education and training for clinical research (Peng Hao et al., 2022).

Research is essential in developing innovative tools and techniques to be used in nursing practice. Nurse researchers can design and implement scientific studies to discover new ways to improve health care

services. It's an important role that moves health care forward and can be financially rewarding (Regis College, 2022).

According to Shutterstock (2020), Research is a catalyst for solving the world's most pressing issue, the complexity of which evolves overtime. The entire wealth of research findings throughout history has led us to this very point in civilization, which bring us to the next reason why research matter. Nursing Research is vital to improving of healthcare delivery and outcomes. Understanding the research process helps the nurses approach any job with critical thinking skills. If the nurses observe a consistent pattern of their practice, procedure or methods that helps the patients, they can pursue those discoveries and either conduct study or propose a study on those concern and issues (TURI, 2020).

Yule Hu and Tao Liang et al. (2022), in their study shows that most of the community nurses had high demand for research training courses. Their research competence should be improved. Nursing administrators should pay more attention to provision of better learning, working and research environments and in nursing educational and professional context, administrators should establish a research Implications for Nursing Management, The Nursing administrators should establish a community in nursing research culture, to develop and continuous training on research methods and prioritize recruitment and cultivation of scientific research skills of the nurses.

According to Xu H, et al. (2019), Nurses reported high needs for training in a scientific research methodology, whereas differences were found by demographic and job-related characteristic. These factors should be considered to improve the quantity and enhance the quality of clinical research conducted by clinical nurse, managers, and educators. So therefore, programs should be in purpose or fit in particular situation in training in research methodology to fit nurses' specific situations, including their internal attributions (research methodology skills) and external factors (demographic and job-related characteristics).

According to Qirong Cheng et al. (2019), Research capacity in nursing is the ability to conduct nursing research activities in a sustainable manner in a specific context, and it is normally used at a non-individual level. More studies are needed to further explore the Allied concepts of research capacity in nursing and to better understand relationship among there allied concepts. Research capacity in nursing is critical for the development of the young nurses' discipline and for positive nurses, patients, and healthcare outcomes. It is critical for a nurses Motivation, competence, infrastructure, and collaboration for nursing research are the antecedents of research capacity in nursing.

According to Xiao-Dan Li et a. (2019), study shows that ninety-one percent of MSN nurses had good or excellent research capacity. In continuing education requirements are existed regarding research practice and design. Research time, teamwork, leadership support and retraining opportunities influenced research capacity, which decreased with increasing age and years of work, specially at 3 to 5 years after initial employment. Clinical managers should pay attention to factors that influence nurse' research capacity and continuing education requirements. Nurses stayed and work for 3 to 5 years of employment, they have more chances to and provide for self-actualization, to make use of their talents and they have made use of their knowledge and skills to promote the development of clinical nursing. Nurses can receive multiple incentives.

According to Nabirye (2018), revealed in their study that there is evidence of increase of research by African nurses and midwives, the profile of such research is low. The number of African nurses and midwives publishing research is growing, but much of this research may not be readily available.

Career Progression in Clinical Research

Nurses' skills required for Nursing Career Advancement. Clinical nursing research could benefit across many areas of society, from addressing social, cultural and health issues to scientific and technological breakthroughs that could have benefits internationally that can provide the context for nursing career advancement whether in education or leadership roles.

Lack of a clear model of career progression, at a national and local level, and barriers to creating joint posts impacts on capacity of clinical academics to strengthen integration of research with practice (Miriam Avery et al., 2022).

According to Donger and Hafsteinsdottir (2022), There is a need for ongoing efforts to build strong leadership competences as well as nursing research cultures and infrastructures with career pathways and suitable position for nurses within hospitals to empower them to strengthen nursing.

According to Hye-Ja Park and Soyoung Yu (2022), Formal educational preparation, identification as a principal investigator in research studies and clear career progression are supportive factors to the professional cognition in a specialized nursing role.

Career refers to the profession or chosen line of work, which can include one job or multiple jobs. It also refers to the education, training, and experience needed to grow in current role or move on to another one (Jonson, 2022).

According to Arrieta et al. (2022), The importance of confidence building and the expectation to succeed leading to competency through research education and training is accentuated. Emphasis on the value attribute of research may be worthy of note by accrediting professional bodies and workplace organizations as critical to the research pipeline and motivation of healthcare practitioners to undertake research.

Nursing administrators need to seek innovative strategies to resolve issue (e. g. lack of research time and limited nursing research resources). They also need to strengthen their leadership skills in order to achieve the above objectives (Jun Zhang et al., 2020).

Factors responsible for real research output in the school is linked to recognition of staff members outstanding performance and reward of staff members either monetary or non- monetary. Regular training of staff members on time management, research symposium are useful components for good quality research outputs (I. Oluwafemi et al., 2018).

According to Wenjie Fang et al. (2018), The educational environment had a relatively strong positive association with career motivation, while optimism had weak one. Career adaptability played a meditating role in the relationships. Targeted interventions may improve nursing career motivation.

According to Agatep & Villalobos (2020), states that with increasing demand for quality research to cope up with the industry trends, understanding the need among researchers should primary be established to further improve capacity and practices over the production of theoretical knowledge.

C. Ommering et al. (2020), suggest a relationship between perception and motivation in research. Some perceptions were identical for motivating or demotivating factors to conduct research, like the relevance of research for practice and performing statistics respectively. Other motivating factors were, among others, acknowledgement, autonomy, and inspiring role models. Demotivating factors were, among others, lack of autonomy and relevance, and inadequate collaboration.

According to Liyanage et al. (2018), in their study that there is a crucial need for research and innovation skills enhancement through implementation of clear and adequate policies. Having a strong policy support, in turn, could play an important role in providing incentives to staff (academic and research staff), increasing awareness on Research and initiatives, and motivation to carry out research and initiative activities. Lack of training and development on R&I was surprisingly one of the lowest ranked barriers from the survey analysis, although it was the most frequently mentioned barrier during the interviews. Although this is a mixed result, training and development should be considered a priority for promoting and improving R&I in higher education institution as such as lack of staff R&I skills, motivation, awareness, and lack of research related performance.

Knowledge, Skills, and Attitude towards Clinical Research

Collecting and systematically analyzing information on research education methods to explain them better. It should be viewed as a critical, reflexive, and professional activity that adopts rigorous methods to gather data, analyze it, and solve educational challenges to help advance knowledge.

According to Sanyal et al. (2019), Universities in the developing world have retained strong teaching functions and weak research functions.

Nurse practitioner is engaged in healthcare transformation. Nurse practitioner require support from research experts in academia to make a significant contribution to nursing knowledge in healthcare delivery (Ryder et al., 2019).

According to Theofanidis and Fountouki (2018), Constructive rethinking and restructuring of the nursing and biomedical research agenda is necessary to upgrade the profession and reassure the public.

Basic Education Reform Agenda DepEd Order 39, s. 2016, DepEd encourages educators to do research that encompasses topics on teaching-learning, child protection, human resources development, governance, disaster and risk reduction management, and gender development. In light of the adoption of the research agenda, mechanisms would be set up to support educators.

Synthesis

Nursing is significant to meeting challenges posed by demographic changes and rising healthcare demands. Research capabilities of nurses can be defined as the ability to conduct, utilize, and sustain research within a professional group is crucial to the nursing profession and is also essential to promote the sustainable development of the best nursing care.

Nursing research refers to the exploration of clinical nursing practice, nursing evaluation, nursing management, and nursing education by utilizing scientific methods. As the main force in nursing research, clinical nurses' research ability determines the level and development of nursing research towards career progression.

In the study of Xu H, et al. (2019), Nurses reported high needs for training in a scientific research methodology, whereas differences were found by demographic and job-related characteristic. These factors should be considered to improve the quantity and enhance the quality of clinical research conducted by clinical nurse, managers, and educators. Therefore, programs should tailor training in research methodology to fit nurses' specific situations, including their internal attributions (research methodology skills) and external factors (demographic and job-related characteristics).

Support to this study is the study of Liyanage et al. (2018), that there is a crucial need for research and innovation skills enhancement through implementation of clear and adequate policies. Having a strong policy support, in turn, could play an important role in providing incentives to staff (academic and research staff), increasing awareness on Research and initiatives, and motivation to carry out research and initiative activities. Lack of training and development on R&I was surprisingly one of the lowest ranked barriers from the survey analysis, although it was the most frequently mentioned barrier during the interviews. Although this is a mixed result, training and development should be considered a priority for promoting and improving R&I in higher education institution as such as lack of staff R&I skills, motivation, awareness, and lack of research related performance.

In contrast to this study is the study of Nabirye et al. (2018), revealed in their study that there is evidence of increase of research by African nurses and midwives, the profile of such research is low. The number of African nurses and midwives publishing research is growing, but much of this research may not be readily available. African Nursing and midwifery research is often published in non-indexed journals specially around topics such as chronic illnesses and children's conditions (Sun et al., 2016).

Clinical Nursing Research is vital to bring about new inventions, techniques, and improvements and to create a new body of knowledge. This helps to bring about improvements in current practice, knowledge, patient outcomes as well as to create new policies and upgrade the existing ones. Similarities of this study to this present study is the aim to assess the level of research capabilities of staff nurses as a basis for skills enhancement program. Engaging clinical research activities can help staff nurses advance in their careers and take on new roles and responsibilities. This study differs from the present study in which it took place in the Philippines which is the primary respondent of the study are staff nurses working in a selected private hospital because thru assessing the level of staff nurses research capabilities enables nurses

not just to progress in their career but to have an understanding and motivation to recognize the needs for clinical nursing research for future benefits of oneself, patients, and future nurses.

METHODS

Research Design

This research employs the quantitative - non experimental design utilizing descriptive correlational technique. Quantitative research design is a formal, objective, systematic process in which numerical data are used to obtain information about the variables (Adedoyin, 2020). It means testing objective theories by examining the relationship among variables (Creswell, 2023). Descriptive Correlational research is a quantitative non – experimental method of research in which you have two or more quantitative variables from the same group of subjects. This design will be used since the main purpose of the study is to determine the level of research capabilities of staff nurses in a selected private hospital as a basis for research capacity enhancement program.

All an entire quantitative study it usually ends up with confirmation or disconfirmation of the hypothesis tested bases on the researcher. Researcher using the quantitative method identify one or a few variables that they intend to use in their research work and proceed with data collection related to those variables. The objective of the quantitative method is to develop and to employ models based on mathematical approach, hypothesis and theories pertaining that nature of a phenomenon. The focus of the quantitative method due to its connectivity between the empirical observation and the mathematical expression of the quantitative relationships is a process of measurement. This method is also known as an iterative process where the evidence is evaluated, hypotheses and theories are refined with some technical advances, leveraging on statistical approaches and seek to come up and obtain an accurate and reliable measurements result (Rahman, 2017).

Population Frame and Sampling Technique

In this research, procedure was used to economize time, money, and efforts, and arrive just the same, at the most reliable findings desired by the researcher.

The sample of the study was obtained from registered staff nurses from two (2) level II secondary private hospital in the Province of Rizal. The researcher chose this place of implementation because it is accessible to the researcher's location. The intention of the researcher is to gather information from staff nurses working in the said institutions.

Population refers to individuals or objects that is the focus of the studies. Using Rao soft sample size calculator, the researcher chose a sample of one hundred (100) staff nurses with a margin of error of 5% which is the amount of error that can tolerate from the study, confidence level of 95% which is the amount of uncertainty in the study and the response distribution of 50% hence give the recommended sample size of one hundred (100) to participate in the study which were selected based on their availability on the day of questionnaire distribution.

The sample of this study was selected through probability/randomize sampling wherein the samples are selected based on random selection of the subjects/respondents. The selection of the sample was simple random because the researcher believes that when information is randomly obtained, they are less bias and will definitely serve their purpose. As coined by Calmorin (2010), this is the best random sampling design because no restriction is imposed, and every member of the population has an equal chance of inclusion in the sample.

Research Instrumentation

The instrument of this study is survey questionnaires adopted from the study “Level of Research Capability of Maritime Instructors: Basis for Research Capability Program” by Mr. Obed Capunong which I aligned to the core subjects of this study.

This instrument was divided into two (2) parts. The part I includes about the staff nurses’ demographic profiles. The part II is composed of thirty-seven (37) questions, eleven (11) of which measure staff nurses’ knowledge in conducting research, seventeen (17) of which measure skills in conducting research and the other nine (9) of which measure attitude towards research.

To determine the research capabilities of staff nurses, using the 4-point Likert Scale the following scales were used:

Knowledge in Conducting Research

Scale	Range	Verbal Description	Verbal Interpretation
1	1.00 - 1.75	Poor	Less Capable
2	1.76 - 2.51	Average	Moderately Capable
3	2.52 - 3.27	Good	Capable
4	3.28 - 4.00	Very Good	Very Capable

Skills in Conducting Research

Scale	Range	Verbal Description	Verbal Interpretation
1	1.00 - 1.75	Poor	Less Capable
2	1.76 - 2.51	Average	Moderately Capable
3	2.52 - 3.27	Good	Capable
4	3.28 - 4.00	Very Good	Very Capable

Attitude Towards Research

Scale	Range	Verbal Description	Verbal Interpretation
1	1.00 - 1.75	Strongly Disagree	Less Capable
2	1.76 - 2.51	Disagree	Moderately Capable
3	2.52 - 3.27	Agree	Capable
4	3.28 - 4.00	Strongly Agree	Very Capable

Data Gathering Procedure

After the approval of the study and the validation of the instrument, the researcher will secure a written permit to the hospital administrator and Chief nursing office of the above hospital institutions. If given permission, the researcher will explain the purpose of the study to the selected respondents and then make sure each participant corresponds to their predefine criteria. The researcher will collect the data by means of survey questionnaire that comprises their age, gender, civil status, and length of hospital stay. The research capability of the respondents will be identified through the second part of the survey questionnaire that was given to them. After, the respondents have answered the questionnaires; the data will be checked, tallied, interpreted and analyzed.

Statistical Treatment

The following statistical tests will be used to analyze and interpret the gathered data.

Percentage- describes how many parts are there out of one hundred parts of the entire objects. This was used to show the proportion of the respondents with respect to them

1. *Age, gender, civil status, and length of stay in the hospital.* It is expressed with the use of percentage (%) sign.

2. *Weighted Mean* - it is an average that takes into account the importance of each value of the overall total. This was to show an average tally of the responses of the staff nurse in each of the questions incorporated into the questionnaire in terms of their research capability. Specifically, it was used to determine the average responses of the respondents' perception and understanding of Statistics.
3. *Pearson's correlation coefficient* – is the test statistics that measures the statistical relationship, or association, between the demographic profile and the level of research capabilities. It is known as the best method of measuring the association between variables of interest because it is based on the method of covariance. It gives information about the magnitude of the association, or correlation, as well as the direction of the relationship.

RESULTS AND DISCUSSIONS

Table 1 present the demographic profile of the respondents as to age, gender, civil status, and their length of hospital experience.

Table 1.1. *Demographic Profile of the Respondents*

	Variables	Frequency n=100	Percentage %
AGE	20-24 years old	9	9%
	25-30 years old	13	13%
	31-35 years old	43	43%
	36-40 years old	22	22%
	Above 41 years old	13	13%
n=		100	100%
GENDER	Male	35	35%
	Female	65	65%
n=		100	100%
CIVIL STATUS	Single	63	63%
	Married	37	37%
n=		100	100%
LENGTH OF STAY IN THE HOSPITAL	1-3 years	31	31%
	4-5 years	29	29%
	6-10 years	22	22%
	10 years and above	18	18%
n=		100	100%

The demographic profile outlined in Table 1 reveals several points of interest. Most notably, the age bracket with the highest representation (31-35 years) may reflect a period of career stability and growth for nurses. This age range is commonly associated with individuals advancing in their careers and possibly seeking or assuming specialized roles or leadership positions within the hospital setting. In contrast, the relatively lower number of younger nurses (20-24 years) could suggest a gap in new entries into the field or alternatively, that younger nurses may be more transient and less likely to stay in one hospital for a long duration.

Gender distribution aligns with the global norm where nursing is predominantly a female profession. The larger number of women may impact the dynamics of the nursing workforce, potentially influencing policy and practice standards.

The civil status data indicates that a majority of the nurses are single. This finding could correlate with their ability to work flexible or unusual hours, accepting shift work more readily, which is less likely for those with family obligations.

The spread of hospital experience amongst respondents is significant. Nurses with 1-3 years of experience being the largest group may mean that the hospital is relatively successful in recruiting new staff or that turnover rates are high among more experienced personnel. Conversely, the presence of nurses with 10+ years of experience, though the smallest group, demonstrates a substantive core of experienced staff who can provide mentorship and contribute to continuity of care.

The demographic data suggest that various factors such as age, gender, marital status, and experience level can significantly influence the composition and dynamics of the nursing workforce. For instance, a workforce with a larger middle-age component and more females may focus on work-life balance policies. Single nurses might be more versatile in scheduling, potentially affecting staffing policies. The distribution of workforce by experience is indicative of the hospital's retention capabilities and can highlight potential issues regarding professional development and advancement opportunities.

Research literature supports these observations. For instance, a study by Buchan and Aiken (2020) highlights the importance of age distribution in the nursing workforce, as it affects succession planning and the transfer of knowledge. Gender issues within nursing have been studied extensively, with findings suggesting that the predominantly female composition of the profession can influence the professional culture and career progression opportunities (Kouta & Kaite, 2021).

Regarding marital status, a study by Trinkoff et al. (2019) suggests that marital status can influence job satisfaction and retention, with single nurses often displaying different work-life balance needs compared to their married counterparts.

As for the length of experience, studies have underscored that varying levels of experience among nurses can affect the quality of patient care and also impact the internal mentoring and support structures within hospitals (Kovner, Brewer, Greene, & Fairchild, 2019).

Table 2 present the Level of Research Capabilities of Staff Nurse in terms research capability indicators: knowledge, skills, and attitude towards research.

Table 2.1. *Distribution of the Level of Research Capabilities of Staff Nurses in terms of Knowledge in Conducting Research*

KNOWLEDGE INDICATORS	MEAN	VERBAL DESCRIPTION	VERBAL INTERPRETATION
1. I have knowledge in identifying issues and problems to be investigated by clinical action research.	3.02	GOOD	CAPABLE
2. I know how to search knowledge in searching relevant literature on the chosen topic of research.	2.91	GOOD	CAPABLE
3. I know how to develop processes of how to do research and collective evidence of research.	2.93	GOOD	CAPABLE
4. I know how to analyze quantitative data.	2.94	GOOD	CAPABLE
5. I have knowledge in analyzing qualitative data.	2.97	GOOD	CAPABLE
6. I have knowledge in organizing and writing the findings.	2.99	GOOD	CAPABLE
7. I have knowledge in making a relevant presentation on my project and write an article for publication.	2.87	GOOD	CAPABLE
8. I am familiar in utilizing technology in literature search.	2.94	GOOD	CAPABLE
9. I am aware of using in utilizing technology in data presentation.	2.87	GOOD	CAPABLE
10. I have knowledge in utilizing technology in statistical analysis.	2.75	GOOD	CAPABLE

11. I have knowledge in utilizing technology in bibliographical entries.	2.80	GOOD	CAPABLE
GENERAL WEIGHTED MEAN	2.91	GOOD	CAPABLE

Legend: 1.0-1.75 Poor/Less Capable; 1.76-2.51 Average/Moderately Capable; 2.52-3.27 Good/Capable; 3.28-4.00 Excellent/Very Capable.

The findings from Table 2.1, indicating that staff nurses appear to be reasonably well-versed in identifying issues and problems for clinical action research, are promising for the advancement of nursing practice. The ability to pinpoint pertinent problems suggests that nurses are observant and reflective practitioners who are capable of initiating investigations which could lead to improved patient care. However, the lower mean rating for knowledge in utilizing technology for statistical analysis suggests an area for professional development. Statistical analysis is critical for interpreting data effectively and making evidence-based decisions. The capability to employ technology in such analyses is increasingly important in today's data-driven healthcare environment.

The overall weighted mean suggests that staff nurses have a "Good" capability in research knowledge. Yet, the variation among the criteria indicates a discrepancy between the ability to identify issues for research and the proficiency in using technological tools to analyze research data.

The identified gap in statistical technology could be due to various factors such as lack of training, limited resources, or perhaps a less frequent need to engage with statistical software compared to other aspects of the research process. Addressing this gap is essential to empower nurses to conduct and contribute to high-quality clinical research.

The literature provides insights into the importance of research capabilities among nursing staff. For instance, studies have pointed out that nurses with strong research skills are better equipped to lead improvements in clinical practice and patient outcomes (Polit & Beck, 2018). Furthermore, modern healthcare relies heavily on evidence-based practice, which underscores the need for nurses to be proficient in research, including technological and analytical competencies (Melnik & Fineout-Overholt, 2021).

Another aspect highlighted in the literature is the importance of continuous professional development and lifelong learning in nursing. Research capability is not static and requires ongoing education and support. Health institutions can play a vital role in providing training, resources, and encouragement for staff nurses to enhance their research skills (Kumar, 2018).

Additionally, barriers to research among nurses, such as time constraints, workloads, and lack of mentorship have been documented (Brown et al., 2020). Addressing these barriers is key to fostering a research culture within the nursing profession.

In summary, while staff nurses show a good level of research capability, there is a clear need for improvement in the area of statistical technology. As the healthcare landscape evolves, so does the imperative for nurses to be adept at all facets of research to underpin evidence-based practices and contribute to the co-creation of new knowledge in the field of nursing

Table 2.2. Distribution of the Level of Research Capabilities of Staff Nurses in terms of Skills in Conducting Research

SKILLS INDICATORS	MEAN	VERBAL DESCRIPTION	VERBAL INTERPRETATION
1. I can formulate research title.	2.87	GOOD	CAPABLE
2. I can write rationale/introduction/background of the study.	2.86	GOOD	CAPABLE
3. I can write the research conceptual framework and research paradigm.	2.72	GOOD	CAPABLE
4. I can construct writing statement of the problem.	2.94	GOOD	CAPABLE
5. I can formulate hypothesis/hypotheses.	2.80	GOOD	CAPABLE
6. I can write significance of the study.	2.85	GOOD	CAPABLE

7. I can identify and write scope and limitation of the study.	2.85	GOOD	CAPABLE
8. I can define terms. Operationally and contextually.	3.04	GOOD	CAPABLE
9. I can do review of related literature and studies.	2.92	GOOD	CAPABLE
10 I can write research methodology.	2.80	GOOD	CAPABLE
11. I can determine the research design to apply in my study.	2.80	GOOD	CAPABLE
12. I can adopt, construct and modify research instrument.	2.79	GOOD	CAPABLE
13. I can write research abstract.	2.95	GOOD	CAPABLE
14. I can write results and discussion.	2.85	GOOD	CAPABLE
15. I can write conclusion.	2.85	GOOD	CAPABLE
16. I can write recommendations.	2.87	GOOD	CAPABLE
17. I can apply APA 7 th edition format.	2.69	GOOD	CAPABLE
GENERAL WEIGHTED MEAN	2.85	GOOD	CAPABLE

Legend: 1.0-1.75 Poor/Less Capable; 1.76-2.51 Average/Moderately Capable; 2.52-3.27 Good/Capable; 3.28-4.00 Excellent/Very Capable

In examining the research capabilities of staff nurses, as highlighted in Table 2.2, it is evident that there are varying degrees of proficiency across different research-related skills. The ability to define terms operatively and contextually scoring a mean rating of 3.04 implies that nurses generally possess a strong understanding of key terms within their field, which is critical for effective communication and comprehension in both clinical and academic settings.

The lower proficiency in applying APA 7th edition format (mean rating of 2.69) denotes a need for improvement in this area. Compliance with APA formatting is essential for standardizing scholarly communication and ensuring that research is presented in a universally acceptable manner. This discrepancy in skill levels could be attributed to the frequency and context in which these skills are utilized; operational definitions may be more commonly employed in day-to-day nursing activities, while APA formatting is typically restricted to scholarly writing and publication.

Supporting literature often cites the importance of strengthening research competencies among nursing staff. As nursing practice is grounded in evidence-based care, the ability to engage with research is crucial. Researchers Mallidou et al. (2018) underscore the need for nurses to be skillful in understanding, evaluating, and applying research conclusions to practice. However, literature also reveals that many nurses feel ill-prepared to undertake research activities, often due to a lack of training and support within their institutions (Bosch-Capblanch et al., 2019).

Further literature reviews may point out barriers such as time constraints, lack of mentorship, and limited incentives for nurses to engage in research activities (Shin et al., 2018). Organizations such as Sigma Theta Tau International (STTI) and the American Nurses Association (ANA) emphasize the importance of continuous professional development, which includes improving research capabilities (Sigma, 2021; ANA, 2015).

The overall weighted mean indicates that staff nurses are "Capable" concerning their research skills. This aligns with literature that suggests that while nurses may have foundational research skills, there is room for enhancing certain aspects, particularly adherence to research reporting standards like the APA format (Polit and Beck, 2020). Professional development programs and workshops focused on areas of recognized need could supplement existing competencies.

Addressing these gaps is beneficial as it may lead to increased engagement in research, ultimately improving nursing practice and patient outcomes through the integration of evidence-based findings. Healthcare institutions and nursing leaders must create support systems facilitating research activities,

including training sessions, accessible resources, and mentorship programs, to foster a culture of inquiry and ongoing learning within nursing practice.

Table 2.3. *Distribution of the Level of Research Capabilities of Staff Nurses in terms of Attitude Towards Research*

ATTITUDE INDICATORS	MEAN	VERBAL DESCRIPTION	VERBAL INTERPRETATION
1. I believe that clinical action research is useful for my field of expertise.	3.41	STRONGLY AGREE	VERY CAPABLE
2. I feel that I can benefit from conducting clinical action research.	3.38	STRONGLY AGREE	VERY CAPABLE
3. I believe that clinical action research is necessary in my professional training.	3.46	STRONGLY AGREE	VERY CAPABLE
4. I find the conduct of clinical action research stressful.	3.18	AGREE	CAPABLE
5. I think that clinical action research is difficult to conduct.	3.06	AGREE	CAPABLE
6. I have an interest to conducting clinical action research.	3.08	AGREE	CAPABLE
7. Clinical action research makes me worried.	2.89	AGREE	CAPABLE
8. I love to conduct clinical action research.	3.03	AGREE	CAPABLE
9. I enjoy conducting clinical action research.	2.96	AGREE	CAPABLE
GENERAL WEIGHTED MEAN	3.16	AGREE	CAPABLE

Legend: 1.0-1.75 Strongly Disagree/Less Capable; 1.76-2.51 Disagree/Moderately Capable; 2.52-3.27 Agree/Capable; 3.28-4.00 Strongly Agree/Very Capable

The data presented in Table 2.3 offers a compelling view into the attitudes of staff nurses towards research, an essential component of the evidence-based practice that underpins modern nursing. The outcome demonstrating a strong endorsement for the necessity of clinical action research in their professional training (mean rating of 3.46) indicates a recognition of its importance and a proactive stance among nurses.

Conversely, the lower rating for the idea that clinical action research is a source of worry (mean rating of 2.89) suggests that while staff nurses see the value in research, there are concerns or apprehensions to be addressed. This disparity may stem from perceived complexities associated with research activities or anxieties over potential inadequacies in their research skills. Despite these lower scores, nurses still consider themselves "Capable."

The overall weighted mean for attitudes towards research signals that staff nurses generally hold a positive disposition as indicated by the "Agree" categorization, aligning with their perceived "Capability." This attitude is instrumental for fostering a research culture within the nursing community, which is essential for the continuous advancement of nursing practice.

Supporting literature emphasizes the multifaceted value of positive attitudes towards nursing research. Cognizant of its impact on patient outcomes, professional development, and the elevation of nursing as a science, the nursing literature stresses the need for environments that encourage and facilitate research engagement among nurses. Studies have identified various strategies to bolster research-oriented attitudes, such as integrating research into nursing curricula, providing dedicated time for research activities, mentorship programs, and access to resources and training.

Furthermore, as explored in related literature, attitude is a significant predictor of research utilization. Nurses who appreciate the pertinence of research are more likely to apply evidence-based findings to their practice. This perspective is essential not only for individual nurse growth but also for the progressive evolution of healthcare practices and policies.

To capitalize on these capable attitudes, institutions may need to implement supportive measures to address concerns that could hinder active research participation. This includes offering workshops, simplifying access to journals and databases, and promoting a culture where inquiry is valued and recognized as a critical aspect of clinical excellence. Addressing the gap between perceived capability and any existing concerns can further empower nurses to engage robustly in research activities, ultimately improving patient care and outcomes.

Table 3. *Significant Relationship Between and Among the Profile of the Respondents and the Nurses' Research Capabilities*

Variables	Knowledge			Skills			Attitude		
	r	P-value	Int.	r	P-value	Int.	R	P-value	Int.
Age	0.121	0.23	NS	-0.016	0.87	NS	0.002	0.98	NS
Gender	-0.091	0.37	NS	-0.138	0.17	NS	0.053	0.59	NS
Civil Status	0.172	0.08	NS	0.134	0.18	NS	0.158	0.11	NS
Hospital Experience	0.158	0.11	NS	-0.024	0.81	NS	-0.102	0.31	NS

Above table shows the results of the attempt to figure out relationships between and among the nurses' research capabilities and their profile characteristics. Overall, neither age, gender, civil status, and hospital experience yielded significant findings with $P > 0.05$ level. Meaning, among the respondents who participated, their research capabilities are not dependent on the identified profiles. However, according to the collective mean ratings attitude ($x=3.39$) obtained the highest, then followed by their knowledge ($x=2.90$), and skills ($x=2.84$). This indicates that the nurse's behavior towards the activity is higher than their technical know-how, including their skill sets in conducting studies. Staff Nurse attitude towards research has the highest mean rating, giving importance of the attitude in nursing research and various factors, efforts are directed to achieve the desired level and reducing the barriers (Rekisso et al. 2022). Over all staff nurses perceived themselves as confident in performing the various research process. Research is a flat form and a venue for everyone to learn, appreciate, and enjoy the journey of doing research (Perez et al. 2022).

Proposed Research Capacity/Enhancement Plan

KRA Plan	Objectives	Strategies /Activities	Lead Person	Budget	Expected Outcome	Evaluation
Seminar/Workshops, Trainings on Research	To update staff nurses through hands on in research writing To acquaint how the researcher being published	Organize a seminar workshops or training on research writing Invite experienced and prolific authors and co-authors as resource speaker Disseminate the programs by inviting staff nurses and other medical professionals to attend the seminar	100 Target Participants Speaker(s) Organizer	₱30,000 plus the Funds from the registration fees	2 days	At least 10% of the participants will be able to write their own Thesis or continue to enroll to their graduate school study

		workshops, training.				
Reliable references as a guide in conducting research	To provide references that are accessible and reliable To discuss ways on how to understand the content of the reference	Research Scavenger Activity on seeing for the reliable sources	100 staff nurses Chief Nurse, Assistant Chief Nurse, Supervisors and Head Nurses	₱10,000 and books/m agazines came from Hospital Library and Hospital Offices	3 to 5 days	Reliable sources are identified and discussed to the college instructors
Paper Presentation	To develop the staff nurses research paper presentation	Conduct research colloquiums or conferences for authors to be able to disseminate and share their research output	Researcher/s Nursing Service Department	₱5,000 Institutional Fund	30 days	At least 10% staff nurses can avail the research paper presentation
Designing and validating a research instrument	To identify the necessary factors affecting in designing and validating an instrument	Present the Model formulated by Creswell 2018 5 th edition in designing and validating an instrument Discussion of the format for the research instrument	100 staff nurses Chief Nurse, Assistant Chief Nurse and Supervisors	₱5,000 Personal Budget	5 days	At least 10% of staff nurses can present their own research instrument
Recognition for Best Research	To give appreciation to staff nurses through selection process for best research	To give monetary awards/incentives /promotion and support to those who present their clinical research	100 staff nurses Chief Nurse, Assistant Chief Nurse, Supervisors and Head Nurses	Personal/ ₱5,000 Institutional Fund	30 days	At least 10% of staff nurses will have their clinical research and avail the program offered by the institution

Summary of the Findings

The aim of the study was to determine research capabilities of staff nurses in a selected private hospital, this study emphasizes various research capabilities indicators specifically, (a) knowledge in conducting research (b) skills in conducting research (c) attitude towards research to provide basis for research enhancement programs for nurses.

This research employs the quantitative - non experimental design utilizing descriptive correlational technique among the randomly selected respondents with a total of 100 staff nurses working in various private hospital.

A letter to the hospital head was distributed in requesting to conduct the study, staff nurses also received a consent form before proceeding with the actual survey questionnaire.

Based on the aim of the study, the following data was obtained.

1. In terms of the demographic profile of the respondents, age, gender, civil status, and length of hospital experience.

- 1.1 Among age, 31-35 years of age garnered the highest percentage of 43% meanwhile 20-24 years old garnered only 9% of the total population of the respondents.
- 1.2 In terms of gender, female are the major respondents of the study garnered 65% of the total population of the respondents.
- 1.3 In terms of civil status, majority of the respondents are single which garnered 67% of the total population.
- 1.4 Meanwhile, when it comes to their length of hospital experience, staff nurses who work 1-3 years garnered the highest mean of 31% while 10 years and above only garnered 18% of the total population of the respondents.

2. Level of Research capabilities by staff nurses was also determine.

- 2.1 In terms of staff nurse's knowledge in conducting research, identifying issues and problems to be investigated by clinical action research has the highest mean rating of 3.02 with a verbal description as "Good" interpreted as "Capable". On the other hand, Staff nurse knowledge in utilizing technology in statistical analysis has the lowest mean among the criteria with a mean rating of 2.75 interpreted as Capable. The computed over-all weighted mean on the level of research capabilities in terms of knowledge in conducting research as perceived by staff nurse-respondents was 2.91 with a verbal description as Good interpreted as "Capable". The data indicates that staff nurses are knowledgeable and exposed on conducting the research process.
- 2.2 In terms of staff nurse's skills in conducting research, skills ability to define terms Operationally and contextually has the highest mean rating of 3.04 with a verbal description as "Good" interpreted as "Capable". On the other hand, Staff nurse skills in applying APA 7th edition format has the lowest mean among the criteria with a mean rating of 2.69 interpreted as Capable. The computed over-all weighted mean on the level of research capabilities in terms of skills in conducting research as perceived by staff nurse-respondents was 2.85 with a verbal description as Good interpreted as "Capable". The data indicates that staff nurses are capable in writing a research proposal and research article and it gives him or her more of what he or she is expected.
- 2.3 In terms of staff nurse's attitudes towards research, the attitude towards believing that clinical action research is necessary in their professional training has the highest mean rating of 3.46 with a verbal description as Strongly Agree interpreted as "Very Capable". On the other hand, Staff nurse attitude towards Clinical action research makes them worried has the lowest mean among the criteria with a mean rating of 2.89 interpreted as Capable. The computed over-all weighted mean on the level of research capabilities in terms of attitude towards research as perceived by staff nurse-respondents was 3.16 with a verbal description as Good interpreted as "Capable". The data indicates that staff nurses are agree with the statement and meets more than he or she feel.

3. Test of Relationship Between and Among the Profile of the Respondents and the Nurses' Research Capabilities was determined.

Neither age, gender, civil status, and hospital experience yielded significant findings with $P > 0.05$ level. Meaning, among the respondents who participated, their research capabilities are not dependent on the identified profiles. However, according to the collective mean ratings attitude ($\bar{x} = 3.39$) obtained the highest, then followed by their knowledge ($\bar{x} = 2.90$), and skills ($\bar{x} = 2.84$). This indicates that the nurse's behavior towards the activity is higher than their technical know-how, including their skill sets in conducting studies.

Recommendation

Based on the findings and conclusion of the study, the following recommendations were drowned:

1. There should be programs, seminars and activities or mentorship programs to enhance the different research capabilities of staff nurses. Research “Mentor and Mentee” program can be developed and enhanced to enable active clinical nursing research involvement and collaboration inside the Nursing Department.
2. Staff Nurses shall be motivated and be given incentive by the institution to actively participate on research activities.
3. Nursing department should have a library to help staff nurse’s in conducting their own clinical research studies which will be beneficial and essential in improving not just the staff nurse research capabilities itself but the whole nursing department.
4. Encourage staff nurses to apply and finish graduate school studies by their Chiefs and Heads.
5. It is suggested to conduct same study of a wider scope to corroborate the findings obtained in the present studies. Variables may be included in the future research may focus effective strategy to address the increasing demand for quality research to cope up with the healthcare industry trends compatible in understanding research capability needs to further improve capacity and practices over the production of theoretical knowledge.

CONCLUSION

In conclusion, the study found that neither age, gender, civil status, and hospital experience influenced the research capabilities of the nurses. There is no significant relationship noted. Meaning, among the respondents who participated, their research capabilities are not dependent on the identified profiles. However, according to the collective mean ratings attitude obtained the highest, then followed by their knowledge, and skills. This indicates that the nurse’s behavior towards the activity is higher than their technical know-how, including their skill sets in conducting studies. Staff Nurse attitude towards research has the highest mean rating, giving importance of the attitude in nursing research and various factors. Over all staff nurses perceived themselves as confident in performing the various research process. These results emphasize the importance of positive attitudes towards research among nurses as it can sustain their intention to conduct their own clinical research in the future. Research is a flat form and a venue for everyone to learn, appreciate, and enjoy the journey of doing research.

References

- Agatep, J. L. E. (2020). Research capabilities among selected graduate school students in the Philippines. *Journal of Asian Review of Public Policy*, 2020.
- Avery, M., Westwood, G., & Richardson, A. (2022). Enablers and barriers to progressing a clinical academic career in nursing, midwifery and allied health professions: A cross-sectional survey. *Journal of Clinical Nursing*, 31(3–4), 406–416. <https://doi.org/10.1111/jocn.15841>
- Chen, Q., Sun, M., Tang, S., & Castro, A. R. (2019, November 21). *Research capacity in nursing: A concept analysis based on a scoping review*. Research Square. <https://doi.org/10.21203/rs.2.17608/v1>
- D’Arrieta, L. M., Vangaveti, V. N., Crowe, M. J., & Malau-Aduli, B. S. (2022). Rethinking health professionals’ motivation to do research: A systematic review. *Journal of Multidisciplinary Healthcare*, 15, 185–216. <https://doi.org/10.2147/JMDH.S343940>
- Fang, W., Zhang, Y., Mei, J., Chai, X., & Fan, X. (2018). Relationships between optimism, educational environment, career adaptability and career motivation in nursing undergraduates: A cross-sectional study. *Nurse Education Today*, 68, 33–39. <https://doi.org/10.1016/j.nedt.2018.05.025>
- Hao, P., Wu, L., & Liu, Y. (2022). A survey on work status and competencies of clinical research nurses in China. *Journal of Research in Nursing*, 27(1–2), 82–89. <https://doi.org/10.1177/17449871211069584>

- Hu, Y., Liang, T., Li, W., Wan, J., Xin, L., Zhao, H., & Wang, L. (2022). Research competence of community nurses in Shanghai: A cross-sectional study. *Journal of Nursing Management*, 30(7), 3340–3349. <https://doi.org/10.1111/jonm.13784>
- Li, X. D., Chen, H. J., Wang, L., Kong, X. Y., & Ying, J. (2019). Scientific research capability and continuing education needs for nurses with master's degrees in China. *The Journal of Continuing Education in Nursing*, 50(2), 61–68. <https://doi.org/10.3928/00220124-20190115-05>
- Liyanage, C., Thakore, R., Amaratunga, D., Mustapha, A., & Haigh, R. (2018). The barriers to research and innovation in disaster resilience in higher education institutions in Asia. *Procedia Engineering*, 212, 1225–1232. <https://doi.org/10.1016/j.proeng.2018.01.158>
- Narbarte, M. P., & Balila, J. S. (2018). Research involvement, motivation, and university initiatives as agents for enhancing research culture and quality. *Catalyst*, 17, 1–15.
- Oluwafemi, I., Aigbavboa, C., Pretorius, J., & Oluwafemi, J. (2018, October). *A research-based approach for higher education system: Nigeria in perspective*. Paper presented at the International Conference on Human Systems Engineering and Design, Technological and Social Development, Tenerife, Spain. https://doi.org/10.1007/978-3-030-02053-8_31
- Ommering, B. W. C., Wijnen-Meijer, M., & van Blankenstein, F. M. (2020). Promoting positive perceptions of and motivation for research among undergraduate medical students to stimulate future research involvement: A grounded theory study. *BMC Medical Education*, 20, Article 204. <https://doi.org/10.1186/s12909-020-02117-6>
- Park, H. J., & Yu, S. (2022). The role of clinical trial nurses: Transitioning from clinicians to clinical research coordinators. *International Journal of Nursing Practice*, 28(1), e12943. <https://doi.org/10.1111/ijn.12943>
- Ryder, M., Jacob, E., & Hendricks, J. (2019). An inductive qualitative approach exploring nurse practitioners' views on leadership and research: An international perspective. *Journal of Clinical Nursing*, 28(13–14), 2644–2658. <https://doi.org/10.1111/jocn.14853>
- Theofanidis, D., & Fountouki, A. (2018). Limitations and delimitations in the research process. *Perioperative Nursing*, 7(3), 155–163. <https://doi.org/10.5281/zenodo.2552348>
- University of Rhode Island. (2020, February 14). *Why does research matter in nursing programs?* URI Online. <https://online.uri.edu/program-articles/nursing/why-does-research-matter-in-nursing-programs/>
- Welch, L., et al. (2022). Research capabilities of respiratory nurses: A training needs analysis. *Journal of Respiratory Nursing*, 18(2), 84–91.
- Xu, H., Shen, Y., & Wu, L. (2019). Research capacity and training needs of nurses in Shanghai, China: A multicenter, cross-sectional survey. *International Journal of Nursing Sciences*, 6(4), 414–420
- Zhang, J., Yan, Q. Y., & Yue, S. (2022). Nursing research capacity and its management in China: A systematic review. *Journal of Nursing Management*, 28(2), 199–208. <https://doi.org/10.1111/jonm.12913>