

Nurse Practice Environment and Quality of Care in a Multigenerational Workforce

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Abstract— *In recent years, the nurse practice environment included nurses from multigenerational [1, 2, 3, 4] presenting organizational hurdles as they collaborate on nursing teams [5, 6] that affected the quality of care they render. Thus, the present study was conducted to ascertain the relationship of nurse practice environment (NPE) and quality of care (QoC) in a multigenerational workforce. The Practice Environment Scale of the Nursing Work Index (PES-NWI; Lake, 2002) and Karen-Personnel Instrument (Lindgren & Andersson, 2010) were employed to measure the NPE and QoC, respectively. Data from randomly selected staff nurses (N=213) from two (2) private tertiary hospitals in Metro Manila were analyzed using Multiple Linear Regression (MLR). Results indicated that multigenerational workforce does not influence nurse practice environment and quality of care ($\beta=0.004$; $p>0.05$). Nonetheless, findings of this study could expectedly yield valuable insights that would assist nursing leaders to further examine the nurse practice environment so that nurses could function at the highest scope of clinical practice.*

Keywords- *nurse practice environment, quality of care, multigenerational workforce, and generational cohorts*

I. INTRODUCTION

In recent years, increasing diversity in the nursing practice environment has challenged numerous healthcare organizations in handling nurses from different generational cohorts [1, 2, 3, 4, 7, 8, 9]. Hence, it is of paramount significance to recognize the effect of generational differences in creating a peaceful healthcare milieu that promotes a higher quality of care. Currently, nurses constitute the largest population of the healthcare workforce and at the same time are faced with problems related to workforce predicaments. However, when handled well, those gaps can lead to a favorable outcome that may create a healthy work environment [10, 11] and a higher quality of care.

There is a paucity of information about the relationship of nurse practice environment and quality of care in the Philippines. Hence, it would be interesting to look into the dynamics of nurse practice environment in relation to quality of care in a Philippine setting.

Capitalizing on the power of a multiple linear regression, this paper sought to ascertain the relationship of nurse practice environment and quality of care in a multigenerational workforce in two private tertiary hospitals in Metro Manila. Results of the study are hoped to generate valuable insights and implications that would assist nursing leaders to scrutinize and improve if necessary the nurse practice environment so that nurses from each cohort could function at the highest scope of clinical practice.

A. Generational Cohorts in the Workplace

Several scholars have defined generational cohorts as groups of people, who share uniform birth years, historical events, and personality [12, 9, 1, 5].

In recent years, nursing workforce has three leading and apparent generational cohorts that adopt the dates as Baby Boomers (born between 1946 and 1965), Generation X (born between 1966 and 1980), and Generation Y, also called Millennials (born between 1980 and 2000). The literature suggests that every generation depicts distinctive values and beliefs primarily due to their explicit generational experiences [1]. Work values are likely to have great impact on employees' commitment to work. Understanding their values is of paramount necessity because the attitude toward work is affected by the degree to which employees value their job.

It was hypothesized that generational diversity existed due to environmental influence to early human socialization [9]. These were influences that have significant effect on personality development that once developed they become deeply rooted to one's personality into adulthood. As every generation comes of age, they are conveyed to foster specific traits that make them unique from those generations that are ahead and supersede them.

Thus, the first hypothesis is proposed:

Hala: The presence of multigenerational workforce positively impacts nurse practice environment.

B. Nurse Practice Environment

In the context of nursing, nurse practice environment has been defined as any locations where professional nursing practices can either support or constrain it [13, 14]. It also subsumes understanding of nursing competence [15] and increases circumstances for autonomous decision making [16]. Both the workplace and all aspects embodied within it comprise the nurse practice environment [17]. Following are the subscales comprising nurse practice environment [13]:

- *Nurse participation in hospital affairs.* Regarded to be one of the powerful wings of healthcare system, nurses have an essential role in development and progress of health services [18]. Moreover, involvement in hospital policy decisions, and nursing committees can increase nursing satisfaction and role effectiveness.

- *Nursing foundations for quality of care.* This subscale is reflected by whether hospitals provide preceptor system, active in-service, and continuing education programs for nurse self-development [19]. Continuing professional education, on the other hand, is a tool for quality service delivery that enhances the quality of care the nurses provide [20].

- *Nurse manager ability, leadership, and support* for nurses. As the workforce becomes progressively multigenerational, organizations need to contemplate on both the differences and similarities of needs of employees from different generational cohorts for versatility in the work environment. Furthermore, sensibility on the influence of the nurse practice environment on job satisfaction of nurses and their retention within the profession have become more intense and a major obstacle in the health care industry [21]. Reference [15] cited in [17], one eminent factor in the achievement of job satisfaction in the nurse practice environment is the supervisors' ability to optimize environment for nursing practice.

- *Staffing and resource adequacy.* Hospital nurse staffing is central to providing quality of nursing care. Reference [22] stated that, RN's perception of having adequate staffing and resources increased their own assessment of patient safety by at least two and a half times to be exact.

- *Collegial nurse-physician relations.* Nurse-physician relationship is one of the most important elements in the nurse practice environment. In recent years, poor relationships of physicians and nurses in some hospitals have caused serious problems within health care settings. Decreased job satisfaction of nurses and other conflicts in the practice environment are just one of those ramifications. Disruptive behavior between physicians and nurses not only affects teamwork in the workplace but also

hinders them to promote patient safety and ensure quality care [23].

Given these points, the second hypothesis is proposed:

Ha2: Nurse practice environment positively influences the delivery processes of quality of care.

C. Quality of care

Definitions of quality of care are divided into two aspects: whether the patient obtained the necessary care and whether the rendered care is effective [24]. The quality of care based from nurses' perspectives that the study aimed to bring forth includes the following dimensions: *Psychosocial relations, Commitment, Work satisfaction, Openness/closeness, Competence development, and Security/insecurity* [25]. Several scholars have defined quality of care as a degree of carrying out interventions within standards of care that is safe and economical [26, 25].

Through the provision of high quality care, nurses make a difference on human lives. And this quality health care can only be perceived within the context of patient's culture. In like manner, creation of a workplace that takes diversity into account will prevent multicultural conflicts that hinder quality care and jeopardize patient safety [27]. Multicultural and multigenerational teams of nurses and physicians are necessary to guarantee that the care being provided is sensitive and meets the needs of culturally diverse patients. One way or another, cultural, and generational insensitivity can adversely affect patient outcomes including the quality of care.

Thus, the following hypothesis is proposed:

Ha1b: The presence of multigenerational workforce will lead to a higher quality of care.

D. The Hypothesized Model

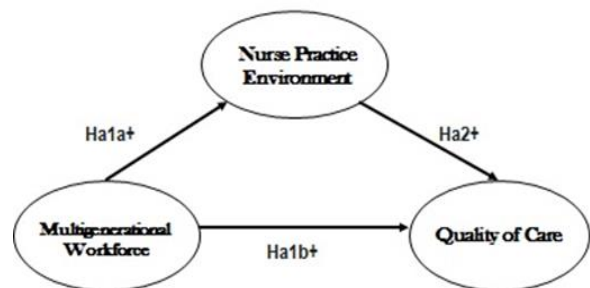


Figure 1. The hypothesized relationship of nurse practice environment and quality of care in a multigenerational workforce

In an ideal organization, nurses maintain a unique role in identifying and guiding interventions central to patient care. Emerging demographic shifts in the workforce affects nurses' performance in providing high

quality of care (*Ha1b+*). Through the creation of a working atmosphere that supports and values nurses across generations, a healthy nurse practice environment where nurses from each cohort can function at the highest scope of their clinical practice is achieved (*Ha1a+*).

This is well presented in the figure above showing that nurse practice environment positively influences the delivery processes of quality of care (*Ha2+*). Quality of nursing care involves assessment of the structures, processes, and outcomes. It also includes other dimensions including psychosocial relations, commitment, job satisfaction, openness/closeness, competence development, and job security/insecurity.

The nurse practice environment in this context refers to nursing workplace represented by its dimensions which include nurse participation in hospital affairs; nursing foundations for quality of care; nurse manager ability, leadership, and support of nurses; staffing and resource adequacy; and collegial nurse-physician relations. This concept is supported by the findings in some literatures [30, 31, 32, 33] stating that modifications in the nurse practice environment can lead to worthwhile outcomes in quality of care [28].

II. THORETICAL BACKGROUND

This study is grounded on Donabedian Model – a three-dimensional model for measuring the quality of care that was depicted by Donabedian IN 1980 who was known to be the prime researcher in the field of quality care. He defined Donabedian's S P O Triad – the structure, process, and outcome [25]. Based from the Structure-Process-Outcome paradigm, empirical evidence is presented stating that the structure and process are represented by the nurse practice environment that can lead to the outcome of quality care [28]. Thus, it is likely that the setting or structure in this study and all aspects embodied within it may affect the delivery processes and care coordination particularly of those nurses from Generations X and Y. Consequently, this model postulates that to create a positive nurse practice environment, it is important to consider not only the differences and similarities of employees across generations [29] but also the combined effects of structure and process for the provision of high quality care to patients. To sum it all, the quality of patient care that is regarded as the outcome in this study, is dependent on the performance of nurses from different generations in nurse practice environment that represents the structure and process.

III. METHODS

A. Sample

The study was conducted in the Philippines particularly among 250 staff nurses from two private tertiary hospitals in Metro Manila of whom only 213 have participated during the actual implementation (85.20%). Respondents were selected using stratified random sampling. The effect size for this study was 0.195 (medium) to 0.371 (large). The post hoc power cut off was 0.80, and the study has achieved 0.97 to 1.0 thus indicating adequate sample size and generalizability of the results [34].

B. Instrument

The study utilized a three-part questionnaire to facilitate data collection. On the first part, respondent's robotfoto was utilized to collect demographic data from the respondents in a standardized manner based from the concepts of Generational Theory. It includes the respondent's age, birth year, gender, educational background, job classification, area of assignment, years/months in the current department or unit, and years/months in the current hospital.

On the second part, the 31-item Practice Environment Scale of the Nursing Work Index which was authored by Lake in 2002 was utilized to measure the nurse practice environment. It is the most frequently used survey-based measure to determine the situation and status of nursing practice environment [35] and manifested a Chronbach alpha varying from 0.71 to 0.84 [13]. Respondents expressed their level of agreement thru a 4-point Likert scale where one implied strongly agree and four reflected strongly disagree.

On the third part, the Karen Instruments (Karen-Patient and Karen-Personnel) which was started by Andersson in Sweden to measure quality of care and to point out the need for improvement in quality of care. Out of the two instruments, the Karen Personnel Instrument was utilized in the study to gain insights on important aspects of quality of care based from the perspectives of nurses. Due to institutional policy and high patient turnover, the patient-assessed quality of care was not measured in the study. The 35 variables were grouped based from Donabedian's Triad. The manifested a Cronbach alpha of 0.70 – 0.90 [25]. To measure variables, the 5 – point Likert scale as originally indicated in the instrument was modified to an 8-point Likert Scale to avoid social desirability bias [36]. The potential score for quality of care ranges from 1 – 8 where scores of 1 – 4 indicated disagreement and 5 – 8 showed agreement.

C. Validity and Reliability

Preliminarily, four experts in the field of nursing administration and health-related research who were not

part of the study have validated the questionnaire. To establish the suitability to Philippine setting, the questionnaire was pilot tested with 50 staff nurses in one of the two institutions that represent the various subgroups within the target sample to determine the unforeseen problems of the tool being used. Additionally, the pilot test allowed modifications on the questionnaire to improve clarity of the instructions and estimate the required time to be completed. And to further test the reliability of the instruments to be used, a Cronbach's alpha of 0.80 was selected as the minimum acceptable reliability value. Reliability coefficient results based from the pilot test were 0.952 for Practice Environment Scale of the Nursing Work Index (PES-NWI) and 0.886 for Karen-Personnel Instrument.

D. Ethical Consideration

A written approval from the Ethical Review Board of the University of Santo Tomas was obtained prior to the implementation of the study. Ethical standards and principles were observed accordingly during the conduct of the study. Furthermore, informed consent was also obtained from the respondents to secure their willingness to engage in the study through a cover letter providing all the necessary information, describing the study collectively, as well as indicating the rationale behind the respondents' participation. The consent has also ensured that there would be no inducement of authority on the part of the hospital administration on the participants. Respondent's anonymity and confidentiality were also assured by using number codes as pseudonyms. Furthermore, respondents were also informed of their right to refuse or to even withdraw their participation even within the implementation phase of the study.

E. Data Analysis

Data analyses were performed through the utilization of Statistical Package for the Social Sciences version 21. Frequency and percentage distribution were used to assess the demographic data of the respondents. Application of multiple linear regression was utilized to ascertain the relationship [37, 38] between the multigenerational workforce, nurse practice environment, and quality of care. Analysis of variance (ANOVA) was used to validate the goodness of fit of the regression model and F Test for significance of regression. Data were indicated as beta standardized coefficients [39]. Statistical significance was set at $p < 0.05$ if the p value is less than 0.05 but greater than 0.01. If the p value, however, is less than 0.01 the level of significance was set at $p < 0.01$. Additionally, mean and standard deviation were also utilized for the analysis of descriptive statistics for the nurse practice environment and quality of care.

IV. RESULTS

A. Demographic Profile of the Respondents

The demographic profile of the respondents was shown in Table I. Majority of the staff nurses were between the ages of 21 – 25 years old (94.8%) who were born from 1981 – 1992 belonging to Generation Y (94.4%) or known as Millennials. Reference [40] stated in his study that the nursing workforce in private hospitals in the Philippines belonged to younger generations. According to the results, the greatest portion of the workforce included nurses of less than 25 years of age. As expected, majority of the staff nurses were female, accounting 71.8% of the total number of respondents, notwithstanding the fact that from the start of 4th century, men have been identified to enter the nursing profession [41, 42]. Looking into the highest educational attainment of the respondents, 81.2% had a bachelor's degree in nursing. According to [32] cited in [43], educational level of nurses is a critical aspect in achieving a higher competence among nurses as it helps to reduce the prevalence of mortality, morbidity and adverse effects. 55.8% of the respondents were assigned to work in General Units of the hospital that included Medical-surgical unit, Pediatric unit, Orthopedic unit, Maternity Unit, Pulmonary Unit, Ophthalmology unit, Geriatric unit, etc. 45.1% of the respondents had been assigned in their current area of assignment for 1.1 – 3 years and 46.5% respectively were employed in the hospital for not more than 3 years. These findings were also congruent to the study of [40] showing that there were higher turnover rates in the Philippine private hospitals.

TABLE I. DEMOGRAPHIC PROFILE OF RESPONDENTS (N=213)

Profile	Freq.	%
Age		
21 – 25	119	56.1
26 – 30	76	35.8
31 – 35	8	3.8
36 – 40	5	2.3
> 40	4	1.9
Gen. Cohort		
Gen X	8	3.8
Gen Y	203	96.2
Gender		
Male	60	28.2
Female	153	71.8
Highest Educational Attainment		
BSN	173	81.2
MA/MS Units	35	16.4
MA/MS Degree	4	1.9
PhD Units	1	.5
Area of Assignment		
Special Units	94	44.1
General Units	119	55.8
Years/months in the current area		
< 6mos	24	11.3
6 mos – 1yr	51	23.9

1.1 – 3 yrs	96	45.1
3.1 – 5 yrs	22	10.3
> 5 years	20	9.4
Years/months in the hospital		
< 6months	18	8.5
6 months – 1yr	48	22.5
1.1 – 3 years	99	46.5
3.1 – 5 years	19	8.9
> 5 years	29	13.6
Current Area of Assignment		
Special Units	94	44.1
General Units	119	55.8

B. Descriptive Statistics for Quality of Care

TABLE II. QUALITY OF NURSING CARE INDEX

Items	Mean	SD	Rank
Psychosocial Relations	80.73	12.86	3
Commitment	81.94	18.32	2
Work Satisfaction	76.67	15.42	4
Openness/closeness	58.46	9.77	6
Competence Development	83.05	11.96	1
Job Security/insecurity	75.32	12.63	5

The means for each statement were computed. Then for each subscale, the quality index was computed [25]. Consequently, the index would be over 100%. Thus the higher index would be interpreted as higher quality of care. In Table II, respondents perceived a very good level of competence development ($Mean=83.05$; $SD=11.96$), commitment ($Mean=81.94$; $SD=18.32$), and psychosocial relations ($Mean=80.73$; $SD=12.86$). Furthermore, respondents have reported a high level of work satisfaction ($Mean=76.67$; $SD=15.42$) and job security/insecurity ($Mean=75.32$; $SD=12.63$). However, respondents' openness/closeness was found to be less satisfactory ($Mean=58.46$; $SD=9.77$). Based from the total quality index of 76.028, the results have generally indicated that the respondents perceived a high quality of care in their current job wherein safety and clinical effectiveness could be experienced by patients.

C. Descriptive Statistics for Nurse Practice Environment

In Table III, ranking of nurse practice environment subscales were illustrated. Since the computed median was at 1.97, values less than 1.97 indicated agreement and values more than 1.97 indicated disagreement. Ranked as

the highest, respondents perceived positive nursing foundations for quality of care ($Mean=1.76$; $SD=0.43$). Results also showed a positive nursing manager's ability, leadership, and support for nurses ($Mean=1.84$; $SD=0.53$), collegial nurse-physician relations ($Mean=1.87$; $SD=0.51$), and nurse participation in hospital affairs ($Mean=1.96$; $SD=0.49$). Conversely, the respondents perceived a negative staffing and resource adequacy ($Mean=2.20$; $SD=0.54$). Taken collectively, however, the means still revealed a positive nurse practice environment as perceived by the nurse respondents.

TABLE III. NURSE PRACTICE ENVIRONMENT SUBSCALES

Items	Mean	SD	Rank
Nurse's Participation in Hospital Affairs	1.96	0.49	4
Nursing Foundations for Quality of Care	1.76	0.43	1
Nursing Manager's Ability, Leadership, and Support for Nurses	1.84	0.53	2
Staffing and Resource Adequacy	2.20	0.54	5
Collegial Nurse-Physician Relations	1.87	0.51	3

D. Regression Analysis

Table IV presents how well a regression model fits between the dimensions of quality of care and the nurse practice environment. The F-ratio in all models showed that the predictors statistically significantly predicted criterion variables. Thus, it can be concluded that the models fit the data well.

TABLE IV. MODEL FIT STATISTICS OF THE REGRESSION MODEL

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Criterion Variable	Psychosocial relations	Commitment	Work satisfaction	Openness/closeness	Competence development	Security
Predictor/s	Manager's ability	Foundations for quality of care	Manager's ability, adequate staffing, nurse participation	Collegial nurse-physicians relations	Foundations for quality of care	Nurse participation, staffing adequacy
R	.457	.304	.521	.260	.327	.404
R ²	.209	.092	.271	.068	.107	.163
F	51.616	19.815	23.947	14.154	23.290	18.897
P-Value	.000	.002	.000	.000	.000	.000

V. DISCUSSION

It is important to note that respondents in the current study were composed mainly of nurses from Generation Y (94.4%) who were born after 1980, which further made the workforce considered “young” [40]. Known to be a “female-dominated profession” [44, 45], 71.8% of the respondents were expectedly females and only 28.2% were males. Moreover, 45.1% of the respondents had been assigned in their current area of assignment for 1 – 3 years and 46.5% respectively were employed in the hospital for not more than 3 years.

The results from the current study confirmed and also refuted some of the research hypotheses. First of all, regarding the effect of the nurse practice environment in the quality of care, as expected, the dimensions of the practice environment positively predicted the dimensions of quality of care; and secondly, regarding the influence of the multigenerational workforce in both of the nurse practice environment, and quality of care. Each of these research findings is discussed in turn, as follows:

Regarding the influence of nurse practice environment in the quality of care provided by nurses, as expected, the significant, positive relationship between quality of care and the nurse practice environment was confirmed. These results were largely consistent with the previous findings of some research works [22, 46, 23, 47, 48, 20, 30]. Nurses who work in nursing units with a healthy working atmosphere have displayed a higher quality of care rendered to patients compared to those nurses who are working in units where the essential factors that make up a healthy nurse practice environment are not met.

Findings of the study obtained through the utilization of the Multiple Linear Regression (MLR) showed that nurse manager’s ability, leadership and support for nurses positively impacted psychosocial relations between nurses ($\beta=0.457$; $p<0.01$) and work satisfaction ($\beta=0.194$; $p<0.01$). One of the factors that have a great impact of the effectiveness of nurses in an organization was the leadership style of the respondents’ respective managers. An appropriate approach of manager uplifted employees’ morale that in turn enhanced positive psychosocial relations and increased work satisfaction [18].

Nurse participation ($\beta=0.244$; $p<0.01$) and adequate staffing ($\beta=0.156$; $p<0.01$) influenced further work satisfaction. Reference [18] stress that nurses’ involvement in an organization’s affairs that include opportunities to serve on hospital and nursing committees, internal governance and policy decisions [46] have a considerable effect on the effectiveness, thus increasing work satisfaction. Additionally, adequate staffing allows nurses to reduce errors related to patient care. Nurses are more likely to report that certain tasks are left undone on shifts

with a higher ratio of patients per registered nurse. A higher level of work satisfaction is perceived in an environment with lower workloads where nurses can function at the highest scope of clinical practice [49].

Good foundations for quality of care, on the other hand, leads to higher levels of commitment ($\beta=0.304$; $p<0.01$), and competence development ($\beta=0.327$; $p<0.01$). One important aspect in the foundation for quality of care includes a preceptor program offered to newly hired nurses in an organization that helps them to enhance critical thinking skills to be competent and skillful provider of a safe patient care. Similarly, providing nurses opportunities for continuing education programs [20] can enhance competence development. An active staff development is also a driving force that enhances not only nurses’ competence but also their commitment to patient care.

Higher levels of nurse participation ($\beta=0.273$; $p<0.01$) and adequate staffing ($\beta=0.176$; $p<0.05$) lead to a higher job security. Nurses’ participation in hospital affairs not only increases morale but also empowerment and individual satisfaction among nurses [50]. Furthermore, staffing and resource adequacy also protect nurses from harm and problems related to patient care that may jeopardize their profession. It is worth noting that working in an environment with uncertainties and disempowerment together with high demands from patients and organization can threaten nurses’ job security and can eventually contribute to nurses’ withdrawal from the organization. Therefore, the higher the participation of nurses in hospital affairs, the higher the respondents’ satisfaction and intention to stay longer in the hospital, thus creating a positive atmosphere in the workplace.

Finally, a positive collegial nurse-physician relation positively impacts nurses’ openness/closeness ($\beta=0.260$; $p<0.01$). The result shows that open communication and strong professional collaboration between nurses and physicians when it comes to problem solving and decision-making improves the quality of patient care.

Given these points, it can be concluded that nurse practice environment has a positive significant influence in the quality of care based from the nurses’ perspectives.

Regarding the influence of multigenerational cohort in the nurse practice environment, and the quality of care, contrary to several literatures which were discussed in chapter two and the hypothesis stated in this study, multigenerational workforce did not produce any significant influence on the nurse practice environment, as well as in the quality of care ($\beta=0.004$; $p>0.05$).

VI. CONCLUSION

This study attempted to ascertain the relationship of nurse practice environment and quality of care in a

multigenerational workforce among staff nurses belonging to Generation X and Generation Y from two tertiary hospitals in Metro Manila.

Considering the dearth of literature on multigenerational workforce and its influence on the practice environment and quality of care, it is interesting to know that multigenerational workforce does not influence the two variables in this study. Despite changing demographics in the workforce and an increased complexity and changing needs of patients, this study has successfully accounted the influence of nurse practice environment and quality of care, particularly in a developing country such as the Philippines.

Among the five dimensions of the nurse practice environment, respondents posted a negative perception on staffing and resource adequacy alone. It is well known in the literature that variations in staffing levels have direct impact on the delivery of patient care. Related studies were also conducted in Asian countries like Taiwan and China [35]. Setting standard minimum staffing levels has been a widely discussed argument among international healthcare organizations [51, 52] to address problems related to staffing that may affect the quality of patient care. However, problems arise due to its inflexibility that may affect the workforce planning on the part of organizations especially in developing countries where the status of healthcare system is not as excellent as other healthcare organizations in the US and Europe.

As one of the dimensions of nurse-perceived quality of care, the nurses in this study perceived openness/closeness as less satisfactory. This can also be regarded as a result of negative staffing and resource adequacy. Due to higher workloads, nurses find it difficult to communicate properly and discuss matters related to patient care while working on a specific nursing task to meet the increasing demands of patients.

Since multigenerational workforce does not influence nurse practice environment and quality of care, the study suggests that strategies be developed that promote retention. Another crucial suggestion is to consider hiring nurses from older generation who have valuable insights, knowledge, and personal experiences on providing quality of care that they can impart to nurses from younger generations.

Moreover, training and development on leadership and management focusing on the significance of participative management style in guiding a younger workforce is an essential factor in improving managers' ability. This in turn promotes work satisfaction and higher level of job security when nurses are involved in hospital policy decisions, and nursing committees [18]. Consequently, highly satisfied and secured nurses will function at the highest scope of their clinical practice thus

promoting safe practice and accordingly promote safe practice and a higher quality of care. Furthermore, the study also suggests on increasing competency training to enhance nurses' self-confidence and critical thinking skills that will help them manage their time efficiently to get all the work carried out well during their shift.

To further promote healthy working relations between nurses and physicians, it will be profitable to increase collaborative activities that include organizational-wide socialization activities to promote enculturation of shared decision-making process [46]. A positive experience of being a part of a well-functioning work group results to a higher level of teamwork, positive working conditions, and professional development between nurses and physicians.

Since the assessment of quality of care based from patients' perspective was not included in the study, the researcher suggests that future studies will include patients' perspectives in the assessment of quality of care to generate additional findings that will create a deeper understanding of the true picture of quality of care not only based from nurses but also from patients.

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