

## Nurses' Perception of the Nursing Practice Environment and Quality Improvement Initiatives in a Tertiary Hospital, Kingdom of Bahrain- an Observational Longitudinal Study

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ARTICLE INFO	ABSTRACT
<p><b>Article type:</b> Original Article</p> <hr/> <p><b>Article History:</b> <b>Received:</b> 31-Jul-2021 <b>Accepted:</b> 27-Oct-2021</p> <hr/> <p><b>Key words:</b> Nurses, PES NWI, Quality improvement, Work Environment</p>	<p><b>Introduction:</b> In order to promote patient safety, the organization began a systematic approach to monitor, assess, and improve the quality of the nursing practice environment. The purpose of the study was to learn about registered nurses' general perceptions of the practice environment and to develop quality improvement efforts to improve patient safety.</p> <p><b>Materials and Methods:</b> An observational longitudinal study was done for four years by using the Practice Environment Scale – Nursing Work Index (PES-NWI). The sample size of 370 was calculated and data were collected from registered nurses working in all patient care areas by using convenience sampling. Each year, the items scored less than 2.5 were identified, discussed with the nursing stakeholders and quality improvement measures were designed and implemented.</p> <p><b>Results:</b> Over the four-years, nurses' perception of the nursing work environment was found favorable with mean values above 2.5 for all the subscales. However registered nurses perceived concerns with their participation in hospital affairs, staffing and resource adequacy. The PES-NWI mean scores improved significantly over the four years because of the quality improvement initiatives such as registered nurses' participation in hospital committees, transformational leadership training, the Quality Link Nurse (QLN) program, and staffing based on dependency assessment and skill mixing.</p> <p><b>Conclusion:</b> According to the registered nurses in this study, the tertiary hospital provides a favorable working environment. The nurses' opinions of the working environment improved as a result of regular monitoring and quality improvement measures, as well as the involvement of registered nurses in new policies.</p>
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## Introduction

A healthy work environment is an important factor that affects the nurse's satisfaction, retention, and patient outcomes (1). When the nurses have autonomy, control, and respectable interactions with the health team, the practice becomes easier and satisfied. For more than a decade, research on this theme has been appreciated, and as settings get favorable to the practice, it entails improved outcomes for the professionals, health institutions, and patients (2). And the most used measure for the nursing practice environment is the Practice Environment Scale of the Nursing Work Index (PES-NWI) (3,4). Moreover, working in a positive practice environment is linked with the positive assessment of the quality of nursing care, better job satisfaction, reduced burnout, and lesser intention to leave the job or the profession. Studies on the nursing work environment and nurses' job satisfaction describe a positive association between the two and in a cross-sectional survey done in Jordan, the predictability was explained like with a one-unit increase in the total score of the PES-NWI, nurses' average job satisfaction increased by 1.3 points and intent to stay score increased by 3.6 points (5).

Nurses practice environment assessment is one among the list of indicators in the National Database of Nursing Quality Indicators which was established by the American Nurses Association.

NDNQI's accomplishments include the development of nationally accepted measures to assess the quality of nursing care which help the quality improvement endeavors by giving research-based, nationwide, comparative information on nursing care (6).

According to the available data, 50 % of health care workers are nurses and midwives, and there exists a shortage globally (7).

World Health Organization identified a shortage of 7.2 million healthcare workers about health needs and in 2013, estimated that the world will be short of 12.9 million healthcare workers by 2035. Besides that, the Third Global Forum on Human Resources recommended actions to address

workforce shortages, retention of health workers in countries where the deficits are most severe (8,9). However, there is an emergent indication that satisfaction with the practice environment is related to the intention to stay in the organization. Nurse concerns with the workplace were explored in 12 countries of Europe (10) and those were: workforce management, inadequate resources, patient safety, nursing task, lack of time, and nurse shortages. It was found that the number of nurses leaving the workforce each year has been growing steadily from around 40,000 in 2010 to nearly 80,000 by 2020 in the United States (11). Nurses' working environments and their association with better organizational outcomes have been studied in the Middle East.

The intention to quit the institution was lower among nurses working in a favorable working environment and the reasons for turnover were workload and salary-related in Saudi Arabia, and health sector-related (greater in private hospitals) in Jordan (12,13). According to studies involving RN staffing, and adverse events, excessive workload influenced the teamwork and patient safety culture in the organization (14). To overcome this, nurses need to be provided with a working environment conducive to work as detailed in an integrative review which emphasized better patient safety outcomes such as reduced mortality and morbidity rates, failure to rescue rates, fall rates, patient complaints, infection rates, and improved patient satisfaction.

Conversely, personnel differences can also create confusion, especially when nurses react to the diverse practice environment. Some of the pressing factors affecting the workplace environment are the attributes influencing the interactions usually, networking, trust, shared understanding, reciprocity, and social cohesion.

A healthy relational network creates a healthy workplace which can be further fortified by effective communication, active group engagements, and supportive leadership (15).

Some of the nurses' characteristics also can influence the practice environment score

such as age, gender, education level, nationality, job category, and years of experience (16,17).

Bahrain is a country that shares culturally and strategically similar Middle Eastern healthcare policies towards its workforce. Moreover, there is no published study on the nursing practice environment that focuses on the Bahrain nursing workforce. The study utilized four years (2016 to 2019) of PES-NWI survey results to establish trends and norms of the nurses in the general perception of the current work environment. The factors identified were used for commencing the quality improvement initiatives.

This study describes the practice work environment as perceived by nursing professionals and the quality improvement initiatives taken in one of the biggest tertiary hospitals in the Kingdom of Bahrain.

The theoretical framework for explaining the practice environment experience of the nurse is based on the Donabedian's factors of Structure, Process, and Outcomes (18).

It is believed that the factors of the work environment can influence nursing care; (1) the structure integrates the factors related to the patient, nurses, and the organization (2), the process integrates autonomous interventions; those resulting from medical prescriptions and interdependent actions such as team communication, case management, and care coordination, and finally the outcome considers the functional status (3), self-care, symptom control, side effects, and patient satisfaction.

The context of this study lies in aspects of the items included in PES. With the PES-NWI score, the authors tried to obtain appropriate remedial measures associated with the nursing practice environment.

Hence the study was conducted to answer the following research questions:

1-What perception do nurses have regarding the organizational characteristics present in the nursing practice environment?

2-What pattern with time trends for nurses' perception of their practice environment by the implementation of quality improvement initiatives?

## Materials and Methods

An observational longitudinal survey design was used. The same population was followed over a period from 2016 to 2019. The design was used to understand the change over time within the group. The longitudinal method provided a more comprehensive approach, that allowed an understanding of the degree and direction of change over time and in this study, the data from the registered nurses were collected overtime for four years to identify the changes in the PES scores with the quality improvement initiatives. Each year the items with <2.5 in the PES-NWI were discussed with an expert panel in the administration and quality improvement initiatives were implemented accordingly.

The King Hamad University Hospital, Kingdom of Bahrain is the setting of the study. More than a thousand nurses work in the tertiary hospital. A convenient sampling technique was used to select the sample. Given the population size of 1000 nurses in the organization and with an expectation of approximately 40% response rate, the survey was sent out to all the nurses to attain a sample size of 370. This sample size was required to achieve significant results with a margin of 5% and a 95 % confidence interval. An adequate sample size was achieved during each of the four subsequent years of data collection. The survey respondents were like 420 in 2016, 374 in 2017, 399 in 2018, and 377 in 2019, respectively. The study included registered nurses, who were practicing bedside patient care for not less than a year.

### Practice Environment Scale-Nursing Work Index (PES-NWI)

The researcher used the Practice Environment Scale-Nursing Work Index (PES-NWI) (19) a four-point Likert scale to measure the perception of the nurse work environment. The demographic and occupational characteristics of the participants were also collected, and they include age, gender, education, job category, unit of work, and experience.

PES-NWI scale consists of 31 items under five subscales. The scale with the number of items (n) is enlisted as follows: Nurses Participation in hospital affairs (9 items); Nursing Foundation for Quality of care (10

items); Nurse Manager Ability, Leadership, and support of nurses (5 items); Staffing and Resource Adequacy (4 items), and Collegial Nurse- Physician Relations (3 items).

The responses were rated as 1, strongly disagree to 4, strongly agree. The higher score represents a favorable nursing practice environment. Each item survey responses were summed to obtain the total mean value.

Scoring of the PES-NWI was done by creating categorical references for unfavorable, mixed, and favorable nursing practice environments.

A favorable environment receives scores of > 2.5 on all or four out of 5 subscales, mixed receives scores of > 2.5 on two or three out of 5 subscales, and unfavorable receives scores of >2.5 on one or none of the 5 subscales.

The Cronbach's alpha was found favorable with a range of 0.86 to 0.94. In this study also a pilot study was done among 40 registered nurses who met the inclusion criteria to check the feasibility and understandability of the rating scale.

The same items were used in this study. The Cronbach's alpha ranged from 0.66 to 0.88, with an overall  $\alpha$  of 0.72. In this study, the subscales with items scored less than 2.5 were only taken for detailed discussion and the two subscales are Nurses participation in Hospital affairs and Staffing and Resource adequacy

### **Ethical Consideration**

The study was conducted under the guidelines as per the Declaration of Helsinki (20). The study was reviewed and approved by the Institutional review board of the hospital (IRB No 220/2018). The principal investigator approached the potential participants and explained the purpose and objectives of the study and handed over the participant information.

Nurses were informed of their rights to voluntarily consent or decline to participate in the study. Written informed consent was obtained from those who are willing to participate in the study. After obtaining informed consent, the data were collected. Each participant was assigned a unique identification number.

The confidentiality and anonymity of the responses were ensured during the data collection, analysis, and dissemination.

### **Method of data collection**

The data were collected from 2016 to 2019. The data collection process was scheduled during the third quarter of each year and took around two months to complete. Two data collectors were trained for explaining the purpose and consent process to the nurses.

The PES-NWI survey questionnaire was distributed to all the registered nurses who met the inclusion criteria. The time required to rate the PES-NWI scale was 15 minutes. The responses were encoded by the research team to a password-secured computer system.

The data analysis was done by using SPSS version 25. Descriptive statistics were used to describe the mean and standard deviation of the perception of nurses regarding the presence of organizational characteristics present in the current nursing practice environment.

A comparison of the means was done for four years to identify the trend in the PES scores by using Repeated measures ANOVA. The Cronbach's alpha of the PES for the four years was also measured and it was between 0.75 to 0.83.

### **Results**

Most of the nurses who participated in the four-year study had a mean age of 31 years and above. Most of them were females with above 80 % and males were less than 20%, but in 2019 the male participation increased to 24%. About 60% and above holds Bachelor of Nursing Science degree and those with Diploma were less.

Almost all of them were registered nurses (80%) and the rest were the unit team leaders and clinical specialists who were involved in direct patient care. Consistent staff participation was observed from each department over the four years.

The mean length of employment in the unit was 3.75 and above for all four years. The demographic details of the participants were found comparable as shown in table 1.

**Table 1:** Demographic and Occupational Characteristics

Sample Demographics	2016	2017	2018	2019
Number of registered nurses	420	374	399	377
Mean Age with SD	32.69 (5.7)	31.48 (5.9)	31.01 (5.7)	31.8 (4.6)
Gender n (%)				
Male	70 (17%)	53 (14%)	79 (20%)	88 (24%)
Female	350 (83%)	321 (86 %)	320 (80%)	284 (76%)
Education n (%)				
Master's Degree or higher	17(4%)	16(4%)	17(4%)	21(6%)
Bachelor's Degree	273(65%)	229(60%)	243(61%)	254(67%)
Diploma	130(31%)	129(36%)	139(35%)	102(27%)
Job Category n (%)				
Clinical Specialist	8 (1.9%)	7 (1.9%)	3 (0.8%)	17(5%)
Team Leaders	62 (14.8%)	54 (14.9%)	78(19.8%)	58 (15.4%)
Registered nurses	350 (83.3%)	313 (83.2%)	318(79.4%)	299 (79.6%)
Working Area n (%)				
Medical-surgical	112(27%)	94(25%)	102(26%)	96(25%)
OBG Department	70(17%)	68(18%)	65(16%)	60 (16%)
Paediatric department	106(25%)	89(24%)	97(24%)	97 (25%)
Critical care unit	84(20%)	78(21%)	85(21%)	82 (22%)
Emergency Department	48(11%)	45(12%)	50(13%)	46(12%)
Mean length of employment in years (SD)	3.75(1.46)	3.82(1.67)	4.04 (1.7)	3.9 (2.2)

### Practice Environment Scale measure-2016

The mean scores for some items in the PES-NWI survey in 2016 were less than 2.5 for nurses' participation in hospital affairs, and staffing and resource adequacy subscales (Table 2, and 3).

The following were the perceived concerns in the subscale of nurse participation in hospital affairs: (1) lack of involvement in the hospital's internal governance (2.48), lack of opportunity to participate in hospital policy (2.45), the nursing administration's non-consultation to deal with the staff's daily problems and procedures (2.31), and finally (4) the administration's poor response to employee complaints (2.27). The nurse's involvement in policy development was perceived less even though they were being the largest workforce in healthcare institutions. In addition, two items with a

mean of less than 2.5 were identified in the subscale staffing and resource adequacy, which were recognized as low agreement with the availability of registered nurses (2.34), as well as a lack of staff to get the job done (2.31). In all other three subscales, all the items with greater than 2.5.

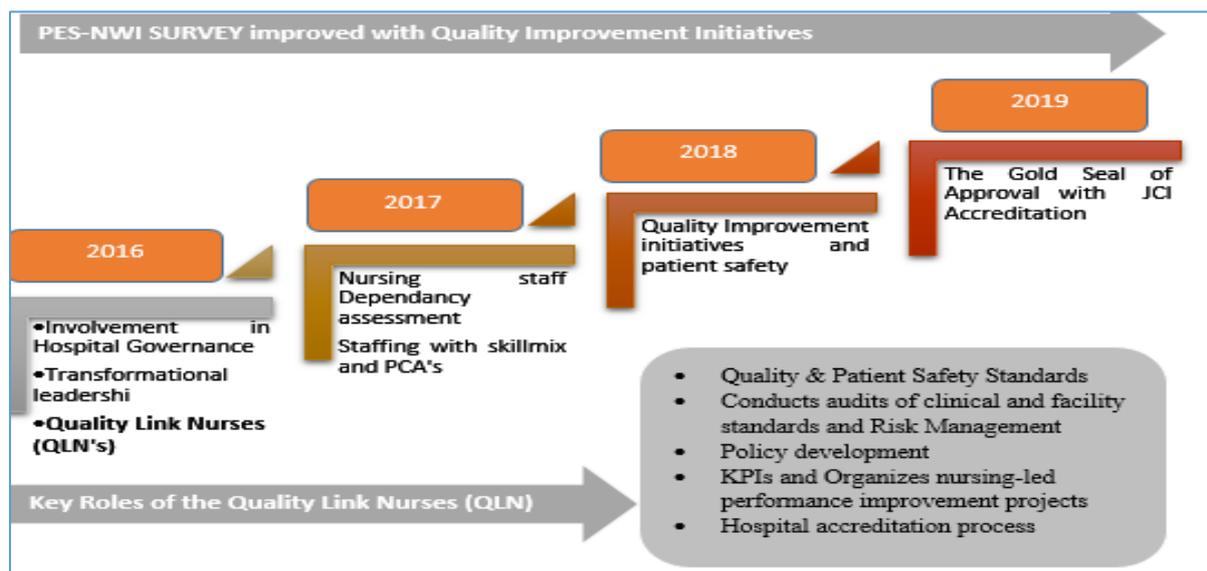
### Quality improvement initiatives- 2016

Based on the PES-NWI survey, the hospital organization identified that there exists a lack of nurse's involvement in policy development and a perceived nursing staff shortage hampering them to complete their nursing task within their work shift thereby, compromising quality patient care. The quality department by expert panel consensus devised measures to address the concerns highlighted in the survey. Several activities were undertaken to conduct training, workshops and programs to managers and senior registered nurses in

transformational leadership. Nursing Department made a proposal to the higher hospital administration to officially include nurses in several hospital committees. Portals for specialized training programs were opened to maximize involvement of clinical registered nurses in hospital affairs. Comprehensive Quality Link Nurse (QLN) trainings include Program Orientation, Quality Management and Safety standards,

Policy development, Clinical and Facility standard audits, Hospital Accreditation standards, performance indicators, basic risk management and nursing-led performance improvement initiatives (figure 1). In order to address the nursing staff workload, a patient care assistant program was initiated whilst ensuring efficiency and effectiveness of its health care services.

**Figure 1:** PES-NWI survey 2016 to 2019 and the Quality Improvement Initiatives to reach JCI Accreditation



**Table 2:** Nurse Participation in Hospital Affairs

SUBSCALE 1		2016		2017		2018		2019	
		n=420		n=374		n=399		n=377	
Item:	Nurse Participation in Hospital Affairs	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
1	Career development/ clinical ladder opportunity.	2.69	0.65	2.80	0.62	2.83	0.70	2.93	0.64
2	Opportunity for registered nurses to participate in policy decisions.	2.45	0.72	2.51	0.71	2.70	0.75	2.73	0.67
3	A Chief Nursing Officer who is highly visible and accessible to staff.	2.53	0.79	2.78	0.70	2.79	0.74	2.88	0.70
4	A Chief Nursing Officer equal in power and authority to other top-level hospital executives.	2.75	0.68	2.80	0.59	2.90	0.59	2.95	0.63
5	Opportunities for advancement	2.61	0.68	2.71	0.63	2.83	0.62	2.92	0.55
6	Administration that listens and responds to employee concerns.	2.27	0.78	2.44	0.78	2.57	0.77	2.71	0.73
7	Registered nurses are involved in the internal governance of the hospital (e.g, practice and policy committees).	2.48	0.70	2.60	0.75	2.77	0.66	2.83	0.63
8	Registered nurses have the opportunity to serve on hospital and nursing committees.	2.77	0.61	2.84	0.61	2.93	0.62	3.04	0.54
9	Nursing administrators consult with staff on daily problems and procedures.	2.34	0.78	2.54	0.77	2.63	0.74	2.81	0.70

**Table 3: Staffing and resource adequacy**

Subscales 4		2016		2017		2018		2019	
		n=420		n=374		n=399		n=377	
Item:	Staffing and resource adequacy	Mean	(SD)	Mean	(SD)	Mean	(SD)	Mean	(SD)
1	Adequate support services allow me to spend time with my patients	2.80	0.66	2.84	0.63	2.96	0.64	2.95	0.60
2	Enough time and opportunity to discuss patient care problems with other nurses.	2.56	0.65	2.70	0.65	2.80	0.66	2.89	0.65
3	Enough registered nurses to provide quality patient care.	2.34	0.85	2.46	0.86	2.62	0.82	2.71	0.76
4	Enough staff to get the work done	2.31	0.83	2.39	0.83	2.50	0.82	2.68	0.72

**Quality Link Nurse (QLN)**

Registered nurse from each unit were placed in the QLN role to drive forward quality initiatives from a nursing perspective and focused on a collective approach to maintain excellence within the nursing division. They collaborated with the Nursing Quality Department and Nursing Quality & Patient Safety Committee to develop, revise, and implement the nursing quality plan. Initial training regarding the policies, leadership, data to drive safety improvements were given. Active involvement was ensured for successful implementation of patient safety programs with competent clinical skills and active patient involvement. They were able to act as a quality resource person and conduct audits for Clinical and Facility standards, KPIs and organizes nursing-led performance improvement projects.

**Patient Care Assistant (PCA) Program**

Patient Care Assistant program is to design and develop sustainable dynamic Patient Care Assistants and to provide safe, competent, and culturally sensitive care to clients.

The curriculum was prepared in collaboration with University of Bahrain and the seats were reserved for Bahrain nationals. Under the supervision of registered nurses, they practiced in collaboration with other health care team to meet the client’s needs. The PCA’s were engaged in continuous learning to maintain and enhance competence.

**Practice Environment Scale measure-2017**

The PES survey response in 2017 was better than the previous year. However, three items scored less than 2.5, and those were, the management did not adequately hear or resolve employee complaints (2.44), a shortage of skilled nurses to provide quality patient care (2.46), and insufficient staff to complete the work (2.39). These responses were considered as staff shortage and was reported for quality improvement initiatives.

**Quality improvement initiatives- 2017**

The Nursing Department conducted a patient dependency assessment instead of immediately addressing staff shortage. This was done to evaluate and ensure sufficiency regarding service demands. The dependency assessment was used to realign staffing needs of the different units of the hospital by allocating more nurses to units receiving highly dependent patients. Staffing allotment calculation was also modified based on the assessment findings and modified the staffing, recruitment, and retention plans. The practical nurses were fielded to different hospital units to augment the nursing workload along with skill-mix staffing.

The PES was included as a Nursing department key performance indicator and became a quality measure for the nursing administration. Succeeding surveys were conducted to verify the progress of the

implemented quality initiatives of the Nursing Department using PES-NWI survey.

### **PES-NWI Survey and Quality improvement initiatives -2018 and 2019**

In 2018 all the items yielded a mean of above 2.5 indicating that the strategies implemented have yielded a positive impact to the nurse's work environment.

The nursing administration continued the effective implementation of the quality improvement initiatives. In 2019 also, all the items had a mean above 2.5 which shows a favorable practice environment as perceived by the registered nurses.

Moreover, the hospital executives decided to apply for international accreditation to have a third-party validation of the facility and its services in terms of healthcare quality and patient safety. The facility has chosen Joint Commission International because its accreditation standards are aligned with the hospital vision, mission, and core values. Favorable working environment can be attributed to the recommended quality standards set by Joint Commission International, including the assurance of sufficient staffing which impacts quality of patient care outcomes (29).

### **Practice Environment Scale Measures 2016 to 2019**

The overall four-year observational longitudinal PES-NWI survey among nurses found a perceived favorable practice environment in the organization (table 4). The output generated from one-way Repeated measures ANOVA with a Greenhouse-Geisser correction determined the mean value of PES score with time factor as the years of observation, shows a statistically significant difference ( $F(2.02, 8.08) = 16.58, p < 0.001$ ). Bonferroni correction revealed a slight increase in the mean values at different assessment years [2.71(2016), 2.83(2017), 2.87(2018) and 2.96(2019) respectively] ( $p < 0.05$ ) with the implementation of quality improvement initiatives. The overall composite means of higher than 2.5 was observed throughout the four-year study period. Over the four-year period, the nursing staff of the tertiary hospital under study found a favorable score in the PES-NWI Survey.

## **Discussion**

The present study was aimed to identify the aspects of practice environment and prioritized strategies directed towards improvement of the work environment for nurses by the nursing administration. The sample participants in four years were young with mean ages of 31 years and above. Among the participant, although most were female, an increase in male participation in the workforce was observed by 2019. These nurses had around four years of experience in the setting. Majority of them were under the job category of registered nurses (80%) and more than 60 % of the participants were holding a bachelor's degree in nursing.

The initial survey in 2016 identified concerns on nurse's involvement in policy development which is vital with nurses being the largest workforce in healthcare institutions along with the inertness towards the employee concerns. However, the nurse's active participation in healthcare policy decisions and their role towards it was given less priority (21). It is interesting to emphasize that, the quality initiatives like knowledge enrichment programs, training regarding healthcare policy development and nursing advocacy which were incorporated into the staff development programs became effective. The nursing administrative strategic plan was modified to co-ordinate and implement the initiatives. The online portal for the accessibility of hospital policy were opened to maximize involvement of clinical registered nurses in hospital affairs.

Healthcare policy developers in the tertiary hospital recognized the need of nurse's involvement in healthcare reforms and efforts have been done and evaluated to prepare nurses on this role. This is supported by the studies done to evaluate the nurse's turnover and engagement in policy making (22) and providing an environment that allows for nurse autonomy in decision-making, participation in unit and hospital governance, and participative management as the best strategy for retaining nurses in the hospital setting. Another similar study emphasized that nurses mentoring from nursing leaders on policy and suggested for team interactions

with adequate resources, and safety climate(23).

Despite the overall favorable perception, as demonstrated by the mean score on the subscales staffing and resource adequacy, nurses perceived a lack of enough registered nurse to provide quality patient care and to get the work done. This was associated to staff shortage which hamper them to complete their nursing task within their work shift thereby compromising quality patient care. To plan strategic actions, one of the main aspects to be considered should be the adequate staffing as this factor influenced the nurse's perception of the work environment. Background studies exist in which the nurses reported staff shortage with unfinished nursing task (23), heavy work load(16), extended working hours and burn out(15). A review article from University of Texas focused on a customized educational program for nursing teams consisting of didactic presentations, simulation through role-playing scenarios, debriefing, and discussion. Another study recommends the measures for effective nurse staffing by adequate managerial support, good doctors - nurses relationship, nurse participation in decision-making and organizational priorities on quality of care(24). Regardless of this, the nursing department conducted a patient dependency assessment instead of immediately addressing staff shortage and turnover rates. This was done to evaluate and ensure sufficiency in service demands. The dependency assessment was used to realign staffing needs by allocating more nurses to units receiving highly dependent care.

The 2017 survey showed an overall response improvement. However, three items from the PES -NWI showed mean lesser than 2.5. The nurses were still concerned about the lack of administrative support to employee concerns, inadequate registered nurse to provide quality patient care and to get the work done. Perceived staff shortage was persistent, and the quality improvement initiatives formulated in 2016 were continued. Selecting adequate benchmarks and reallocating the wards with staffing levels based on staffing requirements was done using administrative consensus procedures and expert

professional judgment as suggested by similar study(25). A panel study done in China found out an association of non-professional tasks, and nursing care left undone which affected the nurses job outcomes and quality of care(26). In another comparative study, higher turnover rates due to environment-related reasons in a non-Magnet hospital and it suggested the need to continually strive to improve unit work environments, particularly staffing and work load conditions and work scheduling in the hospital(22). The quality department focused on the re-allocation of the registered nurses based on the dependency assessment.

The result of PES NWI survey for 2018 and 2019 suggest strong favorability of nursing practice environment, the positive response of the nurses may have been associated with the quality improvement initiatives from the hospital administration. This result concurs with several studies conducted in Thailand(27), China(28) and in Saudi Arabia. The composite score of the PES NWI in 2019 was comparable to reported composite scores of Magnet-accredited facilities(27).

Over the four-year period, the nursing staff of the tertiary hospital under study found that their working environment was favorable. The steady increase in the favorability trend of the nurse's perception to their working environment shows commitment of the nursing and hospital administration in improving the working conditions and staff retention.

The strength of the study is that it conducted the four-year longitudinal PES-NWI survey and the described quality improvement measures were implemented. The time trend showed a favorable practice environment for the nurses to work in the tertiary hospital. However, the limitation of the study is that there is a mix of initial and repeated respondents within the sample over the years and there can be some influence with staff turnover happened during this time over the results. The study is limited to descriptive analysis which indicates only perceived norms that cannot be statistically correlated to other external variables and the generalization of the study result is limited. Critical analysis on the quality improvement initiatives and

measures implemented was not done, instead, it was based only on the institutionally accepted standards with expert consensus. The cause of change in the nurses' perception and its relationship to various variables cannot be correlated, thus, might be different if the setting is changed. Further study is needed to established associations and correlation of various initiatives employed towards patient, nurses, and organizational indicators. However, the researchers found a general acceptance of the quality improvement initiatives taken by the quality department of the tertiary hospital specifically the Quality Link Nurses and the PCA program among the nurses.

### Conclusion

The tertiary hospital in this study offers a favorable working environment as perceived by the nursing staff over the years with the appropriate quality improvement initiatives from the nursing administration. Similarly, the hospital stakeholder must address the feelings of various levels of staff through participatory governance and participation in policy creation, which enhances organizational perceptions of the workplace. A positive working environment is created by stakeholders' commitment to enhancing work conditions and adherence to accredited safety standards.

### Implication

The importance of the nurses' practicing environment at the institution was highlighted by the introduction of quality improvement measures. Key healthcare executives and lawmakers must allocate and enact good nursing practice environment at both the organizational and legislative levels. A multi-dimensional strategy for resolving challenges connected to the practice environment at institutions and beyond should be devised to increase nurses' job satisfaction as well as to keep resources current and stable for patient safety. Healthcare executives should analyze what is critical to all stakeholders, including direct care nurses, patients, and families, to decentralize decision-making and improve the care environment for both nurses and their patients.

### Conflict of Interest

The authors declared no conflict of interest. And no funding was received for the study.

Previous presentation of the paper in scientific meetings: None

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### Guidelines for Manuscript

The SQUIRE guidelines(30) were reviewed by the authors and incorporated the appropriate elements into the manuscript.

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