

A CAUSAL MODEL DEVELOPMENT FOR THE NURSING SERVICE QUALITY IN HOSPITALS UNDER THE OFFICE OF THE PERMANENT SECRETARY, MINISTRY OF PUBLIC HEALTH

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Abstract : The objectives of this research (SEM) were 1) to develop and verify the consistency of the model, 2) to study the direct and indirect effects of causal factors on nursing service quality in hospitals under the office of the permanent secretary, Ministry of Public Health. The sample is professional nursing personnel and service recipients or patient. The research tools were questionnaires for providers and service recipients. Latent variables were: 1) environmental factors in nursing practice 2) providers factors 3) job Satisfaction factors 4) service recipients factors Analyze research results with SEM. The results showed that 1) the developed model was consistent with the empirical data. ($\chi^2 = 84.88$, $df = 67$, $p = 0.069$, $\chi^2/df = 1.27$, $CFI = 1.00$, $GFI = 0.98$, $AGFI = 0.94$, $RMSEA = 0.025$) 2) Nursing service quality was directly influenced by the service recipients or patient factor the most. Followed by the factor of job satisfaction. and environmental factors in nursing practice. and is indirectly influenced by the provider factor and service recipients or patient factors. Through the factor of job satisfaction.

Keywords: causal model, nursing service quality, factors affecting service quality, environment in nursing practice, job satisfaction

INTRODUCTION

Nursing service quality means excellence or merit of nursing service. It is a service that can respond to the needs of the service recipients for both main and related services. There is a relationship among nursing service administration, the process of nursing care and the results that occur to the service recipients, with the criteria assessed according to the standards. (Bureau of Nursing, Office of Permanent Secretary, Ministry of Public Health, 2008) In addition, the quality of nursing services also used as a divisor control nursing service standards The qualified nurses will be able to practice nursing according to the standards set by the nursing profession (Bureau of Nursing, Office of Permanent Secretary, Ministry of Public Health, 2008).

Nursing service standards are criteria for excellence in nursing services. both at the structure, process and outcome levels (Bureau of Nursing, Office of Permanent Secretary, Ministry of Public Health, 2008) as a quality indicator. And it is an important factor in quality control that all nurses must strictly adhere to as a criterion for both operators and nurses. and administrators who must supervise (Bureau of Nursing, Office of Permanent Secretary, Ministry of Public Health, 2008). Nursing service standards consist of technical standards and practical standards (Omachonu, 1990, cited in Urairat Yoosuk, 2006). Therefore, the quality of nursing services can be classified into 2 components: 1) Technical quality

is the quality that meets the requirements of the nursing profession. It is the view of a service provider who adheres to professional standards, which is related to the basics of technical accuracy and procedures in nursing services (Jiruth Sriratanaban et al., 2000). and 2) practical quality, which is the quality of nursing services from the point of view of patients, which can be assessed from the perceptions and expectations of patients who use services in the hospital (Parasuraman et al., 1988).

The development of the quality of nursing services has been continuously developed. By using quality assurance (Quality Assurance: QA) and the concept of continuous quality improvement (Continuous Quality Improvement: CQI) throughout the nursing organization used to improve the quality of nursing services (Bureau of Nursing, Office of Permanent Secretary, Ministry of Public Health, 2008) And after assessing the quality of nursing services and obtaining certification for the quality of nursing services, nursing organizations have processes to continually improve the quality of nursing services. This is a mechanism that encourages learning and development of the whole person. And the work system resulting from the development will allow the service recipients to receive appropriate care with better quality. (Hospital Quality Development and Accreditation Institute, 2008). However, from assessing the quality of nursing services in each hospital. Under the Office of the Permanent Secretary, Ministry of Public Health, fiscal year 2020 It was found that results of nursing service quality evaluation in each hospital had not yet been achieved, that is, all hospitals pass the level 3 criterion, representing 100%, and have continued to develop to level 4 and level 5. Such information reflects that There are some nursing service agencies. and some nurse practitioners Providing nursing services according to nursing service standards are not yet complete. and uneven (Division of Nursing, 2021)

There are several factors involved in improving the quality of nursing services in hospitals. Past documents and research have shown that various factors influence the quality of health services. For example, Mosadeghrad (2014) explained that the quality of health services depends on 3 related factors namely (1) service recipients or patient factors found that the cooperation of the patients. Patient involvement and cooperation is essential to the quality of health services. and the severity of the illness The severity of the patient's condition affects treatment adherence, which in turn affects the quality of health care services. (2) The provider factors found that the ability of the providers (Knowledge and skill) is knowledge, technical expertise. Operational procedures for health services that affect the quality of health services and motivation and satisfaction of service providers, that is, job satisfaction of service providers is very important, affecting the provision of high-quality health services to patients and (3) Environmental factors, it was found that the health care system is the increasing demand for medical treatment. Hospital personnel are overworked, which can lead to a decrease in the quality of service. In terms of resources and facilities, the availability of resources affects the quality of health care. Leadership and management are policy makers. efficient management and quality support affecting the development of service quality and cooperation and cooperation development, that is, cooperation and cooperation development for good multidisciplinary team practitioners is important. affecting the development of service quality which shows organizational factors and a variety of environments that influence service provider job satisfaction and result in a commitment to high-quality service. This is consistent with the study of The Magnet Study (American Nurses Credentialing Centre, 2010) that found that the environment in nursing practice and Job satisfaction and the quality of nursing services has an important relationship. In addition, Koy (2011) found that job satisfaction was influenced by nursing manpower which affects the quality of nursing services.

Improving the quality of nursing services, it is necessary to consider the aforementioned related factors, consisting of 1) Environmental factors in nursing practice 2) Provider factors 3) Job satisfaction factors 4) Service recipients or patient factors. An analysis of the correlation structure between these variables will help to see the direct influence. indirect influence and the combined influence of various variables, which will make it possible to select important factors and cover to determine guidelines for improving the quality of nursing services in the future The researcher is therefore interested in studying A Causal Model Development for the Nursing Service Quality in Hospitals Under the Office of the Permanent Secretary, Ministry of Public Health



1. Objectives of the research

This study aims to 1) To develop and verify the consistency of the causal model of nursing service quality in hospitals under the office of the permanent secretary, ministry of public health with empirical data. 2) To study direct and indirect influences of causal factors on nursing service quality in hospitals under the office of the permanent secretary, ministry of public health.

2. Literature Review

A review of the literature on factors affecting the quality of nursing services. It was divided into 5 topics: 1) quality of nursing services, 2) environmental factors in nursing practice, 3) Service recipients or patient factors, 4) providers factors, and 5) job satisfaction factors. Is detailed as follows:

1. Nursing service quality is a characteristic that shows the management. nursing service operations Including the results that occur with service recipients or patients with criteria assessed according to the specified standards. By providing services according to Nursing and Midwifery Profession Act 1997 to respond to the needs and expectations of service recipients that are suitable according to standards, namely (1) quality of technical nursing services (Jiruth Sriratanaban et al., 2000) mean It is the view of a service provider who adheres to professional standards. It deals with the fundamentals of technical and operational accuracy, such as precision nursing diagnostics. and procedures or methods that are standard It also includes the ability of personnel working in the hospital. Which is related to the skills in the operation of the nurse. There are 9 items such as 1) competence, 2) effectiveness, 3) suitability, 4) safety, 5) continuity, 6) efficiency, 7) access to services, 8) accountability, and 9) commitment and (2) the concept of practical nursing service quality (Parasuraman et al, 1988), which is the perspective of the client in receiving various types of services. Normally, when evaluating the quality of hospital services, patients will consider nursing services and operational expectations derived from each patient's perception, such as illness response. Facilities, cleanliness, food quality in the hospital The attitudes of nurses in hospitals and others, etc., consisted of 5 items, consisting of 1) the concreteness of the service, 2) credibility, 3) immediate response to service users, 4) service confidence, and 5) The factor of job satisfaction of nurses

2. Environmental factors in nursing practice and nursing service quality. Environment in nursing practice means suitable working conditions. resulting in efficient work And it is beneficial to the health of nurses both physically and mentally, including physical environment, light, color, sound, nursing service structure. and allocation of manpower with suitable workload good colleague Including the availability of sufficient medical equipment and tools. appropriate compensation and having morale in work, etc. To provide quality nursing services according to professional nursing standards. According to literature review and related research, it was found that the nursing practice environment affecting the quality of nursing service. There are many factors including The situation of the disease and the changing population. Changes in structure and policy (Sanong Suebsai-on and Payom Yoosawat, 2004). Resources and facilities. working atmosphere and multidisciplinary cooperation (Mosadeghrad, 2014) Cooperation between doctors and nurses (Kinlay Chimi Thitinat Akkadechanan and Rattanawadee Chontawan, 2015) Visionary leader and recognize the roles of nursing administrators (Somprathana Dapha Jitpinun Srichakkot and Wannachanok Chantachum, 2020), appropriate manpower and workload arrangement (World Health Organization, 2014), morale, rewards and work progress (International Council of Nurses, 2007) and the potential of hospitals in health care. (Public Health Administration Division Office of the Permanent Secretary, Ministry of Public Health, 2017) affecting the quality of nursing services.

3. The factor of service recipients or patients and quality of nursing services Mosadeghrad (2014) found that patient cooperation. and severity of illness Affects the quality of nursing services in service recipients or patients who receive services or treatment in hospitals. Both staying overnight in the hospital and not staying overnight which has been examined, treated and supervised by nursing personnel and a multidisciplinary team

4. The factor of provider and service quality Service. Provider means medical personnel who provide services to patients such as doctors, nurses, pharmacists, dentists, physiotherapists and other personnel, etc. In this research, service providers are professional nurses. From literature reviews and related research, it was found that nursing competencies In the performance of good nursing services (Sureeporn Duangsuwan Poonsuk Hingkanon, Pakorn Prajanban and Kanchana Sukkaew, 2011) Nurses' ability to communicate with patients (Lertrit Wuttiiphong, 2014) The determination of nursing service standards and management of nursing service standards (Wanruedee Phuthong, 1996) and attitudes and perceptions (Kuekoon Santitranon et al., 2004) affected the quality of nursing services.

5. Factors of job satisfaction and the quality of nursing services. Job satisfaction means feeling in a good direction. as well as having a positive attitude toward nursing service work. The personnel received a good response from the organization. which causes pride in the work feeling of satisfaction including being happy and commitment to work that will result in a better quality of nursing

service From the review of the literature and related research, it was found that job satisfaction was influenced by nursing manpower. which affects the quality of nursing services (Koy, 2011).

The researcher brings the results of the study, analyzes and synthesizes. To be used as a base for drafting a structural relationship model of factors affecting nursing service quality in hospitals under the Ministry of Public Health. drafted a hypothesis model Structural relationship of factors affecting nursing service quality in hospitals under the office of the permanent secretary, ministry of public health as shown in Figure 1.

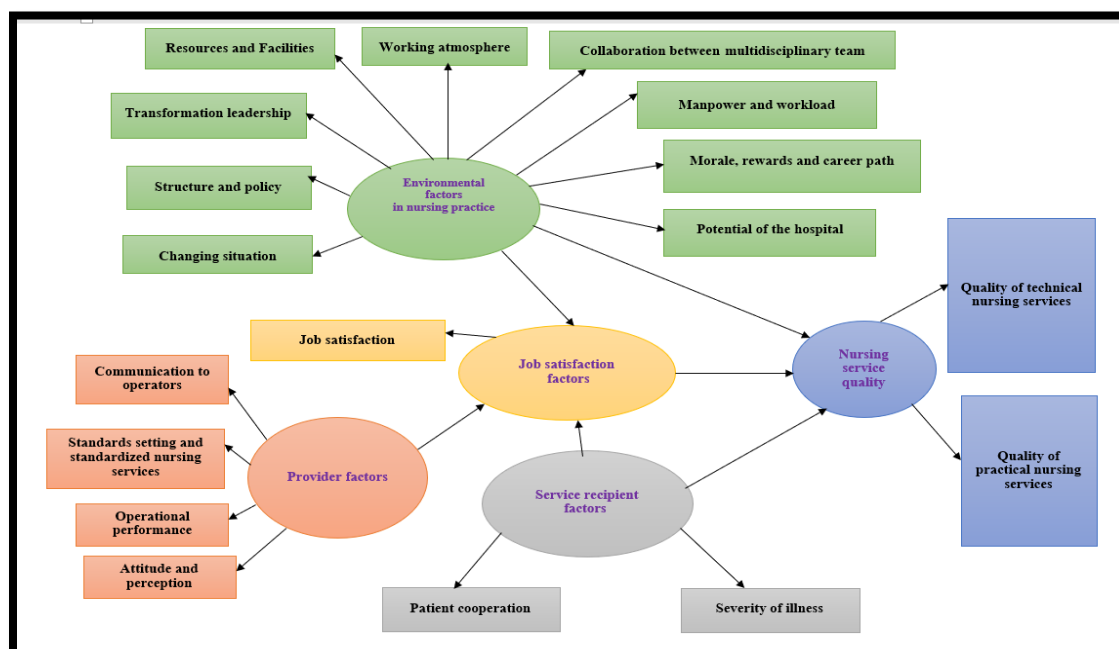


Figure 1 Causal Model of nursing service quality

3. Methodology

This research was the study of the causal relationship of several variables. Structural Equation Modeling (SEM) was used for nursing service quality in hospitals under the Ministry of Public Health. The population was 1) professional nurses and 2) patients or relatives. The total number of samples was 856 people. The sampling was done by multi-stage random sampling. By randomly representing 4 regions from 5 regions, namely northern, central, eastern and northeastern regions. Then randomly selected at the provincial level, representatives in each region, 4 provinces, then randomized hospitals in each province according to type of hospital. by requiring There were 1 general hospital in each province, 3 community hospitals in each province, and 20 provincial center hospitals, and randomly selected samples. From the target hospital is the center hospital. and general hospital consisting of 25 service providers and service recipients, and community hospitals consisting of 19 service providers and service recipients, including a sample of 428 professional nurses and 428 patients or relatives , totaling 856 people.

4. Research tools

Questionnaire developed The researcher reviewed the literature, concepts, theories and research related to factors affecting the quality of nursing services. There were 2 sets of questionnaires as follows: 1) **Set 1** for Service Providers consists of 2 parts. **Part 1** is general information, including gender, age, education, additional training, marital status, department where you work. operational experience There were 8 items at the hospital level. **Part 2** was a questionnaire on factors affecting the quality of nursing services in hospitals under the office of the permanent secretary, ministry of public health, divided into 4 parts, with a 5-level Likert scale, details as follows: **Part 1** Environmental factors in nursing practice (Env) covered 9 observed variables: 1) changing situation variables 2) structure and policy variables 3) transformational leadership variables 4) resources and facilities variables. 5) Working atmosphere variables 6) Collaboration among multidisciplinary teams 7) Manpower and workload variables 8) Morale variables remuneration and career advancement, and 9) variables on the hospital's potential to health care, there were 39 items with a validity value of .96. **Chapter 2:** Provider factors (Nur) covered 4 observed variables: 1) communication variables to practitioners, 2) standard

setting variables and standardized service provision, 3) performance variables, and 4) attitude and perception variables. There are 18 items with a validity value of .97. **Part 3** Job satisfaction factor in the performance of nurses (Sat) covered 1 observed variable, namely 1) The satisfaction variable in the performance of 10 items had a validity of .94. **Part 4**, Technical nursing service quality questionnaire (YQT), consisted of 9 issues: 1) competence 2) effectiveness 3) suitability 4) safety 5) continuity 6) efficiency 7) service accessibility 8) responsibility and 9) Commitment, there are 32 items with a validity value of .96. **And 2) Set 2**, service recipients or patients, divided into 2 parts: **part 1** general information, including gender, age, education, marital status, occupation, times of service at the hospital. right to cure congenital disease/treatment Distance to get service How do you come to get the service? There are 11 channels for receiving health information of the hospital. The second part, a questionnaire on factors related to the quality of nursing services in hospitals under the Office of the Permanent Secretary of Public Health, was divided into 2 parts with a 5-level Likert scale, details as follows: **Part 1**: service recipients factors (Patient or relative) (PT) covered 2 observed variables: 1) patient cooperation variable and 2) severity of illness variable, totaling 10 items with validity equal to 1.00. **Part 2**: Practical nursing service quality questionnaire (YQF) for service recipients or patients has 5 issues consisting of 1) the concreteness of the service 2) credibility 3) the immediate response to the service user 4) the satisfaction Confidence in the service and 5) Understanding There are 20 items with a validity value of .97.

The researcher collects all data and informs the questionnaire details to the subjects himself. The samples were 1) professional nurses and 2) patients or relatives. The researcher collected data. All questionnaires were returned. accounted for 99.29 percent, consisting of 1) a group of professional nurses of 425 people and 2) patients or relatives of 425 people, a total of 850 people. and Analysis of research results by analyzing SEM Analyze influences in structural models. To verify the consistency of the causal relationship model with the empirical data. by using statistics to analyze the Structural Equation Model = SEM or Linear Structural Relationship = LISREL model.

5. Results

The results of the development of a causal model of nursing service quality in hospitals under the Office of the Permanent Secretary for Public Health consisted of 4 variables: environmental factors in nursing practice, provider factor, service recipients or patient factors and job satisfaction factor of nurses affecting the quality of nursing services in hospitals under the Office of the Permanent Secretary, Ministry of Public Health. as follows:

1. The results of development and validation of the causal model of nursing service quality in hospitals under the Ministry of Public Health with empirical data. The results of the causal model analysis of nursing service quality in hospitals under the Office of the Permanent Secretary of the Ministry of Public Health were hypothesized. and after modeling The analysis results can be concluded that The model consistency test of the causal model of nursing service quality in hospitals under the office of the permanent secretary, ministry of public health based on the hypothesis was inconsistent with the empirical data. Considered from the harmony index is $\chi^2 = 878.90$, $df = 129$, $p = 0.000$, $\chi^2/df = 6.81$, CFI = 0.95, GFI=0.79, AGFI = 0.73, RMSEA = 0.12 Therefore, the researcher performed the adjustment of the causal model of nursing service quality in hospitals under the Office of the Permanent Secretary for Public Health as recommended by the program. Without adjusting the influence line, the results showed that the harmoniousness index was $\chi^2 = 84.88$, $df = 67$, $p = 0.069$, $\chi^2/df = 1.27$, CFI= 1.00, GFI=0.98, AGFI = 0.94, RMSEA = 0.025 which all index values pass the specified criteria It shows that the causal model of nursing service quality in hospitals under the Office of the Permanent Secretary of the Ministry of Public Health after model adjustment is consistent with the empirical data as shown in Figure 2.

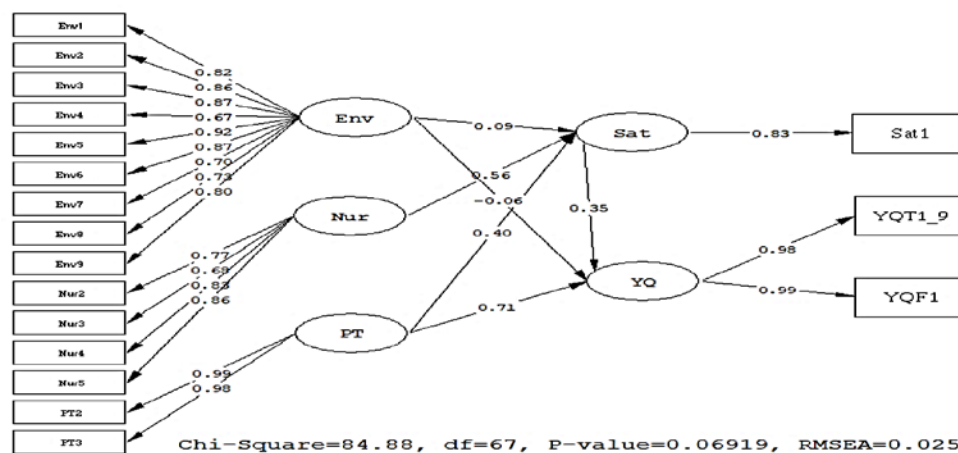


Figure 2 Model of the causal model of nursing service quality in hospitals under the office of the permanent secretary, ministry of public health after modeling.

2. The study of direct and indirect influences of causal factors on nursing service quality in hospitals under the office of the permanent secretary, ministry of public health. The results of the analysis of the influence of variables in the model after a causal model adjustment of nursing service quality in hospitals under the office of the permanent secretary, ministry of public health, the researcher analyzed direct effects (DE), indirect effects (IE) and Total Effects (TE) The results show that

Nursing service quality (YQ) was most directly influenced by the patient factor (PT) variable with a direct effect size of 0.71 with a statistical significance at the .05 level. The factor of job satisfaction of nurses (Sat) had a direct effect size equal to 0.35 with a statistical significance at the 0.05 level and was directly influenced by environmental factor variables in nursing practice (Env) with a direct effect size of -0.06 with a statistical significance at the 0.05 level. The indirect influence from the provider factor variable (Nur) has an indirect effect size of 0.19 with a statistical significance at the .05 level as shown in Table 1.

The results also showed that the job satisfaction factor (Sat) was most directly influenced by the provider factor (Nur) with a direct effect size of 0.56. statistically significant at the 0.05 level, followed by the patient factor (PT) variable with a direct effect size of 0.40 with a statistical significance at the 0.05 level and the environmental factor in nursing practice (Env) with a statistical significance of 0.05. The direct effect size was 0.09 with a statistical significance at the 0.05 level, respectively, as shown in Table 1.

The variables in the model after adjusting the causal model of nursing service quality in hospitals under the office of the permanent secretary, ministry of public health can jointly explain nursing service quality at 99 percent as shown in Table 1.

Table 1 Results of the analysis of variable influences in the model after causal modeling of nursing service quality in hospitals under the Ministry of Public Health.

Predictor	Influence	Result variable	
		Job satisfaction factors (Sat)	Nursing service quality (YQ)
Environmental factors in nursing practice (Env)	TE	0.09* (0.04)	-0.03* (0.02)
	IE	-	0.03 (0.02)
	DE	0.09* (0.04)	-0.06* (0.02)
Provider factors (Nur)	TE	0.56* (0.09)	0.19* (0.03)
	IE	-	0.19* (0.03)
	DE	0.56* (0.09)	-
Service recipients or Patient factors (PT)	TE	0.40* (0.08)	0.85* (0.04)
	IE	-	0.14* (0.05)
	DE	0.40* (0.08)	0.71* (0.07)
Job satisfaction factors (Sat)	TE	-	0.35* (0.07)
	IE	-	-
	DE	-	0.35* (0.07)
R ²		0.95	0.99
$\chi^2 = 84.88$, $df = 67$, $p = 0.069$, $\chi^2/df = 1.27$, CFI= 1.00, GFI=0.98, AGFI = 0.94, RMSEA = 0.025			
note TE = Total effect IE = Indirect effect DE = Direct effect ; * $ t > 1.96$			

6. Discussion

From the results of the development of a causal model of nursing service quality in hospitals under the office of the permanent secretary, ministry of public health. It was found that nursing service quality (YQ) was directly influenced by the Service recipients or patient factor (PT) variable the most with a direct effect size of 0.71 with a statistical significance at the .05 level, followed by a direct influence. From the factor of job satisfaction of nurses (Sat), the direct effect size was equal to 0.35 with a statistical significance at the 0.05 level and was directly influenced by environmental factor variables in nursing practice (Env) with a direct effect size of -0.06 with a statistical significance at the 0.05 level. The indirect influence from the provider factor variable (Nur) had an indirect effect size of 0.19 with statistical significance at the level of .05 can be described in detail as follows:

Nursing service quality (YQ) was directly influenced by the Service recipients or patient factor (PT) variable. There was a statistically significant positive direct influence on the nursing service quality. The indicator with the most significant weight of the patient factor was the patient cooperation variable, followed by the severity of illness factor. and explained that Patient cooperation is a common behavior between the patient and the service provider that shows cooperation in treatment, such as refraining from food and water before entering the operating room. Taking medication as prescribed by a doctor coming to check up on appointments and others, etc., which affects the recovery from the patient's illness The higher the patient's cooperation, the higher the quality of the nursing service will be, as Mosadeghrad (2014) explains. Patient involvement and cooperation is essential and affects the quality of health services. "If personnel work well But the patient did not follow the medical order. The goal will not be achieved." Clinical outcomes depend on the patient's ability to provide information and cooperate with the physician. In addition, patients know the severity of the symptoms of patients who come to the hospital. and the need for support from the team medical personnel according to the level of severity of illness in hospital admission, divided into critical emergencies urgent emergency not urgent emergency and non-emergency illnesses This allows patients to receive health care quickly and recover quickly. no complications resulting in good nursing service quality later This is consistent with the study of Mosadeghrad (2014) that found that the severity of the patients' symptoms resulting in cooperation and see the need to rush to receive services in the hospital As a result, it affects the quality

of health services. This is consistent with a study by Waewdao Taweethai (2000) who studied self-care behaviors and the severity of osteoarthritis in the elderly. who received treatment at the orthopedic examination room Outpatient Department of Maharaj Nakorn Chiang Mai Hospital The study found that Most of the subjects had moderate severity of osteoarthritis. Therefore came to receive the service for the treatment. and when receiving knowledge About osteoarthritis from doctors Check-ups every time and taking medication according to the doctor's advice regularly As a result, patients gain more knowledge and inconjunction with having behaviors that are more suitable for the disease.

Job satisfaction (Sat) had a statistically significant positive direct influence on nursing service quality. After the Service recipients or patient factor (PT), job satisfaction was the positive attitude of nursing staff towards nursing service performance. which resulted in the person feeling of enthusiasm have commitment to work have morale in work These affect efficiency and productivity in work. If the nursing personnel have high satisfaction with the work of the nurses, it will make the personnel highly committed to work. As a result, the quality of nursing services is also high. This is in line with the study of The Magnet Study (American Nurses Credentialing Centre, 2010) that found that satisfaction in the performance of nurses. And the quality of nursing care is related to each other. Including aspects of nurses' job satisfaction by assessing job merit, such as job pride. Satisfaction from commitment to patient care and satisfaction with working conditions resulting in higher quality of nursing services.

In addition, satisfaction with the performance of nurses (Sat) was most directly and positively influenced by the provider factor variable. Followed by the variable factor on the service recipient. and environmental factors contributing to the work of nurses. with statistical significance at the 0.05 level, respectively, which is consistent with a study by the American Nurses Credentialing Center (2010) to study the American Academy of Nursing (AAN) Magnet of the relationship between three components: 1) the nursing practice environment; 2) Nurses' job satisfaction and 3) quality of nursing were related to each other. According to the job satisfaction of the nurses and the quality of nursing care were found to have a significant influence. to the environment in nursing practice can explain The service provider (Nur) had a statistically significant indirect influence on the quality of nursing service. The service provider was defined as the medical personnel who provide services to patients, namely doctors, nurses, pharmacists, dentists, physiotherapists and other personnel, etc. In this research, This service provider is nurses. The indicators that had the most significant weight of the service provider factor were attitudes and perceptions of nursing staff, followed by performance of nursing personnel. Which attitudes and perceptions of nursing personnel It is an expression of feelings and thoughts. and perception of the person about likes or dislikes towards operations or activities in the organization, such as improving the quality of nursing services, etc. If nursing personnel have good attitudes and perceptions, it will result in good nursing service quality as well. This is consistent with the study of Kinlay Chimi, Thitinat Akkadechanan and Ratanawadee Chontawan (2015). Research factors related to quality of nursing care in tertiary care hospitals Kingdom of Bhutan found that the quality of nursing care as perceived by nurses was high. that affect the quality of nursing services Competency in the performance of nursing personnel means the characteristics of both knowledge. nursing skills and behavior of nursing personnel Necessary to provide nursing services to patients that are appropriate and respond to each patient's health problems. As a result, patients are safe and without complications. The higher the competency of nursing personnel, the higher the quality of nursing services. This is in line with the study of Sureeporn Duangsuwan, Poolsuk Hingkanon, Pakorn Prajanban and Kanchana Sukkaew (2011). The relationship between performance competency and nursing quality of registered nurses. Secondary and tertiary level hospitals in the government inspection area Ministry of Public Health, 17, found that the relationship between the competency in practice and nursing quality of professional nurses. Secondary and tertiary hospitals inspection area The 17th Ministry of Public Health overall had a high positive relationship. statistically significant.

The nursing practice environment (Env) had a statistically significant negative direct influence on the nursing service quality. The nursing practice environment include 1) changing situations The structure of the elderly population is increasing. As a result, chronic non-communicable diseases are constantly increasing, including diabetes, high blood pressure, kidney failure and heart disease. And in the case of the Coronavirus Disease (COVID 19) resulting in a much increased workload. But the proportion of the number of nursing personnel is the same or there is a shortage at present. affecting the poor quality of nursing services. 2) structure and policy Internal restructuring of the nursing service unit, the rapid increase of the health service unit. with the lack of personnel including tools and resources contribute to the poor quality of nursing service. 3) Transformational Leadership Visionless Nursing Leaders and does not predict changes in service recipient groups or patients which permanent illnesses complicated disease that do not have the capacity of nursing staff to prepare for change. Affects the poor quality of nursing services. 4) Insufficient resources and facilities, tools and medical equipment. and other related Affecting the poor quality of nursing services. 5) Work



atmosphere. Stressful work that does not relax affects the poor quality of nursing services. 6) Cooperation between multidisciplinary teams. Nursing practice in coordinating and cooperating with multidisciplinary teams in treating delayed patients results in poor nursing service quality. 7) Appropriate manpower and workload. Low manpower, high workload, resulting in poor nursing service quality. 8) Morale and rewards and career advancement nursing personnel receive positional pay and low compensation affecting morale and organizational commitment. which affects the quality of nursing services poorly 9) The potential of hospitals in health care Large hospitals provide sophisticated patient care and use advanced medical technology and equipment. But at the same time, they also need to take care of general patients who can receive medical treatment at a hospital near their homes. As a result, there are too many service recipients. which affects the quality of nursing services poorly The indicators with the most significant weight of the environmental factors in nursing practice were the working atmosphere. by the perception of the person to the organization in which it is working and have feelings for the organization or colleagues in the organization, such as their own identity Give decision-making power in the responsible part of the job. Co-workers' empathy warmth at work Flexible command Support working as brothers and sisters, helping each other and other related If overall a good working atmosphere results in good nursing service quality as well. which is consistent with Thanalin Pattanyaroj, Thitinat Akkadechanan and Ratanawadee Chontawan (2020) research on Professional privileges team atmosphere and nursing quality of professional nurses in hospitals under the Foundation of the Church of Christ in Thailand found that team atmosphere in terms of team objectives and in support of new ideas were moderately positively correlated with nursing quality according to the study. perception of nurses, followed by cooperation between multidisciplinary teams. in providing nursing services to patients By working as a team, there is communication, there is coordination between departments. and related multidisciplinary teams, including doctors, nurses, pharmacists, physical therapists and other personnel Related The good cooperation will result in good service quality as well.

CONCLUSION

1. The causal model of nursing service quality in hospitals under the Office of the Permanent Secretary, Ministry of Public Health consisted of 4 latent variables, divided into latent variable 1, environmental factor in nursing practice. There were 9 observed variables: 1) changing situations, 2) structures and policies, 3) transformational leadership, 4) resources and facilities, 5) working atmosphere, 6) collaboration between multidisciplinary teams, 7) appropriate manpower and workload; 8) morale, rewards and career advancement; and 9) the potential of the hospital in health care. The second latent variable is the provider factor variable. There were 4 variables that were observed: 1) communication to operators, 2) setting standards and standardized nursing service 3) operational in performance, and 4) attitudes and perceptions. The third latent variable is the service recipient factor variables. There were two variables were observed: 1) patient cooperation and 2) severity of illness. and the fourth latent variable was the factor of satisfaction in the performance of nurses. And the fourth latent variable is the job satisfaction factor. The variables in the model after adjusting the causal model of nursing service quality in hospitals under the Office of the Permanent Secretary, Ministry of Public Health could jointly explain nursing service quality 99%.

2. A causal model of nursing service quality in hospitals under the Office of the Permanent Secretary, Ministry of Public Health. are consistent with empirical data It was at a very good level, i.e., $\chi^2 = 84.88$, degrees of freedom (df) = 67, probability value of 0.069, error in parameter estimation index (RMSEA) of 0.025, and harmoniousness index (GFI). was 0.98, the adjusted harmoniousness index (AGFI) was 0.94, all of which passed the specified criteria. It shows that the causal model of nursing service quality in hospitals under the Office of the Permanent Secretary, Ministry of Public Health after model adjustment is consistent with the empirical data.

3. The results of the study of direct influence and the indirect influence of nursing service quality development in hospitals under the Office of the Permanent Secretary, Ministry of Public Health. According to the causal model of nursing service quality in hospitals under the Office of the Permanent Secretary, Ministry of Public Health, it was found that nursing service quality was most directly influenced by patient factor variables. There was a direct effect size of 0.71 with a statistical significance at the .05 level, followed by a direct influence from the variable of job satisfaction of nurses. has a direct effect size equal to 0.35 with statistical significance at the 0.05 level and was directly influenced by environmental factors in nursing practice. There was a direct effect size of -0.06 with a statistical significance at the level of 0.05. In addition, it was indirectly influenced by the provider factor variable through the nurse's job satisfaction variable. The size of the indirect effect was 0.19 with a statistical significance at the .05 level.

And the results also revealed that the variables of job satisfaction of nurses were directly influenced by the variables. service provider The direct effect size was 0.56 with a statistical significance at the 0.05 level, followed by the factor variable on the service recipient or patient. The direct effect size was 0.40 with a statistical significance of 0.05 and environmental factor variables in nursing practice. The direct effect size was 0.09 with a statistical significance of 0.05, respectively.

RECOMMENDATIONS

The results of this research found that the quality of nursing services. It was directly positively influenced by the service recipient or patient factor variable, followed by the nurse's job satisfaction factor. and were directly negatively influenced by environmental factors in nursing practice. In addition, it was indirectly influenced by the provider factor variable. Therefore, nursing organizations and related agencies Therefore, these variables should be used to determine guidelines or methods. Develop the quality of nursing services in hospitals under the Office of the Permanent Secretary, Ministry of Public Health, for example, guidelines for the behavior of service recipients who receive health services covering the level of severity of illness. and cooperation of patients in medical treatment Guidelines for providing an environment conducive to nursing practice and other approaches etc.

SUGGESTIONS FOR FURTHER RESEARCH

1. Since this research collects data from 3 types of hospitals with different work contexts. Therefore, the invariance of the causal model of nursing service quality in different hospitals should be tested.
2. This research should be further developed in order to study the determination of nursing service quality improvement strategies to cover factors that directly and indirectly affect and influence the quality development. Continue to provide nursing services in hospitals.

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