

Factors Predicting the Quality of Care Among Nurses in Tertiary Hospitals in Fiji: A Cross-sectional Study

Elina Waqaitamana Veitamana, Kulwadee Abhichartibutra, Orn-Anong Wichaikum, Apiradee Nansupawat*

Abstract: Quality of care by nurses is a key factor in determining the success of healthcare delivery around the globe, which is impacted by a shortage of nurses, excessive workloads, and unfavorable working conditions, including in the Republic of Fiji Islands. Using the Quality Health Outcome Model, this descriptive-predictive, cross-sectional study examined the quality of care and its predictors among 744 Fijian registered nurses from three tertiary hospitals. Instruments for data collection were the Demographic Data Sheet, the Quality of Care Scale, the Participation in Decision Making Scale, the Relational Coordination Survey, the Perception of Organizational Change Scale, the Job Satisfaction Scale, and the Organizational Commitment Questionnaire. Descriptive statistics and logistic regression analysis were applied to analyze the data.

This study's findings are informative and offer a glimmer of hope since 72.58% of participants perceived the overall quality of care as good/excellent, indicating a positive baseline. Two factors, relational coordination and job satisfaction, significantly affected the perception of the quality of care. The study model explained 8.90% of the variance in quality of care, with relational coordination being the strongest predictor. These findings provide a clear path to improvement. A comprehensive model should be developed and tested to better understand the factors predicting Fiji's quality of care before it can be used to design an effective intervention. Developing nursing skills, improving good communication and work environments, and providing high-quality education and training among nurses can significantly improve the quality of care. In addition, support from the government for appropriate medical equipment, recruitment and retention strategies for nurses, and promotion of standard of care from the Ministry of Health and Medical Services are recommended to enhance the quality of care, further bolstering this hopeful outlook. Further Fijian nursing research is clearly needed on this topic in the future.

Keywords: Decision-making, Fiji, Job satisfaction, Nursing, Organizational change, Organizational commitment, Quality of care, Relational coordination

Received 6 May 2024; Revised 25 June 2024;
Accepted 28 June 2024

Introduction

Quality of care (QOC) is important for improving health outcomes in all populations. The World Health Organization specifies that quality of care is critical for increasing the likelihood of desired health outcomes and achieving effective universal health coverage.¹ The QOC is, therefore, part of healthcare delivery, and there is always an urgent need to place this at the center of national, regional, and global action to progress toward effective healthcare services. Nevertheless, low- and middle-income countries have

Elina Waqaitamana Veitamana, RN, MNS, PhD Candidate, Faculty of Nursing, Chiang Mai University, Thailand. E-mail: eveitamana@gmail.com
Correspondence to: *Kulwadee Abhichartibutra,* RN, PhD, Faculty of Nursing, Chiang Mai University, Thailand. E-mail: akulwadee@gmail.com*
Orn-Anong Wichaikum, RN, PhD, Faculty of Nursing, Chiang Mai University, Thailand. E-mail: ornwichai@gmail.com
Apiradee Nansupawat, RN, PhD, Faculty of Nursing, Chiang Mai University, Thailand. E-mail: apiradee.n@cmu.ac.th

struggled with inadequate care during the Millennium Development Goals era in settings characterized by continuously high rates of maternal and infant mortality.² A World Health Organization report in 2020 revealed that 5.7 and 8.4 million deaths could be attributed to poor quality care in low- and middle-income countries each year, which is up to 15% of overall deaths in

these countries.³ In addition, the complexity of the COVID-19 pandemic, a serious threat to the global community, has already posed challenges for all healthcare organizations. Due to health care changes, high QOC by nurses and other health professionals is needed to continually monitor and drive improvement in every country.

The Republic of Fiji, a developing country, is in the South Pacific Ocean. More than 330 islands make up the island nation. Health services distribution to a population dispersed over a vast maritime area faces significant challenges because of this geography. The Ministry of Health and Medical Services' primary duty is to provide Fijians with high-quality treatment at all levels of healthcare.⁴ However, the Fijian people's healthcare quality is still plagued by issues such as poorly maintained infrastructure and inconsistent access to basic medical supplies and surgical equipment.⁵ The quality of nursing care in Fiji remains largely unknown, and the limits of policy discussions on healthcare usage show the urgent need for evidence on the QOC across different levels of healthcare settings.⁶

During the escalating COVID-19 crisis in Fiji, the largest hospital was under-resourced, and much of its infrastructure dates to 1923. Most hospitals in the country are severely understaffed and dangerously ill-equipped, causing concerns for patients and medical staff's safety and lives.⁷ According to Fiji's health system, the continued improvement of care and the analysis of available indicators for monitoring QOC remain limited. A study on QOC and its positive or negative influencing factors will contribute to identifying the strategies to improve QOC in Fiji.

Literature Review and Conceptual Framework

The Model of Quality Health Outcome (MQHO)⁸ and a literature review guided this study. The MQHO is an extension of the Donabedian Model of Quality

of Care,⁹ and describes relationships among the system, interventions, clients, and outcomes. System refers to the hospital structure and process at the individual, group, and organizational levels. Intervention refers to direct and indirect clinical processes related to delivered activities. The term "client" describes the health, demography, and risk factors for illness of specific people, groups, and organizations. Outcome refers to the results of both treatment interventions and technology assessments. This approach is in opposition to the conventional wisdom that holds that treatments or interventions immediately result in the desired outcomes. It expands on the fact that no single direct connection exists between interventions and outcomes. Reciprocal directions and multiple feedback loops exist between the system, interventions, clients, and outcomes. In this model, a system influences desired outcomes directly.⁸ This model is valuable for guiding outcomes management at an organizational or system level, which can impact various areas of healthcare policy.

According to Aiken et al., the QOC is measured at the unit level, ranging from poor to excellent.¹⁰ Within the globalized context, healthcare professionals, especially nurses, must adapt their perspective on QOC by utilizing information related to modern nursing science and technology. In addition, over the last decade, the development of indicators for assessing the efficacy of QOC and interventions has gained more attention. This interest originated among those who were involved in assessing the QOC in various fields, including care providers, institutes, and healthcare policymakers at a regional or national level.

The participation and involvement of healthcare workers are important for a healthcare organization in relation to accomplishing the QOC. Among healthcare providers, nurses provide patients with front-line care in a timely and quality care service in hospitals. Since nurses are involved in almost every facet of a patient's care requirements, gaining insight into nurses' perspectives is important for improving QOC. Therefore, the QOC in this study refers to the degree

to which nurses perceived health care services were provided at the unit level.

As a composite measure derived from two linked psychosocial working environments, participation in decision-making (PDM) refers to skills to make job decisions and influence the work group or the organizational goals.¹¹ PDM motivates employees to work harder and significantly boosts the employees' productivity. The degree to which hospital nurses are involved and empowered by participation will maximize patient outcomes in terms of quality of care and patient safety.¹² Misunderstandings, disagreements within the team, and a lack of involvement in decision-making can divert healthcare professional members' emphasis from patient care and diminish the resources that will threaten the team's safety culture and, ultimately, the standard of care.¹³ PDM thus empowers the employee to improve QOC.¹⁴

To integrate tasks, relationships and communication interact in a mutually reinforcing way, known as relational coordination.¹⁵ To better achieve results, regular communication with common objectives, knowledge, and respect for one another occurs. Relational coordination improves quality by involving clients more smoothly and with fewer mistakes, delays, and redundancies.¹⁶ Gittel et al. found that improved QOC of care among healthcare providers was significantly associated with higher levels of relational coordination.¹⁷

Organizational changes refer to the experience of organizational adjustment in the hospital to outside influence or forces from unanticipated events. The notion of organizational change was formulated by considering factors related to the nature of the change, including its degree of disruption, need, and management quality.¹⁸ Organizational changes affect how well the employees interact with others within the setting and with external forces, and if this is at a high level, this fosters a positive work environment for healthcare professionals to accomplish organizational goals. Changes also impact employee performance, leading to various challenges. For example, organizational

change was found to be negatively associated with the QOC among eldercare employees in Sweden and Spain.¹⁹ However, there is ample evidence to demonstrate that transformational leadership positively affects organizational change and the commitment, openness and readiness of employees for such change.²⁰ Thus, we argue that a holistic understanding of improving QOC is required.

Organizational commitment represents the organizational structure. It refers to the degree to which employees have a sense of unity and shared values with their organization, and it is the degree to which an individual identifies with and participates in a specific organization.²¹ It consists of three forms of employee commitment to an organization, namely: 1) affective commitment or desire-based commitment; 2) normative commitment or obligation-based commitment; and 3) continuance commitment or cost-based commitment.²¹ Organizational commitments among nurses are crucial in understanding organizational behavior and a good predictor of employees' job performance to improve service quality.

Job satisfaction is the extent to which nurses like their jobs in relation to nurses' expectations of their work. The seven elements contributing to job satisfaction are work requirements, leadership, the motivation to do the work, working environment, working welfare, involvement in decision-making, and a feeling of community.²² Workers who are satisfied with their work atmosphere are more likely to prioritize patient safety. Nurses' degree of job satisfaction influences their ability to deliver high-standard care. For example, there was a positive correlation between nurses' job satisfaction and QOC in four different hospitals in the center of Iran.²³

When applying MQHO in the Fiji health care settings, system characteristics that affect QOC include 1) participation in decision-making, 2) relational coordination, 3) organizational changes, 4) job satisfaction, and 5) organization commitment. Studying all five factors in the system enables the development of strategies to improve QOC by all

stakeholders at the organizational level with high impact.

Study Aims

This study aimed to examine registered nurses' (RNs) perceptions of QOC and determine whether participation in decision-making, relational coordination, organizational change, job satisfaction, and organizational commitment can predict QOC among the RNs in tertiary hospitals in the Republic of Fiji Islands.

Methods

Study Design: This descriptive-predictive, cross-sectional study is described here using the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) standards.

Sample and Setting: The target population of this study included 1,210 RNs who had been working in three tertiary hospitals in the three divisional medical areas in the Republic of Fiji Islands. The sample was calculated using the rule of thumb of 100 participants per predictor.²⁴ There were five predictors in this study, and it was assumed that the sample needed would be 500 RNs. However, the RNs were expected to be reluctant to complete and return the questionnaire in this study, as survey response rates can range from 33.3 to 61.0 percent.²⁵ Thus, we added 60% (300) of the sample size, with a total required of 800. The inclusion criteria included RNs with at least one year of work experience in the three selected hospitals, providing direct nursing care to patients. The exclusion criteria were nursing executives, managers, and RNs who were on vacation, continued education, or maternity leave. Stratified random sampling was applied to select the sample. The primary investigator (PI) proportionally calculated and randomly chose the RNs from three hospitals. The total number of RNs in the studied hospitals A, B, and C was 561, 350, and 299, respectively. Thus, according to the proportion, random sampling was used to select

370 RNs from Hospital A, 231 from Hospital B, and 199 from Hospital C. Then the PI proportionally calculated and chose RNs from designated departments, using simple random sampling and a name list in each department after obtaining the permission from the chief nursing and midwifery officer and the director of nursing.

Ethical Considerations: The Helsinki Declaration's guiding principles were followed in this investigation. The Research Ethics Committee of Nursing Faculty, Chiang Mai University (Approval No. 2021-EXPO79) and the Fiji National Health Research Ethics Review Committee approved the study (FNHRERC No. 45/2021). Following this approval, the chief nursing and midwifery officer and the three hospital directors of nursing gave the PI permission and visibility to collect the required sample. Each participant signed the consent form after receiving information regarding the objectives, methods, instruments, confidentiality management, and their right to withdraw from the study.

Instruments: This study used seven instruments with permission from the original authors. The reliability of all questionnaires was tested among 30 randomly selected participants who met the same criteria, worked in the studied hospitals, and had characteristics similar to the study participants.

The Demographic Data Sheet was developed by the PI to obtain the participants' age, gender, marital status, educational level, income, nursing department, hours worked per week, and work-patient ratio per shift. It is a checklist with open-ended questions.

The Quality of Care Scale (QOCS) was developed by Aiken and Patrician to measure participant perceptions of QOC.²⁶ It consists of one item: How do you rate the quality of care in your hospital unit? The response is based on a 4-point rating scale ranging from 1 (poor), 2 (fair), 3 (good), and 4 (excellent).²⁶ This single item has been shown to be highly related to patient outcomes.²⁷ The reliability of quality reports of RNs was determined. The intraclass correlation ranged from .61-.73,²⁷ demonstrating sufficient agreement among RNs to

report quality of care. According to Aiken et al.,²⁸ we divided participants into two groups, “poor/fair” and “good/excellent,” to contrast the level of perceived quality. In this study, the test–retest reliability with an interval of two weeks was .83 in a pilot study.

The Participation in Decision-Making Scale (PDMS), developed based on the demand–control model,²⁹ was used to measure participation in decision–making. It comprises six items, e.g., “Workers are empowered by supervisors to establish their own work–related objectives” that rate participants’ agreement on a 5–point rating scale ranging from 1 (strongly disagree) to 5 (strongly agree). The total score ranges from 6 to 30, with a higher score indicating that individuals have a higher level of participation in decision–making in their work. Confirmatory factor analysis was used to confirm construct validity and showed a relatively satisfactory fit (factor loadings = .53–.74).²⁹ The reliability of the PDMS in the pilot study was .86, and in the main study, .74.

The Relational Coordination Survey (RCS) was developed by Gittell³⁰ to measure the participants’ relational coordination. In this self–administered scale, the participants were asked to report the behaviors of others (such as physicians, nurse unit managers, and nurses on the unit) instead of reporting their own behavior to decrease the likelihood of social desirability bias. The RCS comprises a seven–dimensional scale with six items in each dimension, including frequent communication, timely communication, accurate communication, problem–solving communication, shared goals, shared knowledge, and mutual respect, with a 5–point Likert–type scale starting from 1 (never) to 5 (constantly). An example item is, “Do they communicate with you in a timely way about quality of care?” The total score ranges from 7 to 210, with higher scores indicating higher relational coordination. The relational coordination index met standards for convergent validity (factor loadings=.57–.80, no cross–loadings greater than .40, item–to–total correlation scores of .40 or greater).³⁰ The reliability

of the RCS was .89 in the pilot study and .93 in the main study.

The Perception of Organizational Change Scale (POCS) was developed by Pernica¹⁸ to measure participant perceptions of organizational change. There are four items that ask how they feel about the change, such as “Was the change disruptive?” and “Was the change necessary?” The Likert scales range from 1 (not at all) to 5 (to a great extent). The total score ranges from 4 to 20, with higher scores indicating the higher organizational change. Exploratory factor analysis was determined and a satisfactory fit was determined (factor loadings = .51–.84).¹⁸ The reliability of the POCS in the pilot and main study were .80 and .67, respectively.

The Kuopio University Hospital Job Satisfaction Scale (KUHJSS) was developed by Kvist et al.²² to measure participants’ job satisfaction. It includes 37 items with seven factors: leadership (7 items), requiring factors of work (8 items), motivating factors of the work (6 items), working environment (4 items), working welfare (4 items), participation in decision–making (4 items), and sense of community (4 items). An example of an item is “My manager/director is truly concerned about the well–being of the staff.” It uses a 5–point rating scale ranging from 1 (highly dissatisfied) to 5 (highly satisfied). The total score ranges from 37 to 185, a higher score indicating that the individual has higher job satisfaction. The construct validity was assessed using exploratory factor analysis (factor loadings over .30).²² The reliability of the KUHJSS was .92 and .93 in pilot and main studies, respectively.

The Organizational Commitment Questionnaire (OCQ) was developed by Meyer and Allen²¹ to measure participants’ organizational commitment. There are 18 items with three dimensions, including affective commitment (6 items) (e.g. “I am happy to spend the rest of my career with this organization”), normative commitment (6 items) (e.g. “Staying with my organization is both a necessity and a desire for

me”), and continued commitment (6 items) (e.g. “I do not feel obligated to stay with my current employer”). Each response is scored using a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The total score ranges from 18 to 126. A higher score indicates a higher level of organizational commitment.²¹ The reliability of the OCQ in the pilot study was .80, and in main study, .78.

Data Collection: Data were collected from September 2021 to January 2022. The PI prepared packages including an information sheet, consent form and seven questionnaires. A research coordinator in each hospital distributed questionnaires and asked the participants to complete and return them within two weeks in a sealed envelope to the appropriate box in each nursing department. Of the 800 surveys, 744 (93.00%) were completed and submitted for data analysis.

Data Analysis: This was done using the 13th Statistical Package Software Version. The overall significance level was set at an alpha (α) of 0.05. Descriptive statistics were used to assess demographic data on participants and the QOC they provided. Binary logistic regression was used to examine the factors predicting QOC among participants in three tertiary

hospitals in Fiji. Linearity (coefficient = .153-.217) and multicollinearity (VIF = 1.384-1.852) were tested and met acceptable criteria. Lastly, binomial logistic regression analysis was employed to identify the predictors of QOC.

Results

Participants totaling 744 from all the departments were recruited from three tertiary hospitals. The findings showed that most of them were female (87.22%), with 65.66% being married. The mean age was 32.24 (SD = 7.82), with a range of 22 to 59 years of age, and most were indigenous I-Taukei (49.14%), a nation and ethnic group of Fiji. Almost 91% of the participants had a baccalaureate degree, and 33.75% had work experience in their current hospital between 2 and 5 years. Approximately one-quarter (21.60%) worked in the obstetric department, and more than half (66.42%) worked for 40 hours per week. The majority (61.42%) were temporarily employed, with 56.62% having an annual salary income between 22,000 and 24,999 Fijian dollars (10,000-11,362 USD) (Table 1).

Table 1. Descriptive characteristics of the sample (n = 744)

Demographic characteristics	Frequency	Percentage
Age (years) (Mean = 32.24, SD = 7.82, Range 22-59)		
22-30	350	47.12
31-40	249	33.48
41-50	126	16.89
51-60	19	2.51
Gender		
Female	649	87.22
Male	95	12.78
Ethnicity		
I-Taukei	365	49.14
Indo Fijian	351	47.11
Others (Part European/Pacific Islanders)	28	3.75
Marital status		
Single	203	27.35
Married	489	65.66
Engaged	29	3.75
Separated	23	3.24

Table 1. Descriptive characteristics of the sample (n = 744) (Cont.)

Demographic characteristics	Frequency	Percentage
Years of experience in nursing (Mean = 10.19, SD = 7.57, Range 2-33)		
2-5	245	33.75
6-10	234	31.42
11-15	96	11.35
16-20	71	9.43
> 20	98	14.05
Nursing qualification		
Diploma degree in nursing	60	8.12
Bachelor's degree in nursing	681	90.44
Master's degree in nursing	3	1.44
Employment status		
Full time	287	38.58
Temporary employment	457	61.42
Working department		
Surgical unit	113	15.22
Medical unit	145	19.43
Obstetrics unit	161	21.60
Pediatric unit	108	14.50
Operating theaters	34	4.62
Intensive care unit	49	6.61
Outpatient unit	55	7.42
Emergency unit	52	7.10
Others (ENT, Eye, Family planning)	27	3.50
Hours worked per week		
40 hrs	494	66.42
> 40 hrs	250	33.58
Patient ratio per shift		
< 10	540	72.58
≥ 10	204	27.42
Annual salary		
19,000-21,999 FJD (8,636-9,999 USD)	67	9.22
22,000-24,999 FJD (10,000-11,362 USD)	422	56.62
25,000-28,999 FJD (11,363-13,180 USD)	160	21.53
29,000-30,999 FJD (13,181-14,089 USD)	14	1.72
≥ 31,000 FJD (14,090 USD)	81	10.91

Note. Approximately 2.20 Fijian Dollars (FJD) equals to 1 USD.

The results showed that 72.58 % of participants perceived a good or excellent level of QOC, while 27.42% perceived a poor or fair level (Table 2). Based on the information given in Table 3, participation decision-making, relational coordination, organizational change, job satisfaction, and

organizational commitment had a significant relationship with QOC at the statistical level of $p < 0.05$, and the coefficients are between .153 and .217. A binary logistic regression using the Enter method is shown in Table 4. Relational coordination and job satisfaction affect the likelihood that participants

perceive good/excellent QOC. The logistic regression model was statistically significant ($\chi^2(5) = 47.21$, $p < .001$). The model explained 8.90% (Nagelkerke R^2) of the variance in QOC and correctly classified 72.40%

of cases. With a one-unit increase in relational coordination and job satisfaction, the odds of QOC increased by 11.68 and 7.42 times, respectively.

Table 2. Range, mean, standard deviation, frequency, and percentage of study variables (n = 744)

Variables	Possible range	Actual range	Mean	SD	Frequency	Percentage
Quality of care	1.00-4.00	2.00-4.00				
Poor/Fair					204	27.42
Good/Excellent					540	72.58
Participation decision making	6.00-30.00	11.00-30.00	20.45	4.08		
Relational coordination	7.00-210.00	89.00-191.00	142.24	21.79		
Organizational change	4.00-20.00	8.00-20.00	13.97	2.72		
Job satisfaction	37.00-185.00	87.00-180.00	134.38	20.22		
Organizational commitment	18.00-126.00	54.00-113.00	84.13	13.35		

Table 3. Correlations between the independent and dependent variables (n = 744)

Variables	1	2	3	4	5	6
1. Quality of care	1	.175**	.211**	.093*	.217**	.153**
2. Participation decision making		1	.442**	.290**	.472**	.244**
3. Relational coordination			1	.324**	.473**	.263**
4. Organizational change				1	.357**	.275**
5. Job satisfaction					1	.513**
6. Organizational commitment						1

Note. * $p < .05$, ** $p < .01$

Table 4. Binary logistic regression model predicting QOC as perceived by nurses (n = 744)

Variables	OR	CI	p-value
Constant	20.451		< .001
Participation decision making	.266	.964-1.064	.606
Relational coordination	11.680	1.007-1.026	.001
Organizational change	1.660	.891-1.024	.198
Job satisfaction	7.427	1.004-1.027	.006
Organizational commitment	.424	.990-1.020	.515

Note. Corrected percentage 72.40%, Nagelkerke $R^2 = .089$, Cox and Snell $R^2 = .061$, OR = Odds ratio, CI = confident interval

Discussion

The study unequivocally demonstrates that 72.58% of the participants rated QOC as good or excellent. The primary focus of the Ministry of Health

and Medical Services of Fiji is to enhance access to high-quality, safe, and patient-centered services by strengthening patient care and the continuum of services.³¹ Implementing these policies guides nurses to provide safety and QOC. In addition, nurses in

tertiary hospitals are responsible for the timely provision of well-structured care to individuals, families, or communities, the use of the nursing process, patient monitoring, and infection-control adherence,³² which promote QOC among nurses in tertiary hospitals in Fiji.

However, this study found 27.42% of participants rated poor or fair. Because of the high resignation rate of nurses in Fiji,³³ the nurses remaining have a heavier workload. A high nursing workload may have affected the participants' ability to carry out certain actions that affect the standard of care they provide. Moreover, healthcare institutions in Fiji struggle to provide high-quality care. Although public healthcare service standards are basic and sufficient for routine medical issues, facilities often lack essential resources and supplies.³⁴ The findings also revealed a prediction between relational coordination and job satisfaction that supports the conceptual framework. The overall predictors could explain only 8.90% (Nagelkerke R^2) of the variability in quality of care among nurses. A low level of predictability might come from the model fitting poorly with data distribution where its complexity is not high enough.³⁵ In this study, five factors were used to confirm the predictivity of QOC. There was no mediator that could affect the QOC, as confounding factors or mediators can intervene in the relationship between exposure and the response variable.³⁶ Additionally, specific variables to determine an outcome should have enough predictive features.³⁷ In this study, the relationship between the QOC variable and its factors was between .153 and .217, which is weak (**Table 3**). Finding a weak correlation with statistical significance suggests that there were other determinants that impacted the outcome variables.

Relational coordination was the strongest predictor of QOC in this study. According to the notion of relational coordination, relationships through mutual respect, common goals, and knowledge are the most effective means of coordinating highly interconnected activity.¹⁶ Relational collaboration enables the workers to complete their work more easily. In tertiary hospitals,

nurses report to supervisors in accordance with reporting procedures in a timely manner; they discuss clinical issues with doctors and other healthcare professionals.³² These enable nurses to collaborate in sharing patient treatment and progress information for decision-making on the cure or care and then can provide quality care to the patients.

Job satisfaction was found to be one of the significant predictors of QOC in this study. Job satisfaction is the positive personal emotional state that results from evaluations of job experiences. Nurses' job dissatisfaction can result in subpar work output, poor hospital work quality, and low efficiency. In Fiji, nurses' workplace achievement and promotion policies are tailored to the organization to enhance nurses' job satisfaction. In the daily life setting, nurses' ability to deliver high-standard care is significantly influenced by their level of job satisfaction.³⁸

Unexpectedly, participation decision-making did not significantly predict QOC in this study. Participation in decision-making gives nurses the opportunity to make decisions to achieve organizational goals.¹¹ In Fiji, nurses are responsible for participating in the hospital's activities.³² However, they can participate moderately (mean = 20.45, SD = 4.08, possible range 6–30). Lack of participation in decision-making decreases the chance for collaboration, allowing superiors and subordinates to pool their expertise and abilities to improve the quality of care,¹³ so it cannot affect the QOC.

In this study, organizational change did not significantly predict QOC. For healthcare organizational changes to succeed, it is crucial for healthcare professionals to be able to influence the change, feel well-prepared for it, and recognize its value.³⁹ In tertiary hospitals, when there is a directive change, such as management, regulation and policy changes, nurse leaders are crucial in guiding nurses and understanding how they may react to such change. The ability to lead and empower nurses is congruent with the characteristics of transformational leadership,

where Peng et al. found from a meta-analysis that transformational leadership has a strong correlation with a commitment to change, openness to change, and support for change.²⁰ Therefore, changes may not be disruptive or affect the nurses who care for patients.

Our results also showed that QOC was not significantly predicted by organizational commitment. The latter is the desire for belonging, willingness, and intention to remain with an organization and committed to its organization's goal and values with identification, involvement, and loyalty to the organization.²¹ The data collection in this study was conducted during the COVID-19 pandemic when nurses mainly faced challenges, such as the risk of infection transmission, shortage of resources, workplace change, lack of knowledge, doubt, and fear. Willingness to remain with an organization and improve the QOC may not be the main aim of nurses, as there was a mass resignation of about 807 nurses in Fiji, approximately 26.4% of the total in 2022.³³ In the future, there is an urgent need to turn this situation around so that the QOC is improved through the involvement of nurse leaders in policy development to recruit and retain more staff to address the nursing shortage and the implementation of strategic and cooperative actions among the Ministry of Health and Services, professional organizations, and hospitals to focus on a variety of measures to improve safe and high-quality care.

Limitations

The data in this study were obtained from three tertiary hospitals in Fiji, but the findings cannot be generalized to all hospital levels. Further studies in other settings, such as primary and secondary hospitals, and community health settings, are recommended to better understand QOC in Fiji. In addition, in a real-life situation, self-reported data may be biased, as participants may tend to present themselves in a manner that is favorable to others. Therefore, qualitative and quantitative patient perspectives on QOC and evidence from the

incident reports and patient complaints are needed to help give a clearer picture of whether QOC is good or excellent. Nurses, as the backbone of patient care, play a vital role in this future research in Fiji.

Conclusions and Implications for Nursing Practice

This study unequivocally demonstrated that 72.58% of nurses perceived the QOC as good or excellent. The study also verified the predictors of QOC among nurses in three tertiary hospitals in Fiji, which confirmed that relational coordination and job satisfaction were predicting factors. The study model explained 8.90% (Nagelkerke R^2) of the variance in QOC. Drawing from these results, further studies using a comprehensive model with variables of greater importance, such as nurse work environment, nurse staffing, and job satisfaction,⁴⁰ are needed to understand the predicting factors of QOC among nurses in Fiji. In addition, a re-examination of this research would be advised after the COVID-19 pandemic since the participants were experiencing fatigue, stress, and work-related stress during that time, and there was mass staff resignation.

The results should be incorporated into the regular services to contribute to nursing practice. In the first author's experience, and with the evidence available, the Fijian government needs to provide sufficient funds for medical equipment and staffing necessary for providing QOC to all populations. In particular, the Ministry of Health and Medical Services should collaborate with nurse leaders to create strategies to recruit and retain nurses in tertiary hospitals and promote the hospitals to improve and deliver better QOC. Nursing educators need to provide high-quality education and training in improving QOC. Nurses should develop skills in providing good nursing care. In relational coordination, nurses should create a good communication relationship between nurses, doctors, unit support staff, and other healthcare

workers to ensure continuity of care and provide comprehensive information to support the quality of care in their unit. Also, with job satisfaction, nursing directors should build a work environment that shares workloads, encourages, supports, and creates a good-spirited work environment that impacts the QOC in the spirit of transformational leadership.

Acknowledgments

The authors extend an appreciation to Faculty of Nursing and Graduate School, Chiang Mai University, Thailand for a scholarship and financial support. We are so grateful to the nurses in three tertiary hospitals who participated in this study.

References

1. World Health Organization. Quality of care [Internet]. 2024 [cited 2024 Jun 10]. Available from: https://www.who.int/health-topics/quality-of-care#tab=tab_1
2. Yanful B, Kirubarajan A, Bhatia D, Mishra S, Allin S, Ruggiero ED. Quality of care in the context of universal health coverage: a scoping review. *Health Res Policy Sys.* 2023;21(1):21. doi:10.1186/s12961-022-00957-5.
3. World Health Organization. Quality health services [Internet]. 2020 July 20 [cited 2024 Jun 20]. Available from: <https://www.who.int/news-room/fact-sheets/detail/quality-health-services>
4. Ministry of Health and Medical Services. National wellness policy for Fiji [Internet]. 2015 Nov 19 [cited 2024 Jan 28]. Available from: <https://www.health.gov.fj/wp-content/uploads/2018/03/National-Wellness-Policy-for-Fiji.pdf>.
6. Stewart L, Usher K. The impact of nursing leadership on patient safety in a developing country. *J Clin Nurs.* 2010;19(21-22):3152-60. doi: 10.1111/j.1365-2702.2010.03285.x.
6. Asante AD, Irava W, Limwattananon S, Hayen A, Martins J, Guinness L, et al. Financing for universal health coverage in small island states: evidence from the Fiji Islands. *BMJ Glob Health.* 2017;2(2):e000200. doi: 10.1136/bmjgh-2016-000200.
7. Ruggiero S. Hospitals in chaos as Fiji battles COVID-19 hell [Internet]. 2021 July 30 [cited 2024 May 21]. Available from: <https://www.aljazeera.com/news/2021/7/30/patients-turned-away-as-fiji-battles-covid-19-hell>
8. Mitchell PH, Ferketich S, Jennings BM. Quality health outcomes model. *American Academy of Nursing Expert Panel on quality health care. Image J Nurs Sch.* 1998;30(1): 43-6. doi: 10.1111/j.1547-5069.1998.tb01234.x.
9. Donabedian A. The quality of care. How can it be assessed? *JAMA.* 1988;260(12):1743-8. doi: 10.1001/jama.260.12.1743.
10. Aiken LH, Clarke SP, Sloane DM, Sochalski J, Silber JH. Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA.* 2002;288(16):1987-93. doi:10.1001/jama.288.16.1987.
11. Karasek RA. Job demands, job decision latitude, and mental strain: implications for job redesign. *Adm Sci Q.* 1979; 24:285-308. doi: 10.2307/2392498.
12. Tenza IS, Blignaut AJ, Ellis SM, Coetzee SK. Nurse perceptions of practice environment, quality of care and patient safety across four hospital levels within the public health sector of South Africa. *BMC Nurs.* 2024;23(1):324. doi: 10.1186/s12912-024-01992-z.
13. Croskerry P, Norman G. Overconfidence in clinical decision making. *Am J Med.* 2008;121(5 Suppl):S24-9. doi: 10.1016/j.amjmed.2008.02.001.
14. Liu C, Bartram T, Casimir G, Leggat SG. The link between participation in management decision-making and quality of patient care as perceived by Chinese doctors. *Public Manag Rev.* 2014;17(10):1425-43. doi: 10.1080/14719037.2014.930507.
15. House S, Crandell J, Stucky C, Kitzmiller R, Jones C, Gittel JH. Relational coordination as a predictor of job satisfaction and intent to stay among nurses and physicians in the military health system. *Mil Med.* 2023;188(1-2):e316-25. doi: 10.1093/milmed/usab464.
16. Bolton RE, Logan C, Gittel JH. Revisiting relational coordination: a systematic review. *J Appl Behav Sci.* 2021; 57(8):290-322. doi: 10.1177/002188632199159.
17. Gittel JH, Fairfield KM, Bierbaum B, Head W, Jackson R, Kelly M, et al. Impact of relational coordination on quality of care, postoperative pain and functioning, and length of stay: a nine-hospital study of surgical patients. *Med Care.* 2000; 38(8): 807-19. doi: 10.1097/00005650-200008000-00005.
18. Pernica, MK. Organizational change and employee trust: the mediating roles of perceived organizational support and organizational justice [dissertation]. [Ottawa]: Carleton University; 2011.

19. Westerberg K, Pienaar J, Nordin M, Romeo M, Yepes-Baldó M. Organizational change and commitment: effects on well-being, turnover intent and quality of care in Spanish and Swedish eldercare. *Econ Ind Democr.* 2021; 42(4):899-916. doi: 10.1177/0143831X18815970.
20. Peng J, Li M, Wang Z, Lin Y. Transformational leadership and employees' reactions to organizational change: evidence from a meta-analysis. *J Appl Behav Sci.* 2021;57(3): 369-97. doi: 10.1177/002188632092036621.
21. Meyer JP, Allen NJ. TCM employee commitment survey academic users guide 2004. The University of Western Ontario, Department of Psychology, London. 2004.
22. Kvist T, Mäntynen R, Partanen P, Turunen H, Miettinen M, Vehviläinen-Julkunen K. The job satisfaction of Finnish nursing staff: the development of a job satisfaction scale and survey results. *Nurs Res Pract.* 2012;2012:210509. doi: 10.1155/2012/210509.
23. Maghsoud F, Rezaei M, Asgarian FS, Rassouli M. Workload and quality of nursing care: the mediating role of implicit rationing of nursing care, job satisfaction and emotional exhaustion by using structural equations modeling approach. *BMC Nurs.* 2022;21(1):273. doi: 10.1186/s12912-022-01055-1.
24. Maxwell SE. Sample size and multiple regression analysis. *Psychol Methods.* 2000;5(4):434-58. doi: 10.1037/1082-989x.5.4.434.
25. Baruch Y, Holtom BC. Survey response rate levels and trends in organizational research. *Hum Relat.* 2008;61(8):1139-60. doi: 10.1177/0018726708094863.
26. Aiken LH, Patrician PA. Measuring organizational traits of hospitals: the revised nursing work index. *Nurs Res.* 2000;49(3):146-53. doi: 10.1097/00006199-200005000-00006.
27. McHugh MD, Stimpfel AW. Nurse reported quality of care: a measure of hospital quality. *Res Nurs Health.* 2012;35(6): 566-75. doi:10.1002/nur.21503.
28. Aiken LH, Sloane DM, Bruyneel L, Van den Heede K, Sermeus W; RN4CAST Consortium. Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *Int J Nurs Stud.* 2013;50(2):143-53. doi: 10.1016/j.ijnurstu.2012.11.009.
29. Probst TM. Countering the negative effects of job insecurity through participative decision making: lessons from the demand-control model. *J Occup Health Psychol.* 2005; 10(4):320-9. doi: 10.1037/1076-8998.10.4.320.
30. Gittell JH. Relational coordination: guidelines for theory, measurement, and analysis. Waltham (MA): Brandeis University; 2011.
31. Ministry of Health and Medical Services. Annual operation plan 2023-2024 [Internet]. 2023 [cited 2024 Jun 21]. Available from: <https://www.health.gov.fj/wp-content/uploads/2023/12/Annual-Operational-Plan-2023-2024.pdf>
32. Ministry of Health and Medical Services. Nurses job description. 2018 [cited 2024 May 30]. Available from: <https://www.health.gov.fj/wp-content/uploads/2018/04/Registered-Nurse-Advert.pdf>
33. The Fiji Times. Minister: 807 nurses resign in 2022 [Internet]. 2023 Feb 16 [cited 2024 May 21]. Available from: <https://www.fijitimes.com.fj/minister-807-nurses-resign-in-2022/>
34. International Trade Administration. Healthcare [Internet]. 2024 Jan 23 [cited 2024 Jun 21]. Available from: <https://www.trade.gov/country-commercial-guides/fiji-healthcare>
35. Zhou S, Blanchart P, Crucianu M, Ferecatu M. Why is the prediction wrong? Towards underfitting case explanation via meta-classification. Processing of the 2022 IEEE 9th International Conference on Data Science and Advanced Analytics (DSAA); 2022 Oct; Shenzhen, China. arXiv. 2023:2302.09952. doi: 10.1109/DSAA54385.2022.10032332.
36. Yu Q, Li B. Third-variable effect analysis with multilevel additive models. *PLoS One.* 2020; 15(10), e0241072. doi: 10.1371/journal.pone.0241072.
37. IBM. What is underfitting? 2020 [cited 2024 May 30]. Available from: <https://www.ibm.com/topics/underfitting>
38. Andersen IA, Kleiven OT, Kyte L, Pettersen MAS. Quality of care and job satisfaction in a Hospital Trust before and after the Coordination Reform in Norway. *Nurs Open.* 2020;7(6):1707-14. doi: 10.1002/nop.2.554.
39. Nilsen P, Seing I, Ericsson C, Birken SA, Schildmeijer K. Characteristics of successful changes in health care organizations: an interview study with physicians, registered nurses and assistant nurses. *BMC Health Serv Res.* 2020; 20:147. doi: 10.1186/s12913-020-4999-8.
40. Zin TP, Abhichartibutra K, Wichaikum O. Factors predicting quality of nursing care among registered nurses in Myanmar: a cross-sectional study. *Pacific Rim Int J Nurs Res.* 2024;28(3):496-508. doi: 10.60099/prjnr.2024.266967.

ปัจจัยทำนายคุณภาพการดูแลของพยาบาลในโรงพยาบาลตติยภูมิ สาธารณรัฐฟีจี : การศึกษาแบบภาคตัดขวาง

Elina Waqaitamana Veitamana กุลวดี อภิชาติบุตร* อรอนงค์ วิชัยคำ อภิรดี นันทศุภวัฒน์

บทคัดย่อ: คุณภาพการดูแลที่เกิดจากพยาบาลเป็นปัจจัยสำคัญในการกำหนดความสำเร็จของการให้บริการด้านการดูแลสุขภาพทั่วโลกซึ่งได้รับผลกระทบจากการขาดแคลนพยาบาล ภาระงานที่มากเกินไป และสภาพการทำงานที่ไม่เอื้ออำนวย ซึ่งรวมถึงในสาธารณรัฐฟีจี วัตถุประสงค์ของการศึกษาเชิงทำนายแบบภาคตัดขวางนี้คือ เพื่อศึกษาคุณภาพการดูแลและปัจจัยทำนายคุณภาพการดูแลในพยาบาล 744 คนจากโรงพยาบาลตติยภูมิ 3 แห่งในสาธารณรัฐหมู่เกาะฟีจีโดยใช้โมเดลผลลัพธ์เชิงสุขภาพที่มีคุณภาพ เครื่องมือที่ใช้ในการรวบรวมข้อมูล ได้แก่ แบบบันทึกข้อมูลส่วนบุคคล แบบวัดคุณภาพการดูแล แบบวัดการมีส่วนร่วมในการตัดสินใจ แบบสำรวจการประสานสัมพันธ์ภาพ แบบวัดการรับรู้การเปลี่ยนแปลงขององค์กร แบบวัดการความพึงพอใจในงาน และแบบสอบถามความยึดมั่นผูกพันต่อองค์กร วิเคราะห์ข้อมูลโดยใช้สถิติบรรยาย และการวิเคราะห์การถดถอยโลจิสติก

ผลการวิจัยซึ่งพบว่าผู้เข้าร่วมการวิจัยร้อยละ 72.58 รับรู้คุณภาพการดูแลโดยรวมดีและดีเยี่ยมได้ให้ข้อมูลที่เป็นประโยชน์และเป็นสิ่งที่ต้องการให้เกิดขึ้นในอนาคต ปัจจัย 2 ประการได้แก่ การประสานสัมพันธ์ภาพ และความพึงพอใจในงานมีอิทธิพลต่อการรับรู้คุณภาพการดูแล โมเดลการศึกษาอธิบายความแปรปรวนของคุณภาพการดูแลได้ร้อยละ 8.90 โดยการประสานสัมพันธ์ภาพเป็นปัจจัยทำนายที่ดีที่สุด ผลการศึกษาแสดงแนวทางที่ชัดเจนเพื่อการพัฒนาปรับปรุงให้ดีขึ้น การพัฒนาและทดสอบโมเดลที่ครอบคลุมเพื่อทำให้เกิดความเข้าใจเกี่ยวกับปัจจัยทำนายคุณภาพการดูแลในสาธารณรัฐหมู่เกาะฟีจี มีความจำเป็นต้องทำก่อนการออกแบบการจัดการที่มีประสิทธิภาพ การพัฒนาทักษะทางการพยาบาล การปรับปรุงการสื่อสารและสิ่งแวดล้อมการทำงานที่ดี รวมทั้งการจัดให้มีการศึกษาและการอบรมที่มีคุณภาพสูงจะช่วยส่งเสริมคุณภาพการบริการ นอกจากนี้ การสนับสนุนวัสดุอุปกรณ์ทางการแพทย์จากรัฐบาล การกำหนดกลยุทธ์การสรรหาและธำรงรักษาพยาบาลและการส่งเสริมมาตรฐานการดูแลจากกระทรวงสาธารณสุขเป็นสิ่งที่ควรดำเนินการเพื่อส่งเสริมให้เกิดคุณภาพการดูแลที่เชื่อว่าจะเกิดขึ้นในอนาคต การวิจัยเกี่ยวกับคุณภาพการดูแลโดยพยาบาลสาธารณรัฐฟีจีมีความจำเป็นต้องดำเนินการต่อไปในอนาคต

Pacific Rim Int J Nurs Res 2024; 28(4) 720-732

คำสำคัญ: การตัดสินใจ สาธารณรัฐฟีจี ความพึงพอใจในงาน การพยาบาล การเปลี่ยนแปลงขององค์กร ความยึดมั่นผูกพันต่อองค์กร คุณภาพการดูแล การประสานสัมพันธ์ภาพ

Elina Waqaitamana Veitamana, นักศึกษาหลักสูตรปริญญาเอก คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่ E-mail: eveitamana@gmail.com
ติดต่อที่: กุลวดี อภิชาติบุตร* รองศาสตราจารย์ คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่ E-mail: akulwadee@gmail.com
อรอนงค์ วิชัยคำ ผู้ช่วยศาสตราจารย์ คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่ E-mail: ornwchai@gmail.com
อภิรดี นันทศุภวัฒน์ รองศาสตราจารย์ คณะพยาบาลศาสตร์ มหาวิทยาลัยเชียงใหม่ E-mail: apiradee.n@cmu.ac.th