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Exploring the Quality of Care and the Nursing Practice Environment in Saudi Arabia

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Abstract: *The practice environment significantly influences healthcare quality, particularly in nursing. In Saudi Arabia, the quality of nursing services faces challenges due to a high ratio of expatriate nurses and unique workplace conditions. This study analyzes the Nursing Work Index Scale (NWIS) to evaluate the Practice Environment Scale (PES) and its subscales. Additionally, it explores the relationship between demographic variables and subscale outcomes. A descriptive, cross-sectional study was conducted using a self-administered questionnaire distributed to 573 staff nurses in a public hospital (1200-bed capacity) managed by the Ministry of Health. Data was collected in October 2021, with 384 nurses responding. The PES-NWIS was utilized to measure nurses' perceptions of their work environment on a four-point scale. The overall mean score for the PES-NWIS was 2.94 (SD ± 0.753), with all five subscale scores exceeding the midpoint of 2.5. The highest scores were observed for "Nursing Foundations for Quality of Care" (3.02, SD ± 0.753), followed by "Collegial Nurse–Physician Relations" (2.99, SD ± 0.822), and "Nurse Manager Ability, Leadership, and Support" (2.98, SD ± 0.819). The lowest score was for "Staffing and Resource Adequacy" (2.56, SD ± 0.993). A healthy work environment positively impacts nursing outcomes and healthcare quality. Promoting a supportive nursing practice environment benefits patients, nurses, and the broader healthcare team, emphasizing the need for targeted interventions in Saudi hospitals.*

Introduction
Study Background

There have been rapid changes and improvements in the healthcare industry for quality service in the Kingdom of Saudi Arabia (KSA) in the last thirty years in response to the expanding demands of an increasing population (Albejaidi & Nair, 2019; Algaissi et al., 2020). This development has led to an acute and persistent shortage of nurses who comprise the majority of healthcare workers (Almutairi et al., 2015). However, increasing globalization and rapid developments in information communication technology have facilitated the Saudi government's employment of more expatriate nurses in the Kingdom (Alharbi et al., 2022). Currently, expatriates make up approximately 62% of the nurses employed in the KSA (Ministry of Health, 2014), making it one of the largest markets worldwide for employing this category of foreign

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nationals (Hamdan et al., 2022; Tubaishat et al., 2022). In spite of the large inflow of foreign nurses KS, A still has a deficiency of such personnel (Alzailai et al., 2022). Based on available international statistics, in the United States, there are 14.5 nurses available for 1000 population. On the flip side, in KSA, for 1000 people, a maximum of 5.5 nurses is to be had (Health Resources and Services Administration, 2013).

One of the main challenges of the deficiency of nurses in KSA state-owned or Public Hospitals is that 56% of nurses want to leave their positions. This was the turnover rate, as reported by Saeed (1995) in his research. A more recent analysis of data statistics from a state-owned hospital revealed that in the Kingdom of Saudi Arabia, approximately 75% of nurses had resigned from their jobs after only two years short period of employment (Alonazi & Omar, 2013). Other researchers also revealed from their research that the temporary working nature of expatriate nurses still infuriates the overall turnover rate (Alasmari & Douglas, 2012; Lamadah & Sayed, 2014). So, in short, a big shift in turnover rate merits closer investigation to identify the main reasons, and this turnover also has an impact on the practice environment. This should be undertaken with the aim of helping administrators develop strategies to retain nurses longer, reduce turnover rates, enhance the practice environment outcome, and, ultimately, reduce nurse shortages in KSA hospitals.

Nurse shortage is a universal problem challenge (Nakweenda et al., 2022) in developing and developed countries; in developing countries, the nurse shortage condition is worse than in developed countries, but it is a fact every country is badly stuck in this challenge in LMIC Lower middle-income countries nurse shortage issue have more severe effects because of the integrated shortage of other healthcare facilities in the case of KSA its more complex situation because of the influence of two main factors. The first issue is related to KSA's traditional restricted customs and culture in which women are not allowed to work as employees, so because of women's employment restrictions, it's hard to fill the nurse shortage gap (Miller-Rosser et al., 2006). The 2nd issue is integrated with the first factor because, in the case of local KSA women unemployment, the KSA government is compelled to hire foreign nationals to fill the nurses' positions in Private and public hospitals as well as the reliance on the foreign workforce or women's power in the healthcare sector including nurses' staff. A critical challenge faced by the government is the proper structuring and organization of an international workforce consisting of nurses from more than 44 countries (International Hospitals Recruitment, 2015). This indicates the dire need for the creation of new strategies to implement recruitment procedures for nurses and their work environment and conditions within the healthcare industry.

Dominance of expatriate nurses in Saudi Arabia forms a special environment that significantly influences the performance of nurses. Various cultures and backgrounds in the world of work are a challenge for the health industry in Saudi Arabia. Culture and knowledge are very important for professional health workers (Hamdan Alshammari & Alboliteeh, 2022, Ali et al,. 2023).

The interaction between nurses and patients is largely determined by the culture and knowledge that shape the attitudes of nurses. Differences in culture and knowledge, as well as curricula for learning health services, are important issues in harmonizing professional services for nurses in Saudi Arabia. Expatriate nurses were dominated by those from India and the Philippines, reaching 63%, because the level of supply from these two countries as the main suppliers of nurses in Saudi Arabia was quite high (Alsadaan et al., 2021; Hamdan Alshammari & Alboliteeh, 2022). The main problem is the shortage of nurses and the low ratio of nurses in Saudi Arabia, one of which is due to the high turnover rate (Alzailai et al., 2022; Ateik et al., 2023). The main factors of turnover in the world of health are heavy workload, huge work stress, and time management. Mostly, nurses' staff have very hard jobs, their duty timings and work has a long work duration. Because of the work burden, nurses start suffering from stress and mental illness.

In the health world, the potential for trauma, anxiety, and frustration often occurs in health workers in hospitals due to the factors of seeing sick people, accidents, dying, and death. Nurses who interact directly with patients will certainly be affected by this condition quite significantly compared to administrative staff who work behind desks.

The nurses' working performance and quality in the current conditions in the Kingdom of Saudi Arabia really need to be improved, and some potential changes must be made according to the hospital's needs

for patient satisfaction. The performance of nurses is one of the spearheads of every health service, so it is necessary to do more in-depth research on the practice environment of nurses in Saudi Arabia.

Glimpse on Literature Review

The current population of the Kingdom of Saudi Arabia is around 36.4 million, and it is increasing by 1.28% every year with little change. According to a cautious survey, by 2025, it will reach 37 Million or more than this (Falatah, 2019; Ali et al., 2022). The rapid increase in population also increases the disease growth rate. With the increase in disease, more health professionals, doctors, and nurses are needed to take care of patients. In the Kingdom of Saudi Arabia, the prevalence of non-communicable diseases like diabetes and obesity needs more trained health professionals, and nurses are also widely considered and recognized as high talent for the healthcare profession (Alshammari, 2014). Presently, Saudi Arabia is facing a nurse shortage (Aboshaiqah, 2016). Dependence on foreign expat nurses is also a big challenge for the entire country because most expat nurses' demands are high, like salary, job timing, contract periods, etc. In 1992, the Government of Saudi Arabia issued a Royal Decree for the local workforce, including health professional Saudization, for the purpose of the employment of local Saudi citizens (Miller-Rosser et al., 2006). Saudization means increasing the number of workforces in the healthcare industry and gradually replacing most foreign expat workers with local Saudi nurses. From the last few years to now, the number of Saudi nurses has also increased compared to foreign nurses.

The number of Saudi nurses increased by 9% in 1997, 27% in 2005, and 37% in 2016 (Ministry of Health Saudi Arabia, 2016; Almalki et al., 2011). If in Saudi Arabia 37% or 38% of Saudi citizen nurses are working in it means 60% or 65% of expatriate nurses are working in Saudi Arabia which, means that KSA still needs more Saudi citizen nurses because reliance on expat nurse is not enough to bring more changes and improvements in the healthcare industry as well as quality healthcare performance. In our present research, we have to evaluate the nurse performance and deliverance of quality healthcare to patients, which is only possible in the way when health worker or nurse or mentally healthy and feel more relaxed on the opponent side that would be harder to deliver quality healthcare with mental illness or with mental stress. In 1958, the Saudi government took the initiative and introduced the first nursing program, in which 15 males enrolled in nursing courses. Gradually, it will be extended further to more nursing professionals. With the passage of time, the same type of nursing program has also been offered for female and female health work professionals in different cities, such as Riyadh, Jeddah, etc. Enrollment in the nursing programs just required 6th or 7th-grade education. By 1981, the education standard was increased to 9th grade, and it was considered mandatory to enrol in nursing education. The nursing program was expanded for 3 years (Aldossary et al., 2008; Ali et al., 2023).

The present age is very diverse regarding the healthcare industry; specifically, patients are also differing and considered nurses' values, identities, religious values, beliefs, cultures, and customs. This kind of emerging diversity creates more complexities in the healthcare industry. For nurses to work in a practical environment, it is essential to understand patients' cultural values, their nature of living, and their background as well so that they can take care of the patient. That kind of proficient attitude is called brilliance custom competence, which is the combination of thoughts, attitudes, behaviours, devotion, strategies, and approaches. This kind of value enables healthcare professionals and nurses to work more efficiently and with peace of mind (Bauce et al., 2014).

In the past, because of the strict traditional customs of Saudi Arabia, it was forbidden for women to work, but now almost 38% of local Saudi national nurses are working in the healthcare industry. In cultural competence, it is essential to respect the patient's culture and customs principles and to admit and accept cross-cultural relations to create a harmony of cultural dynamics and variations. The growth of culture and the delivery of healthcare services in culture modelling are the objectives of fulfilling the special cultural needs of the healthcare industry and bringing a more peaceful practising environment for nurses (Campinha-Bacote, 2011).

In the present situation of the healthcare industry, nurses should participate in training sessions, seminars, workshops, debates, and all other discussions related to the healthcare industry, should also participate in administrative affairs of hospitals and present their views and suggestions for the improvement of health infrastructure and hospitals' needs according to market and patient demands. So,

the working environment will become friendlier for nurses, and they can perform better than in traditional working styles. The administrative staff accept and should respect the views and suggestions of nurses.

Figure 1

5.5% of Nurses for 1,000 inhabitants according to 2018 (or the latest year) in KSA. Figure indicating all Nurse's details Saudi and non-Saudi citizens.
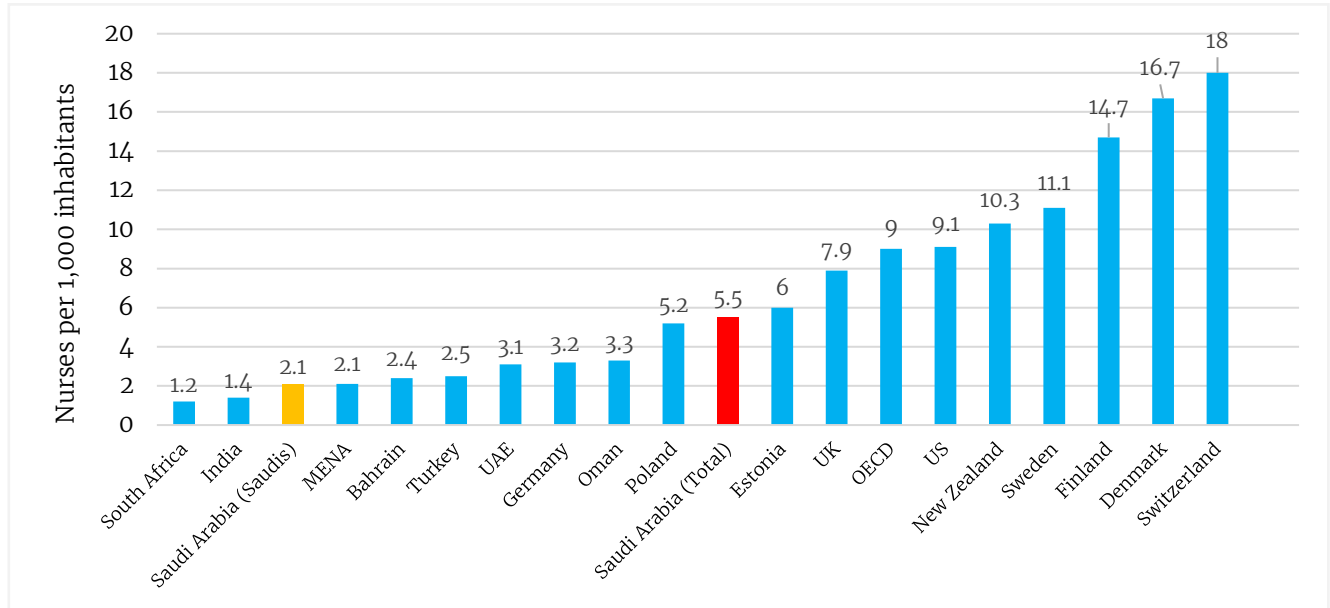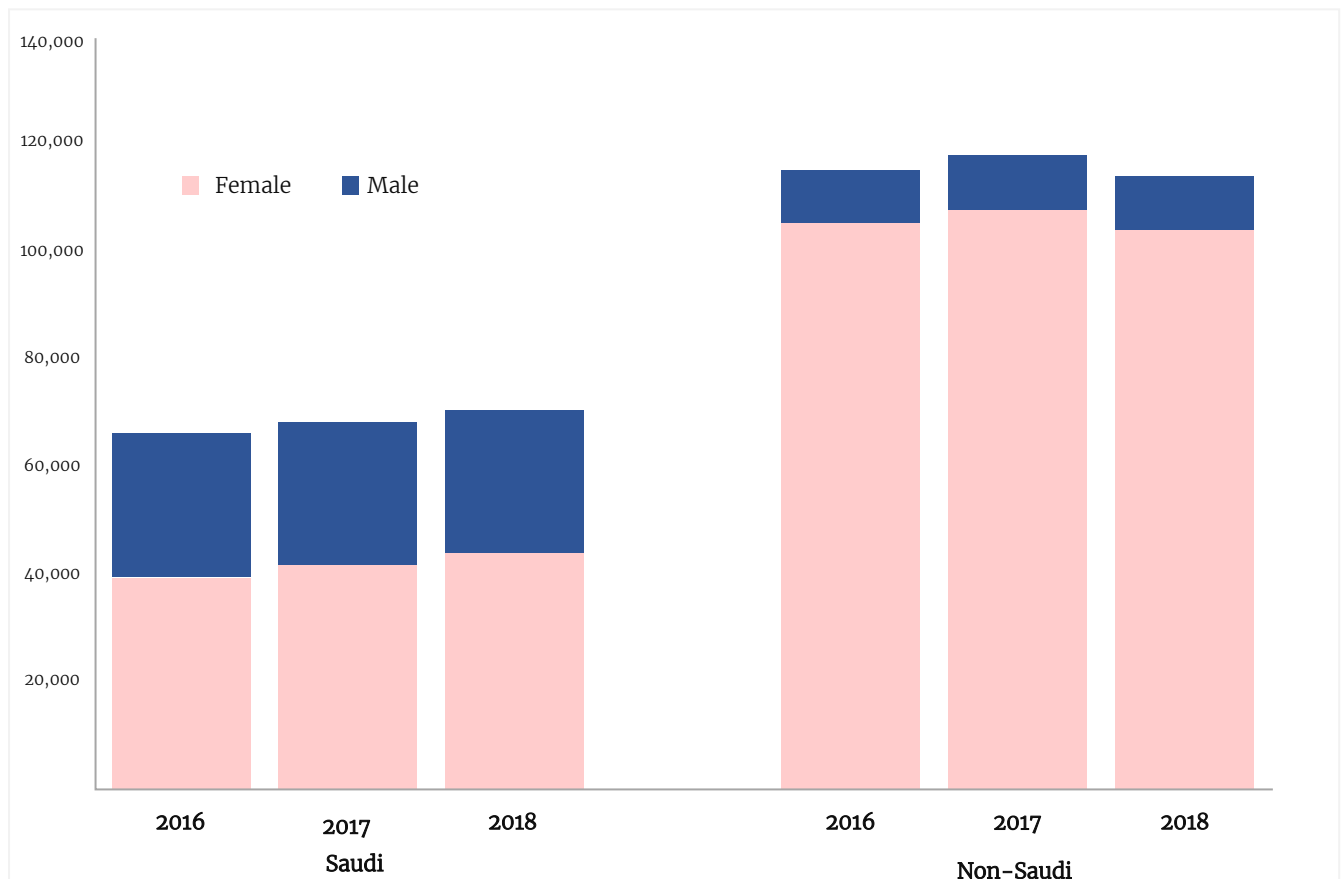

Figure 2

Number of Nurses in Kingdom of Saudi Arabia, by gender and nationality 2016–2018.

Research Gap

Based on the above phenomenon, it is known that no research has ever been conducted that thoroughly discusses the practice environment of nurses and their impact on performance, as well as several matters related to the relationship between nurses and other parts of the hospital. This "empirical research gap" is our basis for conducting comprehensive research to get a comprehensive and concise picture of the practice environment of nurses in hospitals and also evaluate their work performance under the practising environment and challenges for better healthcare management.

Problem Statement

The current research study consists of 573 nurse staff working in public hospitals with 1200 bed capacity. So, our results will be according to our research scope and limitations. If more staff is added, then the study can be investigated more deeply with the help of the MOH Ministry of Health, and more robust results can be obtained. So, the government of Saudi Arabia need more investigative research in public hospitals, as well as the private sector, for the nursing profession to get the desired results.

Research Objective

1. Investigate the relationship of nurse's outcome integrated with the practice environment.
2. Nurse working performance in a practising environment
3. Examine the nursing environment and their superior and the relationship between the nurses and their doctors.
4. Analyze the challenges and problems with hospital Administration and nurse employment.
5. Analyze the nurse's working ability and capacity in a practice environment
6. Evaluate the performance of quality of care in nursing sector.
7. Public hospital administration and their behaviours with nurse staff for the evaluation of work performance for patients
8. Analyze the challenges of the healthcare industry with respect to Nurse staff and their performance in the provision of healthcare quality.

Research Delimitations

Our present research study is limited to public hospitals and a specific figure of the nursing profession working in a practising environment. Our results are parallel according to our research limitations. The present study investigates the nursing shortage, their working style in the practice environment, and their challenge, so we concluded our remarks according to our study limitations to get the results for another factor and more investigative studies to bring improvements and changes in the healthcare industry in Saudi Arabia.

Research Questions

1. What are the factors that influence the quality of care provided by nurses?
2. What is the condition of the nurse's practice environment?
3. What are the most important factors in the nurse's practical environment that can improve the quality of care?

Hypothesis Generation

H_0: If the practicing environment is favourable for the nurses during their work.
H_1: If the practising environment is not favourable for nurses during their work.
H_2: If the working environment is suitable for nurses assessing the nature of quality healthcare deliverance

Research Methods

This study uses a quantitative approach to be able to make specific measurements of the nurse's practice environment phenomenon. Our present research aimed to explain the nursing practice environments in the sense of the nurses working in Medical City located in Riyadh. In the research method chapter, we will

choose the research design, sample data collection, and strategy design for research purposes to target nurses and hospitals. We will also perform a complete analysis of the collected data. We will apply relevant tools and measures for our current research. We are using a descriptive cross–sectional research method for our present research (Saunders et al., 2009), and for data collection, we used an online Google form emailed to nurses working in the public hospital Medical City Riyadh. The study was conducted between August and December 2021, with the questionnaire distributed during the month of September and the data processed and analyzed in October 2021. The participants were recruited from a Medical City in Riyadh, which is located in the tertiary of Riyadh. This is a public hospital owned by the Ministry of Health (MOH) with a range of 1200 beds furnished with medical instruments and infrastructure. Present public hospitals usually receive referred patients from other hospitals and clinic centres in Saudi Arabia. Many outpatient clinics also work under the Riyadh Hospital administration; this hospital has a huge rush of patients inside patients as well as outside patients referred by other hospitals; local and expat patients also do their medical treatment from this hospital.

We conducted our research among the registered nurses RNs working in a Medical City in Riyadh. The study population consisted of 384 RNs. In each UnitUnit, besides the staff nurses who provide direct patient care, jobs are classified as the following: a Head Nurse (equivalent to Nurse Manager in other hospitals) who manages the UnitUnit and performs the administrative tasks; Acting et al. (AHN) who works as an assistant to the Head Nurse, helps in completing the administrative work and takes over during the absence of the Head Nurse, as well as providing nursing care to patients if the UnitUnit is busy. Then there is the Charge Nurse (CN), the team leader in the UnitUnit who observes the patients' condition in general, maintains safety, assign patients to nurses, ensures the adequacy of equipment, and supplies in the UnitUnit and collaborates with the other departments such as laboratory, medical imaging, and medical supply. The major healthcare providers are staff nurses and nurse aides. Staff nurses hold either a diploma or a bachelor's degree in nursing and provide nursing care to all patients in the UnitUnit, while nurse aides (technicians) hold a diploma (a technical degree in health or nursing aid) and work under the supervision of the staff nurses to perform some primary tasks such as cleaning, feeding, and ambulating patients. In public hospitals, Nurses work under the CN Charge nurse, and further duties and responsibilities are assigned according to the nurse–level position and qualification. All working units of nurses are responsible and answerable to the head nurse, who completely follows up on the unit's progress, work, and duties.

In a working unit of nurse, the entire staff is integrated with each other according to their duties and responsibilities. The growing population in Saudi Arabia creates a more complex situation regarding health in the healthcare sector, so nurses are playing their own role in quality healthcare in the country. Our current research study focuses on a public hospital working under the Ministry of Health. We chose the sample and data according to that, and we carried out our research results and hypothesis testing. In the present scenario of our research, it was most important to conduct research in the entire country in the healthcare industry, but because of source deficiency, it was hard to carry out in–depth research analysis within the country. The model which we used for our research method was the same as the working style of nurses in public hospitals, and we segregated the nurses according to their level and job responsibilities and chose demographic variables such as age, gender, educational level, shift or job timing. That was more convenient for us to carry out the complete research if all respondents had responded, but unfortunately, 384 numbers of nurses responded, the majority of nurse respondents belonged to the female section, and the male section response ratio was less than that of females. There was another factor we realised, which may have been the coronavirus outbreak. Most of the nurse staff may be doing rest because of the COVID–19 outbreak. During COVID–19 it was very hard to carry out health job duties responsibilities within hospital because everyone was afraid of this lethal pandemic disease, And during the outbreak of Corona virus it was very difficult to meet medical needs and equipment for patient because of supply chain demand. Because of the time of COVID–19, the supply chain of everything, including healthcare equipment, was badly suffered. During the Coronavirus all of the world was shut down, and businesses were closed. The same happened in Saudi Arabia; everything was shut down, and the entire country was engulfed in lockdown, so it became very difficult to treat the patients in the hospitals. The nurses also faced a lot of difficulties because the number of patients became more than necessary. So during the Coronavirus outbreak, every hospital has a certain number of patients to treat, if it is more, all the staff of the hospital face difficulties, especially for the nurses, the difficulties increase due to which the patient cannot be

treated properly and the patient also receives less attention than normal conditions, and quality of healthcare also decrease from standard level. In our present research, nurses and staff in public hospitals also face some situations like this during the pandemic in Saudi Arabia.

Figure 3

Nurses Working Model in Tertiary Public Hospital Riyadh Kingdom of Saudi Arabia
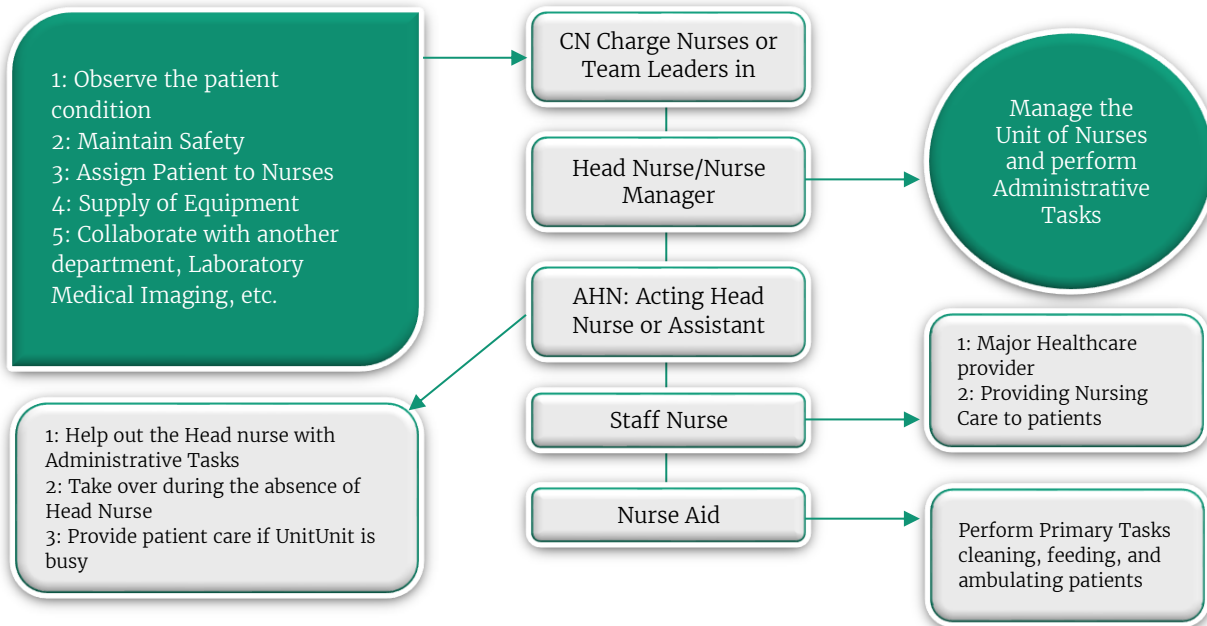
A self-reporting questionnaire consisting of a handful of demographic questions was used along with the Practice Environment Scale of the Nursing Work Index (PES-NWI) questionnaire that measures various aspects of the nurses' work environments. The instrument is considered to be highly reliable and valid, with international studies reporting its internal consistency reliability in the range of 0.85 to 0.95 (Liu et al., 2012; Nantsupawat et al., 2011). It consists of five dimensions: 9 items were assigned to nurse participation in hospital affairs, ten for nurse foundations for quality care, 5 for nurse managers' ability and leadership and support of nurses, 4 for staffing and resource adequacy, and 3 for collegial nurse-physician relationships. The responses are measured using a 4-point Likert-type scale (*strongly agree* = 1 to *strongly disagree* = 4) with a mean score of 2.5 or greater on four or five subscales showing that nurses have an appropriate perception of their practice environment. A neutral perception (neither favourable nor unfavourable) of their practice environment is reflected by a mean score of 2.5 or more for two or three subscales. To arrive at the conclusion that the working environment is unfavorable to nursing practice none or only one of the subscales must have a mean score of 2.5 or greater.

The questionnaire required the participants to furnish the following demographic data:

1. **Age:** divided into 6 intervals (to simplify the categorization of nurses based on age groups): Less than 25, 25-30, 31-40, 41- 50, 51-60 and 60 years or older.
2. **Gender:** male or female.
3. **Level of education:** Diploma, Bachelor, Master or PhD degree.
4. **The status of shift times which were:** Night shift – Day shifts – Regular shifts from 7:30am until 4:30pm or mixed day and night shifts.

Convenience sampling was used in this study to simplify data collection and limit research time, (Sekaran & Bougie, 2016). Convenience sampling is non-probability sampling, so this study cannot be generalized to different objects and conditions (Saunders et al., 2009). Two added advantages are the low cost and the ease with which this way of sampling can be carried out. The sample included all nurses who met the inclusion criteria and were accessible via email. The major limitation of this sampling method is the potential selection bias, which causes a lack of representativeness (Portney & Watkins, 2009), which means the findings cannot be generalized. Descriptive statistics were applied to summarize the sample

characteristics and describe the nursing practice environment. Lake ([2007](#)) original instructions were followed in calculating the scores of the composite and five subscales of the PES-NWI. Bivariate associations between sample characteristics and PES-NWI scores were examined using independent *t*-tests, anova, after which the level of statistical significance $P \leq 0.05$ was determined (Lind et al., [2018](#)).

Results and Hypothesis testing

The participants were asked to indicate their age, gender, education level and the shifts they worked on. Table 1 shows their responses.

Table 1

Sample Demographic and Work Characteristics (n = 384)

Characteristics	N	%
Age		
25–30	61	15.9
31–40	200	52.1
41–50	95	24.7
51–60	28	7.3
Gender		
Male	36	9.4
Female	348	90.6
Degree		
Diploma	37	9.6
Bachelor	308	80.2
Master	39	10.2
Shifts		
Day	76	19.8
Night	18	4.7
Mix	208	54.2
Regular from 7:30 AM until 4:30 PM	82	21.4

Of the 573 questionnaires distributed, 384 were completed, yielding a 67% response rate with the majority being female (90.6%). In addition, a little more than half the sample (52.1%) were between 31 and 40 years of age. The majority (80.2%) of them had bachelor-level nursing education, with 54.2% of the respondents working mixed shifts during the month. In addition, they also worked on day and night shifts, and those who worked the day shift and regular shifts from 7:30 a.m. to 4:30 p.m. were relatively close to each other day shift (19.8%) and regular shifts (21.4%) and who worked fixed night shift (4.7%) which is the lower percentage.

Survey Scores

Summary statistics for the Practice Environment Scale of the Nursing Work Index are presented in Table 2.

Table 2

Descriptive Statistics for Main Study Variables

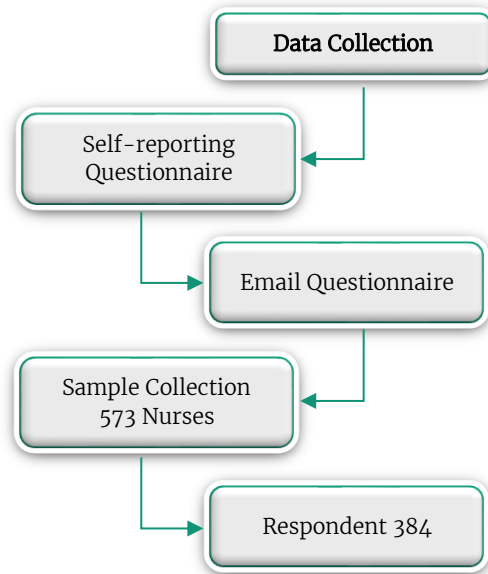| Measure	Mean	SD	Possible range
Practice Environment Scale of the Nursing Work Index	2.9297	.75285	–
Nurse participation in hospital affairs	2.9404	.78599	1–4
Nursing foundations for quality of care	3.0208	.75371	1–4
Nurse manager ability, leadership, and support of nurses	2.9854	.81922	1–4
Staffing and resource adequacy	2.5638	.99337	1–4
Collegial nurse-physician relations	2.9887	.82261	1–4

The mean composite score of the Practice Environment Scale of the Nursing Work Index was (2.9297) (SD 0.75285) on a four-point scale. All five mean subscale scores were above the midpoint of 2.5, indicating a

favourable work environment overall (Lake & Friese, 2006). The highest mean subscale scores were for the nursing Foundations for Quality of Care scale (3.0208) (SD 0.75371) after that, the Collegial nurse–physician relations scale (2.9887) (SD 0.82261), and the third scale, Nurse manager ability, leadership, and support of nurses (2.9854) (SD 0.81922), after that Nurse participation in hospital affairs scale (2.9404) (SD 0.78599), and the last scale is Staffing and resource adequacy (2.5638) (SD 0.99337).

Figure 4

Data Collection Source Public Hospital Riyadh

Gender

It was considered important to establish if the gender balance conformed to what is generally known that the majority of the nurses in KSA are females. For this study, 90.6% were females and, in Table 3, the association between gender and the practice environment scale of the Nursing Work Index subscales is shown.

Table 3

Association between Practice Environment Scale of the Nursing Work Index's Subscales and Gender

Gender		Nurse participation in hospital affairs (NP)	Nursing foundations for quality of care (NF)	Nurse manager ability, leadership, and support of nurses (NL)	Staffing and resource adequacy (SR)	Collegial nurse–physician relations (CR)	overall
Male	Mean	3.0679	3.0556	3.0722*	2.0972*	3.0278	2.9355
	N	36	36	36	36	36	36
	SD	.57721	.47053	.61440	.69251	.70542	.48788
Female	Mean	2.9272	3.0172	2.9764	2.6121	2.9847	2.9291
	N	348	348	348	348	348	348
	SD	.80400	.77752	.83774	1.00790	.83458	.77562
Total	Mean	2.9404	3.0208	2.9854	2.5638	2.9887	2.9297
	N	384	384	384	384	384	384
	SD	.78599	.75371	.81922	.99337	.82261	.75285

*$P \leq 0.05$

The data in Table 3 shows that regarding the association between the Practice Environment Scale of the Nursing Work Index's subscales and gender, the lowest mean for the group of males was for the Staffing and resource adequacy subscale, and the highest ones were for the nurse manager ability, leadership, and support of nurses' subscale.

Age

Table 4

Association between the Practice Environment Scale of the Nursing Work Index's subscales and age

Age		NP	NF	NL	SR	CR	Overall
25–30	Mean	2.8816	2.9590	2.9344	1.9877**	2.9126	2.8027
	N	61	61	61	61	61	61
	SD	.56469	.60673	.69159	.94144	.75988	.56897
31–40	Mean	3.1911	3.2785**	3.2340	3.0763	3.2717	3.2192
	N	200	200	200	200	200	200
	SD	.71854	.61553	.70408	.82066	.65746	.64635
41–50	Mean	2.3766	2.4505	2.4232	2.0684	2.3860	2.3691
	N	95	95	95	95	95	95
	SD	.84142	.87079	.90806	.76791	.93313	.81930
51–60	Mean	3.1905	3.2500	3.2286	1.8393**	3.1786	3.0403
	N	28	28	28	28	28	28
	SD	.35763	.32942	.54355	.95310	.42049	.35896
Total	Mean	2.9404	3.0208	2.9854	2.5638	2.9887	2.9297
	N	384	384	384	384	384	384
	SD	.78599	.75371	.81922	.99337	.82261	.75285

** $P \leq 0.005$

Table 4 shows the association between the Practice Environment Scale of the Nursing Work Index's subscales and age, where the lowest mean in groups of age 51–60 and 25–30 were for staffing and resource adequacy, and the highest mean was for the 31–40 age group. was for nursing foundations for quality of care.

Educational Level

Table 5

Association between the Practice Environment Scale of the Nursing Work Index's subscales and degree

Degree		NP	NF	NL	SR	CR	Overall
Diploma	Mean	2.8949	2.8973	2.9622	1.7568**	2.9279	2.7629
	N	37	37	37	37	37	37
	SD	.42628	.50083	.63568	.80684	.70332	.45047
Bachelor	Mean	2.9423	3.0399**	2.9890	2.6818	2.9989	2.9532
	N	308	308	308	308	308	308
	SD	.82835	.79144	.84484	1.00519	.85058	.79740
Master	Mean	2.9687	2.9872	2.9795	2.3974	2.9658	2.9024
	N	39	39	39	39	39	39
	SD	.71280	.63915	.78378	.62492	.70833	.59248
Total	Mean	2.9404	3.0208	2.9854	2.5638	2.9887	2.9297
	N	384	384	384	384	384	384
	SD	.78599	.75371	.81922	.99337	.82261	.75285

* $P \leq 0.005$

Table 5 indicates the association between the Practice Environment Scale of the Nursing Work Index's subscales and degree; we notice the lowest mean in groups of degrees was diploma at Staffing and resource adequacy subscale; on the other hand, the higher mean was for the bachelor group at nursing foundations for quality of care subscale.

Shifts type

Table 6

Association between Practice Environment Scale of the Nursing Work Index's subscales and shifts' Type

Shift's Type		NP	NF	NL	SR	CR	Overall
Nigh	Mean	2.4877	2.6667	2.5222	2.3194	2.5370	2.5341
	N	18	18	18	18	18	18
	SD	.75083	.78140	.83775	.72662	.88664	.73678
Day	Mean	2.3304	2.4066	2.3711	1.7961**	2.2851	2.2882
	N	76	76	76	76	76	76
	SD	.87883	.90897	.91080	.82534	.90054	.83134
Regular	Mean	2.9444	2.9939	3.0780	2.0854	3.0163	2.8780
	N	82	82	82	82	82	82
	SD	.57331	.52760	.62756	.78981	.63051	.48961
Mixed	Mean	3.2009	3.2865**	3.2135	3.0541	3.2740	3.2187
	N	208	208	208	208	208	208
	SD	.68242	.60991	.71870	.85889	.67563	.64050
Total	Mean	2.9404	3.0208	2.9854	2.5638	2.9887	2.9297
	N	384	384	384	384	384	384
	SD	.78599	.75371	.81922	.99337	.82261	.75285

** $P \leq 0.005$

For Table 6, the association between Practice Environment Scale of the Nursing Work Index's subscales and shift's type revealed that the lowest mean in groups of shift's types was for the day shift at the staffing and resource adequacy level, on the other hand, the higher mean was with mixed shifts group at the nursing foundations for quality-of-care subscale.

Discussion

We realize from our present research study that this Medical City had a better environment (all subscale scores > 2.5). The scores for the Practice Environment Scale of the Nursing Work Index subscale were highest for Nursing Foundations for Quality of Care and Collegial Nurse-Physician Relations. Following these were nurse manager ability, leadership, and support of nurses, followed by nurse participation in hospital affairs, with the lowest score being for staffing and resource adequacy.

The low rating given to Staffing and Resource Adequacy at the this Medical City might be caused by several factors. First, this could arise from a limitation in the availability of funds since the MOH is also responsible for 414 other hospitals throughout the country. This would seem to suggest that the financial resources are stretched, and this would have been made worse by the outbreak of Middle East Respiratory Syndrome Coronavirus (MERS- CoV) first reported in late 2012 in Saudi Arabia (CDC, 2016). The drain on resources would have also been compounded by the Coronavirus (COVID-19) that was first reported in March 2020 in the country. Another reason for the scarcity of resources could arise from the fact that public hospitals funded by the government provide free healthcare services and so generally have higher admission rates in comparison to the teaching, military, and private hospitals. According to data obtained from the MOH, between 2010 – 2015, public hospitals in Saudi Arabia received the majority (between 48-56%) of the admitted cases. The hospitals or medical cities provided by the government would consume

more resources and, therefore, require larger budgets. Where money is not readily available, shortages and scarcity of resources would be a natural outcome.

After examining the Association between the Practice Environment Scale of the Nursing Work Index's subscales and gender, it was observed that the lowest mean in the group of males at the Staffing and resource adequacy subscale might be due to the heavy work that they do plus the shortage of staff, also it might be due to some male patients asked if there is a male nurse to do any process that the patient needs with an extreme shortage of male nurse as we saw in their population compared with female nurses, and the highest mean was in a group of males at Nurse manager ability, leadership, and support of nurses subscale, it might be due to the trust for their leaderships and managers also their support to them in various situations.

The association between Practice Environment Scale of the Nursing Work Index's subscales and age showed that the lowest mean in groups of age 51-60 and 25-30 at Staffing and resource adequacy subscale. The first group might be due to their advanced age because they are getting older while increasing the responsibilities on them with an existing shortage of staff problem [new sentence here too], on the other hand, the other group, 25-30, might be due to their lack of experience with the overloud for providing the healthcare that the patient's needs, the higher mean was with group of age 31–40 at Nursing foundations for quality of care subscale might be due to their years of experience and knowing how to deal with pressure and the overloud efforts,. Additionally, they might have been more familiar with the policy and procedures and how to provide the optimal healthcare to patients.

Regarding the association between Practice Environment Scale of the Nursing Work Index's subscales and degree, we noticed the lowest mean in groups of degrees was diploma at Staffing and resource adequacy subscale, it might be due to the extra loud by their colleague who had higher education by delegating them to do the hard work also their shortage of staff as nurse who had diploma degree, on the other hand the higher mean was with bachelor group at nursing foundations for quality of care subscale, it might be due to the orientation year with their preceptor for newly hired nurses, and their knowledge, training and experience.

For the association between the Practice Environment Scale of the Nursing Work Index's subscales and shift's type, we noticed the lowest mean in groups of shift's type was day shift at Staffing and resource adequacy subscale might be due to the overloud that happened on the day shift with all patients appointments and operations most of them scheduled during day shifts which will make an extra loud for all employee especially nurses, on the other hand the higher mean was with mixed shifts group at nursing foundations for quality of care subscale, it might be due to the orientation on their schedule that half of the month day shift and the other half is night shift which will reflect on the nurse performance and providing the best quality of healthcare as it appears on the mean.

It is also necessary that nurse leaders participate in empowering activities related to health and emotional intelligence and familiarize their staff nurses with those activities that empower their psychological emotions and enhance their working ability during practice in hospitals. Nurse leader should also evaluate the direct performance of their staff regarding healthcare quality deliverance. The nurse who worked during the COVID-19 outbreak needs more care and attention to control their psychological behaviours.

Conclusion

This study provides a complete picture of the nurse's practice environment and its impact on the nurse's performance and relationships with others. The foundation of nursing for the quality of care is the most important element in improving nurse performance based on the practice environment scale. Nurses based on gender still experience disparities between female and male nurses in this study, even though the number of comparisons is quite small for male nurses. Female nurses perform better than male nurses. Based on age, the higher mean was for the 31−40 age group. Based on education, the higher mean was for the bachelor group at nursing foundations for the quality of care subscale. Based on shifts, the higher mean was with the mixed shifts group at the nursing foundations for quality of care subscale. It is also important to decrease the disparity between male and female nurses and improve the image of nursing education in

Saudi Arabia because, in KSA, the nursing profession is still considered an image profession, so it's important to improve the image and encourage local Saudis to get nursing qualification hope so it will decrease the burden of the expat as well as quality healthcare can also be improved and it produces more robust results for nurses during working and practicing environment.

Implications for Occupational Health Nursing Practice

This study suggests that hospitals will want to improve healthcare facilities within the hospital and bring more changes in working style to invest more in healthcare projects, which includes providing sufficient resources and staff to carry out the job; promoting the establishment of good relationships with colleagues; allowing nurses to participate in hospital affairs and institutional decision-making; and making available opportunities for their career development. The research has revealed some of the major factors affecting the practice environment which needs to be addressed in order to improve nurse outcomes. Factors identified included staffing adequacy, lack of adequate resources, the need for more managerial support and opportunities for advancement, and for the nurses to be encouraged to participate more in hospital management. Paying closer attention to these workplace matters is likely to enhance the nurses' perceptions of the quality of their work environment. This, in turn, should contribute to more positive nurse outcomes. It is also important to conduct training sessions and workshops related to health and improving the working style of nurses so they can learn more about health pros and cons and they can apply those measures and steps practically in the hospital during their practice. That should allow nurses to participate in the management and administrative affairs of hospitals, and they should be given full freedom to give their suggestions and advice, which will further improve their motivation and confidence.

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