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MA. ABEGAIL CRYSTEL O. GARGANERA

PRACTICE ENVIRONMENT AND WORK ENGAGEMENT OF STAFF NURSES IN A SPECIALIZED HOSPITAL IN THE KINGDOM OF SAUDI ARABIA

Thesis Adviser:

ASST. PROF. QUEENIE R. RIDULME
Faculty of Management and Development Studies

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Acceptance Page

This Special Project titled: **"PRACTICE ENVIRONMENT AND WORK ENGAGEMENT OF STAFF NURSES IN A SPECIALIZED HOSPITAL IN THE KINGDOM OF SAUDI ARABIA"** is hereby accepted by the Faculty of Management and Development Studies, U.P. Open University, in partial fulfillment of the requirements for the degree Course.

_____
ASST. PROF. QUEENIE R. RIDULME — 12 September 2023
Adviser — (Date)

_____
ASST. PROF. FRITZ GERALD V. JABONETE — 15 September 2023
Critic — (Date)

_____
MS. MA. ELMA L. MIRANDILLA — 19 September 2023
Member — (Date)

_____
MS. MARIA RITA V. TAMSE — 15 September 2023
Member — (Date)

_____
ASST. PROF. RIA VALERIE D. CABANES — 27 September 2023
Member & Program Chair — (Date)

DR. JOANE V. SERRANO
Dean
Faculty of Management and Development Studies

09 October 2023
Date

Biographical Sketch

The researcher completed her kindergarten to high school education in Ateneo de Iloilo- Santa Maria Catholic School and is a graduate of Bachelor of Science in Nursing at St. Paul University Iloilo in 2007, where she received an academic award in her first year. She is currently pursuing her Master of Arts at Nursing at the University of the Philippines Open University.

She is a registered and licensed nurse in the Philippines since 2007 and in the United States of America since 2018. Also, she is a registered and licensed nurse technician in the Kingdom of Saudi Arabia from 2012 until she upgraded to nurse specialist in 2021.

She was a staff nurse in Surgical Intensive Care Unit rotating in Pain Management Center (for outpatient chemotherapy patients) at St. Paul's Hospital Iloilo from 2008 until she got employed in a Specialized Hospital in the Kingdom of Saudi Arabia in 2012. She is working in Adult Cardiac Surgery Unit, initially as a staff nurse then got promoted to charge nurse after six years in bedside nursing. However, she continues to be a telemetry nurse, preceptor of a new shift in charge or telemetry nurse; Infection Control Link Nurse (ICLN) and Fire Warden in the ward; 4343 Bleep Holder/Nurse Supervisor in the center (in rotation) and works as a staff nurse as needed in the unit. She manages the unit in the absence of the Head Nurse; participates actively in ward Quality Improvement (QI) projects and is a member of the hospital Nursing Research and Evidence-Based Practice Council.

Her interests include collecting postal stamps, listening to music, watching documentaries and series, and reading books.

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To all nursing administrators, managers, and staff nurses in paving the way for a healthier and safer practice environment and better work engagement;

To all patients, the very purpose of nursing care, that they may benefit to their full recovery from the continued efforts of improvement in practice environment and work engagement.

TO GOD BE ALL THE GLORY.

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Abstract

Creating a practice environment that completely engages nurses in their practice is a major concern in the nursing profession (Sayed et al., 2019). Improving practice environment has become a worldwide issue since there is still nursing shortage around the globe (Almuhsen et al., 2017).

Thie purpose of this study is to determine the relationship of Practice Environment and Work Engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia.

This study utilized a quantitative, non-experimental, descriptive correlational research design. Practice Environment Scale of the Nursing Work Index (PES NWI) (Lake, 2002) and Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2004) were used in this study to measure practice environment and work engagement of staff nurses in a Specialized Hospital in the Kingdom of Saudi Arabia.

This study showed that staff nurses have high perception on their practice environment (3.93 ±SD .507) and average level of work engagement (4.2 ± .910). In addition, it proved a positive significant correlation between Practice Environment and Work Engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia. Furthermore, there is a positive significant correlation between Work Engagement and Demographic Characteristics in terms of age, educational attainment, and years in current unit.

Nurse administrators, managers and leaders hold a vital role in practice environment and work engagement in reviewing practices, policies, and procedures.

Keywords: work environment, work conditions, practice environment, work engagement, work environment and work engagement, practice environment and work engagement.

Chapter I

THE RESEARCH PROBLEM

Background of the Study

Creating a practice environment that completely engages nurses in their practice is a major concern in the nursing profession (Sayed et al., 2019). Improving practice environment has become a worldwide issue since there is still nursing shortage around the globe (Almuhsen et al., 2017). According to the review by Copanitsanou, Fotos & Brokalaki (2017), a positive work environment decreased burnout, intention to leave and increased satisfaction. The need to investigate the strategies used to retain skilled personnel through job engagement is supported by the ongoing demands to lower costs and enhance healthcare quality. In the Kingdom of Saudi Arabia (KSA), this is particularly important as majority of healthcare workers like nurses are foreign nationals whose recruitment is expensive (Aboshaiqah et al., 2016).

Practice environment refers to the attributes of the organization in an employment location which supports or impedes nursing professional practice (Lake, 2002). The six essential requirements for healthy workplace environments (HWE) which includes effective decision-making, true collaboration, authentic leadership, skilled communication, appropriate staffing, and meaningful recognition (Ulrich, Barden, Cassidy, & Varn-Davis, 2019). Work engagement refers to a positive and satisfying mental state connected to work identified through absorption, dedication, and vigor (Bakker & Albrecht, 2018). Other workers and job-related elements such work history, peer relationships and support, effective leadership, and communication can all influence employee engagement (Aboshaiqah, et al. 2016).

Almuhsen et al. (2017) study revealed a moderate high perception on nurses' work environment in Saudi. Aboshaiqah et al. (2016) research revealed high level of nurses' work engagement in Saudi. Both studies showed that the perception on practice environment with work engagement level of nurses differ with demographic characteristics.

The study of Park & Lee (2018) revealed a significant positive relationship among nurses' work environment with work engagement in Korea. Rohail and colleagues (2017) study showed a significant positive correlation for both work environment and engagement with organizational commitment of nurses in Pakistan, as with the study of Hanaysha (2016) in university employees in Malaysia.

Ulrich et al. (2019) study revealed that nurse and patient outcomes are correlated with work environment as with Copanitsanou, Fotos & Brokalaki (2017) review showed that patients are more satisfied with nursing care in areas with positive work environment. An HR Solutions case study of healthcare employees determined that 85% of employees that were engaged showed a genuine caring attitude to patients ("Employee Engagement Drives Quality Patient Care," 2021).

The researcher works as a charge nurse in a Joint Commission International (JCI) accredited Specialized Hospital in Riyadh, KSA. The hospital has ongoing applications for Saudi Central Board for Accreditation of Healthcare Institutes (CBAHI) and Magnet Recognition when Covid 19 pandemic occurred. Staff nurses in this hospital are encouraged to active participation in achieving excellence in the healthcare profession and practice while coping with the ever-changing healthcare delivery system and demands, reorganization of nursing administration and management, and shortage of staff nurses. The nurses depend on support from nursing leadership and management.

Studies on staff nurses' work engagement and practice environment in KSA are

limited and separate. This research can be the basis of future studies to comprehend correlation concerning practice environment with work engagement among staff nurses in a Specialized Hospital and in KSA. This research will also add knowledge to perception of nurses on practice environment, work engagement level of nurses, as well as what demographic characteristics influence work engagement of staff nurses.

This research aims to identify the correlation of Practice Environment with Work Engagement among Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia.

Statement of the Problem

This research aims to identify the correlation of Practice Environment with Work Engagement among Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia.

Objectives of the Study

The main objective of this study is to identify the correlation of Practice Environment and Work Engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia.

Specifically, it aims to answer the following questions:

1. What is the perception of staff nurses on practice environment in terms of:
    - 1.1 nurse participation in hospital affairs;
    - 1.2 nursing foundations in quality of care;
    - 1.3 nurse manager ability, leadership, and support of nurses;
    - 1.4 staffing and resource adequacy;
    - 1.5 collegial nurse-physician relations?

2. What is the level of work engagement of staff nurses in terms of:
    2.1 vigor;
    2.2 dedication;
    2.3 absorption?
3. What is the relationship between Practice Environment and Work Engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia?
4. What is the relationship between Work Engagement and demographic characteristics of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia in terms of:
    4.1 age;
    4.2 sex;
    4.3 marital status;
    4.4 educational attainment;
    4.5 nationality;
    4.6 position;
    4.7 area of assignment;
    4.8 years in the current unit?

Significance of the Study

This research can be the basis of future studies to comprehend the correlation concerning practice environment with work engagement among staff nurses in a Specialized Hospital and in KSA Results of this research will be significant to the following:

Nurse Administrators

This study can facilitate general understanding of practice environment and work engagement of staff nurses. It may support the need to review practices, policies, and procedures.

Nurse Managers

Nurse Managers, who are the middle persons between staff nurses and administrators, can identify challenges in practice environment and weaknesses in work engagement of staff nurses and collaboratively may review action plan to maintain/improve the practice environment and work engagement and may communicate it to nursing administrators and hospital and program directors.

Staff Nurses

This study will encourage active participation and promote awareness in maintaining and improving practice environment and work engagement of staff nurses. It may determine opportunities for staff nurses to control nursing practice through nursing councils, unit committees, or champion roles. It may encourage involvement in reviewing, revising, or creating practices, policies, and procedures to enhance patient care.

Patients

This study may support reviewing practices to foster excellent patient experience and satisfaction. Studies revealed staff nurses' practice environment and work engagement are associated with patients' experience and satisfaction**.**

Nursing Practice, Research and Education

This study will provide evidence on staff nurses' practice environment and work engagement. It may support the need to review appropriate and creative interventions to maintain or improve the practice environment with work engagement.

Scope of and Limitation of the Study

The population of this study involved staff nurses in a Specialized Hospital in KSA . The sample of this study consisted of staff nurses I and II working in inpatient departments for only more than three months. Nurses in administrative and management positions, nurse assistants, and cross-trainees from Ambulatory Care Services (Outpatient Department/OPD and Cardiac Investigation Unit/CIU) were not included in this research.

This research is a quantitative, non-experimental, and descriptive correlational research design. It aims to identify the correlation of Practice Environment and Work Engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia. This study does not intend to modify the practice environment or introduce work engagement strategies. This study was conducted during post Covid-19 pandemic. This study commenced from October until December 2022.

Chapter II

THEORETICAL BACKGROUND

Review of Related Literature

This chapter includes related literature review about practice environment; work engagement; the correlation of practice environment with work engagement; and the correlation of work engagement with demographic characteristics.

Google Scholar, Google Search, PubMed, ResearchGate, ScienceDirect, and Science Direct databases were used for literature searches. The keywords used were *work environment, work conditions, practice environment, work engagement, work environment and work engagement, practice environment and work engagement*.

It also includes instruments that measure practice environment and work engagement, synthesis, theoretical framework, conceptual framework, operational definition, and statement of the hypotheses.

Practice Environment

Practice environment assists nurses to perform at the highest standard of clinical practice to function effectively within an interdisciplinary team of healthcare workers and fast mobilization of resources (Lake, 2007). The World Health Organization defines healthy workplace as one in which workers and managers work together to utilize continuous improvement procedure that protects and promotes the health, safety, and welfare of employees as well as the sustainability of the workplace through recognized needs in physical and psychosocial work environment (work organization and workplace culture); workplace personal health resources; and community participation (Burton, 2021). The American Nurses Association (ANA) had made the

Nurses Bill of Rights which includes the seven (7) fundamental principles about workplace expectations and environments to let nurses function to the best of their ability (ANA Enterprise, n.d.). The American Association of Critical Care Nurses (AACN) has outlined six (6) essential standards for healthy workplace environments (HWE). It includes effective decision-making, true collaboration, authentic leadership, skilled communication, appropriate staffing, and meaningful recognition (Ulrich et al., 2019).

Practices involving healthy work environment are done to increase nurses' health and wellbeing, quality of patient care and social outcomes, and institutional performance to the highest level (Er & Sökmen, 2018). Healthy nurse work environment is empowering, safe, and satisfying leadership (Wei, Sewell, Woody, & Rose, 2018).Creating and keeping a healthy work atmosphere is important for nurses' satisfaction and retention, patient safety, and care quality—all are vital to the financial stability of healthcare organizations. Magnet Designation identifies hospitals that have positive outcomes for both nurses and patients as well as healthy work environment. An ideal work environment appreciates abilities and contributions of employees, promotes effective two-way communication and support between employees and organizations, and empowers active decision-making, teamwork, involvement, and peer cohesion leadership (Wei, Sewell, Woody, & Rose, 2018).

Almuhsen et al. (2017) study on the practice environment of nurses in Saudi revealed a moderately high perception of the work environment. The study recommended nurse administrators to guide and teach nurse managers in allowing nurses to make a healthy work environment. This research helps create a safer patient care environment and a healthier nurse practice environment.

The Practice Environment Scale of the Nursing Work Index (PES NWI) tool

evaluates practice environment and have five dimensions such as nurse participation in hospital affairs; nursing foundations in quality of care; nurse manager ability, leadership, and support of nurses; staffing and resource adequacy; and collegial nurse-physician relations (Lake, 2002).

Nurse Participation in Hospital Affairs

Nurse participation in hospital affairs refers to the opportunity for staff nurses to contribute to hospital and nursing committees as well as hospital policy decisions (Zahran et al., 2018).

To be able to build capacity for career development, collaborative efforts are required in the whole nursing structure so that it will be established within the professional development, ensure its sustainability, and allow nurses to be and do their best. Career development through basic or continuing education programs is one way of supporting nurses to impact their environment and make changes. Peachey (2002) showed the perception of nurses on leadership empowering behavior was significantly connected to workplace empowerment structures like access to formal and informal power, resources, opportunities, and support (Donner & Wheeler, 2001).

Sodeify et al (2013) explained that perception on support from managers affects the performance of employees. Studies emphasize encouraging creativity, innovation, continuous learning opportunities at work, and transformational leadership to enhance performance of employees.

Almuhsen et al. (2017) study showed that nurses had moderate perception. It is recommended in magnet hospital research to have a senior management nurse leader in organizational to allow nursing sufficient capability to impact policy decisions or actions regarding concerns relating to nurses. A chief nurse who supports a solid and

influential nursing presence in the company is one who allows clinical practice autonomy and control over nursing practice, open and communicative, supports participative management. Many nurses succeed in workplace wherein empowerment structures increase autonomy, control, power, and opportunity for nurses. Work environments in nursing that allow employees more involvement in making decisions and control over their working conditions were correlated to increased performance and satisfaction of employees.

Furthermore, there is an association on high control over nursing practice and positive outcomes such as lower nurse burnout, decreased patient mortality rates and lesser staff turnover rates. Both job satisfaction and nurse retention are improved in organizations that increase autonomy. According to Kieft and colleagues (2014), to enhance patients' experience, nurses must have autonomy over their practice (Almuhsen et al., 2017).

El-Jardali and his research team (2011) conveyed that nurses who participate less in decision-making at work experience professional burnout. Applying a sharing-based management system in the work environment gives authority to nurses and improves institutional affairs participation (Er & Sökmen, 2018).

An ideal work environment appreciates abilities and contributions of employees, promotes effective two-way communication and support between employees and organizations, and empowers active decision-making, involvement, teamwork, and peer cohesion (Wei et al, 2018).

Although the mean of the Alrefaei et al. (2022) study was lower than relevant studies, nurses generally agreed when it came to nurse participation in hospital affairs. It might be due to attempts of MOH to apply decentralized management approaches in KSA. Most healthcare decisions are still made by top management; thus, unit nurse

leaders have limited authority leading to restrictions on their ability to impact nursing practice environment quality.

Nursing Foundations in Quality of Care

Nursing foundations in quality of care shows hospitals offering preceptorship programs, active in-service, and continuous education programs for nurses to develop (Zahran et al., 2018).

To gain and maintain current knowledge and skills for patient care, health professionals should continuously learn about research and treatment advancements in both in their fields and related fields to be very effective (IOM, 2010).

Almuhsen et al. (2017) study showed nurses had high perception. Nurses in America reported that perception of care quality was correlated with the accessibility on educational opportunities. In nursing settings, nurse and patient outcomes are developed in institutions which support professional development of nurses and uphold high nursing standards within a nursing model of care. According to Kelly and colleagues (2013), nurses scored foundations for quality of care the greatest than other dimensions (Almuhsen et al., 2017).

The risk of exposure to incidents rises since there is no time for training or access to educational programs. To stay up to date with medical technology advancement, nurses must acquire higher skill levels, which increases their risk of mental stress than other healthcare workers (Manyisa & Van Aswegen, 2017). In addition, staff nurses' experience and competencies level proved to help in managing amount of work (van Bogaert et al, 2017).

When work environment has conditions that support nurses, quality services can be delivered. There is a direct relation between safe patient care and work environment

quality of nurses. In positive work environments, it is possible to provide effective healthcare services if individuals are both physically and mentally healthy. In hospitals with quality initiatives, positive outcomes for employees in terms of quality of staff and professional development through training may be produced. It is possible to question patient care through quality initiatives. Low involvement in making decisions in work results in professional burnout of nurses (Er and Sökmen, 2018).

During handover, outgoing shift nurses share and discuss patient information with the incoming shift nurse and issues in the patient's' care will be emphasized and clarified. This process will guide nurses in planning routines and prioritizing the needs of patients within the shift to ensure continuity of care. An effective handover is critical in making sure that the incoming nurse receives all important patient information to facilitate continuity of patient care and safety (Wong et al., 2019).

Preceptors can assist new nurses cope in practice area and share expertise needed in work. Through this, there is a decrease in new nurses' stress level when interacting with their mentors regularly. In addition, an earlier study discovered that preceptorship can critically influence communication of preceptees with patients or other healthcare professionals (Hong & Yoon, 2021).

Earlier research demonstrated challenges that nurses perceive in application of standardized language in nursing and the enunciation of nursing diagnoses as they believe this is not adequate to reflect clinical practice or the health status of patients. It was reported standard nursing diagnoses are not easy to use in all situations and may be not relevant (Cachón-Pérez et al., 2021).

Nurse Manager Ability, Leadership, and Support of Nurses

Nurse manager ability, leadership, and support of nurses refers to whether the

supervisory staff supports the practice of nurses (Zahran, Gad, & Al- Sayed, 2018).

Almuhsen and colleagues (2017) research showed nurses had moderate perception. Nursing leadership is demonstrated in magnet hospitals through the establishment of basic organizational support. General nursing research has established that strong nursing leadership in practice setting is a key predictor of improved results for patients and nurses as it allows autonomy, empowerment and best practice over clear management structures and nursing picture. Empowering nurses in the practice setting is correlated with demonstrating effective nursing leadership which is linked to increased job satisfaction as well. It was less likely for registered nurses to quit who expressed better support from their managers.

Hospitals can also enhance patient safety through Good Catch Program. Acknowledging and rewarding employees can promote good catch submissions and provide more chances for patient safety improvement. The Pennsylvania Patient Safety Authority found that hospitals can more successfully analyze reported data and apply risk reduction strategies through good catch programs (Wallace et al., 2017).

Staff nurses saw the difficulty and some barriers in communicating with the management level in nursing department. Nurse Managers know very well that supporting staff nurses in their daily routines facilitates teamwork as well as creating a good team. In addition, authentic leadership behavior of nurse managers such as supporting balanced processes, self-awareness and transparency and moral ethical behavior is important in building positive work conditions (van Bogaert et al., 2017).

Mutual interdependency exists on healthy work environment and nurse leadership. Nurse leaders play an important part in making a healthy work environment, nurse job performance, and patient quality care. Healthy work environment facilitates nurse leaders' leadership capabilities. Nurse leadership is a

critical element of a healthy work environment and a substantial determinant of quality of patient care and nurses' retention. Perceptions of nurses in the workplace were significantly and positively correlated with nurse managers' leadership abilities. Support of supervisors plays a significant role in the decision to remain or exit by nurses. Nurse leadership has significance in contributing to nurse and patient satisfaction. Improved patient satisfaction was significantly and positively correlated with nurses' perceptions on the manager's leadership ability. Both contented nurses and satisfied patients are the result of supportive leadership (Wei et al, 2018).

The nurse leaders competency in dealing with workplace incivility and conflicts could affect perceptions of nurses of its occurrence and severity either favorably or not. It was reported that there is decreased workplace incivility through better support of nurses in the work environment. The most common reason that could change nurses' minds who planned to leave their positions was good leadership. Relationships between nurses and managers as well as job satisfaction and retention showed a significant positive association. Effective nursing leadership is the precursor for journey of nursing excellence and positive work environment (Wei, Sewell, Woody, & Rose, 2018).

Recognition also has a positive association with work satisfaction, intent not to leave current position, and quality of care. The total effectiveness of frontline nurse managers was linked to the environment's health, job satisfaction, and intent to leave (Ulrich et al., 2019).

Healthcare workers' consistent voluntary error reporting (VER) is critical to a solid error-management system of the organization. Nurses value constructive feedback in improving patient safety since this will let them learn from their previous mistakes and improve in the future. Authors argued that after reporting errors, nurse

leaders should communicate openly to involved nurses the results of investigation through constructive feedback to facilitate learning from mistakes (Woo & Avery, 2021).

Staffing and Resource Adequacy

Resource adequacy and staffing refers to hospitals having sufficient nursing staff and resources to provide quality care for patients (Zahran et al., 2018).

Failure to deal with local, regional, and worldwide nursing shortage will lead to breakdown in maintaining or enhancing health care. The search for resolutions to scarcity must concentrate on the motivation and incentives to recruit and retain nurses. The OECD has emphasized that an essential policy concern is nursing shortages. Numerous investigations have demonstrated a connection involving increased nurse staffing ratios and decreased patient mortality, lesser medical complications, other favorable outcomes (Buchan & Aiken, 2008).

Almuhsen and colleagues (2017) study revealed nurses had a moderate perception. Among the five dimensions, the Staffing and Resource Adequacy dimension frequently has the lowest score in all situations (Warshawsky & Havens, 2011). Increasing nursing staff can improve patient outcomes and shorter length of stay. There is more dissatisfaction among nurses when there is inadequate staffing overall. It is stressful and overwhelming for staff nurses when there is a lack of staff and low teamwork as it leads to added workload. In Finnish and Dutch hospitals, a significantly association exists between negative patient outcomes and staffing of nurses. The quality of patient care and safety is being jeopardized by nursing staff shortages; thus, organizations need to address issues related to nurses and patient outcomes (Almuhsen et al., 2017).

Lack of heath care workers is a problem in both in less developed and more developed countries. It is pronounced in more developed nations due to fast high-tech health care, medical service expansion and rising aging population. The lack of African competent health personnel has also negatively impacted the quality of care provided in health institutions. In South Africa, the inadequate number of nurses may be due to the following reasons: lack of visible nursing leadership, heavy workload, limited career progression opportunities, insufficient salaries, poorly resourced workplaces, poor working conditions, inadequate workplace safety, poor communication, and low morale. Retirement of baby boomers has aggravated shortages (Manyisa & Van Aswegen, 2017).

Retirement of baby boomers intensified shortage. In South Africa, staff shortage happened due to the inadequate capacity of nursing training institutions, growth of private sector groups, and the continuous growth of health needs of the country. In addition, there is a lack of nurses in numerous countries because young people find the nursing profession unappealing and believe it offers less opportunities than other professions. The departure of healthcare personnel to prosperous countries is also an aspect that significantly decreased the nurse-patient ratio. Nurses in public hospitals emphasized that heavy workload, insufficient time in provision of quality patient care, and poor staffing were predictors and stressors to quit their jobs. It was stated that in most facilities, equipment was outdated and in poor operating order, and that replacing and maintaining such equipment was difficult. Lack of facilities and equipment negatively impacts the delivery of service and patient care quality. Resources are vital in enhancing work conditions and achieving organizational goals (Manyisa & Van Aswegen, 2017).

Rivaz (2017) study stated that having enough staff and resources significantly

impacts job satisfaction and how well nurses perceive the quality of practice environment. It was reported that nurses have better and positive experiences of quality care if there are a sufficient staff.

According to Van Bogaert et al. (2017), daily practice of staff nurses determined their workload. Nurses observed an increased turnover of patients, chronic conditions, and acuity leading to greater and more complicated care demands. In addition, nurses were not used to these difficult conditions. With the existing nurse staffing levels in the area, it was not possible to deal with day-to-day care delivery and not enough to incorporate changes. The participants in the study observed the importance of working situations in everyday routine to balance workload. Also, disruptions to delivery of care included phone calls, inadequate supplies and equipment, or patients admitted to the unit requiring care outside the unit specialization.

Er and Sökme (2018) study showed inadequate clinic nurse staffing. Nurse staffing is a primary global concern as it affects care quality and patient safety. The understaffing of nurses due to reduction in the nursing workforce adversely affects the quality, efficiency and timely realization or provision of appropriate patient care. The improvement in patients, nurses, and organizational outcomes is due to adequate nurse staffing.

Stress levels of nurses and workload were directly related. The nurse staffing as well as nurse work environments quality had a negative association with nurses' burnout. According to McHugh and colleagues (2016), significant correlation exists among nurse-patient ratio, work environment and patient care quality. A healthy work environment and an appropriate patient-nurse ratio are complementary in improving patient care outcomes. Aiken and colleagues (2011) reported that there should be improvement in patient to nurse ratio as to improve patient care outcomes substantially

in hospitals with healthy work environments (Wei, Sewell, Woody, & Rose, 2018).

According to Emmanuel et al. (2020), nurses who worked their planned hours report that they had adequate time and opportunities to communicate with other staff patient care concerns. Furthermore, a significant correlation was found between working overtime and having less chances to take part in continuing education programs, communicate patient care information with other nurses, observe fewer patient care assignments that promote continuity of care, and witness patient care information being lost during shift changes.

Collegial Nurse-Physician Relations

Collegial nurse-physician relations refer to high-quality work relationships among nurses and doctors (Zahran et al., 2018).

Almuhsen and colleagues (2017) study showed that nurses had a high perception. Nurse–doctor relationship is interdependent. Research done in America discovered a strong association involving nurses' job satisfaction, stress levels, and collegial relationships among general nurses. A survey conducted in New Zealand among general nurses found that advanced levels of communal functioning, mental health, and vitality are positively correlated with nurse-doctor relationships. In Australia's mental health, nurse-doctor interaction has been related the effect of nurses to decisions on patient treatment.

Nursing and medical disciplines are expected to work closely to one another through practice and interaction to accomplish a shared goal which is the well-being and health and of patient care. Therefore, the most important relationship in a healthcare team is between nurses and doctors. Excellent work relationships among doctors and nurses are vital in making satisfying and safe practice environment in provision of nursing care quality. The results of the investigation discovered that nurse

and physician relationship was distinguished by cooperation (El-Hanafy, 2018).

Workplace interpersonal relationships exist among colleagues and collaborators in a workplace. Nurses' intent to leave by giving up clinical nursing and the profession was enhanced due to negative workplace relationships. In addition, work setting relationships are important in establishment as well as maintenance of healthy work environment. Furthermore, there is a widely reported incidence of workplace incivility in nursing. An estimate of 20% productivity loss resulted from this, translating into an annual cost of $11,581 per nurse. Workplace incivility has a major effect on nurses' performance, retention, and job satisfaction (Wei, Sewell, Woody, & Rose, 2018).

The communication and collaboration were scored highest between RNs next is RNs and physicians, RNs and frontline nurse managers, and RNs and administration respectively. In addition, communication and collaboration and job satisfaction, care quality, overall effectiveness of frontline nurse managers, and intent not to leave in their current position were all positively related (Ulrich, Barden, Cassidy, & Varn-Davis, 2019).

Work Engagement

Work engagement is described as a positive behavior or mindset resulting to positive job-related outcomes in which workers with high work engagement are energetic and dedicated and immersed in their job (Roozeboom and Schelvis, 2017). It is defined as in search for, to experience, and to hold on to the meaningful job that allows one to live own values (Sayed, Ahmed, Bakr & Sherief, 2019).

Given the scarcity of nurses and the ongoing decline in healthcare costs, work engagement is crucial for nurses. It was reported that work engagement of nurses is lower than other healthcare workers. In KSA, majority of healthcare staff like nurses

are foreign nationals whose recruitment is expensive; thus, a means of retaining them is to improve work engagement. Other workers and job-related elements such work history, peer relationships and support, effective leadership, and communication can also influence worker's work engagement level (Aboshaiqah, Hamadi, Salem, & Zakari, 2016). Hanaysha (2016) study revealed that high employee engagement in work leads to high commitment to organization which may be due to high courage for achievement and passion.

Nurse engagement concept refers to commitment and satisfaction of nurses with their work. Certain strategies, like transformative and authentic leadership, can have a direct or indirect impact on employee engagement at work. Social identification with the work unit, satisfaction with interaction, relational coordination, and collaboration with physicians predict work engagement. Also, relationships with nurse peers, patients, and families, and support from peers, family, and management influenced work engagement (Sayed, Ahmed, Bakr & Sherief, 2019).

Aboshaiqah et al. (2016) study showed high work engagement level among nurses working in Riyadh, Jeddah, and Dammam, KSA with dedication having the highest mean score while vigor and absorption had nearly equal mean scores. The investigation highlights the significance of understanding the practice environment, demographic characteristics, and work engagement. Nurse Managers are assigned the challenging tasks of maintaining and enhancing job engagement among nurses of different generations and hospital affiliations.

The Utrecht Work Engagement Scale (UWES) tool evaluates work engagement and has three dimensions such as vigor, dedication, and absorption (Schaufeli & Bakker, 2004).

Vigor

Vigor refers to high energy level and mental resistance in the workplace (Hontake & Ariyoshi, 2016). It is the willingness to put effort in work and persevere even in difficulties (Keyko, Cummings, Yonge, & Wong, 2016).

Aboshaiqah et. (2016) study showed a high work engagement level of nurses with vigor and absorption having nearly equal scores. According to Laschinger et al. (2009), nurses experience more vigor as they interact with their patients, report feeling more absorbed in their profession, and are proud of the treatment they deliver - when they have the resources they need to practice professionally.

Van Bogaert and colleagues (2017) revealed a 20% vigor and 23% job outcomes through personal accomplishment and depersonalization. Good interdisciplinary collaboration and communication that allows nursing practice, as well as supportive collaboration between colleagues, such as good teamwork and opportunities to speak up and express opinions, were protective factors to balance workload, deal with stressful work environments, be engaged for patients' total patient care (vigor and dedication) and to stay in the nursing profession.

Dedication

Dedication refers to being intensely preoccupied in own work while feeling enthusiastic, significant, inspired, proud, and challenged. Dedicated individuals perceive their job as significant and hardships as challenges rather than obstacles (Aboshaiqah et al., 2016).

Aboshaiqah et al. (2016) study showed nurses having high work engagement level with dedication having the highest score. Dedication is seen as highly significant

work engagement dimension due to its positive impact on employees and work. The study revealed that the overall mean scores and dedication of nurses in military hospitals were high. According to Van Bogaert et al. (2013), dedication was a predictor of successful work results. According to reports from interdisciplinary teams, dedication, absorption, nurse-physician relationships, and nurse management all predicted care quality (Aboshaiqah et al., 2016).

The research of Van Bogaert et al. (2017) revealed decision latitude has a stimulating impact on personal achievement and dedication. Nurses have access to relevant data, chances for learning and personal development, and supportive relationships with peers, supervisors, and interdisciplinary teams to achieve their goals through an empowered work environment.

Absorption

Absorption refers to being entirely concentrated and happily absorbed in work (Keyko et al., 2016) and having difficulties separating from it (Hontake & Ariyoshi, 2016). It exhibits total interest and immersion in job losing sense of time (Aboshaiqah et al., 2016).

Aboshaiqah et al. (2016) study showed a high work engagement level of nurses with vigor and absorption having nearly equal scores. According to reports from interdisciplinary teams, dedication, absorption, nurse-physician relationships, and nurse management all predicted quality of care. Combination of many different professionals within an intricate administrative structure makes a hospital environment complicated. It is intensified in KSA hospitals because they rely heavily on a nursing staff that is primarily made up of foreign nationals (Zakari et al., 2010). Indeed, high scores of dedication elements of work engagement are essential (Aboshaiqah et al.,

2016). Van Bogaert and colleagues. (2017) discovered that personal accomplishment and absorption had a less relevant direct impact on the quality of care.

Relationship between Practice Environment and Work Engagement

Hanaysha (2016) showed both work environment and engagement significantly positively affected the organizational commitment of university employees in Malaysia. The study revealed that high employee engagement in work leads to high commitment to organization which may be due to high courage for achievement and passion. In addition, co-worker and management relationships should be based on mutual respect and knowledge sharing. It is necessary to prioritize organizational learning and culture of continuous learning through training programs, knowledge sharing, and teamwork behavior to help the company to deal with organizational commitment concerns and improve competitiveness.

The study of Park & Lee (2018) revealed a significant positive association between nurses' work environment and work engagement in Korea through Pearson Correlation. Its study emphasized the significance of the role of chief nurses in enhancing the work conditions to improve work engagement that allows communication between nurses and creates a supportive environment in the ward. It suggested that nursing administrators monitor nurses' practice environment and implement strategies to enhance it, as work engagement is related to job satisfaction and intent to stay in the hospital and in nursing. Nurse managers are optimally positioned as leaders in hospital environments to enhance nurses' engagement (Sayed et al., 2019).

Rohail et al. (2017) investigation revealed a significant positive correlation for both work environment and engagement with organizational commitment of nurses in

Pakistan through Pearson Correlation. Its study concluded that nurses would feel confident, relaxed, work wholeheartedly and be more committed to the organization through a good working environment. Therefore, there will be an increase in employee engagement and positive acceptance of all organizational challenges to achieve organizational goals. It recommended that the organization provide a good practice environment to nurses to increase organizational commitment and provide good care to patients. Ways to enhance the organizational commitment of nurses have been enumerated in the study as well.

Nurses' perception in professional practice environment influences job satisfaction. It is well-documented that nurse satisfaction significantly impacts both nurses and patients. Furthermore, Zeleníková et al. (2020) study discovered that a high level of nurse satisfaction was associated to internal work motivation.

In a highly competitive and demanding healthcare industry marked by rising workloads and constrained resources, creating a work atmosphere which fosters positive attitudes and behaviors is essential. The need to have flexible and engaged healthcare professionals was highlighted throughout the Covid 19 pandemic. According to Wang and Liu's research, nurses are more engaged when they work in a supportive workplace with enough resources (Szilvassy & Širok, 2022).

Relationship between Work Engagement and Demographic Characteristics

Most common demographic attributes were age, education level, and years of nursing experience. More highly educated nurses have higher jobs and organizational satisfaction. Additionally, age, years of experience, and work engagement are positively correlated. The study found that several personal characteristics of nurses had independent influences on their work engagement (Aboshaiqah et al., 2016).

Aboshaiqah et al. (2016) study showed that female nurses had high mean scores on all dimensions and total engagement but most significant for dedication; married nurses had high mean scores on all dimensions (equal scores on absorption and dedication); divorced or widowed had the lowest mean scores for dedication. Furthermore, years of experience were significantly and positively correlated with dedication scores; age and qualification were positively correlated with dedication. In multivariate analysis, higher qualifications were statistically significant and positive predictors of absorption and vigor. Older age was a negative predictor.

Hontake & Ariyoshi's (2016) study showed no relationship between the level of education, work engagement, or job rank and work engagement. Hosseinpour-Dalenjan et al (2017) study showed that ICUs had the highest work engagement while lowest in NICUs. Park & Lee's (2018) study showed that the married groups had significantly higher work engagement than the single groups.

Instruments that Measure for Practice Environment and Work Engagement

The Practice Environment Scale of the Nursing Work Index (PES NWI) was utilized in the study of Almuhsen et al. (2017) regarding perception of nurses' work environment in KSA. Wei et al. (2018) review found that one out of three leading tools used to evaluate nurses' work environments was the Practice Environment of the Nursing Work Index Revised, as Norman & Sjetne's (2017) review found that Nursing Work Index (NWI) was the most frequently used questionnaire in measuring nurses'.practice environment.

Utrecht Work Engagement Scale (UWES) was used in the study of Aboshaiqah Hamadi, Salem, & Zakari (2016) regarding nurses' work engagement in KSA as with the study of van Bogaert, Peremans, Heusden, et al. (2017) regarding burnout and

work engagement and nurse reported job outcomes and quality of care of nurses in Belgium and the study of Hontake & Ariyoshi (2016) regarding work engagement, job demands, job resources, and nursing competence of nurses in Japan. Keyko et al. (2016) review on work engagement found that Utrecht Work Engagement Scale (UWES) was utilized to evaluate nurses' work engagement.

Both PES-NWI and UWES were utilized in the research of Zahran et al (2018) about the practice environment and work engagement of nurses in Egypt while Park & Lee (2018) used UWES on the study about the work environment and work engagement of nurses in Korea as with Hosseinpour-Dalenjan et al. (2017) on a study about workplace incivility and nurses' work engagement in Iran.

This study utilized the Practice Environment Scale of the Nursing Work Index or PES-NWI by Linda H. Aiken (2002) and the Utrecht Work Engagement Scale or UWES by Wilmar B. Schaufeli and Arnold Bakker (2004).

Practice Environment Scale Nursing Work Index (PES-NWI)

The 1986 NWI (Nursing Work Index) information at a sample of the initial magnet hospitals from staff nurses were factor-analyzed to create the Practice Environment Scale of the Nursing Work Index (PES NWI). The psychometric properties of the PES-NWI were created at individual and hospital levels. The specifications for the use of the NQF measures, involving the PES-NWI, were developed by Joint Commission on Accreditation of Healthcare Organizations.

In 2006, the National Database of Nursing Quality Indicators (NDNQI) included the PES-NWI as part of the yearly nurse survey. It is one of the subscales utilized to characterize and contrast practice settings in various nonmagnet and magnet hospitals. It was utilized to evaluate how practice environment affects nurse and patient

outcomes. It provided extensive evidence that practice environment differences relate to satisfaction, intent to leave, nurse burnout, turnover, needle stick wounds, and disabilities that job related. A study discovered a relationship between patient satisfaction and practice environment differences, but not patient death, while another research shown that hospital practice environments were related to level of nurse staffing but not to community or hospital bed sizes.

PES-NWI is one of the main tools based on the critical criterion of theoretical relevance. It contains theory-based domains (four) and staffing or workload domains. The content of tools designed for nursing practice has a greater face validity and relevance than that of generic content of tools made in behavioral or management research to utilize in various work.

The only tool that includes magnet hospital reference scores available for both original and ANCC magnet hospitals is PES-NWI, which also has a more recent body of evidence. It is the most useful tool that researchers and managers can use to describe or compare settings, guide, or evaluate interventions, or predict outcomes. It is easy to use, theoretically comprehensive, valid, and reliable, and has reference scores for both exemplary and typical environments (Lake, 2007).

PES-NWI is a 31-item scale reversed by Lake (2002) based on NWI which is created to evaluate job satisfaction and perception on productivity of nurses (Liou & Grobe, 2008). Zahran et al. (2018) study used PES-NWI as a 5-point Likert Scale ranging from strongly disagree (1) to strongly agree (5) to measure the perception of nurses in a nursing practice environment as with Hameed & Hussain (2019) study used PES-NWI to evaluate the perception of nurses on the practical environment.

Utrecht Work Engagement Scale (UWES)

Confirmatory factor analyses confirmed UWES' superiority to the one-factor model as well as its good fit to the data from other samples in Netherlands, Spain, and Portugal. The confirmatory factor analyses of UWES showed nearly connected three-dimensional structure. The correlations among the three dimensions frequently surpass 0.65. The analyses in detail showed that the loadings of the maximum three items varied significantly among three countries samples. The internal consistency of the three dimensions of UWES is good; all case values of Cronbach's α equal or surpass the critical value of 0.70. Its scores are relatively stable across time. Two, year stability coefficients for vigor, dedication, and absorption are 0.30, 0.36, and 0.46, respectively. As predicted, the UWES comprises of three highly correlated scales that psychometric findings validate factorial validity of the UWES. Additionally, this trend of associations is noted across samples from different countries that confirms the cross-national validity of the three-factor solution. Engagement is a construct that is composed of three closely connected factors assessed by three internally consistent scales (Schaufeli & Bakker, 2004).

Among a sample of Japanese workers in many occupations, higher UWES score was associated to improved health, job satisfaction and performance as well as turnover in American nurses sample. UWES is most used as a standard measurement tool in work engagement studies. Most current knowledge on work engagement is taken from studies based on UWES findings (Kulikowski, 2017).

Synthesis

Nurses' practice environment goes beyond the physical structure of the clinical unit or hospital setting. It includes personal and interpersonal factors that define the

relationship of nurses to the psychological aspects of work, leading to quality, safety, and patient care satisfaction.

Over the years, several studies have been undertaken on nurses' practice environment and work engagement in different parts of Asia and other countries. Significantly, among the studies that emphasize the significance of practice environment perception and work engagement level of nurses in KSA are by Almuhsen and colleagues (2017) and Aboshaiqah and colleagues (2016), while Zahran and colleagues (2018) research in Egypt is about nurses' practice environment and work engagement. Studies have shown that nurses' demographic characteristics influence their practice environment perception and work engagement level. These three (3) studies used Practice Environment Scale Nursing Work Index (PES-NWI) and Utrecht Work Engagement Scale (UWES) for measuring practice environment and work engagement, respectively, like previous studies and reviews about the variables.

The studies and reviews on practice environment and work engagement recommend improving the practice environment and maintaining or strengthening the level of work engagement which are drivers of nurse satisfaction, retention, organizational commitment, and, most importantly, providing quality and safe care. Nurse administrators, managers, and leaders are vital in the practice environment and work engagement in reviewing, revising, or creating practices, policies, and procedures.

Theoretical Framework

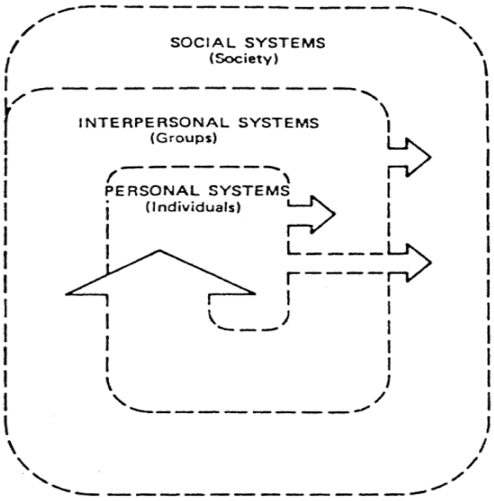
This study utilized Conceptual System and Goal Attainment Theory by Imogene King.

Concepts are abstractions of the environment of each person. It represents

knowledge in comprehending interaction and relationship of individuals and groups in any environment which is useful in nursing situations. An individual starts to name people and things in the environment from his or her concrete sensory experiences and perceptions. Human variables such as patients, their families, physicians, administrators, etc., found in nursing situations make nursing complex. Nurses play varying roles and are presumed to do several tasks in healthcare institutions.

Figure 1 shows the Conceptual System by Imogene King. It shows the interrelatedness among individuals, groups, and society.

Figure 1. Conceptual system.



Furthermore, concepts that provide knowledge regarding personal systems (individuals) include self, body image, perception, learning, growth and development, personal space, and time; interpersonal systems (groups) such as role, communication, interaction, transaction, interpersonal relations, and stress; and social systems (society) include organization, power, authority, status, and decision making. These concepts are three dynamic interconnected open systems that will act as center for organizing knowledge about people, communities, and society and are interconnected when observed in any concrete nursing situation. This conceptual

framework aims to assist individuals, groups, and society maintain health during interaction in their environment, in which every system is an element in the total environment (King, 1992).

Tohemer, Alkrisat & Alatrash's (2017) review of the theoretical application of views in hospital staff engagement showed that King assumes that individuals are open systems that interact constantly with their surroundings. Regardless of geography or culture, the aim of this networking type is the welfare of persons, groups, societies, and the world. Making decisions is essential to utilizing resources, carrying out essential tasks, and achieving the system's goals. Goal Attainment Theory is suitable for any interpersonal interaction among healthcare professionals among various disciplines.

A framework for comprehending complex interactions in general and in nursing specifically was made available by the Conceptual System. It provides nurses with a framework for better understanding of self-care and others, providing guidance on how to interact with patients and peers in the healthcare setting. The Goal Attainment Theory provides a process for setting common attainable goals for nurses, patients, peers, and administrators. It provides a tool for organizations to accomplish specific clinical outcomes through application of the four main concepts which are perception, communication, interaction, and transaction. Goal Attainment Theory applies as a theoretical framework on the effect of the nurse-manager relationship on work engagement, commitment, and patient satisfaction.

As applied to my study, Imogene King's Conceptual System holds that the researcher's expectation that practice environment dimensions can be distributed in personal and interpersonal systems, such as personal systems including nurse participation in hospital affairs and nursing foundations of care while interpersonal

systems include nurse manager ability, leadership, and support for nurses, staffing resource adequacy, and collegial nurse-physician relations. The three systems encompass work engagement. Personal Systems include demographic characteristics of staff nurses as well. Social Systems include Specialized Hospital in KSA.

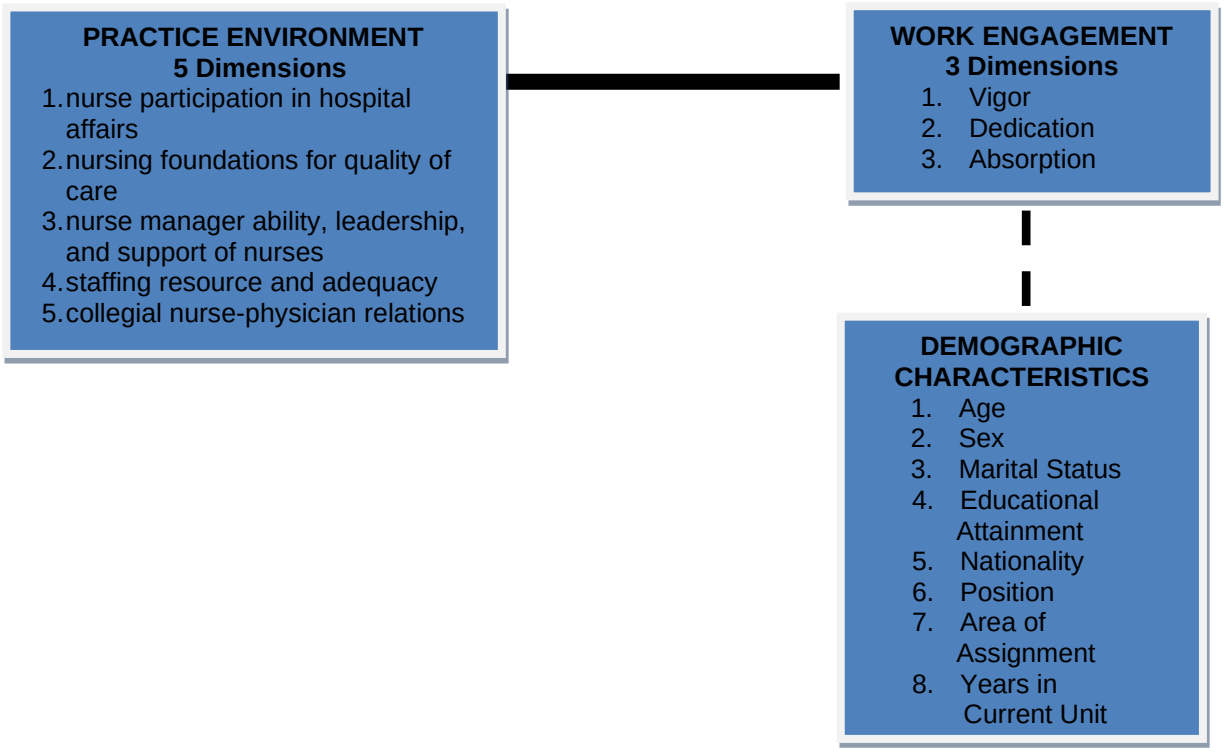
Also, as applied to my study, Imogene King's Goal Attainment Theory holds that the researcher expects that the mutual goal of the staff nurses, nurse managers and administrators, and the hospital is to have a healthy practice environment and high work engagement to improve both nurses' and patients' outcomes.

As applied to my study, the four main concepts hold that the researcher expects that the personal, interpersonal, and social systems apply to the perception of staff nurses in the practice environment and work engagement level; and communication, interaction, and transaction among the three systems is to achieve a healthy environment that is engaging for staff nurses.

Conceptual Framework

Figure 2 shows the Conceptual Framework of this study. It shows the relationships of variables in this study.

Figure 2. Conceptual framework.



The box on the left is the Practice Environment, which will be measured in 5 dimensions as shown above – is independent variable (X). The first box on the right is the Work Engagement, which will be assessed in 3 dimensions as shown above - is the dependent variable (Y). Furthermore, the independent variable (X) will be correlated with the dependent variable (Y), represented by a connecting straight line between the two boxes.

In addition, the second box on the right is the demographic characteristics, such as age, sex, marital status, educational attainment, Nationality, area of assignment, and years in the current unit. This is the confounding variable of this study. The dependent variable (Y) will be correlated with the confounding variable represented by a broken line between the two boxes.

Operational Definition of Terms

1. *Practice Environment* refers to the characteristics of the organization in a work location that supports or impedes nursing professional practice (Lake, 2002). It involves the five dimensions and as follows:
   a. *Nurse Participation in Hospital Affairs* wherein professional autonomy was described as the hospital nurse's valued standing and participatory role (Nelson-Brantley et al., 2018).
   b. *Nursing Foundations for Quality of Care* wherein traits that represent a pervasive nursing philosophy and practical competence for a high level of patient care are what constitute excellent professional nursing practice (Nelson-Brantley et al., 2018).
   c. *Nurse Manager Ability, Leadership, and Support of Nurses* wherein a nurse manager who assists nurses in disagreement with others or when mistakes are made and acknowledges a job well done is seen to be providing management assistance (Nelson-Brantley et al., 2018).
   d. *Staffing and Resource Adequacy* wherein having adequate staff and support resources to deliver high-quality patient care (Nelson-Brantley et al., 2018).
   e. *Collegial Nurse-Physician Relations* whereby good working connections between nurses and doctors, including teamwork and collaboration, are referred to as effective interprofessional interactions (Nelson-Brantley et al., 2018).
2. *Work Engagement* is a pleasant, affective-motivational state characterized by high energy, dedication, and a strong work focus (Bakker & Albrecht, 2018). It includes three dimensions and as follows:
   a. *Vigor* refers to high energy and mental resilience while working, the willingness

to invest effort in one's work, and persistence even in the face of difficulties (Schaufeli & Bakker, 2004).

b. *Dedication* refers to being intensely involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge (Schaufeli & Bakker, 2004).

c. *Absorption* refers to being intensely involved in one's work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge (Schaufeli & Bakker, 2004).

3. *Demographic Characteristics* are statistical data about characteristics of a population (*Demographics Meaning*. Demographics Meaning | Best 5 Definitions of Demographics, n.d.).

   This study includes age, sex, marital status, educational attainment, Nationality, position, area of assignment, and years in the current unit.

a. *Age* is defined as when a being has existed (Dictionary.com, (n.d.). In this study, it refers to 21-30, 31-40, 41-50, or >51 years old.

b. *Sex* is defined as being male or female (Merriam-Webster, n.d.). In this study, it refers to males or females.

c. *Marital status* is the state of being married or not (Merriam-Webster, n.d.). In this study, it refers to single, married, divorced, or widowed.

d. *Educational Attainment is* the highest level of education one has completed (Government of Canada, 2021). This study refers to Diploma, bachelor's degree, or master's degree or higher.

e. *Nationality* is defined as the individual membership that shows one's relationship with the state (S et al., 2020). In this study, it refers to African, Filipino, Indian, Malaysian, Saudi , and others (specify).

f. *Position* is defined as one's function in a company *(What are the differences between job position and job title?* Indeed Career Guide, n.d.). In this study, this refers to Staff Nurse (SN) 1 or 2.

g. *The area of assignment* is defined as a physical area where one provides nursing care *(Nursing unit definition*. Law Insider, n.d.). In this study, it refers to the area of assignment.

h. *Years in Current Unit* is defined as the period that one has spent in a particular job (Merriam-Webster, n.d.). In this study, it refers to 3 months to <1, 1 to <5, 5 to <10, 10 to <20, or >20 years.

Hypothesis

The hypotheses of this study are:

HA1: There is a significant relationship between practice environment and work engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia.

HA2: There is a significant relationship between work engagement and the demographic characteristics of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia.

Chapter III

RESEARCH METHODOLOGY

This chapter includes research design, sampling technique, sample size, study setting, data collection method and procedures, research instruments, data analysis and interpretation, data management, and ethical considerations.

Research Design

This study is a quantitative, non-experimental, descriptive correlational research design. Quantitative Research design collects and analyzes numerical data to describe variables and occurrences of interest. It seeks to describe current circumstances, establish relationships between variables, and try to explain causal relationships among variables. A non-experimental Research design is used to measure variables as they occur naturally or without manipulation from researchers. Correlational Research design is used to discover and measure relationships between two or more variables (Quantitative Research Methods, n.d.). Descriptive Correlational is utilized to describe variables and their relationships that happen naturally (Sousa et al., 2007).

Sampling Technique

The population of this study involved staff nurses in a Specialized Hospital in KSA . The sample of this study consisted of staff nurses I and II working in inpatient departments only, either in adult or pediatric, cardiology or cardiac surgery wards or intensive care units (ICU) for more than three months, except cross-trainees from Ambulatory Care services (OPD and CIU). Nurses in administrative and management positions and nurse assistants were not included in this research.

The sample size was obtained through total enumeration sampling. It is a type of purposive sampling technique wherein all populations with certain characteristics will be chosen to be examined (*Purposive sampling: Lærd dissertation*. Purposive sampling | Lærd Dissertation, n.d.).

Sample Size

As of October 2022, during data collection, there were 352 nurses in the inpatient department of the hospital. As per inclusion and exclusion criteria, 282 staff nurses were eligible for this study, which each inpatient ward and unit head nurse verified.

Eligible staff nurses include nurses I and II working in inpatient departments for over three months, except for cross-trainees from Ambulatory Care services (OPD and CIU). Nurses in administrative and management positions and nurse assistants were not included in this research.

Study Setting

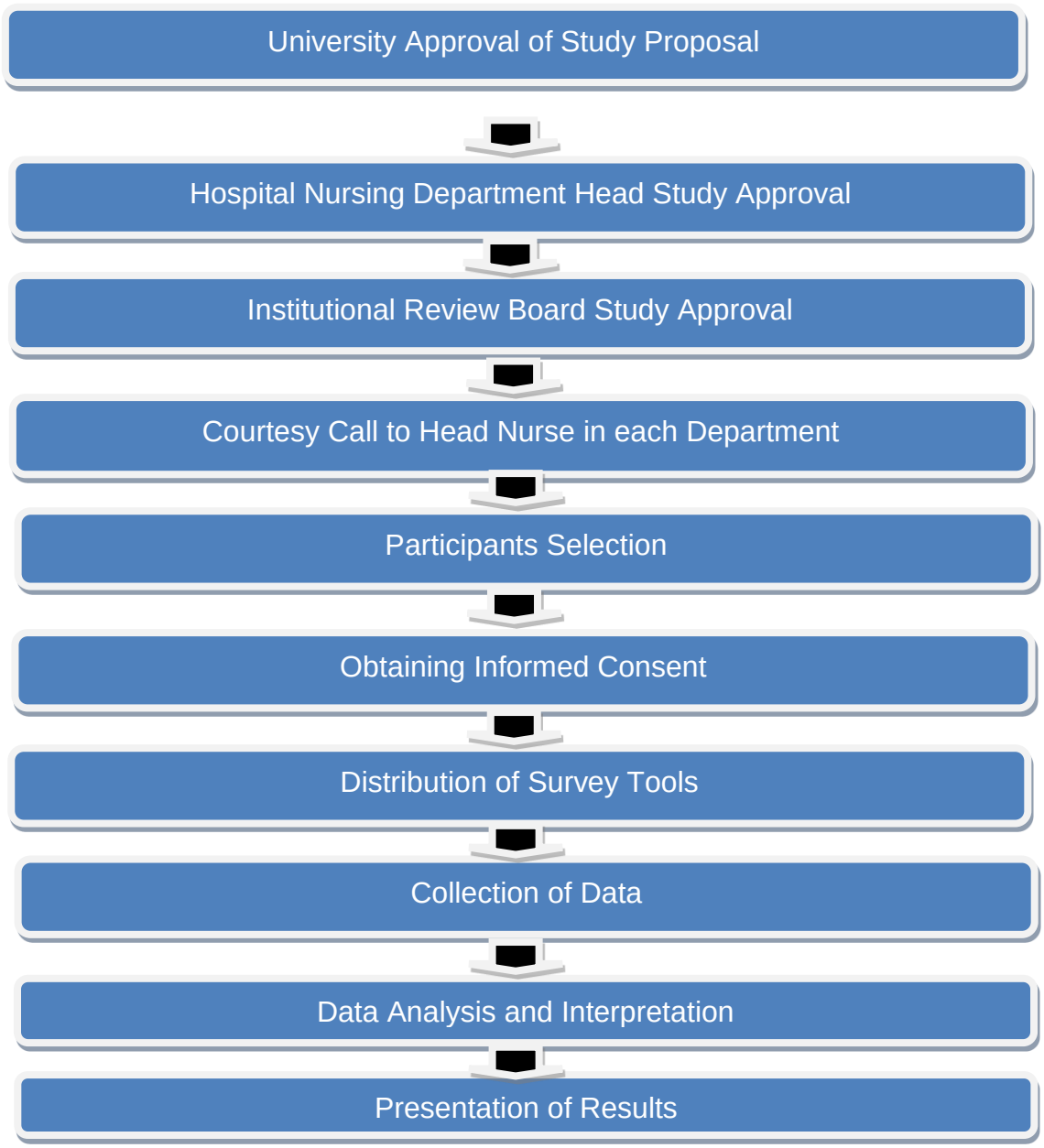
This research was carried out in a Joint Commission International (JCI) accredited Specialized Hospital in KSA, where the researcher works as a charge nurse in an adult cardiac surgery ward. It provides cardiovascular services to all armed forces personnel, dependents, and other eligible patients manned by qualified, competent, and diverse nationalities forming a multidisciplinary team. The hospital has ongoing applications for Saudi Central Board for Accreditation of Healthcare Institutes (CBAHI) and Magnet Recognition Program when Covid 19 pandemic occurred. Staff nurses in this hospital were encouraged to active participation in achieving excellence in the healthcare profession and practice while coping with the ever-changing healthcare delivery system and demands, reorganization of nursing administration and

management, and shortage of staff nurses. The nurses depended on support from nursing leadership and management.

Data Collection Method and Procedures

Figure 3 shows the steps taken to conduct the study and collect data for analysis, interpretation, and presentation.

Figure 3. Data collection method and procedures



Upon approval of the researcher's thesis proposal by the University of the Philippines Open University, Research Proposal Guidelines by Research Ethics Committee was followed and coordinated with Research Department as well.

The researcher asked for approval from the hospital Director of Nursing to conduct this study by submitting the filled-up Department Approval for Undertaking a Research Study form. Once signed and approved, it was submitted via email along with the filled-up and signed Research Proposal form, Investigator's Undertaking form, Investigator Financial Interest Disclosure form; study protocol; and other necessary documents to the Research Ethics Committee for review, which were copied to the Research Department, Clinical Nurse Manager CWS, Magnet Director, Deputy of Director of Nursing and Director of Nursing.

Once the Research Ethics Committee received all the required documents of the researcher, a reference number for the research proposal was given while waiting for approval from IRB.

Upon approval of the Research Ethics Committee of the research proposal, an IRB approval number was provided, valid for one year. The investigator notified the Director of Nursing, who officially informed the nursing administration and management of this study to be conducted in the hospital. Then, the researcher approached each head nurse of the inpatient department and informed them that the research study would be conducted in their ward or unit involving their staff nurses as per inclusion and exclusion criteria and asked for their assistance to facilitate the distribution of the informed consent and questionnaires and participation of all their staff nurses.

The participants were provided an electronic informed consent and questionnaires through google forms. A QR code for the questionnaires was also

provided. Data collection of all the samples was expected to be completed in three to four weeks but extended for another week. Data collection started from October 11 until November 13, 2022.

Then, the necessary data was analyzed by the statistician and then interpreted and presented by the researcher.

Research Instruments

The three tools that were used in this study are Demographic Characteristics, the Practice Environment Scale of the Nursing Work Index (PES NWI) (Lake, 2002), and the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2004).

Response Rate

126 Google form responses were received from all inpatient departments in the hospital. From these, nine responses were excluded as per inclusion and exclusion criteria, duplication of responses, and unverifiable non-work email. The final number of responses for analysis was 117 out of the 282 eligible staff, garnering a 41% response rate.

Demographic Characteristics

The demographic characteristics used in this investigation were divided into personal and employment information. Personal information included age, sex, marital status, educational attainment, and Nationality, while Employment Information included position, area of assignment, and years in the current unit.

Practice Environment Scale of the Nursing Work Index (PES NWI) (Lake, 2002) was adopted to measure the practice environment of staff nurses in this study.

Table 4 shows PES NWI (Lake, 2002) five dimensions and each of its component items (total of 31).

Table 4

Practice Environment Scale of the Nursing Work Index (PES NWI) (Lake, 2002)

Dimensions and Component Items

Dimensions (5)	Component items (31)
Nurse Participation in Hospital Affairs (9)	5, 6, 11, 15, 17, 21, 23, 27, 28
Nursing Foundations for Quality of Care (10)	4, 14, 18, 19, 22, 25, 26, 29, 30, 31
Nurse Manager Ability, Leadership, and Support of Nurses (5)	3, 7, 10, 13, 20
Staffing and Resource Adequacy (4)	1, 8, 9, 12
Collegial Nurse-Physician Relations (3)	2, 16, 24

It is a 4-point Likert scale from (1) strongly agree to (4) strongly disagree. However, Swiger et al. (2017) review found that adjustments were made to Likert Scale. When combining the tool with other research tools, some authors added points to the scale so that it will be consistent across all measures. The coding of the scale was reversed (then recoded) or reversed (without recoding) in other cases.

In this study, as with the studies of Zahran et al. (2018) and Liou & Grobe (2008), 5-point Likert Scale ranging from strongly disagree (1), disagree (2), neither agree or disagree (3), agree (4), and strongly agree (5) (Lake, 2002) was used.

When the coding is in the correct direction, compute the nurse-specific dimension scores as the mean of the dimension's items. The mean allows simple

comparison across dimensions. In hospital-level scores, compute the item-level means at the hospital level. Then proceed with the standard computation for dimensions scores. Compute the total PES NWI "composite" score as the mean of the five dimensions scores. This method gives equal weight to the dimensions instead of the items (Lake, 2002).

In their 2017 study, Almuhsen et al. employed a 5-point Likert scale with the options (1) strongly agree to (5) strongly disagree, and a scale of 1 - 2.3 was considered high perception, 2.3-3.6 was considered moderate perception, and 3.6-5 was considered low perception. However, in this study, 5-point Likert Scale was reversed, and the interpretation of the scales will be as follows: low perception (1 - 2.3), moderate perception (2.3-3.6), and high perception (3.6-5).

The preliminary evidence regarding validity and reliability was deemed adequate. The instrument's validity and reliability were demonstrated by the results of the research that employed it. Dimensions with more excellent representation across instruments were considered of greater significance. Instruments with a regular response set and shorter length were thought to be easier to use. Additional proof of validity and reliability is provided by the findings of several investigations (Lake, 2007). It is a valid and reliable instrument for measuring the hospital's nursing practice environment with Cronbach's alpha of total scale = 0.948 (Almuhsen et al., 2017).

Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2004) will be adopted to assess the work engagement of staff nurses in this study.

Table 5 shows UWES (Schaufeli & Bakker, 2004) three dimensions and each of its component items (total of 17).

Table 5

Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2004) Dimensions and Component Items

Dimensions (3)	Component items (17)
Vigor (6)	1, 4, 8, 12, 15, 17
Dedication (5)	2, 5, 7, 10, 13
Absorption (6)	3, 6, 9, 11, 14, 16

It is a 7-point Likert scale ranging from never (0), almost never (1), rarely (2), sometimes (3), often (4), very often (5), and always (6).

It is reported that each dimension's mean scores and total mean scores are from 0 to 6. Higher scores indicate higher work engagement levels of respondents. of Work engagement total scores of 1.93 and less means very low engagement, 1.94 to 3.06 as low engagement, 3.07 to 4.66 as average engagement, 4.67 to 5.53 as high engagement, and 5.54 as very high engagement (Hosseinpour-Dalenjan, Atashzadeh-Shoorideh, Hosseini, & Mohtashami, 2017).

Studies on the tool's validity revealed the likely causes and results of work engagement and explained its role in the health and well-being of employees. A database contains the results of 23 investigations that were carried out in 9 countries from 1999 to 2003 for the tool's psychometric evaluations. The internal consistencies are still appropriate for longer versions in which the 6-item versions of the vigor and absorption dimensions in UWES 17 are slightly more internally consistent. The three UWES dimensions are all stable with vigor minimally more stable over time. The length of the dimensions has no bearing on the stability level (Schaufeli & Bakker, 2004). It showed evidence of convergent and divergent validity and high reliability equal to or greater than 0.90 (Aboshaiqah et al., 2016).

Data Analysis and Interpretation

Table 6 shows the specific objectives, dimensions, level of measurement, and statistical tests used in this study.

Table 6

Data Analysis

Specific Objectives	Dimensions	Level of Measurement	Statistical Test
1.What is the perception of staff nurses in the practice environment?	1.1 Nurse Participation in Hospital Affairs; 1.2 Nursing Foundations in Quality of Care; 1.3 Nurse Manager Ability, Leadership, and Support of Nurses; 1.4 Staffing and Resource Adequacy; 1.5 Collegial Nurse-Physician Relations	Interval Interval Interval Interval Interval	Descriptive (Mean and Standard Deviation)
2.What is the level of work engagement of staff nurses?	a. Vigor; b. Dedication; c. Absorption	Interval Interval Interval	Descriptive (Mean and Standard Deviation)
3.What is the relationship between Practice Environment and Work Engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia?	Practice Environment and Work Engagement	Interval/Interval	Pearson Correlation
4.What is the relationship between Work Engagement and demographic characteristics of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia?	a. Work Engagement and Age; b. Work Engagement and Sex; c. Work Engagement and Marital status; d. Work Engagement and Educational Attainment; e. Work Engagement and Nationality; f. Work Engagement and Position; g. Work Engagement and Area of Assignment; h. Work Engagement and Years in Current Unit	Interval/Ratio Nominal/Nominal; Nominal/Nominal; Ordinal/Ordinal; Nominal/Nominal; Nominal/Nominal; Nominal/Nominal; Interval/Ratio	Spearman Rho; Chi-Square; Chi-Square; Spearman Rho; Chi-Square; Chi-Square; Chi-Square; Spearman Rho

**4.1, 4.4, 4.8 age and years in the current unit were taken in range. Thus, Spearman Rho was used. Coding for: Age (1 = 21-30 y.o., 2 = 31-40 y.o.,3 = 41-50 y.o.,4 = >50 y.o.; Educational Attainment (1 = Diploma, 2 = bachelor's degree, 3 = master's degree or higher); Years of Experience in Unit (1 = 3 months to <1 yr., 2 = 1 to <5 yrs., 3 = 5 to <10 yrs., 4 = 10 to <15 yrs.,5 = >15 yrs.)*
**4.2, 4.3, 4.5, 4.6, 4.7 Work Engagement was coded to nominal (1.93 and less as very low engagement, 1.94 to 3.06 as low engagement, 3.07 to 4.66 as average engagement, 4.67 to 5.53 as high engagement, and 5.54 as very high engagement)*

Data Management

Data collection started from October 11 until November 13, 2022. After collecting the responses from the participants, data were reviewed by checking the number of eligible participants versus actual responses. Otherwise, ineligible participants' responses were excluded.

Furthermore, duplication of responses through work emails provided was checked, and the reliability of non-work emails given was verified by their head nurses. Otherwise, their responses were excluded from the actual number of participants in the ward or unit and this study.

The original data was only accessible to the researcher to maintain data confidentiality and to avoid unintentional modification or removal. In contrast, the responses necessary for analysis of data were given to the statistician only and used IBM SPSS statistics 28 and IBM SPSS statistics 27 (Spearman Rho).

Ethical Considerations

The Practice Environment Scale of the Nursing Work Index (PES NWI) and the Utrecht Work Engagement Scale (UWES) was adopted to assess the practice environment and work engagement of nurses in Specialized Hospital in the Kingdom of Saudi Arabia, respectively. Thus, permission from the authors was obtained and approved via email.

The researcher obtained approval from the hospital Director of Nursing and the Research Ethics Committee before data collection.

The informed consent stated the goal of the research investigation, thus, observing integrity. The participants were informed of no risks or discomforts involved, thus, observing protection from harm nor compensation to be given in participating in

the research study.

Participant anonymity and data confidentiality were paramount during the entire research study. No names shall be mentioned in the research study. Specific Number Codes were used for each participant. Questionnaires filled up by the participants were only accessible to the researcher, whereas data needed for data analysis was only accessible to the statistician.

Furthermore, respondents were made aware that joining in the research would be voluntary, and withdrawal or termination has no penalty, thus, **autonomy** shall be exercised by the participants. They were made aware as well that the hospital Institutional Review Board had reviewed and approved to conduct this study.

The researcher provided her work and university email addresses available for the participants to contact if they have any question/s or clarification/s regarding the research study, thus, observing **openness.**

Chapter IV

RESULTS AND DISCUSSIONS

This chapter includes a presentation of results and a discussion about demographic characteristics, practice environment; work engagement; correlation on practice environment with work engagement; and correlation on work engagement with demographic characteristics.

Table 7 describes the profile of the respondents, number of responses, and the percentage.

Table 7

Demographic Characteristics

Demographic Characteristics	Description	N (117)	%
I. Personal Information			
Age	21-30 y.o.	20	17.1
	31-40 y.o.	67	57.3
	41-50 y.o.	23	19.7
	>51 y.o.	7	6.0
Sex	Male	14	12.0
	Female	103	88.0
Marital Status	Single	52	44.4
	Married	63	53.8
	Widowed	1	0.9
	Divorced	1	0.9
Educational Attainment	Diploma	15	12.8
	Bachelor's Degree	100	85.5
	Master's Degree or higher	2	1.7
Nationality	African	0	0.0
	Filipino	78	66.7
	Indian	5	4.3
	Malaysian	27	23.1
	Saudi	4	3.4
	Others, specify	3	2.6
II. Employment Information			
Position	SN 1	13	11.1
	SN 2	104	88.9
Area of Assignment	Adult Cardiology Ward	32	27.4
	Adult Cardiology ICU	13	11.1
	Pediatric Cardiology Ward	7	6.0
	Pediatric Cardiology ICU	17	14.5
	Adult Cardiac Surgery Ward	20	17.1
	Adult Cardiac Surgery ICU	9	7.7
	Pediatric Cardiac Surgery Ward	14	12.0
	Pediatric Cardiac Surgery ICU	5	4.3
Years in Current Unit	3 months to <1 yr.	7	6.0
	1 to <5 yrs.	38	32.5
	5 to <10 yrs.	41	35.0
	10 to <15 yrs.	13	11.1
	>15 yrs.	18	15.4

It presented that majority were between 31 to 40 years old (57.3%) and the least number from >51 years old (6.0%). Age group 31 to 40 were content with the quality of nursing work life (Kaddourah et al., 2018). Majority were female (88%) respondents. Florence Nightingale viewed the nursing profession as an extension of mothering

(Prosen, 2022). Most respondents were married (53.8%) and single (44.4%), while widowed and divorced were 0.9% each. Married nurses were significantly and positively correlated with job satisfaction (Ouyang et al., 2019). Most respondents were bachelor degree holders (85.5%), while a Master degree holder or higher was 1.7%. Magnet hospitals hired more nurses with bachelor degrees unlike non-Magnet hospitals, according to Rodríguez-García et al. (2020). Thus, in preparation for application of Magnet designation, more nurses with higher education were recruited and hired while others were encouraged and supported to pursue it. More than half of the respondents were Filipino nationality (66.7%), followed by Malaysian (23.1%). In the Philippines, the entry level for nursing practice is a Bachelor of Science (Vestal & Kautz, 2009), and it is the largest source of nurses worldwide, especially in KSA and USA (Lorenzo, Galvez-Tan, Icamina & Javier, 2007).

Furthermore, most participants were staff nurse 2 or senior nurses (88.9%) while staff nurse 1 or junior nurse (11.1%). Most participants were from the adult cardiology ward (27.4%), composed of 2 units in the hospital, and the adult cardiac surgery ward (17.1%). Many worked for 5 to <10 years (35%) and 1 to <5 years (32.5%), while 3 months to <1 year (6.0%) as few new nurses are coming in.

Table 8 shows the Nurse Participation in the Hospital Affairs dimension of the Practice Environment. It shows each mean score, the standard deviation of its 9 component items and the total mean score and standard deviation. It showed Nurse Participation in Hospital Affairs (4.21 ± .501) has a high perception of practice environment in this dimension, in contrast to Almuhsen and colleagues (2017) study that revealed moderate perception.

Table 8

Nurse Participation in Hospital Affairs

Nurse Participation in Hospital Affairs (9)	Mean	± SD
1. Career development/clinical ladder opportunity.	4.10	± .498
2. Opportunity for staff nurses to participate in policy decisions.	3.87	±. 749
3. A chief nursing officer who is highly visible and accessible to staff.	4.09	± .587
4. A chief nursing officer is equal in power and authority to other top-level hospital executives.	3.89	± .692
5. Opportunities for advancement.	4.03	± .692
6. Administration that listens and responds to employee concerns.	3.79	± .818
7. Staff nurses are involved in the internal governance of the Hospital (e.g., practice and policy committees).	3.85	± .715
8. Staff nurses have the opportunity to serve in the hospital and nursing committees.	4.04	± .621
9. Nursing administrators consult with staff on daily problems and procedures.	3.89	± .717
TOTAL	4.21	± .501

Most staff nurses agreed with all 9 component items, as in the study by Alrefaei et al., 2022. The item on the *career development/clinical ladder opportunity* had a mean score and SD of 4.10 ± .498. Nurses must have appropriate professional qualifications in license and registration, encouraged to have nursing affiliations and attend nursing conferences or symposiums and encouraged and supported to pursue higher education and nursing certifications. Furthermore, nurses have opportunities for promotion within the ward/unit and nursing administration. According to Donner & Wheeler (2001), career development is one way of supporting nurses to impact their environment and make changes.

The item on *a chief nursing officer who is highly visible and accessible to staff* had a mean score and SD 4.09 ± .587. The staff are informed and aware of the open-door policy of head nurses and nursing administrators. The medical and nursing administrators do a weekly leadership round in all the wards/units. According to

Almuhsen et al. (2017), a chief nurse who supports a solid and influential nursing presence inside the company is one who allows clinical practice autonomy and control over nursing practice, open and communicative, supports participative management.

In contrast, the item on an *administration that listens and responds to employee concerns* had mean score and SD of 3.79 ± .818. In each ward/unit nurses' station, a suggestion box is available for nurses to drop their idea/s which nurse administrators review then the head nurse is informed for action and feedback. An annual NDNQI RN survey and related staff satisfaction surveys were also distributed by the Nursing, Human Resource Department, and other departments, such as Housing and Transportation, to know and improve staff satisfaction. According to Sodeify et al (2013), that perception of support from managers affects the performance of employees.

In addition, the items on *staff nurses have the opportunity to serve on hospital and nursing committees* and *opportunities for advancement* had mean scores and SDs of 4.04 ± .621 and 4.03 ± .692, respectively. In contrast, the item on *staff nurses are involved in the internal governance of the hospital (e.g. practice and policy committees)* had a mean score and SD of 3.85 ± .715. Most of the staff nurses are members of ward/unit committees (e.g., quality improvement project, unit-based council) and hold ward/unit link nurse or champion role positions (e.g. Infection Control, Wound Care, Quality Improvement, NDNQI link nurses and Magnet Champion) and others are members of nursing department councils (e.g., Magnet, Nursing Practice, Nursing Research and Evidenced Based Practice Nursing, Quality, etc.). According to Almuhsen et al. (2017), it is recommended in magnet hospital research to have senior management nurse leader in organization to allow nursing sufficient power to impact policy decisions or actions on concerns relating to nurses.

Table 9 shows the Nursing Foundations for Quality-of-Care dimension of the Practice Environment. It shows each mean score, the standard deviation of its 10 component items and the total mean score and standard deviation. It displayed that Nursing Foundations for Quality of Care (4.19 ± .524) have a high perception on practice environment in this dimension, like Almuhsen et al. (2017) study. It is reflected in the current NDNQI RN survey, wherein more than half of the inpatient units/wards overperformed based on the Magnet benchmark of all US Facilities.

Table 9

Nursing Foundations for Quality of Care

Nursing Foundations for Quality of Care (10)	Mean	± SD
1. Active staff development or continuing education programs for nurses.	4.21	± .570
2. High standards of nursing care are expected by the administration.	4.32	± .503
3. A clear philosophy of nursing that pervades the patient care environment.	4.10	± .578
4. Working with nurses who are clinically competent.	4.26	± .589
5. An active quality assurance program.	4.12	± .560
6. A preceptor program for newly hired RNs.	4.39	± .491
7. Nursing care is based on nursing rather than medical, model.	4.12	± .590
8. Written, up-to-date nursing care plans for all patients.	4.08	± .659
9. Patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one day to the next.	3.85	± .925
10. Use of nursing diagnoses.	3.83	± .854
TOTAL	4.19	± .524

The majority of the staff nurses agreed on all 10 component items. The item on *a preceptor program for newly hired RNs* had mean score and SD of 4.39 ± .491. New staff nurses have a hospital, nursing department, and unit orientation and will be precepted in the ward/unit for 16 shifts. In addition, Nursing Education has started a practice transition accreditation program (PTAP) for new nurses. According to Hong &

Yoon (2021), preceptors can assist new nurses cope in the practice area and share expertise needed in work. In addition, an earlier study discovered that preceptorship can critically influence communication of preceptees with patients or other healthcare professionals.

The item on *high standards of nursing care is expected by the administration* had a mean score and SD of 4.32 ± .503. Nurses are encouraged to have active participation in achieving excellence in healthcare profession and practice through strict compliance with policies and procedures and nurse practice guidelines as per Joint Commission International (JCI) standards and Saudi Central Board for Accreditation of Healthcare Institutes (CBAHI) requirements. According to Almuhsen et al. (2017), in nursing settings, nurse and patient outcomes are developed in institutions that support professional development of nurses and uphold high nursing standards within a nursing model of care.

The item on *active staff development or continuing education programs for nurses* had a mean score and SD *of* 4.21 ± .570. The Nursing Education Department offers many study days, courses, and workshops throughout the year to gain or refresh knowledge and skills applicable to their clinical practice. In addition, staff are acquiring continuing education hours before their license renewal. According to IOM (2010), to gain and maintain current knowledge and skills for patient care, health professionals should continuously learn about research and treatment advancements on both in their fields and related fields to become most effective.

The item on *patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one day to the nex*t had a mean score and SD of 3.85 ± .925. Clinical areas may or may not practice the same patient assignments

for the same staff nurses per shift. According to Wong et al. (2019), an effective handover is critical in making sure that the incoming nurse receives all important patient information to facilitate continuity of patient care and safety.

Furthermore, items on *use of nursing diagnoses* had a mean score and SD of 3.83 ± .854. Nurses routinely apply the nursing process but do not formally use approved NANDA nursing diagnoses; instead, they use body systems or problems focused or risk factors when diagnosing patients and communicate it to appropriate multidisciplinary team members per the SBAR communication tool. It was reported standard nursing diagnoses are not easy to use in all situations and may be not relevant (Cachón-Pérez et al., 2021).

Table 10 shows *the Nurse Manager Ability, Leadership, and Support of Nurses* dimension of the Practice Environment. It shows each mean score, the standard deviation of its 5 component items and the total mean score and standard deviation. It showed Nurse Manager Ability, Leadership, and Support (3.97 ± .748) have high perception in a practice environment in this dimension, in contrast to Almuhsen et al. (2017) study that showed that nurses had moderate perception.

Table 10

Nurse Manager Ability, Leadership, and Support of Nurses

Nurse Manager Ability, Leadership, and Support of Nurses (5)	Mean	± SD
1. A supervisory staff that is supportive of the nurses.	3.99	± .782
2. Supervisors use mistakes as learning opportunities, not criticism.	3.89	± .828
3. A nurse manager who is a good manager and leader.	4.02	± .765
4. Praise and recognition for a job well done.	4.05	± .764
5. A nurse manager who backs up the nursing staff in decision-making, even if the conflict is with a physician.	3.91	± .830
TOTAL	3.97	± .748

Most staff nurses agreed on all 5 component items. The item on *praise and*

recognition for a job well done had a mean score and SD of 4.05 ± .764. Nursing Recognition Council actively acknowledges staff nurses in individual (Employee of the Month, Best Preceptor, link nurses appreciation) and team levels (lowest number of falls, zero pressure injuries, etc.). In addition, nurses are recognized by patients or their families through Daisy Awards (nominee or honoree). According to Ulrich et al. (2019), Recognition also has a positive association with work satisfaction, intent to stay in current position, and quality of care.

Significantly, items on *supervisory staff that is supportive of the nurses and a nurse manager who backs up the nursing staff in decision making, even if the conflict is with a physician* had mean scores and SDs of *3.99 ± .782 and* 3.91 ± .830, respectively. Acting Nurse Supervisor (4343 bleep holder) and nurse administrator on call are available after office hours for staff to reach for advice and guidance regarding any concerns related to staff and patients in their units/wards. Nursing administration and management support nurses who express concerns regarding physician civility and practice through discussion. According to van Bogaert et al. (2017), nurse Managers know very well that supporting staff nurses in their daily routines facilitates teamwork and creates a good team. It was less likely for registered nurses to quit who expressed better support from their managers (Almuhsen et al., 2017), leading to both contented nurses and satisfied patients (Wei et al., 2018).

On the other hand, the item on *supervisors use mistakes as learning opportunities, not criticism* had mean score and SD of 3.89 ± .828. Nurses are encouraged to report gaps in nursing practice to improve patient safety. Furthermore, Good Catch is awarded to nurses who report events or incidents. According to Woo & Avery (2021), healthcare workers' consistent voluntary error reporting (VER) is critical to a solid error-management system of the organization. Authors argued that after

reporting error, nurse leaders should communicate openly to involved nurses the results of investigation through constructive feedback to facilitate learning from mistakes (Woo & Avery, 2021).Hospitals can also enhance patient safety by using the Good Catch Program (Wallace et al., 2017).

Table 11 Staffing and Resource Adequacy dimension of Practice Environment. It shows each mean score, the standard deviation of its 4 component items and the total mean score and standard deviation. It showed Staffing and Resource Adequacy (3.35 ± .959) have moderate perception in a practice environment in this dimension, like Almuhsen and colleagues (2017) report. It is reflected in the current NDNQI RN survey, wherein half of the inpatient units/wards underperformed based on the Magnet benchmark of all US Facilities.

Table 11

Staffing and Resource Adequacy

Staffing and Resource Adequacy (4)	Mean	± SD
1. Adequate support services allow me to spend time with my patients.	3.55	±1.055
2. Enough time and opportunity to discuss patient care problems with other nurses.	3.52	± .96
3. Enough registered nurses to provide quality patient care.	2.94	±1.169
4. Enough staff to get the work done.	2.97	±1.106
TOTAL	3.35	± .959

Most staff nurses agreed with the item on *adequate support services allow me to spend time with my patients* had a mean score and SD of 3.55 ± 1.055. Multidisciplinary teams (e.g., respiratory therapist, physical therapist, etc.) are available to support nurses to facilitate patients' needs. According to a 2017 study by Rivaz, having enough staff and resources has a big impact on job satisfaction and how well nurses perceive the quality practice environment.

Additionally, most nurses agreed with the item on *enough time and opportunity*

to discuss patient care problems with other nurses with mean score and SD 3.52 ± .96. I.S.B.A.R. communication tool is used during handover among healthcare providers in which concerns regarding the patient are relayed to his/her covering nurse and nurse in charge. According to Emmanuel et al. (2020), nurses who worked their planned hours report that they had adequate time and opportunities to communicate with other staff patient care concerns.

In contrast, most of the staff nurses neither agreed to disagreed with the item on *enough staff to get the work done* with mean score and SD 2.97 ±1.106 as well as most staff nurses neither agreed to disagreed agreed in items on *enough registered nurses to provide quality patient care* had a mean score and SD 2.94 ±1.169. Recruitment and hiring of nurses are ongoing. Some staff arrived in different wards/units in varying numbers and months. Fair staffing allocation and distribution are ensured among all wards/units through increased floating of nurses and an increase in overtime, especially in areas with critical staffing needs. The nursing administration and management alleviated understaffing issues in the inpatient department through cross-training of staff nurses from Ambulatory Care Services (Outpatient Department/OPD and Cardiac Investigation Unit/CIU) to inpatient wards and cross-training staff nurses from the ward to intensive care units. Extension of cross training period and transfer to cross trained areas is supported and allowed by the nursing administration. Furthermore, the nursing management team of each ward or unit may work in the clinical areas as needed. In addition, teamwork among nurses is encouraged by the management and administration which is exhibited by the staff. Human Resources Department has initiated nursing staff retention solutions such as extending contract period for two to three years with an increase in annual salary increments. According to Buchan & Aiken (2008), the search for resolutions to scarcity

must concentrate on the motivation and incentives to recruit and retain nurses.

Table 12 shows the Collegial Nurse-Physician Relations dimension of the Practice Environment. It shows each mean score, the standard deviation of its 3 component items and the total mean score and standard deviation. It showed Collegial Nurse-Physician Relations (3.91 ± .689) have a high perception of practice environment in this dimension, like Almuhsen et al. (2017) study.

Table 12

Collegial Nurse-Physician Relations

Collegial Nurse-Physician Relations (3)	Mean	± SD
1. Physicians and nurses have good working relationships	3.97	± .656
2. A lot of teamwork between nurses and physicians.	3.93	± .679
3. Collaboration (joint practice) between nurses and physicians.	3.88	± .697
TOTAL	3.91	± .689

Staff nurses agreed on all 3 component items. Although there is a slight difference between the three items' mean scores and SDs, doctors and nurses generally have good working relationships, teamwork, and collaboration. A survey conducted in New Zealand found that advanced levels of communal functioning, mental health, and vitality are positively correlated with nurse-doctor relationships (Almuhsen et al., 2017). Excellent work relationships between nurses and physicians are vital in making safe and satisfying practice environment in provision of nursing care quality. The results of the investigation discovered that nurse and physician relationship was distinguished by cooperation (El-Hanafy, 2018).

Table 13 shows Practice Environment's five dimensions with each of its total mean scores and standard deviation. It showed that staff nurses have a high perception on four out five dimensions of the practice environment, remarkably with

nurse participation in hospital affairs except in staffing and resource adequacy, which is moderate. Similarly, Almuhsen et al. (2017) study on practice environment of nurses in Saudi revealed that there was high perception on nursing foundations for quality of care and collegial nurse-physician relations and contrary to moderate perception on nurse participation in hospital affairs, nurse manager ability, leadership, and support of nurses and staffing and resource adequacy. According to Kelly and colleagues (2013), nurses scored foundations for quality of care the greatest than other dimensions (Almuhsen et al., 2017). Among the five dimensions, the Staffing and Resource Adequacy dimension frequently had the lowest score in all situations (Warshawsky & Havens, 2011).

Table 13

Practice Environment

	Nurse Participation in Hospital Affairs	Nursing Foundations for Quality of Care	Nurse Manager Ability, Leadership, and Support of Nurses	Staffing and Resource Adequacy	Collegial Nurse-Physician Relations
Mean	4.21	4.19	3.97	3.35	3.91
Std. Deviation	.501	.524	.748	.959	.689

Table 14 shows the Vigor dimension of Work Engagement, each mean score and standard deviation of its 6 component items with total mean score as well as standard deviation. It showed vigor (4.05 ±1.105) has an average work engagement level in this dimension, in contrast to Aboshaiqah et al. (2016) study that showed high work engagement.

Table 14

Vigor

Vigor (6)	Mean	± SD
1. At my work, I feel bursting with energy	3.84	1.144
2. At my job, I feel strong and vigorous	4.07	1.104
3. When I get up in the morning, I feel like going to work	3.82	1.250
4. I can continue working for very long periods at a time	3.55	1.523
5. At my job, I am very resilient, mentally	4.03	1.306
6. At my work, I always persevere, even when things do not go well	4.09	1.286
TOTAL	4.05	1.105

Most staff nurses responded 'very often or always' *at my work, I always persevere, even when things do not go well* (4.09 ±1.286), and 'very *often'* to the other five items. Staff nurses are committed to work while providing safe and quality care, even if they feel exhausted or burned out. According to Laschinger et al. (2009), nurses experience more vigor as they interact with their patients, report feeling more absorbed in their profession, and are proud of the treatment they deliver - when they have the resources they need to practice professionally (Aboshaiqah et al., 2016).

Table 15 shows the Dedication dimension of Work Engagement, each mean score with standard deviation of its 5 component items with total mean score as well as standard deviation. It showed that Dedication (4.47 ± .961) has an average level of work engagement in this dimension in contrast to Aboshaiqah et al. (2016) study that showed a high work engagement.

Table 15

Dedication

Dedication (5)	Mean	± SD
1. I find the work that I do full of meaning and purpose	4.40	1.067
2. I am enthusiastic about my job	4.38	1.104
3. My job inspires me	4.37	1.080
4. I am proud of the work that I do	4.50	0.916
5. Me, my job is challenging	4.55	0.978
TOTAL	4.47	0.961

Most staff nurses responded 'always' to all 5 component items. Nurses acknowledge that providing nursing care is difficult but satisfying and self-fulfilling at the end of the shift. According to Aboshaiqah et al. (2016), dedication is seen as highly significant work engagement dimension due to its positive impact on employees and work. Van Bogaert et al. (2013) observed that dedication predicted positive job outcomes.

Table 16 shows the Absorption dimension of Work Engagement showing each mean score with standard deviation of its 6 component items with total mean score as well as standard deviation. It showed absorption (4.08 ±1.076) has an average work engagement level in this dimension unlike Aboshaiqah et al. (2016) study that showed a high work engagement level of nurses.

Table 16

Absorption

Absorption (6)	Mean	± SD
1. Time flies when I am working	4.47	1.047
2. When I am working, I forget everything else around me	3.87	1.317
3. I feel happy when I am working intensely	3.90	1.392
4. I am immersed in my work	4.04	1.213
5. I get carried away when I am working	3.89	1.278
6. It is difficult to detach myself from my job	3.55	1.465
TOTAL	4.08	1.076

Most of the staff nurses responded 'always' *time flies when I'm working (*4.47 ±1.047), mostly responded ‘often’ *when I am working, I forget everything else around me* (3.87 ±1.317)*,* and ‘very often’ with the four items. Nurses don’t notice time when working, especially on a busy shift, and focus on the task. Some may recall the events that happened within the shift afterward.

Table 17 shows the three dimensions of Work Engagement with each of its total mean score as well as standard deviation. It showed that in work engagement, Dedication (4.47 ±SD .961) had the highest total mean score like Aboshaiqah et al. (2016), while vigor and absorption (4.05 ± 1.105, 4.08 ± 1.076) had almost same total mean score as with Aboshaiqah et al. (2016). In addition, staff nurses have an average work engagement level in all three dimensions.

Table 17

Work Engagement

	Vigor	Dedication	Absorption
Mean	4.05	4.47	4.08
Std. Deviation	1.105	.961	1.076

According to Aboshaiqah et al. (2016), dedication is seen as highly significant work engagement dimension due to its positive impact on employees and work. Hanaysha (2016) study revealed that high employee engagement in work leads to high commitment to organization which may be due to high courage for achievement and passion.

Table 18 shows Practice Environment and Work Engagement total mean score and standard deviation. It showed Practice Environment and Work Engagement total mean scores of (3.93 ± .507) and (4.2 ± .910) respectively.

Table 18

Practice Environment and Work Engagement

	Practice Environment	Work Engagement
Mean	3.93	4.2
Std. Deviation	.507	.910

Overall, staff nurses have high perception of the practice environment like Almuhsen and colleagues (2017) findings which showed there was high perception on work environment. Nurses' perception in professional practice environment influences job satisfaction. Furthermore, Zeleníková et al. (2020) study discovered that a high level of nurse satisfaction was associated to internal work motivation.

Overall, staff nurses have an average work engagement level as with the findings of Hosseinpour-Dalenjan et al. (2017) and in contrast to Aboshaiqah et al. 2016 study that found there was a high work engagement level.

Table 19 shows the correlation of dimensions of practice environment with work engagement**.** It showed a positive significant correlation on Practice Environment with Work Engagement of Staff Nurses in a Specialized Hospital in KSA, as shown through Pearson Correlation as supported by the study of Park & Lee (2018). Both variables were correlated with organizational commitment, as shown in the studies of Hanaysha (2016) and Rohail et al. (2017).

Table 19

Practice Environment and Work Engagement Dimensions

Practice Environment (5)	Work Engagement (3)					
	Vigor		Dedication		Absorption	
	R	*P value*	r	*P value*	r	*P value*
Nurse Participation in Hospital Affairs	.261	.004	.210	.023	.161	0.080
Nursing Foundations in Quality of Care	.266	.004	.200	.031	.249	.007
Nurse Manager Ability, Leadership, and Support of Nurses	.241	.009	.281	.002	.163	.079
Staffing and Resource Adequacy	.325	<.001	.194	.036	.291	.001
Collegial Nurse-Physician Relations	.243	.008	.152	.101	.299	.001
TOTAL	r			p-value		
	.375			<0.001		

**Statistically significant at P < 0.05*

Furthermore, this research displayed staffing and resource adequacy is significantly correlated with vigor (r .325, P <0.05) and nurse manager ability, leadership, and support of nurses is significantly correlated with dedication (r.281, P<0.05); staffing and resource adequacy and collegial nurse-physician relations is significantly related with absorption (r.291, P <0.05 and r .299, P <0.05). According to Wang and Liu's research, nurses are more engaged when they work in a supportive workplace with enough resources (Szilvassy & Širok, 2022).

Table 20 below shows the X^2 or r_s and P value of each of the demographic characteristics in relation with each dimension of Work Engagement.

Table 20

Demographic Characteristics and Work Engagement Dimensions

Demographic Characteristics	Work Engagement					
	Vigor		Dedication		Absorption	
		P value		*P value*		*P value*
Age (r_s)	.221	.017	.221	.017	.045	.628
Sex X^2	1.549	.818	8.282	.082	4.122	.390
Marital Status X^2	16.382	.174	12.708	.391	10.566	.566
Educational Attainment (r_s)	.191	.039	.094	.316	-.035	.707
Nationality X^2	21.433	.372	15.455	.750	8.510	.988
Position X^2	2.548	.636	1.479	.830	1.108	.893
Area of Assignment X^2	19.516	.881	18.252	.920	24.519	.654
Years in Current Unit (r_s)	.232	.012	.177	.057	.051	.587

**Statistically significant at P < 0.05*

It showed weak positive significant association on age with work engagement in terms of vigor and dedication (rs .221, *p* .017) as supported by the study Aboshaiqah et al. (2016); very weak positive significant association on educational attainment with work engagement in terms of vigor (rs .191, *p* .039); weak positive significant correlation between years in current unit and work engagement in terms of vigor (rs .232, *p* .012) as supported by the study Aboshaiqah et al. (2016).

Table 21

Strength of Spearman Correlation

Range of Absolute Correlation Coefficient (r_s)	Strength of Correlation
0.8- 1.00	Very strong
0.60-0.79	Strong
0.40-0.59	Moderate
0.20- 0.39	Weak
0-0.19	Very Weak

Table 22 shows the mean and standard deviation of each specific demographic characteristic in relation to each dimension of Work Engagement.

Table 22

Demographic Characteristics Description and Work Engagement Dimensions

Demographic Characteristics		Work Engagement					
		Vigor		Dedication		Absorption	
		Mean	SD	Mean	SD	Mean	SD
I.	Personal Information						
Age	21-30 y.o.	3.80	1.152	4.25	1.372	4.1	1.071
	31-40 y.o.	3.96	1.121	4.42	0.890	4.0	1.101
	41-50 y.o.	4.39	0.941	4.78	0.600	4.35	0.832
	>51 y.o.	4.57	1.134	4.57	1.134	3.86	1.574
Sex	Male	4.29	0.914	4.50	0.855	4.14	1.231
	Female	4.02	1.129	4.47	0.978	4.07	1.060
Marital Status	Single	3.77	1.182	4.35	1.046	3.88	1.096
	Married	4.29	0.991	4.57	0.893	4.24	1.058
	Widowed	5.00	-	5.00	-	4.00	-
	Divorced	3.00	-	4.00	-	4.00	-
Educational Attainment	Diploma	3.73	0.961	4.47	0.990	4.13	1.246
	Bachelor's Degree	3.09	1.129	4.46	0.968	4.06	1.062
	Master's Degree or higher	4.50	0.707	5.00	0.000	4.50	0.707
Nationality	African	5.00	-	5.00	-	5.00	-
	Filipino	4.17	1.110	4.46	0.963	3.99	1.099
	Indian	4.40	1.342	4.20	1.789	4.00	1.414
	Malaysian	3.63	1.043	4.44	0.892	4.22	1.050
	Saudi	3.75	0.957	4.75	0.500	4.50	0.577
	Others, specify	4.67	0.577	5.00	0.000	5.67	0.577
II.	Employment Information						
Position	SN 1	4.23	0.832	4.69	0.630	4.08	0.954
	SN 2	4.03	1.136	4.44	0.993	4.08	10.94
Area of Assignment	Adult Cardiology Ward	4.06	1.268	4.59	0.837	4.16	1.019
	Adult Cardiology ICU	4.38	0.768	4.46	0.776	4.46	0.776
	Pediatric Cardiology Ward	3.67	1.033	4.50	0.837	3.17	1.329
	Pediatric Cardiology ICU	4.22	10.60	4.39	1.243	4.11	1.183
	Adult Cardiac Surgery Ward	3.90	1.021	4.45	0.887	4.15	1.040
	Adult Cardiac Surgery ICU	4.11	1.054	4.22	1.394	4.11	1.054
	Pediatric Cardiac Surgery Ward	4.11	1.054	4.22	1.394	4.11	1.054
	Pediatric Cardiac Surgery ICU	4.20	0.837	4.60	0.894	4.40	0.894
Years in Current Unit	3 months to <1 yr.	4.43	.535	5.00	0.000	4.57	.787
	1 to <5 yrs.	3.82	1.270	4.21	1.212	4.08	0.997
	5 to <10 yrs.	3.73	1.096	4.27	0.975	3.73	1.225
	10 to <15 yrs.	4.38	0.870	4.85	0.376	4.46	0.660
	>15 yrs.	4.89	0.323	5.00	0.000	4.39	1.037

Table 22 showed that ages 41-50 y.o have high Dedication and absorption

while>51 y.o. have high vigor, as supported by Aboshaiqah et al. (2016) study that age was positively correlated with Dedication. Male staff nurses have high work engagement in all three dimensions in contrast to Aboshaiqah et al. (2016) study that showed that female nurses had high mean scores on all dimensions and total engagement. Married nurses have high work engagement, especially absorption, as supported by Aboshaiqah et al. (2016) study, but absorption and Dedication have equal scores. Staff nurses with master degree or higher had high work engagement in all three dimensions, as supported by Aboshaiqah et al. (2016) study that qualification was positively correlated with Dedication. Furthermore, Aboshaiqah et al. (2016) study showed that higher qualifications were statistically significant and positive predictors of absorption and vigor as more highly educated nurses have higher job and organizational satisfaction. In contrast, Hontake & Ariyoshi (2016) showed no association on level of education with work engagement. The present research discovered that other nationalities of staff nurses, such as Irish, Moroccan, and Slovakian have high work engagement in all three dimensions.

In addition, SNI or junior staff nurses have high vigor and Dedication but equal mean scores in absorption with SN II or senior staff nurses; however, Hontake & Ariyoshi (2016) study showed no relationship between job rank and work engagement. Adult cardiology ICUs have high vigor and absorption; in contrast, pediatric Cardiac Surgery ICU nurses have high Dedication, as supported by Hosseinpour-Dalenjan et al. (2017) study showed that ICUs had the highest work engagement while the lowest NICUs. Staff nurses employed for 3 months to <1 year have high Dedication and Absorption, while those>15 years have high vigor and Dedication, as supported by Aboshaiqah et al. (2016) study that years of experience was significant and positively correlated with dedication scores.

Chapter V

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

This chapter includes a summary of results, conclusions, as well as recommendations.

Summary of Findings

This study showed that most of the respondents were between 31 to 40years old (57.3%), female (88%), married (53.8%), and single (44.4%), with bachelor Degree (85.5%) and Filipino nationality (66.7%).

In addition, this study showed that most of the participants were staff nurse 2 (88.9%); from the adult cardiology ward (27.4%) and adult cardiac surgery ward (17.1%); and worked in the hospital for 5 to <10 years (35%) and 1 to <5 years (32.5%).

This research showed staff nurses had high perception on 4 dimensions of practice environment except in staffing and resource adequacy, which is moderate. Overall, staff nurses highly perceive the practice environment (3.93 ±SD.507).

This study showed that staff nurses have an average level of work engagement in all three dimensions. Overall, staff nurses have an average work engagement level (4.2 ± .910).

Furthermore, this study found a positive significant correlation on Practice Environment with Work Engagement of Staff Nurses in a Specialized Hospital in KSA, as shown through Pearson Correlation. Specifically, this study demonstrated staffing and resource adequacy is significantly linked with vigor; nurse manager ability, leadership, and support of nurses are significantly correlated with Dedication; collegial

nurse-physician relations and staffing and resource adequacy are significantly correlated to absorption.

Additionally, this research demonstrated a positive significant correlation on age, educational attainment, and years in the current unit with work engagement of staff nurses in a Specialized Hospital in KSA, as shown in Spearman Rho. Specifically, this study showed that age was significantly correlated with vigor and Dedication, educational attainment was significantly correlated with vigor, and years in the current unit were significantly correlated with vigor.

Furthermore, this study showed that ages 41-50 y.o have high Dedication and absorption while >51 y.o. have high vigor; male staff nurses have high work engagement in all three dimensions; married nurses have high work engagement, especially absorption; staff nurses with Master Degree or higher had high work engagement in all three dimensions; other nationalities of staff nurses such as Irish, Moroccan and Slovakian have high work engagement in all three dimensions; SNI or junior staff nurses have high vigor and Dedication but equal mean score in absorption with SN II or senior staff nurses; Adult cardiology ICU have high vigor and absorption while pediatric Cardiac Surgery ICU nurses have high Dedication; and staff nurses employed 3 months to <1 year have high dedication and absorption while >15 years have high vigor and Dedication.

Conclusions

The researcher concludes a positive significant relationship on Practice Environment with Work Engagement of Staff Nurses in a Specialized Hospital in KSA, as shown in Pearson Correlation. Thus, the alternative hypothesis is accepted. In addition, this research demonstrated a positive significant correlation of Work

Engagement with Demographic Characteristics regarding age, educational attainment, and years in the current unit of staff nurses in a Specialized Hospital in KSA, as shown in Spearman Rho. Thus, an alternative hypothesis is accepted.

Implications for Nursing

This study can be the basis of future research to understand the correlation concerning practice environment and work engagement among staff nurses in a Specialized Hospital and in KSA. This research will also add knowledge to the perception of nurses on practice environment, work engagement level of nurses, and what demographic characteristics of staff nurses influence work engagement. Moreover, further study can be conducted for outpatient staff nurses or inpatient and outpatient staff nurses in a Specialized Hospital and in KSA .

Recommendations

This paper is important to nursing administrators, managers, staff nurses, patients, nursing practice, research, and education. Specifically, it recommends to:

Nurse Administrators

This study recommends continuing staffing retention strategies to mitigate staff turnover and encourage staff involvement in unit/ward positions or roles, committees, and councils that impact nursing practice and policies. Furthermore, this study recommends regular communication to staff regarding plans and actions about updates and changes on nurses' concerns.

Nurse Managers

This study recommends continuing to support each ward/unit that critically needs staff nurses through fair allocation and distribution of staff nurses in each shift and by monitoring the effectiveness of ongoing staffing requirement strategies.

In addition, this study suggests continuously providing and improving communication with the staff allowing constructive criticism and positive feedback and supporting and guiding nurses in decision-making and problem-solving.

Staff Nurses

This study recommends continuing encouragement of staff nurses to participate actively in surveys related to the practice environment and work engagement, as results can create awareness of issues about both variables. Furthermore, this study may help determine opportunities for staff nurses to have control over nursing practice and encourage involvement in reviewing, revising, or creating practices, policies, and procedures to enhance patient care.

Patients

This study recommends continuing work collaboration of nurses and physicians to foster excellent patient experience and satisfaction.

Nursing Practice, Research, and Education

This study provided evidence on the practice environment and work engagement of inpatient staff nurses in a Specialized Hospital in KSA. It may support the need to review appropriate and creative interventions in maintaining or improving the practice environment and work engagement.

REFERENCES

Aboshaiqah, A. E., Hamadi, H. Y., Salem, O. A., & Zakari, N. M. (2016). The Work Engagement of Nurses in Multiple Hospital Sectors in Saudi Arabia: A Comparative Study. *Journal of Nursing Management,24*(4), 540-548. doi:10.1111/jonm.12356

Alrefaei, M. A., Hamouda, G. M., & Felemban, O. O. (2022). The relationship between nursing practice environment and innovative behavior in the al-madinah region, Saudi Arabia: A descriptive study. *Cureus*. https://doi.org/10.7759/cureus.31603

Almuhsen, F., Alkorashy, H., Baddar, F., & Qasim, A. (2017). Work environment characteristics as perceived by nurses in Saudi Arabia. *International Journal of Advanced Nursing Studies*, *6*(1), 45. https://doi.org/10.14419/ijans.v6i1.7453

Buchan, J., & Aiken, L. (2008). Solving nursing shortages: A common priority. *Journal of Clinical Nursing*, *17*(24), 3262–3268. https://doi.org/10.1111/j.1365-2702.2008.02636.x

Cachón-Pérez, J. M., Gonzalez-Villanueva, P., Rodriguez-Garcia, M., Oliva-Fernandez, O., Garcia-Garcia, E., & Fernandez-Gonzalo, J. C. (2021). Use and significance of nursing diagnosis in hospital emergencies: A phenomenological approach. *International Journal of Environmental Research and Public Health*, *18*(18), 9786. https://doi.org/10.3390/ijerph18189786

Copanitsanou, P., Fotos, N., & Brokalaki, H. (2017). Effects of work environment on patient and nurse outcomes. *British Journal of Nursing*, *26*(3), 172-176. Doi: 10.12968/bjon.2017.26.3.172

Donner, G. J., & Wheeler, M. M. (2001). Career Planning and development for nurses: The time has come. *International Nursing Review*, *48*(2), 79–85. https://doi.org/10.1046/j.1466-7657.2001.00028.x

Emmanuel, T., Dall'Ora, C., Ewings, S., & Griffiths, P. (2020). Are long shifts, overtime and staffing levels associated with nurses' opportunity for educational activities, communication and continuity of care assignments? A cross-sectional study. *International Journal of Nursing Studies Advances*, *2*, 100002. https://doi.org/10.1016/j.ijnsa.2020.100002

Er, F., & Sökmen, S. (2018). Investigation of the Working Conditions of Nurses in Public Hospitals on the Basis of Nurse-Friendly Hospital Criteria. *International Journal of Nursing Sciences,5*(2), 206-212. Doi: 10.1016/j.ijnss.2018.01.001

Hameed, S., & Hussain, M. (2019). Nurses perception of practical environment relationship with patient satisfaction in Government Hospital lahore. *International Journal of Social Sciences and Management*, *6*(3), 75–81. https://doi.org/10.3126/ijssm.v6i3.24874

Hanaysha, J. (2016). Testing the effects of employee engagement, work environment, and organizational learning on Organizational Commitment. *Procedia - Social and Behavioral Sciences*, *229*, 289–297. https://doi.org/10.1016/j.sbspro.2016.07.139

Hong, K. J., & Yoon, H.-J. (2021). Effect of nurses' preceptorship experience in educating new graduate nurses and preceptor training courses on clinical teaching behavior. *International Journal of Environmental Research and Public Health*, *18*(3), 975. https://doi.org/10.3390/ijerph18030975

Hontake, T., & Ariyoshi, H. (2016). A Study on Work Engagement Among Nurses in Japan: The Relationship to Job-demands, Job-resources, and Nursing Competence. *Journal of Nursing Education and Practice,6*(5). doi:10.5430/jnep.v6n5p111

Hosseinpour-Dalenjan, L., Atashzadeh-Shoorideh, F., Hosseini, M., & Mohtashami, J. (2017). The Correlation Between Nurses' Work Engagement and Workplace Incivility. *Iranian Red Crescent Medical Journal, 19*(4). doi:10.5812/ircmj.45413

Kaddourah, B., Abu-Shaheen, A. K., & Al-Tannir, M. (2018). Quality of nursing work life and turnover intention among nurses of Tertiary Care Hospitals in Riyadh: A cross-sectional survey. *BMC Nursing*, *17*(1). https://doi.org/10.1186/s12912-018-0312-0

Keyko, K., Cummings, G., Yonge, 0., & Wong, C. (2016). Work Engagement in Professional Nursing Practice: A Systematic Review. *International Journal of Nursing Studies*, *61*, 142–164. Doi: 10.1016/j.ijnurstu.2016.06.003

King, I. M. (1992). King's theory of goal attainment. *Nursing Science Quarterly*, *5*(1), 19–26. https://doi.org/10.1177/089431849200500107

Kulikowski, K. (2017). Do we all agree on how to measure work engagement? factorial validity of Utrecht work engagement scales a standard measurement tool –A literature review. *International Journal of Occupational Medicine and Environmental Health*. https://doi.org/10.13075/ijomeh.1896.00947

Lake, E. T. (2002). Development of the Practice Environment Scale of the Nursing Work Index. *Research in Nursing & Health*, 25(3): 176-188. DOI: 10.1002/nur.10032

Lake, E. T. (2007). The Nursing Practice Environment. *Medical Care Research and Review*, *64*(2_suppl). https://doi.org/10.1177/1077558707299253

Liou, S.-R., & Grobe, S. J. (2008). Perception of practice environment, organizational commitment, and intention to leave among Asian nurses working in U.S. hospitals. *Journal for Nurses in Staff Development (JNSD)*, *24*(6), 276–282. https://doi.org/10.1097/01.nnd.0000342235.12871.ba

Lorenzo, F. M., Galvez-Tan, J., Icamina, K., & Javier, L. (2007). Nurse migration from a source country perspective: Philippine Country Case Study. *Health Services*

Research, *42*(3p2), 1406–1418. https://doi.org/10.1111/j.1475-6773.2007.00716.x

Manyisa, Z. M., & Van Aswegen, E. J. (2017). Factors Affecting Working Conditions in Public Hospitals: A Literature Review. *International Journal of Africa Nursing Sciences*, *6*, 28-38. Doi: 10.1016/j.ijans.2017.02.002

Nelson-Brantley, H. V., Park, S. H., & Bergquist-Beringer, S. (2018). Characteristics of the nursing practice environment associated with Lower Unit-level RN turnover. *JONA: The Journal of Nursing Administration*, *48*(1), 31–37. https://doi.org/10.1097/nna.0000000000000567

Norman, R. M., & Sjetne, I. S. (2017). Measuring Nurses' Perception of Work Environment: A Scoping Review of Questionnaires. *BMC Nursing, 16*(1). doi:10.1186/s12912-017-0256-9

Ouyang, Y.-Q., Zhou, W.-B., Xiong, Z.-F., Wang, R., & Redding, S. R. (2019). A web-based survey of marital quality and job satisfaction among Chinese nurses. *Asian Nursing Research*, *13*(3), 216–220. https://doi.org/10.1016/j.anr.2019.07.001

Park, S. Y., & Lee, E. K. (2018). Work Environment and Work Engagement in Korean Nurses. *International Journal of Pure and Applied Mathematics*, *118*(19), 2155-2168. Retrieved bachelor

Prosen, M. (2022). Nursing students' perception of gender-defined roles in nursing: A qualitative descriptive study. *BMC Nursing*, *21*(1). https://doi.org/10.1186/s12912-022-00876-4

Rivaz, M. (2017). Adequate resources as essential component in the Nursing Practice Environment: A qualitative study. *JOURNAL OF CLINICAL AND DIAGNOSTIC RESEARCH*. https://doi.org/10.7860/jcdr/2017/25349.9986

Rodríguez-García, M. C., Márquez-Hernández, V. V., Belmonte-García, T., Gutiérrez-Puertas, L., & Granados-Gámez, G. (2020). Original research: How magnet hospital status affects nurses, patients, and organizations: A systematic review. *AJN, American Journal of Nursing*, *120*(7), 28–38. https://doi.org/10.1097/01.naj.0000681648.48249.16

Rohail, R., Zaman, F., Ali, M., Waqas, M., Mukhtar, M., & Parveen, K. (2017). Effects of Work Environment and Engagement on Nurses Organizational Commitment in Public Hospitals Lahore, Pakistan. *Saudi Journal of Medical and Pharmaceutical Sciences*, *3*(7), 748 - 753. Doi: 10.21276/sjmps

Sayed, S., Ahmed, A., Bakr, M., & Sherief, N. (2019). Work Engagement in Nursing: A concept Analysis. *Menoufia Nursing Journal*, *4*(1), 13-18. Doi: 10.21608/menj.2019.118478

Sodeify, R., Vanaki, Z., & Mohammadi, E. (2013). Nurses'experiences of perceived support and their contributing factors: A qualitative content analysis. *Iranian*

Journal of Nursing and Midwifery Research |, *18*(3).

Sousa, V. D., Driessnack, M., & Mendes, I. A. (2007). An overview of research designs relevant to Nursing: Part 1: Quantitative research designs. *Revista Latino-Americana De Enfermagem,15*(3), 502-507. doi:10.1590/s0104-11692007000300022

Swiger, P., Patrician, P., Miltner, R., Raju, D., Breckenridge-Sproat, S., & Loan, L. (2017). The Practice Environment Scale of the Nursing Work Index: An updated review and recommendations for use. *International Journal of Nursing Studies*, *74*, 76-84. Doi: 10.1016/j.ijnurstu.2017.06.003

Szilvassy, P., & Širok, K. (2022). Importance of work engagement in Primary Healthcare. *BMC Health Services Research*, *22*(1). https://doi.org/10.1186/s12913-022-08402-7

Ulrich, B., Barden, C., Cassidy, L., & Varn-Davis, N. (2019). *Critical Care Nurse Work Environments 2018: Findings and Implications. Critical Care Nurse, 39(2), 67–84.* doi:10.4037/ccn2019605

Van Bogaert, P., Peremans, L., Diltour, N., Van heusden, D., Dilles, T., Van Rompaey, B., & Havens, D. S. (2016). Staff nurses' perceptions and experiences about structural empowerment: A qualitative phenomenological study. *PLOS ONE*, *11*(4). https://doi.org/10.1371/journal.pone.0152654

Van Bogaert, P., Peremans, L., Van Heusden, D., Verspuy, M., Kureckova, V., Van de Cruys, Z., & Franck, E. (2017). Predictors of burnout, work engagement and nurse reported job outcomes and quality of care: A mixed method study. *BMC Nursing*, *16*(1). https://doi.org/10.1186/s12912-016-0200-4

Vestal, V., & Kautz, D. D. (2009). Responding to similarities and differences between Filipino and American nurses. *JONA: The Journal of Nursing Administration*, *39*(1), 8–10. https://doi.org/10.1097/nna.0b013e31818fe726

Wallace, S, Mamrol, C. & Finley, E. (2017). Promote a Culture of Safety with Good Catch Reports. Pennsylvania Patient Safety Advisory. 14.

Warshawsky, N. E., & Havens, D. S. (2011). Global use of the practice environment scale of the nursing work index. *Nursing Research*, *60*(1), 17–31. https://doi.org/10.1097/nnr.0b013e3181ffa79c

Wei, H., Sewell, K. A., Woody, G., & Rose, M. A. (2018). The State of the Science of Nurse Work Environments in the United States: A Systematic Review. *International Journal of Nursing Sciences,5*(3), 287-300. Doi: 10.1016/j.ijnss.2018.04.010

Wong, X., Tung, Y. J., Peck, S. Y., & Goh, M. L. (2019). Clinical nursing handovers for continuity of safe patient care in adult surgical wards. *JBI Database of Systematic Reviews and Implementation Reports*, *17*(5), 1003–1015. https://doi.org/10.11124/jbisrir-2017-004024

Woo, M. W., & Avery, M. J. (2021). Nurses' experiences in voluntary error reporting: An integrative literature review. *International Journal of Nursing Sciences*, *8*(4), 453–469. https://doi.org/10.1016/j.ijnss.2021.07.004

Zahran, S., Gad, R., & Al- Sayed, M. (2018). Nursing Practice Environment and its Relation to Work Engagement. *ResearchGate*. Retrieved from https://www.researchgate.net/publication/323105539_Nursing_Practice_Environment_and_its_Relation_to_Work_Engagement

Zeleníková, R., Jarošová, D., Plevová, I., & Janíková, E. (2020). Nurses' perceptions of professional practice environment and its relation to missed nursing care and nurse satisfaction. *International Journal of Environmental Research and Public Health*, *17*(11), 3805. https://doi.org/10.3390/ijerph17113805

Burton, J. (2021). WHO Healthy Workplace Framework and Model: Background and Supporting Literature and Practices. Retrieved 17 April 2021, from https://www.who.int/occupational_health/healthy_workplace_framework.pdf

Demographics meaning. Demographics Meaning | Best 5 Definitions of Demographics. (n.d.). Retrieved December 8, 2021, from https://www.yourdictionary.com/demographics.

Dictionary.com. (n.d.). *Age definition & meaning*. Dictionary.com. Retrieved November 30, 2021, from https://www.dictionary.com/browse/age.

El-Hanafy, E. Y. (2018). *Nurse physician work-related relationship as perceived by both of them*. Retrieved March 6, 2023, from https://www.enj.eg.net/article.asp?issn=2090-6021;year=2018;volume=15;issue=2;spage=188;epage=195;aulast=El-Hanafy

Employee Engagement Drives Quality Patient Care. (2021). Retrieved 18 April 2021, from http://education.healthcaresource.com/employee-engagement-drives-quality patient-care/

Government of Canada, S. C. (2021, September 29). *Educational attainment of person*. Government of Canada, Statistics Canada. Retrieved November 30, 2021, from https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DEC&Id=85134.

Healthy Work Environment for Nurses |. ANA Enterprise. (n.d.). www.nursingworld.org/practice-policy/work-environment/

IOM (Institute of Medicine). 2010. *Redesigning Continuing Education in the Health Professions.* Washington, DC: The National Academies Press. https://www.ncbi.nlm.nih.gov/books/NBK219811/

King, I. M. (1992). [Conceptual Framework for Nursing: Dynamic Interaction]. *Nursing Science Quarterly*, *5*(1), 19–26. https://doi.org/10.1177/089431849200500107

Merriam-Webster. (n.d.). *Experience definition & meaning*. Merriam-Webster. Retrieved November 30, 2021, from https://www.merriam-webster.com/dictionary/experience.

Merriam-Webster. (n.d.). *Marital status definition & meaning*. Merriam-Webster. Retrieved November 30, 2021, from https://www.merriam-webster.com/dictionary/marital%20status.

Merriam-Webster. (n.d.). *Sex definition & meaning*. Merriam-Webster. Retrieved November 30, 2021, from https://www.merriam-webster.com/dictionary/sex.

Nursing unit definition. Law Insider. (n.d.). Retrieved November 30, 2021, from https://www.lawinsider.com/dictionary/nursing-unit.

Purposive sampling: Lærd dissertation. Purposive sampling | Lærd Dissertation. (n.d.). Retrieved December 31, 2021, from https://dissertation.laerd.com/purposive-sampling.php

Roozeboom, M. and Schelvis, R., 2017. *Work Engagement: Drivers and Effects - OSHWiki*. [online] https://oshwiki.eu/wiki/Work_engagement:_drivers_and_effects#What_is_work_engagement.3F [Accessed 23 February 2021].

Tohemer, M., Alkrisat, M., & Alatrash, M. (2017). Views in Hospital Staff Engagement: Theoretical Application. *Asian Journal of Multidisciplinary Studies, 5*(5). Retrieved from https://www.researchgate.net/publication/323105539_Nursing_Practice_Environment_and_its_Relation_to_Work_Engagement

Quantitative Research Methods. (n.d.). Retrieved from https://us.sagepub.com/sites/default/files/upm-binaries/70019_Mertler_Chapter_7.pdf.

S, S., says, S., Sandeep, says, U. uchenna, uchenna, U., Says, S., Slotonline, says, S. W. E. E. T., & Sweet. (2020, February 3). *Difference between nationality and Citizenship (with comparison chart)*. Key Differences. Retrieved December 19, 2021, from https://keydifferences.com/difference-between-nationality-and-citizenship.html

Schaufeli, W., & Bakker, A. (2004). UWES UTRECHT WORK ENGAGEMENT SCALE Preliminary Manual Occupational Health Psychology Unit Utrecht University. Retrieved from https://www.wilmarschaufeli.nl/publications/Schaufeli/Test%20Manuals/Test_manual_UWES_English.pdf

What are the differences between job position and job title? Indeed Career Guide. (n.d.). Retrieved November 30, 2021, from https://www.indeed.com/career-advice/finding-a-job/job-position.

Zahran, S., Gad, R., & Al- Sayed, M. (2018). Nursing Practice Environment and its Relation to Work Engagement. *ResearchGate*. Retrieved from https://www.researchgate.net/publication/323105539_Nursing_Practice_Environment_and_its_Relation_to_Work_Engagement

Appendices

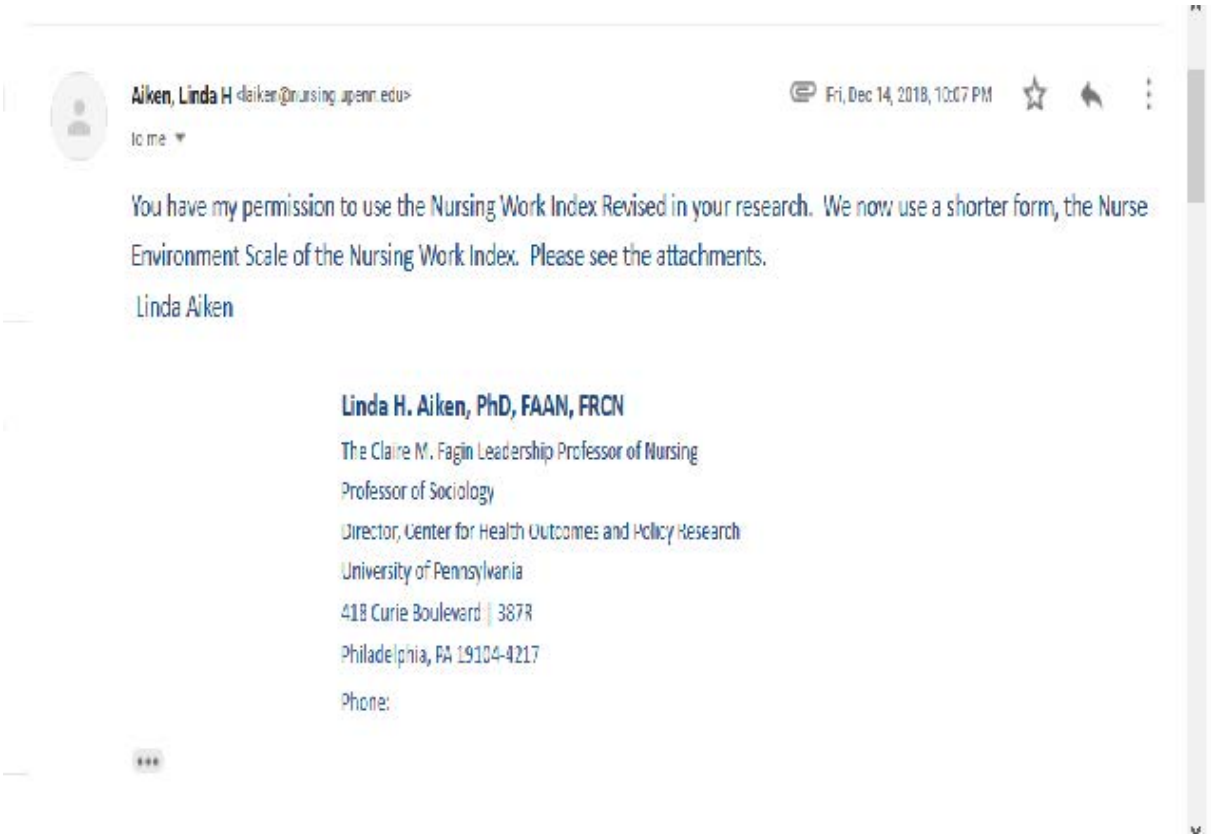
APPENDIX A

GANNT Chart - Timetable of Research Study

Period (Year)	2021									2022												2023							
Month	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**	**11**	**12**	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**
STEPS/ACTIVITIES																													
PLANNING																													
Preparation of Thesis Proposal					-	-	-																						
Thesis Proposal Oral Defense																													
Revision of Thesis Proposal																													
REC Application																													
IMPLEMENTATION																													
Distribution of Informed Consents and Questionnaires																													
Data Collection																													
ANALYSIS																													
Data Analysis																													
Interpretations & Discussion																													
Conclusion & Recommendations																													
Preparation of Draft Manuscript																													
Adviser's Review of Thesis Manuscript																													
PRESENTATION																													
Oral Thesis Defense																													
Preparation of Final Thesis Paper																													
Submission of Final Manuscript with Copies																													
DISSEMINATION/ PUBLICATION																													
Dissemination to Target Hospital																													

APPENDIX B

Permission to use Practice Environment Scale of the Nursing Work Index (PES-NWI)



Aiken, Linda H <laiken@nursing.upenn.edu> Fri, Dec 14, 2018, 12:07 PM

to me

You have my permission to use the Nursing Work Index Revised in your research. We now use a shorter form, the Nurse Environment Scale of the Nursing Work Index. Please see the attachments.

Linda Aiken

Linda H. Aiken, PhD, FAAN, FRCN

The Claire M. Fagin Leadership Professor of Nursing

Professor of Sociology

Director, Center for Health Outcomes and Policy Research

University of Pennsylvania

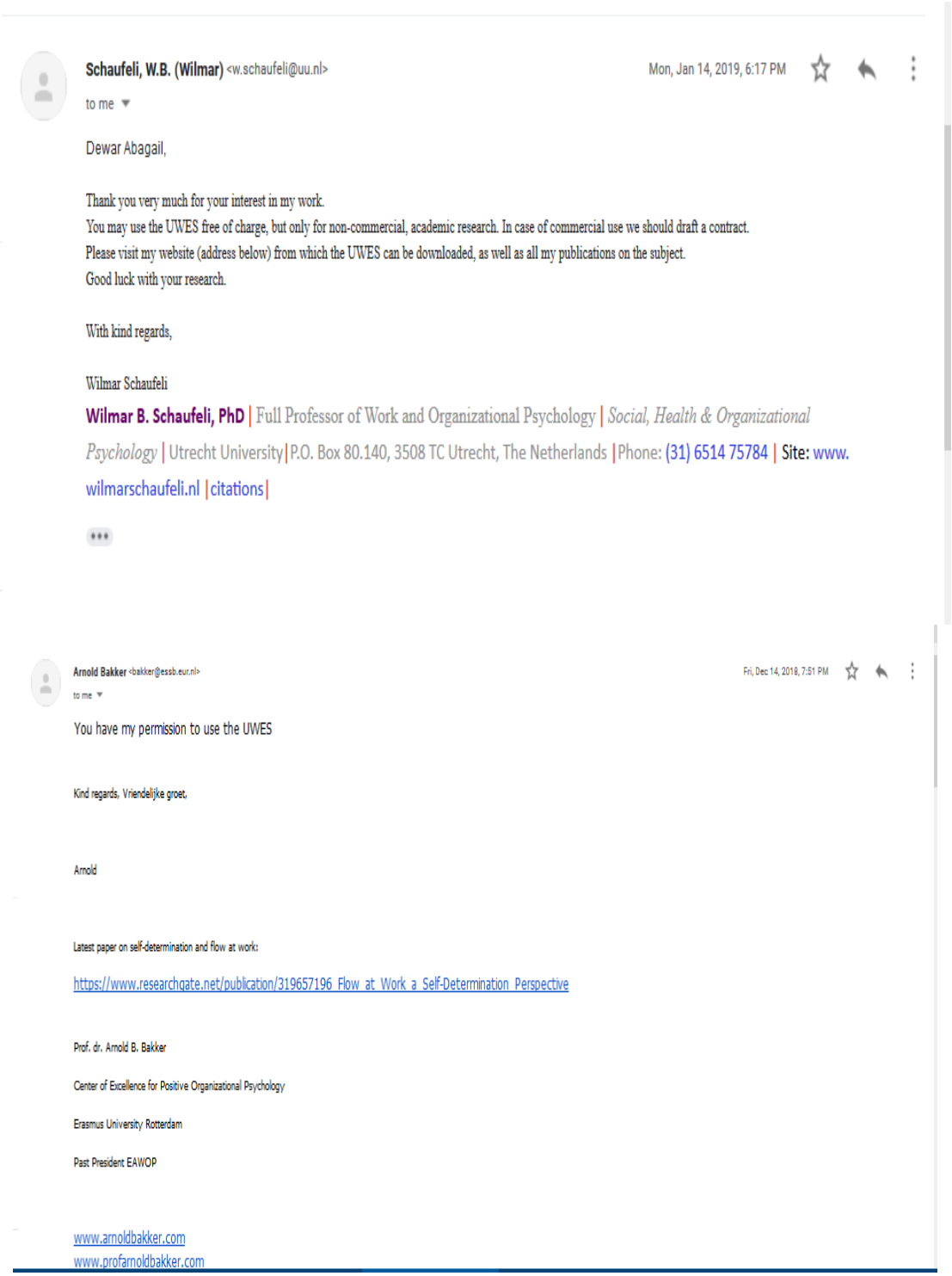
418 Curie Boulevard | 3878

Philadelphia, PA 19104-4217

Phone:

APPENDIX C

Permission to use Utrecht Work Engagement Scale (UWES)



Schaufeli, W.B. (Wilmar) <w.schaufeli@uu.nl> Mon, Jan 14, 2019, 6:17 PM

to me

Dewar Abagail,

Thank you very much for your interest in my work.
You may use the UWES free of charge, but only for non-commercial, academic research. In case of commercial use we should draft a contract.
Please visit my website (address below) from which the UWES can be downloaded, as well as all my publications on the subject.
Good luck with your research.

With kind regards,

Wilmar Schaufeli

Wilmar B. Schaufeli, PhD | Full Professor of Work and Organizational Psychology | *Social, Health & Organizational Psychology* | Utrecht University | P.O. Box 80.140, 3508 TC Utrecht, The Netherlands | Phone: (31) 6514 75784 | Site: www.wilmarschaufeli.nl | citations |

Arnold Bakker <bakker@essb.eur.nl> Fri, Dec 14, 2018, 7:51 PM

to me

You have my permission to use the UWES

Kind regards, Vriendelijke groet,

Arnold

Latest paper on self-determination and flow at work:

https://www.researchgate.net/publication/319657196_Flow_at_Work_a_Self-Determination_Perspective

Prof. dr. Arnold B. Bakker

Center of Excellence for Positive Organizational Psychology

Erasmus University Rotterdam

Past President EAWOP

www.arnoldbakker.com
www.profarnoldbakker.com

APPENDIX D

PARTICIPANT INFORMED CONSENT

UNIVERSITY OF THE PHILIPPINES
OPEN UNIVERSITY

FACULTY OF MANAGEMENT AND DEVELOPMENT STUDIES

23 January 2022

Dear Participant,

Greetings!

My name is Ma. Abegail Crystel O. Garganera, BSN, RN, postgraduate student of Master of Arts in Nursing in University of the Philippines Open University and charge nurse of Adult Cardiac Surgery Ward 1.6. I am conducting a research study on **"Practice Environment and Work Engagement of Staff Nurses in A Specialized Hospital in the Kingdom of Saudi Arabia"** as partial fulfillment of the requirements for my degree.
In this regard, I am inviting you to participate in my research study which will take about 15 to 20 minutes to complete. Below is the link and QR code to answer the questionnaires,
https://docs.google.com/forms/d/e/1FAIpQLScEymzCWV1PevqNBZT0AZ2knVV8xDyz9Ide9YCwdR0RcIAaWQ/viewform?lang=en

Practice Environment and

Participation in this research study has no risks or discomforts involved nor compensation be given. Participant anonymity and data confidentiality will be considered of utmost important. No names shall be mentioned. Questionnaires filled up will only be accessible to the researcher. Participation is voluntary and withdrawal or termination has no penalty. The hospital Institutional Review Board had reviewed and approved to conduct this study.
If you have any question/s or clarification/s, feel free to email me at mogarganera@up.edu.ph or mgarganera@pscc.med.sa.

Thank you.

Respectfully yours,

Ma. Abegail Crystel O. Garganera, BSN, RN
Researcher

I have read and understood the information provided above. I voluntarily consent to participate in this study.

_____ _____
Participant's Name and Signature **Date**

APPENDIX E

Demographic Characteristics

Please answer the following questions about yourself. Please tick (√) in the appropriate box. Note that for some questions it may be necessary to write the information required in the appropriate box or space provided.

I. Personal Information

Name (optional): _____

PSCC Email: _____

Age: 21-30 y.o. ☐ 31-40 y.o. ☐ 41-50 y.o. ☐ >51 y.o. ☐

Sex: Male ☐ Female ☐

Marital Status: Single ☐ Married ☐ Widowed ☐ Divorced ☐

Educational Attainment: Diploma ☐ Bachelor's Degree ☐
Master's Degree or higher ☐

Nationality: African ☐ Filipino ☐ Indian ☐ Malaysian ☐ Saudi ☐
Others specify: _____

II. Employment Information

Position: SN 1☐ SN 2 ☐

Area of Assignment:

Adult Cardiology Ward ☐ Adult Cardiology ICU ☐

Pediatric Cardiology Ward ☐ Pediatric Cardiology ICU ☐

Adult Cardiac Surgery Ward ☐ Adult Cardiac Surgery ICU ☐

Pediatric Cardiac Surgery Ward ☐ Pediatric Cardiac Surgery ICU ☐

Years in Current Unit:

3 months to <1 yr. ☐ 1 to <5 yrs.☐

5 to <10 yrs.☐ 10 to <15 yrs. ☐ >15 yrs. ☐

APPENDIX F

Practice Environment Scale of the Nursing Work Index (PES-NWI)

For each item, please indicate the extent to which you agree that the item is PRESENT IN YOUR CURRENT JOB. Indicate your degree of agreement by circling the appropriate number.

		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1	Adequate support services allow me to spend time with my patients.	1	2	3	4	5
2	Physicians and nurses have good working relationships.	1	2	3	4	5
3	A supervisory staff that is supportive of the nurses.	1	2	3	4	5
4	Active staff development or continuing education programs for nurses.	1	2	3	4	5
5	Career development/clinical ladder opportunity.	1	2	3	4	5
6	Opportunity for staff nurses to participate in policy decisions.	1	2	3	4	5
7	Supervisors use mistakes as learning opportunities, not criticism.	1	2	3	4	5
8	Enough time and opportunity to discuss patient care problems with other nurses.	1	2	3	4	5
9	Enough registered nurses to provide quality patient care.	1	2	3	4	5
10	A nurse manager who is a good manager and leader.	1	2	3	4	5
11	A chief nursing officer who is highly visible and accessible to staff.	1	2	3	4	5
12	Enough staff to get the work done.	1	2	3	4	5
13	Praise and recognition for a job well done.	1	2	3	4	5
14	High standards of nursing care are expected by the administration.	1	2	3	4	5
15	A chief nursing officer equal in power and authority to other top-level hospital executives.	1	2	3	4	5
16	A lot of teamwork between nurses and physicians.	1	2	3	4	5
17	Opportunities for advancement.	1	2	3	4	5

18	A clear philosophy of nursing that pervades the patient care environment.	1	2	3	4	5
19	Working with nurses who are clinically competent.	1	2	3	4	5
20	A nurse manager who backs up the nursing staff in decision making, even if the conflict is with a physician.	1	2	3	4	5
21	Administration that listens and responds to employee concerns.	1	2	3	4	5
22	An active quality assurance program.	1	2	3	4	5
23	Staff nurses are involved in the internal governance of the hospital (e.g., practice and policy committees).	1	2	3	4	5
24	Collaboration (joint practice) between nurses and physicians.	1	2	3	4	5
25	A preceptor program for newly hired RNs.	1	2	3	4	5
26	Nursing care is based on a nursing, rather than a medical, model.	1	2	3	4	5
27	Staff nurses have the opportunity to serve on hospital and nursing committees.	1	2	3	4	5
28	Nursing administrators consult with staff on daily problems and procedures.	1	2	3	4	5
29	Written, up-to-date nursing care plans for all patients.	1	2	3	4	5
30	Patient care assignments that foster continuity of care, i.e., the same nurse cares for the patient from one day to the next.	1	2	3	4	5
31	Use of nursing diagnoses.	1	2	3	4	5

Source: Eileen T. Lake. "Development of the Practice Environment Scale of the Nursing Work Index." *Research in Nursing & Health*, May/June 2002; 25(3): 176-188.

APPENDIX G

Utrecht Work Engagement Scale (UWES)

Work & Well-being Survey (UWES) ©

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the "0" (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

	Almost never	Rarely	Sometimes	Often	Very often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. _____ At my work, I feel bursting with energy
2. _____ I find the work that I do full of meaning and purpose
3. _____ Time flies when I'm working
4. _____ At my job, I feel strong and vigorous
5. _____ I am enthusiastic about my job
6. _____ When I am working, I forget everything else around me
7. _____ My job inspires me
8. _____ When I get up in the morning, I feel like going to work
9. _____ I feel happy when I am working intensely
10. _____ I am proud of the work that I do
11. _____ I am immersed in my work
12. _____ I can continue working for very long periods at a time
13. _____ To me, my job is challenging
14. _____ I get carried away when I'm working
15. _____ At my job, I am very resilient, mentally
16. _____ It is difficult to detach myself from my job
17. _____ At my work I always persevere, even when things do not go well

APPENDIX H

University Study Approval

UNIVERSITY OF THE PHILIPPINES
OPEN UNIVERSITY

FACULTY OF MANAGEMENT AND DEVELOPMENT STUDIES

18 January 2022

DR. PRIMO G. GARCIA
Dean, Faculty of Management and Development Studies
University of the Philippines Open University
Los Baños, Laguna
Through PROPER CHANNELS

Dear Dean Garcia:

We have the honor to inform you that the undersigned served in the oral examination of MS. ABEGAIL CRYSTEL O. GARGANERA/NA candidate who presented her thesis proposal with the final title *"Practice Environment and Work Engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia"* on 16, December, 2021, 1:00pm via Zoom and voted as follows:

PANEL MEMBERS	FOR APPROVAL	FOR DISAPPROVAL
ASST. PROF. QUEENIE R. RIDULME Adviser	_____	_____
MR. FRITZ GERALD JABONETE Co-adviser	_____	_____
MS. MARIA RITA V. TAMSE Member	_____	_____
MS. MA. ELMA L. MIRANDILLA Member	_____	_____
ASST. PROF. RIA VALERIE D. CABANES Member	_____	_____
Committee's Decision.	(✓) PASSED	( ) FAILED

Additional Remark/s: Approved with minor revisions.

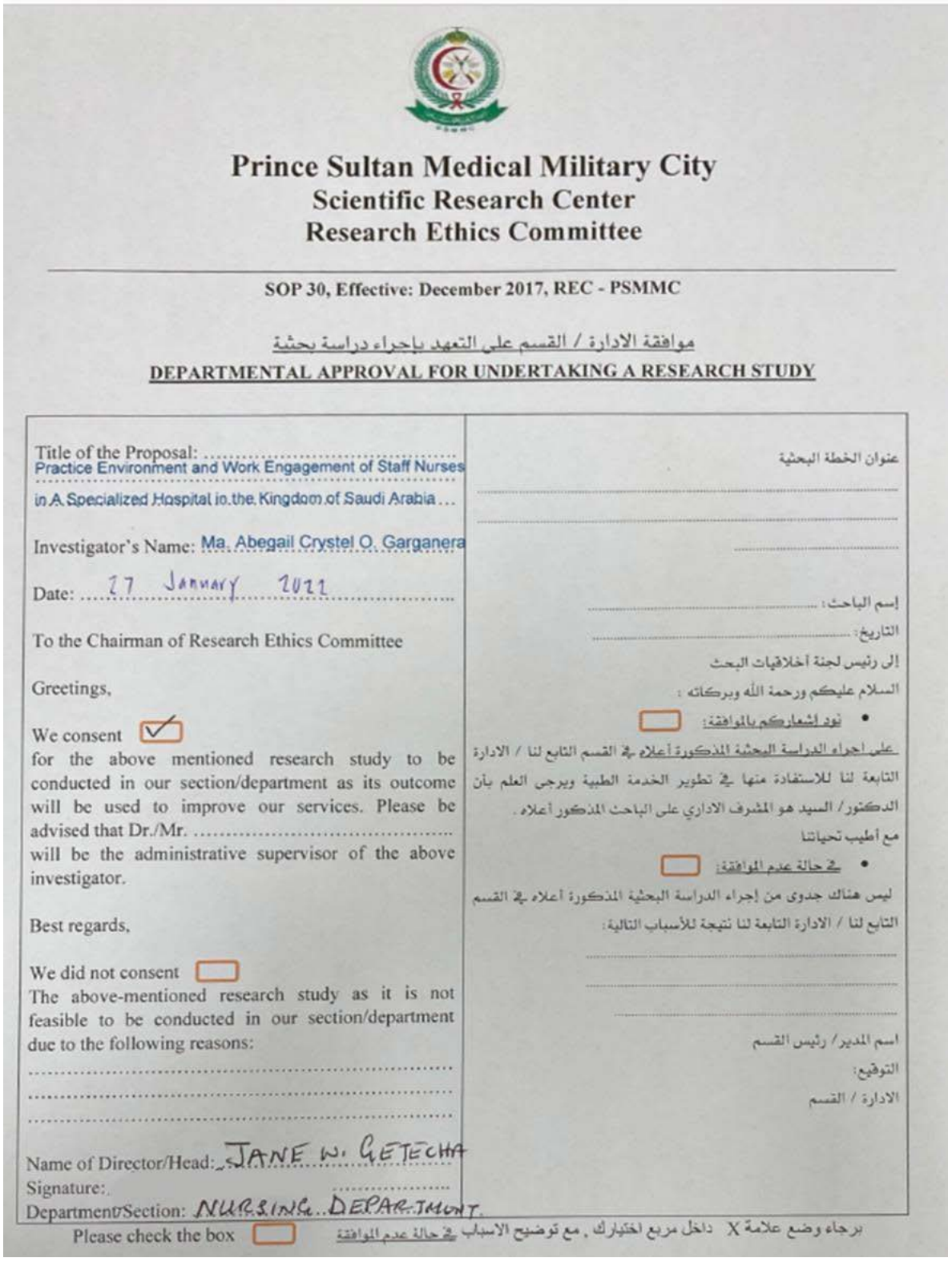
Very truly yours,

ASST. PROF. QUEENIE R. RIDULME
Adviser

ASST. PROF. RIA VALERIE D. CABANES
Program Chair, MAN

APPENDIX I

Hospital Nursing Department Study Approval



Prince Sultan Medical Military City
Scientific Research Center
Research Ethics Committee

SOP 30, Effective: December 2017, REC - PSMMC

موافقة الادارة / القسم على التعهد بإجراء دراسة بحثية

DEPARTMENTAL APPROVAL FOR UNDERTAKING A RESEARCH STUDY

Title of the Proposal: Practice Environment and Work Engagement of Staff Nurses in A Specialized Hospital in the Kingdom of Saudi Arabia

Investigator's Name: Ma. Abegail Crystel O. Garganera

Date: 27 January 2021

To the Chairman of Research Ethics Committee

Greetings,

We consent ☑
for the above mentioned research study to be conducted in our section/department as its outcome will be used to improve our services. Please be advised that Dr./Mr. ..... will be the administrative supervisor of the above investigator.

Best regards,

We did not consent ☐
The above-mentioned research study as it is not feasible to be conducted in our section/department due to the following reasons:
.....
.....
.....

Name of Director/Head: JANE W. GETECHA
Signature: .....
Department/Section: NURSING DEPARTMENT

Please check the box ☐

عنوان الخطة البحثية
.....
.....
.....

إسم الباحث: .....
التاريخ: .....

إلى رئيس لجنة أخلاقيات البحث

السلام عليكم ورحمة الله وبركاته :

- نود إشعاركم بالموافقة: ☐

على إجراء الدراسة البحثية المذكورة أعلاه في القسم التابع لنا / الادارة التابعة لنا للاستفادة منها في تطوير الخدمة الطبية ويرجى العلم بأن الدكتور/ السيد هو المشرف الاداري على الباحث المذكور أعلاه .

مع أطيب تحياتنا

- في حالة عدم الموافقة: ☐

ليس هناك جدوى من إجراء الدراسة البحثية المذكورة أعلاه في القسم التابع لنا / الادارة التابعة لنا نتيجة للأسباب التالية:

.....
.....
.....

اسم المدير/ رئيس القسم
التوقيع:
الادارة / القسم

برجاء وضع علامة X داخل مربع اختيارك , مع توضيح الاسباب في حالة عدم الموافقة

APPENDIX J

Research Proposal

Submission Date:
23 January 2022

Prince Sultan Military Medical City
Scientific Research Center
Research Ethics Committee

RESEARCH PROPOSAL (Non-Granted)

I. COVER PAGE

Title: Practice Environment and Work Engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia

Investigator/s	*Institution*	*Department and Position*
Ma. Abegail Crystel O. Garganera	University of the Philippines Open University/ Prince Sultan Cardiac Center	Nursing Department Charge Nurse, Adult Cardiac Surgery Ward 1.6

Contact No.	*Email Id of person(s) involved in handling the proposal*
	mogarganera@up.edu.ph or mgarganera@pscc.med.sa

Location (department) and Expected Duration of the Study:
Nursing Department- Bldg. 6- Inpatient Units
6 months

Type of study

1. **Non-clinical** ☐ √
2. **Clinical**
   a. Prospective ☐
   b. Retrospective ☐
   c. Observational ☐
   d. Interventional ☐
   e. Case report ☐
   f. Case series ☐
   g. General survey ☐
   h. Any other (Please specify)

.....

1

APPENDIX K

Investigator's Undertaking

Prince Sultan Medical Military City
Scientific Research Center
SOP 29, Effective: December 2017, REC - PSMMC

تعهد الباحث

INVESTIGATOR'S UNDERTAKING

I, Dr./Mr./Ms. Ma. Abegail Crystel O. Garganera,

Investigator from the Department of Nursing
Adult Cardiac Surgery Ward 1.6- Prince Sultan Cardiac Center

Hospital/University/College of University of the Philippines Open University
/Prince Sultan Cardiac Center,

hereby declare that I will shoulder all the responsibilities pertaining to the Research Project No. ....., entitled "
Practice Environment and Work Engagement of Staff Nurses
in A Specialized Hospital in the Kingdom of Saudi Arabia
in my capacity as principal/co-investigator.

This undertaking includes the following duties and responsibilities:

1. I will be jointly responsible for all technical, ethical and administrative aspects of the research involving human subjects, and humane treatment of laboratory animals if required to be used during the course of this research project.
2. I will furnish the Director of Scientific Research Center, PSMMC with a report on the progress of the research project once every six months.
3. Upon completion of the research project, I will submit a summary of the results, objectives achieved and benefits which the Kingdom of Saudi Arabia shall gain from this research project.

Name: Ma. Abegail Crystel O. Garganera

Signature:

Date: 23/01/2022

Contact No. .....

E-mail: mogarganera@up.edu.ph
mgarganera@pscc.med.sa

بهذا أقر أنا الدكتور/ السيد/ السيدة .....

أعمل بوظيفة باحث في إدارة .....

مستشفى/ جامعة / كلية .....

أقر بانني سأتحمل كافة المسئوليات ذات الصلة بالمشروع البحثي رقم

بعنوان .....

بصفتي باحث رئيس/ باحث مشارك.

ويشمل هذا التعهد الواجبات والمسئوليات التالية:

1 - المسئولية المشتركة عن كافة الجوانب الفنية والاخلاقية والادارية المتعلقة بالعينات البشرية والمعاملة الانسانية لحيوانات التجارب المخبرية في حال تكون هناك ضرورة لاستخدامها أثناء فترة هذا المشروع البحثي.

2 - تزويد مدير مركز الأبحاث العلمية بمدينة الأمير سلطان الطبية العسكرية بتقرير حول تقدم سير العمل بالمشروع البحثي مرة كل ستة أشهر.

3 - تقديم ملخص بالنتائج والاهداف المحققة بنهاية المشروع البحثي والفوائد التي تعود على المملكة العربية السعودية من وراء تنفيذ هذا المشروع البحثي.

الاسم : .....

التوقيع : .....

التاريخ : .....

رقم الاتصال : .....

عنوان البريد الالكتروني : .....

Please attach a copy of your National ID

APPENDIX L

Investigator Financial Interest Disclosure

Prince Sultan Medical Military City

Scientific Research Center

SRC

Investigator Financial Interest Disclosure

Name: Ma. Abegail Crystel O. Garganera

ID Number: 2323751939 Department: Nursing Department- Adult Cardiac Surgery Ward 1.6- PSCC

● I have no financial interests to disclose

Signed: _____ Date 27 January 2022

(Original signature only – a "per" signature is not acceptable)

○ Yes (Funding agency and agreement details to be addressed below or attached)

I am disclosing the following financial interests and attaching supporting documentation (in an envelope marked confidential) that identifies the business enterprise or entity involved and the nature and amount of the interest:

_____ Salary or other payment for services (e.g., consulting fees or honoraria).
_____ Equity interests (e.g., stocks, stock options, or other ownership interests).
_____ Intellectual property rights (e.g., patents, copyrights, and royalties from such rights).
_____ Other financial interest that possibly could affect or be perceived to affect the results of my research or educational activities.

- To update this disclosure either on an annual basis, or as new reportable financial interests are obtained.
- To cooperate with the Research Advisory Council (RAC) in the development of a Memorandum of Understanding (MOU) that constitutes a conflict of interest resolution plan.
- To comply with any conditions or restrictions imposed by the RAC to manage, reduce, or eliminate actual or potential conflicts of interest.

Endorsements:

I have reviewed the financial interest disclosure and believe that an MOU is
☐ required ☐ not required

Department Chairman: _____ Signed _____ Date

I have reviewed the financial interest disclosure and believe that an MOU is
☐ required ☐ not required

Research Advisory Council Chairman _____ Signed _____ Date

APPENDIX M

Institutional Review Board (IRB) Approval

ML #955

Prince Sultan Military Medical City
Scientific Research Center
P.O. Box 7897, Riyadh, 11159
Kingdom of Saudi Arabia
Institutional Review Board (IRB)
HP-01-R079

5th Oct 2022
Ma. Abegail Crystel O. Garganera
Nursing Dep.
PSMMC

RE: Practice Environment and Work Engagement of Staff Nurses in a Specialized Hospital in the Kingdom of Saudi Arabia
Ma. Abegail Crystel O. Garganera

This is in reference to your submitted proposal, which has been reviewed by the appointed member(s) of the committee through and expedited review process. On the recommendation of the board of review in the ethical aspects of the proposal, Institutional Review Board (IRB) is pleased to approve and grant permission to conduct your study. Your research protocol has been documented under:

IRB Approval No	:	1648
Date Approved	:	5th Oct
Series of	:	2022

Kindly quote the project number indicated herein in all transactions and communications. You are advised to submit a report in relation to this research scheme to update the committee of its progress. Additionally, changing in approved proposal's (title, name(s) of the investigators, addition or deletion) is/are NOT allowed unless taken prior permission from IRB. Furthermore, minor adjustment in the title from approved proposal in manuscript for publication purpose must also be informed to the aforesaid office in writing prior to its submission.

Also, please note that this approval is valid only for ONE YEAR commencing from the date of issue of this letter. I trust your research scheme provides fruitful and beneficial outcome to the Prince Sultan Military Medical City and its affiliated health centres.

Best Regards,

Dr. Nawaf Alkhayat
Chairman of the Institutional Review Board (IRB)

APPENDIX N

CURRICULUM VITAE

Ma. Abegail Crystel O. Garganera

Bernwood Resort Villas
Sta. Nina Sur, Arevalo, Iloilo City
5000 Philippines

macgarganera@outlook.com

PERSONAL INFORMATION

Sex	Female
Date of Birth	January 14, 1986
Place of Birth	Iloilo City
Nationality	Filipino
Religion	Roman Catholic
Civil Status	Single

WORK EXPERIENCE

Charge Nurse, Adult Cardiac Surgery Ward 1.6
Prince Sultan Cardiac Center (PSCC)
Riyadh, Kingdom of Saudi Arabia
April 16, 2018 – present
DESCRIPTION: Assesses and monitors, identify problems, plans and implements and evaluates pre and post acult cardiac surgery (i.e. CABG, valve repair or replacement) and pre and post cardiac catheterization patients. Supports unit nursing staff in providing the highest standards of care as per **Joint Commission International (JCI), Saudi Central Board for Accreditation of Healthcare Institute (CBAHI) and Magnet Recognition Program**, for all adult cardiac and cardiac surgery patients. Delegates unit nursing tasks appropriately. Acts as unit resource person for nursing staff as per policy and procedures. Does unit annual performance appraisals of nursing staff. Continues to work as *Telemetry nurse, preceptor of new staff in charge or telemetry nurse; unit Infection Control Link Nurse (ICLN) and Fire Warden and PSCC 4343 Bleep Holder/Nurse Supervisor (in rotation).* Manages the unit in the absence of the Head Nurse. *Active Member of Unit Quality Improvement (QI) project 2021 to present. Works as staff nurse as needed in the unit. Member of PSCC Nursing, Research and Evidence Based Practice Council.*
(PSCC Bed Capacity-166, Ward 1.6 Beds- 25 including 6 HDU beds)

Staff Nurse, Adult Cardiac Surgery Ward 1.6
Prince Sultan Cardiac Center (PSCC)
Riyadh, Kingdom of Saudi Arabia
January 27, 2012 – April 15, 2018
DESCRIPTION: Assesses and monitors, identify problems, plans, and implements and evaluates pre and post acult cardiac surgery (i.e. CABG, valve repair or replacement) and pre and post cardiac catheterization patients. Also, works as *HDU Telemetry, Shift In Charge nurse; preceptor of new staff and students; unit Infection Control Link Nurse (ICLN), and Fire Warden and PSCC 4343 Bleep Holder/Nurse Supervisor (in rotation of Shift In Charge).* Furthermore, works as needed in Adult Critical Intensive Care Unit (ACICU), Coronary Care Unit (CCU), and cardiology wards.
(PSCC Bed Capacity-166, Ward 1.6 Beds- 25 including 6 HDU beds)

Staff Nurse, Surgical Intensive Care Unit (SICU)
St. Paul's Hospital Iloilo (SPHI)
General Luna St., Iloilo City Philippines
June 13, 2008 – January 1, 2012
DESCRIPTION: Assesses and monitors, identify problems, plans and implements and evaluates pre- and post-surgery (i.e. neurological, abdominal, oral and maxillofacial, orthopedic, and pediatric) and trauma patients. Also, works as *unit senior staff nurse and preceptor of new staff and students; and SPHI Intravenous Therapy preceptor* (licensed I.V. Therapy and I.V. Chemotherapy Nurse). Furthermore, works as needed in all nursing units.
(SPHI Bed Capacity- 265 SICU Beds- 6)

Staff Nurse, Pain Management Center (PMC) (in rotation)
St. Paul's Hospital Iloilo (SPHI)
General Luna St., Iloilo City Philippines
January 22, 2010 – January 1, 2012
DESCRIPTION: Assesses and monitors, identify problems, plans and implements and evaluates out-patients for I.V. chemotherapy and I.V. chemotherapy related infusions or injections; assists in cancer related diagnostics tests (i.e. bone marrow aspiration and lumbar puncture); and assists in cancer pain management. Also, works as a *senior staff nurse and preceptor of new staff and students in the center and SPHI Intravenous Therapy preceptor* (licensed I.V. Therapy and I.V. Chemotherapy Nurse). *Co-writer of the Policy and Procedures of the center.* Furthermore, works as needed in all nursing units.
(SPHI Bed Capacity- 265 PMC Beds- 4)

EXAMINATIONS

International English Language Testing System (IELTS)
IDP IELTS Test Centre
Riyadh, Kingdom of Saudi Arabia
May 12, 2022
Band Scores- L- 8.5, R-6.5, W- 6.5, S- 8
Overall Band Score- 7.5

Saudi Commission for Health Specialties (SCFHS)
Saudi Nursing Licensing Examination (SNLE)
Nurse Specialist
Akaria Mall- Saudi Commission for Health Specialties (SCFHS)
Riyadh, Kingdom of Saudi Arabia
September 16, 2021
Score- 614- Passed

National Council of Licensure Examination (NCLEX) for Registered Nurses (RN)
Northern Mariana Islands Board of Nursing
Pearson Professional Centers Manila
Makati City, Philippines
January 16, 2018
Passed

Saudi Commission for Health Specialties (SCFHS) Prometric Examination
Nurse Technician
Ateneo Professional Schools (APS)
Makati City, Philippines
December 8, 2011
Grade - 70% - Passed

Philippine Nurse Licensure Examination (PNLE)
Registered Nurse
Iloilo City, Philippines
June 10 & 11, 2007
General Average - 84.20% - Passed

EDUCATION

Master of Arts in Nursing (MAN)
Major in Nursing Administration
Minor in Health Emergency Management and Geriatrics and Gerontology Nursing
University of the Philippines Open University (UPOU)
Los Banos, Laguna Philippines
August 2016 – present

Bachelor of Science in Nursing (BSN)
St. Paul University Iloilo (SPUI)
General Luna St., Iloilo City Philippines
June 2003 – April 2007

Secondary, Elementary, Kindergarten
Ateneo de Iloilo - Santa Maria Catholic School (ADI-SMCS)
San Rafael, Mandurian, Iloilo City Philippines
June 1999 – March 2003; June 1993 – March 1999; June 1991 - March 1993

ACHIEVEMENTS

Daisy Nominee - October 2022
Adult Cardiac Surgery Ward 1.6
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
January 5, 2023

Employee of the Month - November 2021
Adult Cardiac Surgery Ward 1.6
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
December 12, 2021

Transcutural Nursing Competencies and Experience of Paulinian Nurses around the World Resource Speaker via Zoom
St. Paul University Iloilo
General Luna St., Iloilo City Philippines
December 13, 2021

Perfect Attendance Awardee 2010
St. Paul's Hospital Iloilo
General Luna St., Iloilo City Philippines
December 22, 2010

Lifebank Foundation, Inc. Medical Mission Volunteer
San Joaquin, Iloilo Philippines
November 28, 2010

Barangay Health Workers Forum on Cancer Awareness Facilitator
St. Paul University Iloilo
General Luna St., Iloilo City Philippines
April 15, 2010

Administering Chemotherapy Drugs Resource Speaker; Tracheostomy Care Resource Speaker
St. Paul's Hospital Iloilo
General Luna St., Iloilo City Philippines
August 28, 2008; September 14, 2011

Dean's List AY 2003-2004
St. Paul University Iloilo
General Luna St., Iloilo City Philippines
July 24, 2004

Citizens Army Training (CAT) Officer Bravo Executive Officer (XO)
Santa Maria Catholic School - Ateneo de Iloilo
San Rafael, Mandurriao, Iloilo City Philippines
March 31, 2003

TRAININGS, ORIENTATIONS, LICENSURES

Advanced Cardiac Life Support (ACLS) Provider
Prince Sultan Cardiac Center (PSCC)
Riyadh, Kingdom of Saudi Arabia
April 20-21, 2022

Basic Life Support (BLS) Provider
Prince Sultan Cardiac Center (PSCC)
Riyadh, Kingdom of Saudi Arabia
January 5, 2022

Rabet PowerChart Nursing Foundations Training
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
August 2 - 3, 2021

Advanced Cardiac Life Support (ACLS) Instructor Course
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
May 28, 2021

POCT Train the Trainer Program:
ABL Blood Gas Analyzer;
First Step Pregnancy Test and Fecal Occult Blood Test;
Hemochron Signature (Whole Blood Microcoagulation System)
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
February 9, 2022; September 3, 2019; May 28, 2019

Infection Control Practitioner Leave Cover
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
November 19, 2017 – January 6, 2018

Basic Course for Infection Control Link Nurse (ICLN) Program
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
June 22 - 26, 2014

PSCC Hospital Orientation;
PSCC Departmental Orientation;
PSCC Ward 1.6 Adult Cardiac Surgery Orientation
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
February 4, 2012; January 29, 2012;
January 27 – March 1, 2012

Training of Trainers Intravenous Therapy
St. Paul's Hospital Iloilo
General Luna St., Iloilo City, Philippines 5000
July 18, 2011

Advanced Chemotherapy Training
Chinese General Hospital
Santa Cruz Manila, Philippines
September 6, 2010

Hematology Oncology Unit
Cebu Cancer Institute (CCI) Training
Perpetual Succour Hospital of Cebu, Inc.
Cebu City, Philippines
July 15 – September 15, 2009

Intravenous Therapy Training Course for Nurses
St. Paul's Hospital Iloilo
General Luna St., Iloilo City Philippines
April 14 - 16, 2008

Emergency Nursing Training
St. Paul's Hospital Iloilo
General Luna St., Iloilo City Philippines
April 8 – 10, 2008

Orientation and Training Program for Staff Nurses
St. Paul's Hospital Iloilo
General Luna St., Iloilo City Philippines
March 24 – June 12, 2008

Freshmen Leadership Training Seminar Workshop
St. Paul University Iloilo
General Luna St., Iloilo City Philippines
August 10, 2003

Cadet Officers Leadership Training (COLT)
Pre Cadet Officers Leadership Training (Pre COLT);
Santa Maria Catholic School - Ateneo de Iloilo
San Rafael, Mandurriao, Iloilo City Philippines
May 11 - 25, 2002; March 12 - 26, 2002

SEMINARS, STUDY DAYS

Mentorship Workshop
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
April 4, 2023

Magnet Workshop
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
March 12, 2023

Professional Nursing Practice Course
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
January 8, 2023

Culture of Civility
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
January 8, 2023

Transformational Leadership Course
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
October 31, 2022

Clinical Reasoning Course
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
March 28, 2022

Basic Quality Course
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
February 24, 2022

Facility Management and Safety (FMS) Orientation Program- Annual
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
January 11, 2023

In Service Re Orientation of Infection Control- Annual
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
July 12, 2022

Nurse/Clinician- Pyxis MedStation ES v1.6: Essentials Non-Profile Mode BD Learning Compass
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
May 3, 2021

NDNQI Pressure Injury Training Course Version
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
May 2, 2021

Sedation Course
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
February 9, 2021

Coronavirus (COVID 19) for Nursing Professionals
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
April 9, 2020

Major Medical Response (MMR) Plan Lecture
Prince Sultan Military Medical City
Riyadh, Kingdom of Saudi Arabia
January 17, 2020

2 Day JCI/CBAHI Standards Workshop
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
December 8 & 15, 2019

Pressure Injury Prevention (PIP) Study Day
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
July 4, 2019

Environmental Health and Safety Lecture (Fire Lecture)
Prince Sultan Military Medical City
Riyadh, Kingdom of Saudi Arabia
May 7, 2019

Cardiac Theater - Adult Cardiac Surgery One Day Observation
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
November 6, 2017

2 Day JCI Standards
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
January 17-18, 2017

3 Day ECG Course
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
April 24& 27 & May 1, 2016

Peripherally Inserted Central Catheters (PICC) Basic and Advanced Session
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
October 26, 2015

Nursing Supervisory Course (4343Bleep); Preceptorship Study Day
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
December 3, 2014; August 31, 2014

Adult Critical Care Course Study Day
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
July 8 & 14, 2014

Pacing - Single Chamber Study Day; Hemodynamic Monitoring Study Day; Cardiac Drugs Study Day; Rhythm Analysis Study Day; Wound Care Study Day
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
February 10, 2013; December 16, 2012
May 14, 2012; April 14, 2012; March 19, 2012

Cardiac Basics Study Day
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
February 8, 11, 15, 2012

Care and Management for Intracranial Ruptures Aneurysm; Bleed for Life: Update on Blood Transfusion; Conflict Management; Back to Basics: Pre-Op and Post Op Care	St. Paul's Hospital Iloilo General Luna St., Iloilo City Philippines March 23, 2010; February 3, 2010; May 26, 2009; February 25, 2009

SKILLS

Languages Spoken: Hiligaynon, Tagalog, English, basic Arabic

Computer Skills: Microsoft Word, Excel, Powerpoint

Medical Equipment: IntelliSpace Critical Care and Anesthesia (ICCA); Rabet PowerChart
Abbott FreeGo Feeding Pump
Accu-Chek Blood Glucose Meter; Nova Biomedical Stat Strip Glucose Monitoring System
Alaris (IMED) Gemini Infusion Pump; BD Alaris IV Infusion and Syringe Pump
Covidien Genius Tympanic Thermometer; Welch Allyn SureTemp Thermometer
Draeger Infinity Gamma XL Patient Monitor; Philips SureSigns VS4 Vital Signs Monitor
Draeger Infinity M300 Telemetry and Infinity CentralStation Wide
HP Pagewriter EKG Machine
Patient Hoist;
Philips Heartstart MRx Defibrillator/Monitor
Philips IntelliVue Patient Monitor and Philips IntelliVue Information Center Central Monitoring System
Pneumatic Tube System
Portable HEPA Filtration System
Purified Air Purifying Respirator (PAPR)
Smith Nephew Renasys GO Negative Pressure Wound Therapy (NPWT) or Vacuum Assisted Closure (VAC)

AFFILIATIONS

Saudi Nurses Association (SNA)
Member
July 2020 – July 2021

Philippine Nurses Association, Inc.
Member
September 14, 2007 – present

Association of Nursing Service Administrators of the Philippines (ANSAP)
Member
July 18, 2011 – December 2011

St. Paul University Iloilo Alumni Association, Inc.
Member
April 22, 2007 - present

Critical Care Nurse Association of the Philippines (CCNAPI)
Member
February 25, 2011 – December 2011

Santa Maria Catholic School – Ateneo de Iloilo Alumni Association, Inc.
Member
March 31, 2003 - present

REFERENCES

Dr. Adam Ibrahim Mohamed
Director, Adult Cardiac Surgery Ward 1.6
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
Amohamed@pscc.med.sa
011478300 Ext. 87397

Carina Murray
Clinical Nurse Manager
Prince Sultan Cardiac Center
Riyadh, Kingdom of Saudi Arabia
Amohamed@pscc.med.sa
011478300 Ext. 87509