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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

ASSESSMENT OF PATIENT WAITING CONSULTATION TIME
IN A PRIMARY HEALTHCARE CLINIC--THE OUTPATIENT
DEPARTMENT OF CHO RAY HOSPITAL

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Science

Pham Thi My Nhung

College of Natural and Health Sciences
School of Nursing

August 2019

This Thesis by: Pham Thi My Nhung

Entitled: *Assessment of Patient Waiting and Consultation Time in a Primary Healthcare Clinic –The Outpatient Department of Cho Ray Hospital*

has been approved as meeting the requirement for the Degree of Master of Science in the College of Natural and Health Sciences, School of Nursing.

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ABSTRACT

Nhung, Pham Thi My. *Assessment of Patient Waiting and Consultation Time in a Primary Healthcare Clinic –The Outpatient Department of Cho Ray Hospital*. Unpublished Master of Science thesis, University of Northern Colorado, 2019.

Long patient waiting times in primary healthcare clinics in South Vietnam such as Thong Nhat Hospital and An Giang Hospital are a common phenomenon. In South Vietnam, especially at the Cho Ray Hospital, long patient waiting times were to be expected. Unfortunately, very little knowledge exists regarding potential causes of this problem or how it impacts patients.

The purposes of this non-experimental, exploratory field study were to (a) assess the process and outcomes of an outpatient clinic as they related to waiting times, factors contributing to waiting times, and associated factors (outcomes) that influenced patient satisfaction levels in the outpatient department in public hospitals and to (b) provide recommendations for clinic structure by suggesting changes to the flow chart for future health checks.

In the analysis section, data were extracted from the hospital information system: time when the patient completed the registration, time patient waited for the doctor, and consultation time begun at the beginning of the consultation until the end for the consultation--the latter was noted at the moment patients had their prescriptions. The mean time for waiting to see the doctor was 37 minutes, the mean time from patients' registration until end of the consultation was 47 minutes, and

mean consultation time was 9.3 minutes. Longest times recorded for waiting to see a doctor and time from registration until completion were 83 minutes and 93 minutes, respectively.

Patient responses ranged from 60% to 100%: 15 respondents scored this area at 80% or below and 20 respondents scored this area at 90%. Regarding the question “If you have a medical need, will you come back or introduce others to this clinic,” 34 or 97.1% of survey respondents indicated they would definitely come back or recommend the clinic to others.

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I would like to express my sincere thanks to the director, leader of the outpatient department, and colleagues at Cho Ray Hospital for supporting and creating a favorable condition for me to study and implement this research.

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TABLE OF CONTENTS

CHAPTER I. INTRODUCTION.....	1
Background and Significance of the Problem	1
Study Purpose	2
Definition of Terms.....	3
Research Questions.....	3
CHAPTER II. LITERATURE REVIEW	5
Defining Attributes of Wait Times	6
Measurement of Clinic Wait Times.....	6
Measurement of the Causes of Wait Times in the Clinic Setting.....	7
Problem Statement	11
Theoretical Frameworks	12
Definition of Terms.....	16
Assumptions.....	16
Limitations	17
Conclusion	17
CHAPTER III. METHODOLOGY	18
Design	18
Population	19
Sample.....	19
Procedure	20
Instrument	20
Data Analysis	20
Additional Data Collection Steps.....	21
Ethical Considerations	21
CHAPTER IV. DATA ANALYSIS AND RESULTS	23
Accessibility.....	25
Transparency of Information and Procedures for Medical Examination and Treatment	27
Facilities to Serve Patients	29
Behavior and Professional Competence of Medical Staff	31
Service Delivery Results.....	32

General Survey Questions.....	32
Waiting Time	34
CHAPTER V. DISCUSSION AND CONCLUSIONS	35
Major Findings.....	36
Study Limitations.....	37
Strengths of the Study.....	38
Generalizability.....	39
Implications for Practice.....	39
Recommendations for Research	39
Conclusion	40
REFERENCES	41
APPENDIX A. MINISTRY OF HEALTH: BOOK FOR SURVEY CONSULTING OUTPATIENT DEPARTMENT IN ENGLISH AND VIETNAMESE.....	46
APPENDIX B. APPLICATION FOR APPROVAL OF IMPLEMENTED SCIENTIFIC RESEARCH IN ENGLISH AND VIETNAMESE.....	51
APPENDIX C. INSTITUTIONAL REVIEW BOARD APPROVAL.....	54

LIST OF TABLES

1.	Socio-Demographic Characteristics of Study Respondents	25
2.	Accessibility.....	26
3.	Transparency of Information and Procedures for Medical Examination and Treatment	28
4.	Facilities to Serve Patients	30
5.	Behavior and Professional Competence of Medical Staff	31
6.	Service Delivery Results.....	32
7.	Expectations of Patients.....	33
8.	Wait Time of Patients from the Registration Time Until the Beginning Consultation with the Doctor	34

LIST OF FIGURES

1. The Donabedian model for quality care..... 14
2. Flow chart of patients' admission to outpatient department..... 24

CHAPTER I

INTRODUCTION

Background and Significance of the Problem

Long patient waiting times in primary healthcare clinics in South Vietnam, such as Thong Nhat Hospital and An Giang Hospital, are a common phenomenon. In South Vietnam, especially in the Cho Ray Hospital, long patient waiting times are to be expected. Unfortunately, very little knowledge exists regarding potential causes of this problem or how it impacts patients. Some suggested effects of long waiting time are healthcare quality and patients' satisfaction toward the health care services (Xu, 2014). Without specific knowledge about the causes and effects of clinic wait times, specific evidence-based improvement measures cannot be proposed and tested.

For the most part, efforts to predict clinic wait times and/or wait for time impact on patients have not been systematically studied at the Cho Ray Hospital and clinic system. To be able to make evidence-based changes to clinic wait times, specific definitions about the wait times must be developed. Additionally, specific knowledge about the cause and effect of wait times in a specific clinic and the structure, processes, and outcomes of that clinic setting must be studied.

Study Purpose

The purpose of this study was to assess the structure, processes, and outcomes of a specific clinical setting to evaluate patient waiting time as well as formulate specific strategies for quality patient care improvement based on study findings. Additionally, the study aimed to improve the quality of care for clinic patients by conducting a systematic review of the clinic processes such as patient check-in and wait time to receive medical care. It was the author's hope that subsequent improvements of the clinic's processes related to patient check-in and medical exams would lead to increased access to the clinic for more patients; thus, greater numbers of patients would be provided with necessary medical assistance (Pandit, Varma, & Amruta, 2016). Increasing the number of patients who could be seen in the clinic would meet the increasing demand for medical examination and treatment of society (Xu, 2014). Additionally, decreasing hospital wait times could promote patients' satisfaction with their health services (Pandit et al., 2016).

Therefore, this study assessed the relationships among the structure, processes, and outcomes of the outpatient department in Cho Ray, Vietnam. It examined clinic layout (the structure), patient flow, and processing (the processes); and identified patient and staff satisfaction challenges and overall satisfaction (the outcomes). The results of this study yielded important evidence to enable implementation of necessary adjustments to the structure and processes of the outpatient department in Cho Ray.

Definition of Terms

Outcomes. Factors that affected or impacted the patient directly, e.g., tiredness due to a long clinic wait time, which could lead to an inability to hear the physician's care guidance, thus leading to low patient satisfaction scores. Long wait times could lead to low clinic attendance in the future by some patients. Outcome measures were also used to determine structure and process improvements and assess whether the goal had been achieved, i.e., reducing outpatient waiting time, reducing hospital infections, reducing treatment costs, etc.

Processes. Operational elements of the system at the outpatient department of Cho Ray Hospital that had a direct impact on the structure and clinic outcomes. For example, these operational elements consisted of how patients were appointed to the clinic, how they moved from one part of the clinic to another and, finally, how their cases were prioritized to be seen by the physician. Finally, clinic processes included waiting time of medical tests and seeing the physician.

Structure. Activities of the research clinic, i.e., the number and type of employees, the number of patients who are active in the department and/or the clinic, the specialty of the clinic, and what medical procedures are available. These structure components were considered input measures that might impact the process and outcome variables.

Research Questions

Q1 What is the average waiting time for an outpatient in the outpatient department at Cho Ray Hospital?

Q2 How does the patient waiting time affect the patient's satisfaction with care received?

CHAPTER II

LITERATURE REVIEW

A literature review is a synthesis of many studies related to a topic. The purpose of the literature review is an assessment of the evidence by summarizing results from different studies. Additionally, it is common to identify research gaps while analyzing related research. Therefore, the current study complemented existing research by closing the gap. Sometimes conducting a literature review generates controversy as various arguments might contradict one another (Galvan & Galvan, 2018). Thus, a literature review is a general report on concepts and theories related to the topic and offers methods to minimize potential gaps and reduce controversy.

An extensive review of the literature brought together relevant knowledge from the disciplines of nursing and medicine. A strong link was found between acceptable clinic outcomes and patient satisfaction (Pandit et al., 2016; Xu, 2014). Within this review, a solid literature base indicated a strong relationship between clinic wait times and patient satisfaction (Pandit et al., 2016). The literature review included studies that addressed patient wait times, strategies to shorten patient wait times, and study frameworks. Multiple databases were searched to identify relevant studies: PubMed, CINAHL, EBSCO, Medline via Ovid, Google Scholar, and Cochrane Data Bases from 2018 to 2018 that focused on the primary setting in outpatient clinic

areas. The following keywords were used: wait times, primary care, patient satisfaction, clinic structure, processes, and outcomes. The author's search strategy was based on adding AND to keywords: "outpatient" AND "waiting time", "process" AND "improvement of waiting time in public hospital." Search results from this review of the literature were collected from many sources around the world including Vietnam. These studies were conducted utilizing many methods: qualitative research, quantitative research, and cross-sectional descriptive methods. The diversity of resources provided strong evidence for an overview of the literature. Several valuable studies done in the northern and middle regions of Vietnam provided much useful information for this research because they were conducted at Cho Ray Hospital, a large hospital in southern Vietnam.

Defining Attributes of Wait Times

Depending on the type of services being sought, different definitions are given to wait times: time from seeing a general practitioner (GP) to treatment, time from seeing a specialist to treatment, time from being enrolled on the hospital waiting list to treatment, among others. Thus, there are different measurements of waiting times according to whether treatment was offered immediately (outpatient health care) or a patient was put on the waiting list (for elective procedures). Waiting time might also differ from country to country as situations, culture, and economics apply (Pandit et al., 2016).

Measurement of Clinic Wait Times

One of the healthcare processes used in evaluating the quality of healthcare services is the uninterrupted movement of patients through each stage of the clinic

visit. If there is no smooth transition from one stage to the next, a “bottleneck” can occur, which can increase waiting time for a number of patients. This bottleneck can happen when patients have more complex health issues than anticipated (Xu, 2014). Even if a patient has an appointment, the bottleneck of patients waiting to be seen can cause increased waiting times (Jamjoom, Abdullah, Abulkhair, Alghamdi, & Mogbil, 2014).

Therefore, waiting time appeared to be one of the factors used to evaluate the quality of medical services (Pandit et al., 2016). According to Yalew (2013), patients must be examined within 30 minutes of their scheduled appointment. What happens is the structure and the processes of the clinic are such that the outcomes of low wait times cannot be attained. Thus, all structures and processes of the clinic must be assessed, the outcomes must be evaluated, improved if possible, and monitored for continued improvement (Virmani, Bonsal, Pandit, & Deepak, 2014).

Measurement of the Causes of Wait Times in the Clinic Setting

Overcrowding in Hospitals of Vietnam

Overcrowding is a challenge for health clinics in Vietnam and is thought to be one of the reasons patients have long wait times. Therefore, long waiting periods of time for medical services is a current research topic. Reducing waiting time to improve service quality is the first priority of the Ministry of Health (2018) for Vietnam’s public hospitals. Specifically, the aim of this study was to determine the ineffectiveness of the flow at a selected clinic to identify the potential for improvement in various services based on patient and employee feedback.

Historical Background to the Current Study

Cho Ray Hospital is a special general hospital and is the last line of medical facilities in southern Vietnam. Every year, the outpatient department receives over one million people for medical examination and treatment. The number of patients in the outpatient department is four times larger than what was allowed by the original designers of the facility. Regular overcrowding of this outpatient department presented a challenge to improving the quality of patient visits and decreasing wait times. This issue became rather urgent when in 2013, the Ministry of Health (2018) issued Decision 1313, minimizing the waiting time for medical examination and treatment for outpatients.

A study of the quality management department of Cho Ray Hospital in 2016 by Ton and Pham showed the average time to perform the examination part of the clinic visit was two hours and six minutes. Moreover, this incredibly long wait time was achievable only when just a medical examination was conducted and medication was prescribed but the visit is not subclinical. A more involved examination normally required 4 hours 25 minutes if a laboratory test had to be performed. However, if additional functional probes and imaging diagnosis were needed, the total amount of time could be as long as 5 hours 16 minutes (Ton & Pham, 2016).

The income of the hospital greatly depended on the number of outpatients. In the context of total financial autonomy, the increasingly intense competition among healthcare providers placed a constant need for improvement and efficiency in the outpatient department at Cho Ray Hospital.

In 2016, the administration of the hospital made drastic improvements in the outpatient department in order to raise patients' levels of satisfaction with clinic services. Patient satisfaction depended on many factors such as quality of care, infrastructure, customer service skills of personnel, as well as total waiting time to be examined. Therefore, a clinic's waiting time was an important factor in determining patient satisfaction. According to the Ministry of Health survey (Ton & Pham, 2016), the satisfaction level of outpatients with the services provided at Cho Ray Hospital was 76%.

Xu (2014) stated that in Hong Kong at two terminal hospitals, waiting time for a medical examination at Hospital A was 124.7 minutes out of 161 minutes. Patient waiting time at Hospital B was 55.2 minutes out of 124 minutes for the whole procedure. Correspondingly, the satisfaction rate of patients for Hospital A was 46%, whereas it was 55.2% ($p < .01$) for Hospital B. Thus, reducing waiting time for a medical examination could increase patient satisfaction with medical services.

Oche and Adamu (2013) conducted their study in Nigeria and involved 384 patients who visited the examination department. The study showed 118 patients (31%) had wait times of less than 60 minutes in the waiting room, waiting for the doctor to examine them took less than 30 minutes of disease and accounted for 96.6%, the satisfaction rate of patients was 55%, and 16% were dissatisfied.

The study by Lailomthong and Prichaquent (2014) showed that building a phone appointment system in Thai hospitals could reduce waiting time by 28.9%. However, according to Ton and Pham (2016), only 21% of patients registered for a medical examination through the telephone system. Al Khani (2015) conducted a

study at an outpatient clinic in Ireland, which showed a reduction of waiting time from 120 minutes to 60 minutes and a subsequent increase in patient satisfaction from 50% to 90%.

Economic, medical, cultural and social conditions of Vietnam are not the same as in other countries, particularly with regard to overcrowding at the outpatient department in Cho Ray Hospital. Hence, it is necessary to identify improvements that can help decrease the average waiting time in over-crowded Vietnam clinics. It would also be necessary to investigate if patients had to accept the waiting time. Finally, it would be helpful to identify a patient acceptance timeline to find innovative solutions that improve patient satisfaction levels, generate economic savings for the clinic, and provide labor resources for society (Ton & Pham, 2016).

Hospital Waiting Time

Health care is an indispensable need for society so it is always required at a high level. Hospital waiting time is often used as a determinant of the quality of service. Long waiting times increase the cost of services and lead to dissatisfaction for patients (Pandit et al., 2016). With the challenge of improving service quality with limited resources, healthcare systems are always interested in the effective use of resources.

Long waiting times remain an issue of major concern in healthcare systems despite a considerable amount of resources devoted to the supply of "on demand" medical and/or surgical services (Siciliani & Hurst, 2005). Waiting time is generally referred to as the length of time between when a patient is enrolled on a waiting list and when the service is received (McDonald & Blignaut, 1998). Generally, waiting

time arises as a result of variations in supply and demand. When the demand for health care exceeds supply for whatever reason, the supply of health care cannot be instantaneous and consumers have to wait to access health care.

In several studies, waiting time was commonly associated with universally financed healthcare systems, mostly in the United Kingdom (Jamjoom et al., 2014) e.g., Nigeria (Emelumadu & Ndulue, 2012). When health care is free of charge and supply is constrained, part of the demand remains untreated and the formation of a waiting list or queues occurs; as a result, people have to wait to access health care (Siciliani & Hurst, 2005). Thus, in most Organization for Economic Cooperation and Development countries where public healthcare is free, admissions via waiting list are commonly used as a rationing device for non-emergency procedures.

This study addressed waiting time for seeking outpatient health care. Thus, waiting time was referred to as the length of time a patient spent at a healthcare facility before receiving an outpatient healthcare service.

Problem Statement

Medical examination and treatment and community health improvements are a concern for the whole of society. Waiting time for a medical examination is an equally important fact, contributing to the level of the medical examination process. Reducing waiting time and thereby meeting patient satisfaction is a developing trend in hospitals and clinics today.

Long hospital wait times can be exacerbated by various factors such as patient flow, a bottleneck, and overcrowding. In Vietnam, overcrowding is a common problem from grassroots-level hospitals to central hospitals. Cho Ray Hospital is the

largest general hospital in the southern region and has many specialists to receive serious patients. Overcrowding is not just caused by a large number of patients but also by a high number of patients with serious illnesses and low numbers of nurses (Ton & Pham, 2016). The number of outpatients visiting the examination department is increasing but the number of clinics and medical staff is limited; thus, an overload often occurs. According to Ton and Pham (2016), the number of patients coming for an examination has increased year by year: 2014--1,248,004 cases; 2015--1,259,697 cases.

In order to provide better care for patients in addition to improving professional quality, infrastructure, and service attitudes, this study also focused on waiting time for medical examination as a contributing factor to patient satisfaction levels.

Theoretical Frameworks

In the past decades, improving the length of the waiting period has been a frequent and popular policy. The minimum waiting time is set according to each hospital's own preferences. In the United Kingdom, the issue was addressed by a policy where time data were published along with the punishment of ineffective managers (Appleby, 2005; Meyer, Ringler, Bartsch, & Fendrich, 2016; Propper, Burgess, & Gossage, 2008). Interventions were aimed at supplementing the cost of time spent in hospital facilities and facilitating access to private services, i.e., queuing, clinical, direct booking, and listing various consultants with patients who had their first appointment (Xu, 2014).

The healthcare system is complex structure and wanting to solve this problem was a challenge. In this study, external factors included financial preferences, which make change difficult. However, research can inform strategies that address issues related to improving work efficiency. Process improvement would enhance the efficiency of outpatient services, thus reducing waiting time and improving health outcomes.

Donabedian Model

The conceptual framework that underpinned this study was the Donabedian (2005) model. The Donabedian (2005) model provided a framework for examining health services and evaluating quality of health care. According to the model, information about quality of care can be drawn from three categories: structure, process, and outcomes (Donabedian, 2005). Donabedian substantiated that structure measures have an effect on process measures, which in turn affect outcome measures (Exworthy, Mannion, & Powell, 2010). Outcome measures reflect the impact on the patient, demonstrate a result of improvement strategies, and whether it ultimately achieved the end goals (Donabedian, 2005). Process measures are those that impact the way our systems and processes work to deliver the best outcomes (Donabedian, 2005). Structure measures reflect the internal attributes of the clinic/hospital such as staff, operating times, and over-all facilities (such as a hospital or clinic; Donabedian, 2005). Figure 1 provides a visual representation of the Donabedian model for quality of care.

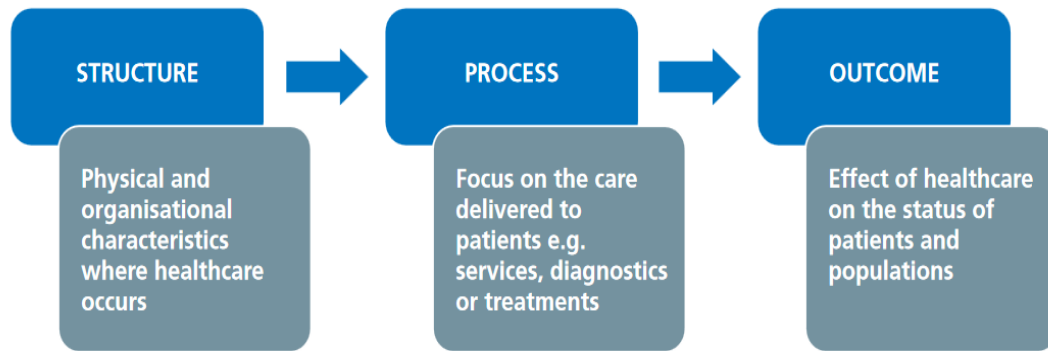


Figure 1. The Donabedian model for quality care.

Basics of Queuing Theory

In the past decades, the healthcare process was viewed as a queue-system activity, in which patients waited for service, received service, and then left (Fomundam & Hermann., 2007). Queuing theory (McManus, Long, Cooper, & Litvak, 2004) has often been used to define a set of analytical techniques in closed form to describe the properties of congestion-handling processes. Therefore, it was reasonable to view the service or operation of an outpatient department as a queuing system: patients need services, waiting in a queue to be served, and leave the system after being served. The basic structure of the model is divided into input and output queues. The lining model is a model that has a single server and a patient line that will be served by a service facility (Krasewski & Ritzman, 1998).

Description of the out patient department patient queuing model: Input and output process. The input process is called the arrival process: patients are entered into a queue system and join a queue to be served. A patient in the queue is selected to be served based on specific hospital rules. Necessary services are then

delivered to the patient following established hospital guidelines. Service providers use certain rules from the system--output processes (Hillier & Lieberman, 2005).

Arrival. Queuing models are analyzed for the incidence of unchanged patients. Many healthcare systems have a variable rate of change that depend on factors such as time of day, the day of the week, the first week of the patient, over the weekend, or season. etc. However, in other cases, the arrival rate depends on the current state of the system (Samuel & Jeffrey, 2007).

A waiting line occurs when a patient waits before being served. A queue is characterized by the maximum allowed number of patients it can hold: finite queues and infinite queues. The infinite queue is a queue where an unlimited number of patients can be held (Hillier & Lieberman, 2005). This study used an infinite queue model.

Queue discipline. In the health examination system, queue discipline is defined for classes of patients with different priorities such as emergency patients, life-threatening patients, injured patients. According to McManus et al. (2004), priority reduces the average waiting time for all patients but patients who would prefer to reduce their waiting time would increase the waiting time for other patients. Would it decrease the waiting time for all or decrease the waiting time for the “sickest” patients?

Factors associated with waiting time a health facility.

Patient flow. The flow of patients can be fast or slow as they move from one place to another. Prolonged wait times are usually caused by clinic and hospital congestion. If strategies are developed to decrease wait times, the flow of patients

could improve. Thus, improving the patient flow will improve the efficiency of healthcare services and reduce waiting time (Patel, Combs, & Vinson, 2014).

Physical design. A good physical environment creates an unobstructed flow. It is important to understand the movement of patients from one place to another in order to create appropriate connecting spaces and raise the efficiency of hospital processes.

Definition of Terms

The following terms were used in this study to clarify issues under analysis.

Arrival time. When patients started registering for services with the health care center.

Outpatient. A patient who went to the hospital for treatment and left the hospital on the same day.

Patient flow. Movement of a patient through the clinic from one service to another.

Total waiting time. Total amount of time patients spent waiting from arrival to the clinic to the time when their physician visit, lab visit, and pharmacy visit were completed.

Waiting time. Time patients spent waiting for services from arrival until the service was completed.

Assumptions

An assumption for this study is the answers to the questions provided by the patients would be truthful and provide useful information for the research.

Limitations

1. The patients participating in the study could have answered the items of the survey dishonestly.
2. The participants might also have refused to provide actual information regarding their hospital experience out of fear of potential repercussions.
3. The results of this survey could not be generalized onto the whole population of Cho Ray Hospital since the participants of this study were not selected randomly.

Conclusion

This chapter explored several factors contributing to low levels of satisfaction with medical services in outpatient clinics. Several studies identified hospital wait time and patient flow as the most contributing factors to satisfaction with services. However, most of the related literature originated in European and Asian countries. This study focused on a clinic in Vietnam to identify current wait times and patient satisfaction levels with regard to healthcare services they received in the clinic.

CHAPTER III

METHODOLOGY

This chapter describes the methods and tools for conducting this research. It shows how the research was conducted and how the research questions were addressed. Included in this chapter are descriptions of the design, setting, sample, procedure, instruments, and ethical considerations.

Design

An exploratory, non-experimental field study approach was used to conduct this investigation. This approach was appropriate for the purpose of describing the relationship among the structure, processes, and outcomes of patients in a heavily populated and busy clinic in South Vietnam.

This field study approach was used to determine and define the population, sampling process, data collection methods, and data analysis, and deployment tools. It was also necessary to choose a suitable research method to be able to obtain the most applicable data. Thus, a cross-sectional descriptive method was used. This study described a cross-sectional performance in a short period of time.

These research methods are often used to increase awareness and understand some characteristics of health issues, about the knowledge, attitudes, and behavior of

the population; and to help survey the issues for which the topic offers to propose an intervention (Levin, 2006).

The current study was carried out for a short time; thus, a cross-sectional method was consistent with this thesis topic. This study examined patients' waiting time from the moment of arrival until they completed the medical examination and were prescribed medication.

The objective of the study was to assess possible factors that affected waiting time and led to patient dissatisfaction. This assessment was exploratory and based on the clinic structure, processes, and outcomes.

Population

The population of this study was patients who visited the outpatient department at Cho Ray Hospital from Monday to Friday during the period of time when the study was conducted.

Sample

Thirty patients were asked to participate in the study. These patients came to the hospital's medical examination and treatment departments during the time of the study. The sampling method was a convenience sampling. Patients had to be 18 years or older. The participants' gender or education level did not serve as exclusion criteria. The participants must have visited only one specialist during the day of the study. They must have finished the examination according to the hospital's network management system to be part of this study. Priority patients such as the elderly or pregnant women were not asked to participate in this study. Complete privacy and

anonymity were guaranteed to all participants. Any information about them would be kept confidential. Patients had the right to refuse to participate in the study.

Procedure

This author asked clinic patients who met inclusion criteria to complete a satisfaction survey. The survey was administered for clinic patients every day for a two-week period. Sampling took place at the beginning, middle, and late middle of the clinical day. For timing purposes, patients were recorded from the moment they arrived at the registration table until they left the system.

Instrument

A questionnaire was the main tool used in this study; it included a demographic section that asked participants to disclose their age, gender, and reason for clinic visit. The questionnaire used for this study was the Ministry of Health (2018): Book for Survey Consulting Outpatient Department (see Appendix A). The questionnaire had eight sections: patient demographics, accessibility, transparency of information and procedures for medical examination and treatment, facilities to serve patients, behavior, professional competence of medical staff, service delivery results, expectations, and would patient return to clinic. The five question sections on the questionnaire were based on a 4-point Likert scale oriented from the lowest to the highest score. Sections seven and eight were fill in the blank and narrative.

Data Analysis

The data were analyzed in two stages. The first stage was the analysis and computation of the descriptive statistics and the distribution of the data for each variable. The second stage of the data analysis was to explore associations among

study variables. For clarity and as appropriate, each of the major data analysis sections concludes with a summary table.

Data were analyzed using the Statistical Package for the Social Sciences (SPSS) computer program. A Type I error of 5% percent at a minimum was used for all tests of statistical significance. The primary goal of the analysis was to identify trends and associations among the variables. None of the data sought were considered confidential. Nonetheless, data regarding subjects were coded and maintained in project files under a number rather than the name of the subject from whom it was obtained. Only project personnel had access to the project files. Once this thesis document was accepted, data collected for this study were destroyed.

Additional Data Collection Steps

After the data collection process was complete, the author confirmed all required data were collected fully and accurately entered in SPSS in the following manner: 1 = 1, 2 = 2, 3 = 3, and 4 = 4. For negative questions, it was necessary to reverse the code when entering SPSS--meaning 1 = 4, 2 = 3, 3 = 2, and 4 = 1--before calculating the total points for the subscales and the total points of the questionnaire. In this scenario, the total points of the subscale would be equal to the total points of all questions in that section. The total score of the questionnaire was then equal to the total of six subscales. Higher scores indicated higher patient satisfaction.

Ethical Considerations

The research procedures did not interfere with the patient's medical examination and treatment process. The survey questionnaires were randomized and were only based on the patient's code; thus, patients' identities remained largely

confidential. The author obtained the patient's permission prior to asking him/her to complete the survey. If the patient completed the survey and returned the survey to the author, this was considered consent. If he/she said no, he/she was allowed to continue to register at the clinic and complete the clinic visit without completing the survey. The study was carried out after obtaining approval from the Ethics Council of the hospital (see Appendix B) and the University of Northern Colorado's Institutional Review Board (see Appendix C). And finally, the research data would only be used for research purposes.

CHAPTER IV

DATA ANALYSIS AND RESULTS

The findings of this study are presented in the following sections. The first section is a brief description of the demographic information from the study participants. This study's data collection consisted of responses from 30 patient surveys and six key informative interviews. It was conducted with the staff from the evaluation center at the outpatient department at Cho Ray Hospital from registration, beginning consultation with the doctor, and end time for the consultation. Figure 2 provides a flow chart of patients' admission to the outpatient department at Cho Ray Hospital.

Thirty surveys were distributed but only 29 were returned with complete data. Thus, the study sample included 29 participant subjects who were over the age of 18 and voluntarily completed the study survey. Fifteen of the respondents were female and 14 were male. Ages of the participants ranged from 18- to 81-years-old; the mean was 37 and the mode was 26 years of age. The socio-demographic characteristics of the study respondents are summarized in Table 1.

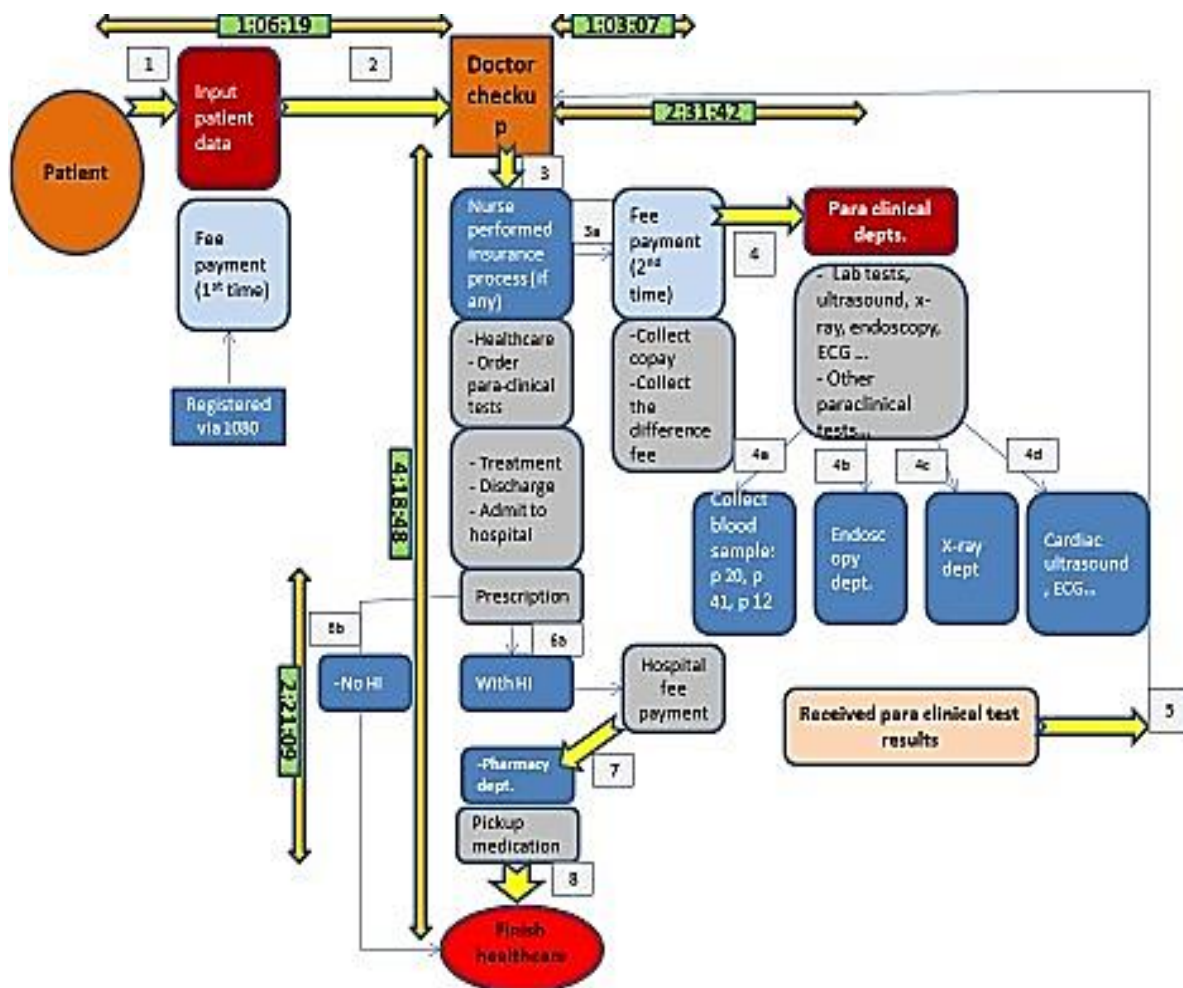


Figure 2. Flow chart of patients' admission to outpatient department.

Table 1

Socio-Demographic Characteristics of Study Respondents

Patient Characteristics	Frequency	%
Age :		
18-24	9	30.0
24-29	9	30.0
29-49	7	23.4
Greater than 50	5	16.6
Respondent's Gender		
Male	14	46.6
Female	16	53.4
Residence		
Outside Ho Chi Minh City	22	73.4
Within Ho Chi Minh City	8	26.6
Education		
Uneducated	5	20
Primary	10	30
Secondary	10	30
Tertiary	5	20
Marital Status		
Single	8	26.6
Married	16	53.3
Divorced/widowed	6	19.1

Accessibility

In this section, four questions were asked of study participants to assess clinic accessibility. Possible responses to each of the following four questions were 1 = *Dissatisfaction or Very Bad*, 2 = *Unsatisfied or Bad*, 3 = *Normal or Medium*, 4 = *Satisfied or Good*, or 5 = *Very Pleased or Very Good*. The results for Questions A1 through A5 of the survey are reported Table 2. All responses to the five questions in this section were considered to be positive (scoring 3, 4, or 5). Of note, responses to question A5 were not used in this study as this question was considered not applicable in this hospital setting.

Table 2

Accessibility

Questions	<i>N</i>	<i>n</i>	%
A1. Signs and directions to the hospital are clear, easy to see and easy to find.	29		
Unsatisfied		2	6.9
Normal or Medium		6	20.7
Satisfied or Good		13	44.8
Very Pleased or Very Good		8	27.6
A2. Diagrams, signs showing directions to the departments and rooms in the hospital are clear, easy to understand and easy to find.	29		
Unsatisfied		1	3.4
Normal or Medium		10	34.5
Satisfied or Good		12	41.4
Very Pleased or Very good		6	20.7
A3. The blocks, stairs are numbered clearly, easy to find.	29		
Dissatisfaction (very bad)		1	3.4
Unsatisfied		1	3.4
Normal or Medium		5	17.2
Satisfied or Good		16	55.2
Very Pleased or Very good		6	20.7
A4. The pathways in the hospital, the corridor is flat and easy to go.	29		
Dissatisfaction (very bad)		1	3.4
Unsatisfied		2	6.9
Normal or Medium		3	10.3
Satisfied or Good		16	55.2
Very Pleased or Very Good		7	24.1
A5. You can find out the information and register for examination by phone, the website of the hospital conveniently.	29		
Dissatisfaction (very bad)		1	3.4
Unsatisfied		2	6.9
Normal or Medium		4	13.8
Satisfied or Good		13	44.8
Very Pleased or Very Good		9	31.0

Transparency of Information and Procedures for Medical Examination and Treatment

In this section, 10 questions were asked of study participants to assess the transparency of information and procedures for medical examination and treatment. The results for Questions B1 through B8 of the survey are reported in Table 3. Possible responses to each of the following eight questions were 1 = *Dissatisfaction or Very Bad*, 2 = *Unsatisfied or Bad*, 3 = *Normal or Medium*, 4 = *Satisfied or Good*, or 5 = *Very Pleased or Very Good*. All responses to the eight questions in this section were considered to be positive (scoring 3, 4, or 5). However, of note was a negative response to Question B2: 1 of 35 patients responded negatively, indicating he/she was not satisfied with the process and procedures for medical examination being referenced simply and conveniently. Questions B9 and B10 of the survey that related to the waiting time for testing and waiting time for receiving test results (x-rays, labs, etc.) were not used for this study.

Table 3

Transparency of Information and Procedures for Medical Examination and Treatment

	<i>N</i>	<i>n</i>	%
B1. The medical examination process is clearly, publicly and easily understood.	29		
Dissatisfaction (very bad)		1	3.4
Unsatisfied		0	0.0
Normal or Medium		3	10.3
Satisfied or Good		15	51.7
Very Pleased or Very Good		10	34.5
B2. The process and procedures for medical examination are referenced simply and conveniently.	29		
Dissatisfaction (very bad)		1	3.4
Unsatisfied or Bad		3	10.3
Normal or Medium		5	17.2
Satisfied or Good		14	48.3
Very Pleased or Very Good		6	20.7
B3. Clearly and publicly listed medical service prices.	29		
Dissatisfaction (very bad)		2	6.9
Unsatisfied or Bad		1	3.4
Normal or Medium		6	20.7
Satisfied or Good		10	34.5
Very Pleased or Very Good		10	34.5
B4. The medical staff welcomed and instructed the patients to do the affable and devoted procedures.	29		
Dissatisfaction (very bad)		1	3.6
Unsatisfied or Bad		2	7.1
Normal or Medium		5	17.9
Satisfied or Good		12	42.9
Very Pleased or Very Good		8	28.8
B5. Be lined up in advance order after completing the procedures of registration, payment, medical examination, examination and screening.	29		
Dissatisfaction (very bad)		0	0.0
Unsatisfied or Bad		2	6.9
Normal or Medium		5	17.2
Satisfied or Good		15	51.7
Very Pleased or Very Good		7	24.1

Table 3 continued

	<i>N</i>	<i>n</i>	%
B6. Evaluate the waiting time for examination registration procedures	29		
Dissatisfaction (very bad)		2	6.9
Unsatisfied or Bad		2	6.9
Normal or Medium		9	31.0
Satisfied or Good		12	41.4
Very Pleased or Very Good		4	13.8
B7. Evaluate waiting time for doctor's visit	29		
Dissatisfaction (very bad)		0	0.0
Unsatisfied or Bad		5	17.2
Normal or Medium		5	17.2
Satisfied or Good		13	44.8
Very Pleased or Very Good		6	20.7
B8. Evaluate the time of examination and consultation by doctors	29		
Dissatisfaction (very bad)		0	0.0
Unsatisfied or Bad		1	3.4
Normal or Medium		5	17.2
Satisfied or Good		19	65.5
Very Pleased or Very Good		4	13.8
B9. Evaluate Waiting time for testing, X-ray, etc.	29		
Dissatisfaction (very bad)		0	0.0
Unsatisfied or Bad		0	0.0
Normal or Medium		14	48.3
Satisfied or Good		12	41.4
Very Pleased or Very Good		3	10.3
B10. Evaluation of waiting time for receiving test results	29		
Dissatisfaction (very bad)		1	3.4
Unsatisfied or Bad		0	0.0
Normal or Medium		11	37.9
Satisfied or Good		12	41.4
Very Pleased or Very Good		5	17.2

Facilities to Serve Patients

In this section, four questions were asked of the study participants to assess the facilities that served them. Possible responses to each of the four questions were 1 =

Dissatisfaction or Very Bad, 2 = Unsatisfied or Bad, 3 = Normal or Medium, 4 = Satisfied or Good, or 5 = Very Pleased or Very Good. The results for Questions C1 through C4 of the survey are reported in Table 4. Responses to Questions 1 and 3 of this section were all considered positive. However, responses to Questions 2 and 4 were also considered positive except 1 of the 35 respondents assessed the facilities as *Unsatisfied or Bad*.

Table 4

Facilities to Serve Patients

	<i>N</i>	<i>n</i>	%
C1. There is a room / lounge for a clean and airy examination in the summer. Airtight and warm in winter.	29		
Dissatisfaction (very bad)		2	6.9
Unsatisfied or Bad		4	13.8
Normal or Medium		4	13.8
Satisfied or Good		13	44.8
Very Pleased or Very Good		6	20.7
C2. Be assured of privacy during medical examination, x-ray examination	29		
Dissatisfaction (very bad)		2	6.9
Was Unsatisfied or Bad		5	17.2
Normal or Medium		2	6.9
Satisfied or Good		15	51.7
Very Pleased or Very Good		5	17.2
C3. Toilet convenient, good use, clean	35		
Normal or Medium			11.4
Satisfied or Good		19	54.3
Very Pleased or Very Good		12	34.3
C4. Environment in the campus of the hospital is green, clean and beautiful	35		
Was Unsatisfied or Bad		1	2.9
Normal or Medium		14	40.0
Satisfied or Good		15	42.9
Very Pleased or Very Good		5	14.2

Behavior and Professional Competence of Medical Staff

In this section, three questions were asked of study participants to assess the behavior and professional competence of the medical staff. Possible responses to each of the three questions were 1 = *Dissatisfaction or Very Bad*, 2 = *Unsatisfied or Bad*, 3 = *Normal or Medium*, 4 = *Satisfied or Good*, or 5 = *Very Pleased or Very Good*. The results for Questions D1 through D3 of the survey are reported in Table 5. All responses to the questions of this section were considered positive.

Table 5

Behavior and Professional Competence of Medical Staff

	<i>N</i>	<i>n</i>	%
D1. Health workers have the right words, attitudes and communication	29		
Normal or Medium		2	5.7
Satisfied or Good		18	54.3
Very Pleased or Very Good		15	40.0
D2. Be respected by medical staff, treat them fairly, care and help	29		
Normal or Medium		2	5.7
Satisfied or Good		20	57.1
Very Pleased or Very Good		13	37.1
D3. Professional capacity of doctors and nurses to meet expectations	29		
Normal or Medium		2	5.7
Satisfied or Good		19	54.3
Very Pleased or Very Good		14	40.0

Service Delivery Results

In this section, three questions asked study participants to assess the delivery of services. Possible responses to each of the following three questions were 1 = *Dissatisfaction or Very Bad*, 2 = *Unsatisfied or Bad*, 3 = *Normal or Medium*, 4 = *Satisfied or Good*, or 5 = *Very Pleased or Very Good*. The results for Questions E1 through E3 of the survey are reported in Table 6. All responses to the questions in this section were considered positive.

Table 6

Service Delivery Results

	<i>N</i>	<i>n</i>	%
E1. The results of the examination have met the expectation of he or she	35		
Normal or Medium		1	2.9
Satisfied or Good		20	57.1
Very Pleased or Very Good		14	40.0
E2. Assess the level of trust in the quality of medical services	35		
Satisfied or Good		20	57.1
Very Pleased or Very Good		15	42.9
E3. Assess the level of satisfaction with the price of medical services	35		
Normal or Medium		1	2.9
Satisfied or Good		19	54.3
Very Pleased or Very Good		15	42.9

General Survey Questions

The survey consisted of two generalized questions. Each of the 35 survey participants responded to each question. Question 1 of this section was as follows:

“How much did the general hospital assessment meet the expectations (of the patient) before going to the hospital.” Patient responses ranged from 60% to 100%. Fifteen respondents scored this question at 80% or below and 20 respondents scored it at 90% or above. This finding was notable and is discussed in Chapter V. Tables 7 and 8 provide the percentages for these responses. Question 2 of this section was as follows: “If you have a medical need will you come back or introduce others to this clinic. Of the 35 survey respondents, 34 or 97.1% indicated they would definitely come back or recommend the clinic to others.

Table 7

Expectations of Patients

Response %	<i>N</i>	<i>n</i>	%
60		1	2.9
70		5	14.3
75		1	2.9
80		8	22.9
90		15	42.9
95		1	2.9
100		4	11.4
Total	35		100.0

Waiting Time

In this final section, data were extracted from the hospital information system (HIS): time when the patient completed the registration, time waiting for the doctor, and, finally, consultation time from the beginning of the consultation until the end of the consultation at the moment patients had their prescriptions. Mean time for waiting to see the doctor was 37 minutes while the mean time from patients' registration until end of the consultation was 47 minutes, and mean consultation time was 9.3 minutes. Longest times recorded for waiting to see a doctor and time from registration until completion were 83 minutes and 93 minutes, respectively. The results are showed in Table 8.

Table 8

Wait Time of Patients from the Registration Time Until the Beginning Consultation with the Doctor

	<i>N</i>	<i>n</i>	%
Wait time less than 30 minutes		17	48
Wait time from 31-60 minutes		16	46
Wait time more than 60 minutes	35	2	5

CHAPTER V

DISCUSSION AND CONCLUSIONS

Improving the quality of care and patient satisfaction and reducing the waiting time for examination and treatment are goals the Ministry of Health (2018) has focused on in the last few years and these indexes have been monitored annually nation-wide. Recent reports of Vietnam's average patient satisfaction index (PSI) in 2018 from a survey conducted on more than 7,500 in-patients and their care givers showed the PSI had a positive improvement of 4.04/5 compared to 3.98/5 in 2017 (Khue, 2019). There was approval by 80.8% of patients in 2018 while approval was 79.6% in 2017 (Kiet, 2019).

The purposes of this non-experimental, exploratory field study were (a) to assess the process and outcomes of an outpatient clinic as they related to waiting times, factors contributing to waiting times, and the associated factors (outcomes) that influenced patient satisfaction levels in the outpatient department in public hospitals and (b) to suggest recommendations for clinic structure by suggesting changes to the flow chart for future health checks. Discussion of the major findings of this study discuss the outcomes of the processes that currently exist in the study clinic setting. It was hoped these findings would assist with changes to the structure

of the clinic to improve the processes with subsequent improvement in outcomes such as clinic wait times and patient satisfaction with clinic visits.

Major Findings

In this study, it was noted that a majority of the participants appeared to be mostly satisfied with several being very satisfied with their care at Cho Ray Hospital in an outpatient setting. In particular for transparency of information and procedures for medical examination and treatment, more than 70% of participants rated all services at satisfied/good and very satisfied/very good.

Of the four questions that asked participants to assess the facilities that served them, 70% of participants rated the facilities at satisfied/good and very pleased/very good levels. In terms of evaluating the behavior and professional competence of medical staff, more than 87% of participant ratings were at satisfied or good and very pleased or very good levels. For overall service delivery, more than 90% of responses were at satisfied/good and very pleased/very good levels.

Finally, 57.2% of the participants scored 90% or above when asked whether their expectations were met when having the service at the hospital in general and more than 97% indicated they would definitely come back or recommend the hospital to others.

Waiting times to see the doctor were considered quite reasonable for walk-in patients in this study at a public outpatient setting where 95% of participants waited less than 60 minutes. A longer waiting time (104.1 minutes) was found in a similar study at another public hospital outpatient clinic at a national hospital in Vietnam (Nguyen et al., 2018)

Registration was open throughout the lunch time and the last registration was around 15:30. The shortest waiting time was only five minutes and longest time was 16 times longer (83 minutes). The first one (shortest) fell into the group of participants who registered after 14:15 where most of them had waiting times of around 10 minutes. The longest wait time was in an earlier group of participants who registered from 13:00 to 14:00 and, thus, had most of the patients who waited for more than 30 minutes to see the doctor. The peak hour for the afternoon session normally starts right after lunch and this explained why waiting time was longer in this group. A similar finding was found in a study that showed one of the three major factors linked with a long wait time was registration time (Babalola et al., 2013).

The mean age of the participants was 61 years of age and none of them booked appointments via telephone or website; a suggested reason for not booking was participants were not familiar with the internet or might not have been able to do so. An intervention to reduce waiting time should be applied such as customer service staff should discuss and show them how to make a phone call for their next appointment and/or the doctor should enclose a reminder note with their prescriptions to schedule their next appointment. However, this study only covered collected data from the afternoon session and might not have been representative for all patients at Cho Ray Hospital. Future studies should expand to all days to evaluate waiting times at Cho Ray Hospital in the healthcare system in Vietnam.

Study Limitations

This study used the HIS for automatically time recording waiting times of outpatients at a public hospital in Vietnam. The limitations for this study were as

follows. First, the number of study participants was limited with only 35 participants and the focus was on outpatients who did not have any imaging or laboratory test orders; therefore, this number could not be representative of all patient at Cho Ray Hospital.

However, the HIS was very helpful in terms of saving time for both medical staff and patients in data recording, reducing bias and mistakes if any, and helping to extract and analyze data faster and easier. Secondly, this study was conducted at only one district level hospital and could not be used to generalize to the whole Vietnam public health system because waiting times might be different among hospitals at different levels. However, other hospitals have the same overcrowding situation.

In conclusion, this study showed the mean waiting time was 37 minutes at the outpatient department of Cho Ray Hospital. Early registration time in the afternoon and not having an appointment prior seeing the doctors were associated with a longer waiting time. Based on these results, introduction of an appointment system might be considered as a structural change to reduce waiting time.

Strengths of the Study

The strengths of this study are real-time patient waiting times in light of time of day and if the patient had a clinic appointment were studied. Additionally, a pre-existing standard survey tool for the hospital/clinic system in Vietnam--the Ministry of Health (2018): Book for Survey Consulting Outpatient Department survey--was used. This survey featured key areas of assessment that included accessibility, transparency of information and procedures for medical examination and treatment, patient impressions of facilities, behavior and professional competence of medical

staff, and service delivery results such as assessment of the level of trust in the quality of the medical services and the level of satisfaction with the patient's overall clinic experience.

Generalizability

Generalizability of the findings of this study was limited. One limitation was this field study was not experimental and the data were collected from only one clinic. However, this field study did demonstrate that a much larger study could be conducted not only to study one clinic in a more comprehensive manner but to also extend this study to other similar clinics in the Vietnamese medical system. Additionally, the overall purpose of this study was to improve the quality of services through an assessment of the processes of a conveniently chosen clinic. Thus, this study could be replicated in other similar clinics.

Implications for Practice

Although this was an exploratory, non-experimental field study, the findings raised many questions about the processes in clinics and their impact on patient satisfaction with the clinic experiences and services.

Recommendations for Research

This study should be repeated with a larger sample size to assess more closely the processes that impact patient satisfaction with the medical services. From additional studies, additional data could be obtained to provide a foundation for future changes to clinic processes that influence clinic outcomes.

Conclusion

The major findings of this study indicated patients had to wait a long time to receive services. Delays were evident at the registration tables and during diagnostic procedures such as blood tests, endoscopes, and X-rays. The main reason for these delays was numerous patients arrived at the clinic without an appointment.

This situation was shown to be especially evident during early morning hours at the beginning of the work week. Additionally, some patients should have been examined at lower levels but they still chose to go to Cho Ray Hospital, which might have contributed to the overcrowding.

Despite potential limitations, this study produced comprehensive data regarding patients' level of satisfaction with medical services at Cho Ray Hospital and the hospital wait time. Data from this study could certainly be used to eliminate contributing factors to patient wait time in hopes of improving hospital processes and ensuring high levels of patient satisfaction. Patients' continued satisfaction with hospital services will ensure its success as a healthcare provider. The results of this study could lay the ground work for future research.

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APPENDIX A

**MINISTRY OF HEALTH: BOOK FOR SURVEY
CONSULTING OUTPATIENT DEPARTMENT
IN ENGLISH AND VIETNAMESE**

MINISTRY OF HEALTH - BOOK FOR SURVEY CONSULTING OUTPATIENT DEPARTMENT

In order to improve the quality of medical examination and treatment, to satisfy the patients' satisfaction, the Ministry of Health and the hospital organize surveys to learn about patients' aspirations. These valuable comments will help the health sector overcome difficulties and step by step improve the quality to serve the people better. The Ministry of Health ensures confidentiality of information and does not affect treatment. Thank you very much!

1. Name of hospital: 2. Date of filling the vote

PATIENT INFORMATION

A1.	Sex: 1. Male 2. Female	A2.	Age:
A3.	Estimate the distance from the place of residence to the hospital:km		
A4.	Do you use your health insurance card for this visit? 1. Yes 2. No		

EVALUATION OF THE USE OF MEDICAL SERVICES

He / she marks a slash in a number from 1 to 5, corresponding to the level of satisfaction or comments from very poor to very good for each question below:

was: ① dissatisfaction or: Very bad	was: ② Unsatisfied or: Bad	was: ③ Normal or: Medium	was: ④ Satisfied or: Good	was: ⑤ Very pleased or: Very good
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A. Accessibility	
A1.	Signs and directions to the hospital are clear, easy to see and easy to find. (1) (2) (3) (4) (5)
A2.	Diagrams, signs showing directions to the departments and rooms in the hospital are clear, easy to understand and easy to find. (1) (2) (3) (4) (5)
A3.	The blocks, stairs are numbered clearly, easy to find. (1) (2) (3) (4) (5)
A4.	The pathways in the hospital, the corridor are flat, easy to go. (1) (2) (3) (4) (5)
A5.	You can find out the information and register for examination by phone, the website of the hospital conveniently. (1) (2) (3) (4) (5)
B. Transparency of information and procedures for medical examination and treatment	
B1.	The medical examination process is clearly, publicly and easily understood. (1) (2) (3) (4) (5)
B2.	The process and procedures for medical examination are reformed simply and conveniently. (1) (2) (3) (4) (5)
B3.	Clearly and publicly listed medical service prices. (1) (2) (3) (4) (5)
B4.	The medical staff welcomed and instructed the patients to do the affable and devoted procedures. (1) (2) (3) (4) (5)
B5.	Be lined up in advance order after completing the procedures of registration, payment, medical examination, examination and screening. (1) (2) (3) (4) (5)

B6.	Evaluate the waiting time for examination registration procedures.	① ② ③ ④ ⑤
B7.	Evaluate waiting time for doctor's visit	① ② ③ ④ ⑤
B8.	Evaluate the time of examination and consultation by doctors.	① ② ③ ④ ⑤
B9.	Evaluate waiting time for testing, x-ray	① ② ③ ④ ⑤
B10.	Evaluation of waiting time for receiving test results, x-rays	① ② ③ ④ ⑤
C .Facilities to serve patients		
C1.	There is a room / lounge for a clean and airy examination in the summer; Airtight and warm in winter.	① ② ③ ④ ⑤
C2.	Be assured of privacy during medical examination, x-ray examination.	① ② ③ ④ ⑤
C3.	Toilet convenient, good use, clean.	① ② ③ ④ ⑤
C4.	Environment in the campus of the hospital is green, clean and beautiful.	① ② ③ ④ ⑤
D. Behavior, professional competence of medical staff		
D1.	Health workers have the right words, attitudes and communication	① ② ③ ④ ⑤
D2.	Be respected by medical staff, treat them fairly, care and help.	① ② ③ ④ ⑤
D3.	Professional capacity of doctors and nurses to meet expectations.	① ② ③ ④ ⑤
E. Service delivery results		
E1.	The results of the examination have met the expectation of he or she	① ② ③ ④ ⑤
E2.	Assess the level of trust in the quality of medical services.	① ② ③ ④ ⑤
E3.	Assess the level of satisfaction with the price of medical services.	① ② ③ ④ ⑤
F	How much did the general hospital assessment meet the expectations before going to the hospital?% (fill in the numbers from 0% to 100% or can fill in 100% if the hospital is treating well, exceeding your expectations)%
G	If you have a medical need, do you come back or introduce others?	1. Definitely never come back 2. Don't want to go back but there are few other options 3. Maybe come back 4. Will definitely come back or recommend to others 5. Other (specify)

THANK YOU VERY MUCH!

BỘ Y TẾ
MẪU SỐ 3

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PHIẾU KHẢO SÁT Ý KIẾN NGƯỜI BỆNH NGOẠI TRÚ

Nhằm mục tiêu nâng cao chất lượng khám, chữa bệnh, đáp ứng sự hài lòng người bệnh, Bộ Y tế và bệnh viện tổ chức khảo sát để tìm hiểu nguyện vọng người bệnh. Các ý kiến quý báu này sẽ giúp ngành y tế khắc phục khó khăn, từng bước cải tiến chất lượng để phục vụ người dân tốt hơn. Bộ Y tế bảo đảm giữ bí mật thông tin và không ảnh hưởng đến việc điều trị. Xin trân trọng cảm ơn!

1. Tên bệnh viện: 2. Ngày điền phiếu:

THÔNG TIN NGƯỜI BỆNH

A1.	Giới tính: 1. Nam 2. Nữ	A2.	Tuổi:
A3.	Ước tính khoảng cách từ nơi sinh sống đến bệnh viện:km		
A4.	Ông/Bà có sử dụng thẻ BHYT cho lần khám bệnh này không? 1. Có 2. Không		

ĐÁNH GIÁ VIỆC SỬ DỤNG DỊCH VỤ Y TẾ

Ông/Bà đánh dấu gạch chéo vào **một số từ 1 đến 5**, tương ứng với **mức độ hài lòng hoặc nhận xét từ rất kém đến rất tốt** cho từng câu hỏi dưới đây:

① là: Rất không hài lòng <i>hoặc: Rất kém</i>	② là: Không hài lòng <i>hoặc: Kém</i>	③ là: Bình thường <i>hoặc: Trung bình</i>	④ là: Hài lòng <i>hoặc: Tốt</i>	⑤ là: Rất hài lòng <i>hoặc: Rất tốt</i>
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A. Khả năng tiếp cận		
A1.	Các biển báo, chỉ dẫn đường đến bệnh viện rõ ràng, dễ nhìn, dễ tìm.	① ② ③ ④ ⑤
A2.	Các sơ đồ, biển báo chỉ dẫn đường đến các khoa, phòng trong bệnh viện rõ ràng, dễ hiểu, dễ tìm.	① ② ③ ④ ⑤
A3.	Các khối nhà, cầu thang được đánh số rõ ràng, dễ tìm.	① ② ③ ④ ⑤
A4.	Các lối đi trong bệnh viện, hành lang bằng phẳng, dễ đi.	① ② ③ ④ ⑤
A5.	Có thể tìm hiểu các thông tin và đăng ký khám qua điện thoại, trang tin điện tử của bệnh viện (website) thuận tiện.	① ② ③ ④ ⑤
B. Sự minh bạch thông tin và thủ tục khám bệnh, điều trị		
B1.	Quy trình khám bệnh được niêm yết rõ ràng, công khai, dễ hiểu.	① ② ③ ④ ⑤
B2.	Các quy trình, thủ tục khám bệnh được cải cách đơn giản, thuận tiện.	① ② ③ ④ ⑤
B3.	Giá dịch vụ y tế niêm yết rõ ràng, công khai.	① ② ③ ④ ⑤
B4.	Nhân viên y tế tiếp đón, hướng dẫn người bệnh làm các thủ tục niêm nở, tận tình.	① ② ③ ④ ⑤
B5.	Được xếp hàng theo thứ tự trước sau khi làm các thủ tục đăng ký, nộp tiền, khám bệnh, xét nghiệm, chiếu chụp.	① ② ③ ④ ⑤
B6.	Đánh giá thời gian chờ đợi làm thủ tục đăng ký khám.	① ② ③ ④ ⑤
B7.	Đánh giá thời gian chờ tới lượt bác sỹ khám.	① ② ③ ④ ⑤

B8.	Đánh giá thời gian được bác sỹ khám và tư vấn.	① ② ③ ④ ⑤
B9.	Đánh giá thời gian chờ làm xét nghiệm, chiếu chụp.	① ② ③ ④ ⑤
B10.	Đánh giá thời gian chờ nhận kết quả xét nghiệm, chiếu chụp.	① ② ③ ④ ⑤
C. Cơ sở vật chất và phương tiện phục vụ người bệnh		
C1.	Có phòng/sảnh chờ khám sạch sẽ, thoáng mát vào mùa hè; kín gió và ấm áp vào mùa đông.	① ② ③ ④ ⑤
C2.	Phòng chờ có đủ ghế ngồi cho người bệnh và sử dụng tốt.	① ② ③ ④ ⑤
C3.	Phòng chờ có quạt (điều hòa) đầy đủ, hoạt động thường xuyên.	① ② ③ ④ ⑤
C4.	Phòng chờ có các phương tiện giúp người bệnh có tâm lý thoải mái như ti-vi, tranh ảnh, tờ rơi, nước uống...	① ② ③ ④ ⑤
C5.	Được bảo đảm sự riêng tư khi khám bệnh, chiếu chụp, làm thủ thuật.	① ② ③ ④ ⑤
C6.	Nhà vệ sinh thuận tiện, sử dụng tốt, sạch sẽ.	① ② ③ ④ ⑤
C7.	Môi trường trong khuôn viên bệnh viện xanh, sạch, đẹp.	① ② ③ ④ ⑤
C8.	Khu khám bệnh bảo đảm an ninh, trật tự, phòng ngừa trộm cắp cho người dân.	① ② ③ ④ ⑤
D. Thái độ ứng xử, năng lực chuyên môn của nhân viên y tế		
D1.	Nhân viên y tế (bác sỹ, điều dưỡng) có lời nói, thái độ, giao tiếp đúng mực.	① ② ③ ④ ⑤
D2.	Nhân viên phục vụ (hộ lý, bảo vệ, kế toán...) có lời nói, thái độ, giao tiếp đúng mực.	① ② ③ ④ ⑤
D3.	Được nhân viên y tế tôn trọng, đối xử công bằng, quan tâm, giúp đỡ.	① ② ③ ④ ⑤
D4.	Năng lực chuyên môn của bác sỹ, điều dưỡng đáp ứng mong đợi.	① ② ③ ④ ⑤
E. Kết quả cung cấp dịch vụ		
E1.	Kết quả khám bệnh đã đáp ứng được nguyện vọng của Ông/Bà.	① ② ③ ④ ⑤
E2.	Các hóa đơn, phiếu thu, đơn thuốc và kết quả khám bệnh được cung cấp đầy đủ, rõ ràng, minh bạch và được giải thích nếu có thắc mắc.	① ② ③ ④ ⑤
E3.	Đánh giá mức độ tin tưởng về chất lượng dịch vụ y tế.	① ② ③ ④ ⑤
E4.	Đánh giá mức độ hài lòng về giá cả dịch vụ y tế.	① ② ③ ④ ⑤
F	Đánh giá chung bệnh viện đã đáp ứng được bao nhiêu % so với mong đợi trước khi tới khám bệnh? <i>(điền số từ 0% đến 100% hoặc có thể điền trên 100% nếu bệnh viện điều trị tốt, vượt quá mong đợi của Ông/Bà)</i>%
G	Nếu có nhu cầu khám bệnh, Ông/Bà có quay trở lại hoặc giới thiệu cho người khác đến không?	1. Chắc chắn không bao giờ quay lại 2. Không muốn quay lại nhưng có ít lựa chọn khác 3. Có thể sẽ quay lại 4. Chắc chắn sẽ quay lại hoặc giới thiệu cho người khác 5. Khác (ghi rõ).....

XIN TRÂN TRỌNG CẢM ON!

APPENDIX B

**APPLICATION FOR APPROVAL OF IMPLEMENTED
SCIENTIFIC RESEARCH IN ENGLISH
AND VIETNAMESE**

SOCIAL REPUBLIC OF VIETNAM
Independence - Freedom – Happiness

Ho Chi Minh City, March 25th 2019

**APPLICATION FOR APPROVAL
IMPLEMENTED SCIENTIFIC RESEARCH PROBLEM
AT THE OUTPATIENT DEPARTMENT IN CHO RAY HOPITAL**

Dear: **Profesor Nguyen Van Khoi**

Deputy Director of Cho Ray Hospital

My name is Pham Thi My Nhung currently working at the Outpatient Department, Cho Ray Hospital.

With the consent of the hospital director, I am currently studying at the Northern Colorado University Master of Nursing course in cooperation with Hong Bang International University, for the period of 2 years from 2017 to 2019.

At the request of the training program, I carried out the research topic "*Assessing patient's waiting time and satisfaction at Cho Ray Hospital's Outpatient Department*". Therefore, I made this application to submit to the Director of Cho Ray Hospital and the Head of Outpatient Department to agree and facilitate me to collect data and conduct patient surveys at the Outpatient Department of the Hospital.

I pledge to use only the information and data collected in the research objectives and strictly follow the Hospital's regulations in conducting scientific research.

Looking forward to the Hospital Director and the Head of Outpatient Department for approval.

Thank you so much

Sincerely



Pham Thi My Nhung



Director of Choray Hospital

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập – Tự do – Hạnh phúc

TP. Hồ Chí Minh, ngày 25 tháng 03 năm 2019

**ĐƠN XIN CHẤP THUẬN
ĐƯỢC THỰC HIỆN ĐỀ TÀI NGHIÊN CỨU KHOA HỌC
TẠI KHOA KHÁM BỆNH, BỆNH VIỆN CHỢ RẪY**

Kính gửi:

- Giám đốc bệnh viện Chợ Rẫy;
- Trưởng khoa Khám bệnh - bệnh viện Chợ Rẫy.

Tôi tên Phạm Thị Mỹ Nhung Sinh năm 1967

Hiện đang công tác tại khoa Khám bệnh, bệnh viện Chợ Rẫy với chức danh Điều dưỡng.

Được sự đồng ý của Giám đốc bệnh viện, hiện tại tôi đang theo học lớp Thạc sĩ khoa học điều dưỡng tại Trường Đại học Northern Colorado hợp tác với Trường Đại học quốc tế Hồng Bàng, trong thời gian 02 năm từ 2017 đến 2019.

Theo yêu cầu của chương trình đào tạo, tôi thực hiện Đề tài nghiên cứu “*Đánh giá thời gian chờ đợi và sự hài lòng của bệnh nhân tại khoa Khám bệnh bệnh viện Chợ Rẫy*”. Vì vậy, tôi làm đơn này kính trình Giám đốc bệnh viện Chợ Rẫy và Trưởng khoa Khám bệnh đồng ý và tạo điều kiện cho tôi được thực hiện thu thập số liệu và tiến hành khảo sát bệnh nhân tại khoa Khám bệnh của Bệnh viện.

Tôi cam kết chỉ sử dụng các thông tin và số liệu thu thập được vào mục tiêu nghiên cứu và thực hiện đúng các quy định của Bệnh viện trong việc thực hiện nghiên cứu khoa học.

Kính mong Giám đốc bệnh viện và Trưởng khoa khám bệnh chấp thuận.

Trân trọng cảm ơn./.

**Ý KIẾN
TRƯỞNG KHOA KHÁM BỆNH**


BS. Lê Trung Nhứt
A23-0190

Ý KIẾN GIÁM ĐỐC BỆNH VIỆN
CHÓ GIÁM ĐỐC PHỤ TRÁCH QUẢN LÝ, ĐIỀU HÀNH BỆNH VIỆN

Người làm đơn


Phạm Thị Mỹ Nhung


GS.TS. Nguyễn Văn Khôi

APPENDIX C
INSTITUTIONAL REVIEW BOARD APPROVAL



Institutional Review Board

DATE: April 19, 2019

TO: Nhung Pham

FROM: University of Northern Colorado (UNCO) IRB

PROJECT TITLE: [1419967-1] Assessment of patient waiting and consultation time in a primary healthcare clinic - The Out Patient Department of Cho Ray Hospital

SUBMISSION TYPE: New Project

ACTION: APPROVAL/VERIFICATION OF EXEMPT STATUS

DECISION DATE: April 19, 2019

EXPIRATION DATE: April 19, 2023

Thank you for your submission of New Project materials for this project. The University of Northern Colorado (UNCO) IRB approves this project and verifies its status as EXEMPT according to federal IRB regulations.

Thank you for your IRB application for this relevant research study. Your protocols and materials are verified/approved exempt and you may proceed with participant recruitment and data collection.

Best wishes with your research.

Sincerely,

Dr. Megan Stellino, UNC IRB Co-Chair

We will retain a copy of this correspondence within our records for a duration of 4 years.

If you have any questions, please contact Nicole Morse at 970-351-1910 or nicole.morse@unco.edu. Please include your project title and reference number in all correspondence with this committee.

This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within University of Northern Colorado (UNCO) IRB's records.