CUSTOMERS' SATISFACTION TOWARD OPD SERVICE AT SOMDEJPHRAPHUTHALERTLA HOSPITAL MUANG DISTRICT SAMUT SONGKRAM PROVINCE THAILAND

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A Thesis Submitted in Partial Fulfillment of the Requirements

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ความพึงพอใจของผู้ใช้บริการต่อการให้บริการด้านสุขภาพแผนกผู้ป่วยนอกโรงพยาบาลสมเด็จพระพุทธเลิศหล้า อำเภอเมือง จังหวัดสมุทรสงคราม ประเทศไทย

นางสาวอริยวรรณ เขียวกุมพันธ์

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรมหาบัณฑิต
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อริยวรรณ เขียวกุมพันธ์: ความพึงพอใจของผู้ใช้บริการต่อการให้บริการด้านสุขภาพแผนกผู้ป่วยนอก โรงพยาบาลสมเด็จพระพุทธเลิศหล้า อำเภอเมือง จังหวัดสมุทรสงคราม ประเทศไทย Toward OPD Service at Somdejph (Customers'Satisfaction raphuthalertla Hospital, Muang District, Samut Songkram Province, Thailand) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: ผศ.ดร. ประเทือง หงสรานากร, 93 หน้า.

โรงพยาบาลสมเด็จพระพุทธเลิศหล้าเป็นโรงพยาบาลระดับทุติยภูมิ ซึ่งวางแผนที่จะขอการรับรองคุณภาพของโรงพยาบาล (Hospital Accreditation) ในอนาคตอันใกล้นี้ อย่างไรก็ตาม ทางโรงพยาบาลยังไม่เคยมีการสำรวจความพึงพอใจของผู้ใช้บริการซึ่งเป็นหนึ่งในข้อกำหนดของการประเมินคุณภาพตามมาตรฐานของการรับรองคุณภาพโรงพยาบาล จุดประสงค์ของการศึกษาแบบตัดขวางนี้เพื่อประเมินคุณภาพของการให้บริการและวัดระดับความพึงพอใจของผู้ใช้บริการ รวมถึงการหาความสัมพันธ์ระหว่างตัวแปรทั้งสองนี้ ประชากรในการศึกษาครั้งนี้คือ ผู้ป่วยสัญชาติไทย อายุ 18 ปีขึ้นไป ที่เข้ารับบริการแผนกผู้ป่วยนอก เฉพาะทางอายุรกรรม โรงพยาบาลสมเด็จพระพุทธเลิศหล้า ในระหว่างวันที่ 25 กุมภาพันธ์ ถึง 31 มีนาคม 2556 โดยการถามแบบส่วนตัวจากแบบสอบถามด้วยขนาดตัวอย่างจำนวน 400 ตัวอย่าง

จากผลการศึกษาครั้งนี้พบว่า ผู้ตอบแบบสอบถามส่วนใหญ่เป็นผู้สูงอายุ ระหว่าง 56-75 ปี (ร้อยละ 36.0) ผู้ตอบแบบสอบถามส่วนใหญ่เป็นเพศหญิง ร้อยละ 70.2 และส่วนมากผู้ตอบแบสอบถามมีสถานภาพแต่งงาน (ร้อยละ 64.5) โดยทั่วไป อาชีพของผู้ตอบแบบสอบถามคือลูกจ้างในส่วนของเอกชน ระดับการศึกษาสูงสุดในระดับประถมศึกษา ร้อยละ 54 และมีรายได้เฉลี่ยต่อเดือนต่ำกว่า 10,000 บาท คิดเป็นร้อยละ 69.0

จากผลการศึกษาพบว่า ระดับความพึงพอใจของผู้ใช้บริการต่อการให้บริการในภาพรวมมีระดับสูงมากที่ ร้อยละ 94.26 และ ร้อยละ 99.0 ของผู้ตอบแบบสอบถามระบุว่าจะกลับมาใช้บริการอีก ซึ่งผลจากการศึกษานี้อาจกล่าวได้ว่า โรงพยาบาลสมเด็จพระพุทธเลิศหล้า เป็นแบบอย่างที่ดีแก่โรงพยาบาลรัฐบาลอื่น ๆ ในการให้บริการด้านสุขภาพ ซึ่งการศึกษาต่อไปในอนาคต การประเมินคุณภาพของการให้บริการควรได้รับการประเมินร่วมกันจากทุกฝ่ายที่เกี่ยวข้อง ดังเช่น บุคลากรผู้ให้บริการทางการแพทย์ พนักงานโรงพยาบาล คณะกรรมการฝ่ายการจัดการและบริหารโรงพยาบาล และผู้ใช้บริการทางการแพทย์ นอกจากนี้ ควรมีการศึกษาระดับความพึงพอใจในแผนกอื่น ๆ ของโรงพยาบาล เพื่อที่จะได้นำมาเปรียบเทียบคุณภาพของการให้บริการระหว่างแผนก และใช้ปรับปรุงรวมถึงการวางแผนการให้บริการต่อไปในอนาคต

สาขาวิชา..... สาธารณสุขศาสตร์……..ลายมือชื่อนิสิต……..

ปีการศึกษา ..... 2555……...ลายมือชื่อ อ.ที่ปรึกษาวิทยานิพนธ์หลัก……...

5478833153: MAJOR PUBLIC HEALTH

KEYWORDS : CUSTOMER / SATISFACTION / SERVICE PROCESS /
PERSONALITY OF STAFF / WAITING TIME

ARIYAWAN KHIEWKUMPAN: CUSTOMERS' SATISFACTION TOWARD OPD SERVICE AT SOMDEJPHRAPHUTHALERTLA HOSPITAL, MUANG DISTRICT, SAMUT SONGKRAM PROVINCE . ADVISOR: ASST.PROF. PRATHURNG HONGSRANAGON, Ph.D., 93 pp.

Somdejphraphuthalertla Hospital is a secondary care hospital that plans to go to hospital accreditation but has yet to assess its customer's satisfactions and needs. The goal of this cross-sectional descriptive research was to assess the quality of services and the level of satisfactions, and to determine the association between these two variables. The target population was all patients who were Thai citizen and above 18 years old visited the outpatient department at General Medicine section during February 25 to March 31, 2013. A stratified sampling scheme was used to identify 400 study participants from outpatient department in General Medicine section. A self-administered questionnaire was used among all participants. The study found that the customers at Somdejphraphuthalertla Hospital were tend to be elderly population, ages between 56 - 75 years old (36.0%), 70.2% of the respondents were female, 64.5% were married, and 30.5% reported their occupation as employee in private section. The highest level of education was primary school at 54.0%. The highest level of income was reported to be below 10,000 baht per month. The level of customers' satisfaction toward services in overall was found to be at very high at 94.2% and 99.0% of the respondents would return to use the service in the future. The finding from this study suggested that this hospital should be a good model for other public hospital. In the future, quality of care should be measured from an inclusive perspective that includes those of the healthcare providers and staffs, the hospital board committee and their customers. Also, the study should consider all departments in order to be able to compare quality of services for improvement in the future.

Field of Study: ….Public Health……..…….Student's Signature……..

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CHAPTER I

INTRODUCTION

1.1 **Background and Rationale**

Over the last few years, the awareness of smooth and effective operation of health systems is considering for both national and international health goals. Recent confirmation of the commitment of member states and the international community includes the new prominence of health systems of donors' aid agenda, the innovative of international financing for health systems and the United Nations Secretary-General's Global Strategy for Women's and Children's Health to build up the national health systems in order to provide equitable and quality in health-care services. Integrated service delivery networks with developing district health systems to pluralistic health are organized as close-to-client networks of primary care in public providers, private hospitals and other health care services. These networks offer in promoting health, preventing disease, diagnosis, treatment, disease management, rehabilitation and palliative care (World Health Organization [WHO], 2011).

In Thailand, the health service systems have developed gradually for health services which include providing human resources in health care, expanding for healthcare facilities, introducing new medical technology and improving in health financing. Health facilities in the public sector play an important role in the health service system as providing health services with good accessibility and coverage to the people in all localities. In province level, there are 70 general hospitals covering all provincial areas and 59 hospitals under various military bases and combat units of the Ministry of Defence. In district level, there are 730 community hospitals which covering 91.7% of all districts, one extended OPD or branch hospital, and 214 municipal health centers. In tambon (subdistrict) level, there are 9,762 health centers, covering all Tambons while several Tambons have more than one health centre (Sakunphanit, 2006).

Recently, most of health care providers have realized that patient satisfaction measurement is a cost effective and advantage indicator for the quality of care; therefore, the activity to include patient evaluations of care is increasing then. The voice of patients' opinions about the received care services has been found as part of a commitment to public widely and participation of patient in healthcare service delivery and plan. Patients' satisfaction has been a valid indicator and mandated in The Joint Commission of Accreditation of Health Care Organizations (JACHO, 1994) 1994 standards for accreditation (Irish Society for Quality & Safety in Healthcare, 2003). Service-user satisfaction is an important outcome indicator and advantage of assessing services which can result in services adapting to become more acceptable to service-users overtime. Listening to the patients, measuring patients' satisfaction and improving the hospital services are supported to strategic plan goals (King County Executive's Office, 2012).

As found in some research study in Thailand, Mandokhail and et al (2007) studied about patient satisfaction toward quality of the out-patient department services at Banphaeo hospital, Samut Sakhon province, in relation to cost and services. It would be advantage to explore the problem and find out the influenced factors which affecting to the satisfaction after receiving the conclusion of patient satisfaction towards the hospital services or other health care centers. From the study, the result was an indicator reflecting to the quality of hospital services under the universal coverage scheme. It was also showed the prospective of patient satisfaction in the primary health care.

Currently, we have heard about patients suing the health care providers with their dissatisfaction of services from various media such as newspapers and radio. There is an advantage for the providers to give the patients an opportunity showing their opinions and participating in health services provision. To continuously improve the quality of health care services, the health care providers have to assess and evaluate the customers' satisfaction toward the services, and do regularly self-assessment.

Customers' complaint and suggestions is one of the methods that Somdejphraphuthalertla Hospital in Samutsongkarn province currently using to assess their healthcare services. However, the hospital has never assessed clients' satisfaction by doing survey to discover the problems and suggestions in their performances. Therefore, the researcher intend to assess the level of customers' satisfaction and explore factors which influencing the satisfaction towards the out-patient department services (OPD) as a guideline to do self-assessment at the beginning in the hospital.

Somdejphraphuthalertla Hospital is the biggest public hospital in district level located in the center city of Muang district where is covered about 40.57 percent of the area of Samut Songkram Province. This province is approximated 65 kilometers from Bangkok, the capital city of Thailand. The majority of people depend on agriculture and fisheries. There are about 270 of small to medium factories located in the province thoroughly (samutsongkhram [online], 2012). As a result, there are a number of foreigners especially who came from Myanmar working as labor level in the factories and living all around their work places.

Somdejphraphuthalertla Hospital currently has operated of 311 beds with originally of 260 beds. In the year 2011, approximated of 167,000 clients were out-patient department (OPD) cases which are about 457 cases /day (Somdejphraphuthalertla [online], 2012). Since the hospital has performed on all health insurance policy including the universal coverage, a number of patients come to visit the hospital has increased gradually. However, while there is increasing number of customers, the number of health care providers is still not enough to serve in need. Once the clients expectation is not met upon visit; therefore, the complaint cases also increase continually each year. It is time for the hospital to consider and be aware of the customers' satisfaction as it is the reflection of their quality of healthcare services in overall.

There are a significant number of migrant clients using the hospital services; however, the researcher excludes this group because of language barrier and communication problem. The increasing trend for the number of customers can be affected to the services performance among the health care professionals and staffs regarding the limitation number of human resources.

1.2 Research Questions

1.2.1 What is the personal profile of the respondents at Somdejphraphuthalertla Hospital?

1.2.2 What is the influencing factors profile of the respondents at Somdejphraphuthalertla Hospital?

1.2.3 What is the waiting time of healthcare services at Somdejphraphuthalertla Hospital?

1.2.4 What is the quality of services at Somdejphraphuthalertla Hospital?

1.2.5 What is the outcome of care at Somdejphraphuthalertla Hospital?

1.2.6 What is the level of customers' satisfaction towards OPD care service at Somdejphraphuthalertla Hospital?

1.2.7 What is the relationship between the personal profile of the respondents, influencing factors, waiting time of services, quality of services and outcome of care to the level of customers' satisfaction towards OPD care service at Somdejphraphuthalertla Hospital?

1.3 Objective of the study

1.3.1 General Objective

To evaluate level of customers' satisfaction towards OPD care service at Somdejphraphuthalertla Hospital.

1.3.2 Specific Objectives

1. To determine the level of satisfaction on service quality, waiting time and outcome of care.
2 To identify the personal profile and influencing factors.
3. To find the relationship between the personal profile of the respondents and influencing factors to the level of customers' satisfaction on service quality, waiting time and outcome of care at Somdejphraphuthalertla Hospital.

1.4 Research Hypothesis

1. There is a relation between personal profile of customers and their level of satisfaction.
2. There is a relation between influencing factors and customers' satisfaction.
3. There is a relation between waiting time and customers' satisfaction.
4. There is a relation between the quality of healthcare services and customers' satisfaction.
5. There is a relation between the outcome of care and customers' satisfaction.

1.5 Variables in the research

Independent variables

Personal profile of clients includes:

1. Age
2. Gender
3. Marital status
4. Education
5. Occupation
6. Monthly income
7. Number of visit

Influencing Factors

1. Hospital Environment
2. Hospital System
3. Hospital Management

Waiting Time

1. Traveling time from *customer's* residence area to the hospital
2. Waiting time at the registration counter
3. Waiting time at the OPD for checking vital sign
4. Waiting time at the OPD to see doctor
5. Waiting time at the Lab and Radiology Department
6. Waiting time at the pharmacy counter
7. Waiting time at the cashier counter

Quality of Services

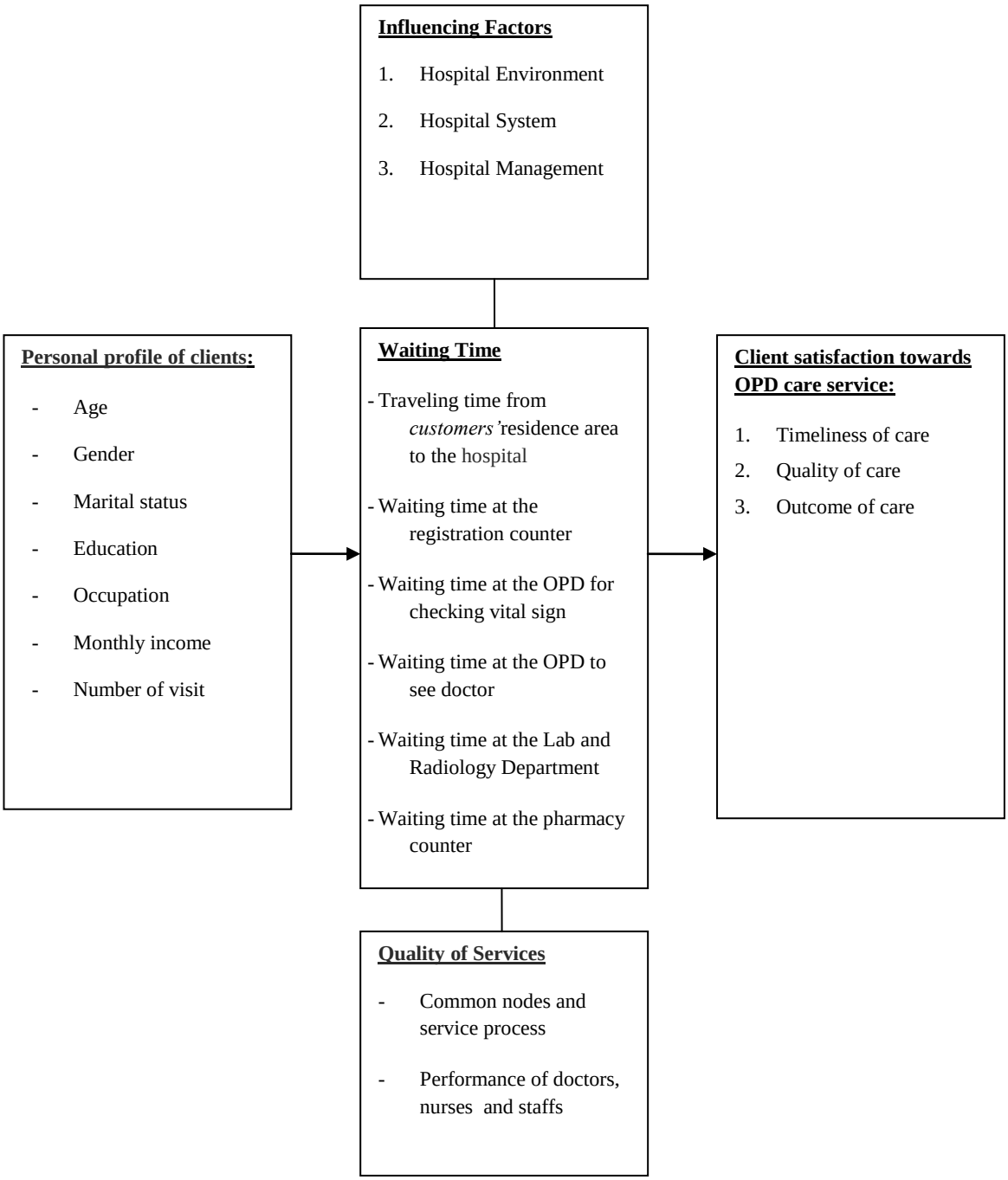
1. Common nodes and service process
2. Performance of doctors, nurses and staffs

Dependent variables

Customers' satisfaction towards OPD care service includes:

1. Timeliness of care
2. Quality of care
3. Outcome of care

1.6 Conceptual Framework



1.7 Terminological and Operational Definitions

Terminological Definitions

(1) OPD refers to the Outpatient Department at Somdejphraphuthalertla Hospital. In this study, the researcher will focus on General Medicine Department.

(2) Customer refers to male and female patients or guidance that assist them while visiting to OPD with aged of 18 year old and above.

Operational Definitions

Influencing Factors

This refers to factors that may influence to customers' satisfaction. In this study factors which should be considered are Hospital Environment, Hospital System and Hospital Management.

Waiting Time

This refers to the amount of time a patient waits to be seen, is one factor which affects the utilization of health care services.

Perception of the quality of OPD care services

This refers to the customers ' perception towards the health care staff and services as related to five aspects in this study; hospital environment, technical skill of health care providers, interpersonal manner of health care staffs, communication between health care providers/staffs and customers and outcome of care.

Customers' Satisfaction

This refers to an attitude towards a total experience of health care which relates to previous experiences, expectations and social networks.

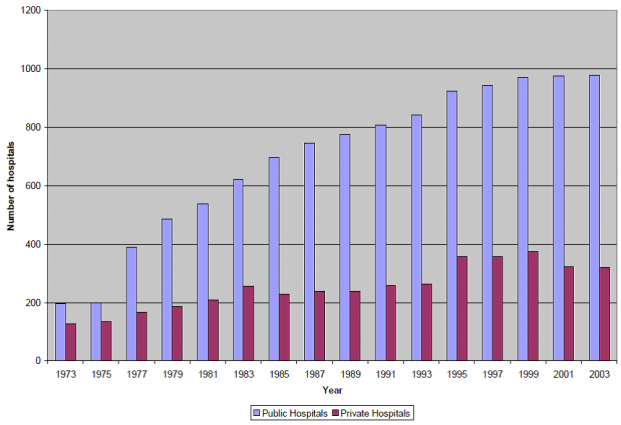
CHAPTER II

LITERATURE REVIEW

2.1 Health care services in Thailand

Before 1932, the Thai Government had concerned about preventing of health and controlling communicable diseases that could spread easily such as cholera and smallpox, while there are a few availability of public hospitals. After changing of political system in 1932, the government had issued new health policy in order to improve accessibility of current medical care; however, it had been growth slowly. In 1942, only 15 provincial hospitals and 343 health centers were set up. Until in 1956, a provincial hospital had been gradually set up in every province. In each region, there was a regional hospital to support to provincial hospitals and act as a referral centre. The government had used an administrative area approach to achieve public health care infrastructure that coverage in districts level. Until 1993, the public health was covered to local people by accessing to health services within one hour by walking. However, currently, the mal-distribution of health care providers between rural and urban areas has caused in the inequity accessibility to care (Sakunphanit, 2006).

Figure 1 Number of Public and Private Hospitals by year



Source: Health Resource Survey, Bureau of Policy and Strategy, MoPH

(Bureau of Policy and Strtegy, MoPH, 2004; cited in Sakunphanit, 2006).

In the public sector, there are about two-third of all hospitals and beds in the country belonged to the Ministry of Public Health (MoPH). For about one-third of hospitals belong to medical school hospitals which under the Ministry of University and general hospitals which under other ministries (Sakunphanit, 2006).

2.2 Quality of health care services

Nowadays, the healthcare providers both in private and public parts have started to focus on the quality in healthcare. To improve the health status of the population, the quality in management systems is required to achieve in maximum results. Clear objective and expectation in healthcare will be happened as the result of the quality assurance that can be used for situation analyzing and making amendments. It has been seen that the quality assurance in healthcare as similar to the evolutional process in the industry field. In currently, we pay more attention to the processes of healthcare services and job duties among healthcare workers in the quality of care (Senior lecturer, 2007).

Dimension for quality of care

- Doctor-to-doctor communication enhancement

Physicians can instantly share test results with concerned parties such as doctors, healthcare providers, labs, pharmacies, and clinics with an interoperable system of healthcare. To improve the process of consultation and healthcare delivery, the system will grant permission for the physicians who are authorized by the patient to be able to look at that patient's chart with another physician who is far away.

- Availability of geographic location

Complete medical history of patients can be reviewed by doctors and other healthcare providers, regardless of either the patient's or the provider's locations. The information will be recorded by healthcare providers at each visit and it will be up-to-date all the time.

(3)Availability of treatment setting

It is easy to access to medical histories in any treatment environment such as in an emergency room, in an examination room, in locations around a hospital, in a doctor's home or office, in public and private clinics.

(4) Emergency room support improvement

Doctors in emergency rooms (ERs) normally have to work without any information of a patient history at all; hence, it could be quite difficult to plan for appropriate treatments with rush time in urgent situations. An interoperable system could help reduce suffering and save many patients' lives using the ER as their primary care facility. Moreover, the consistency of system support can help caregivers personalize patients' experiences.

(5) Access to lab results immediately

Test results will be reviewed by physicians as soon as they become available in the connected-interactive system of healthcare. At the time of care, the interconnectivity of lab information with drug information can provide more comprehensive and completed data. Nowadays, this information is not available at the time of initial treatment, as a result, prompt and more appropriate treatment will be delayed until the crucial information have been collected in one place.

(6)More evidence-based medicine

Interoperability will promote evidence-based medicine by giving doctors access at any time to databases that offer updated clinical decision support. Interoperable systems will be equipped to provide protocols for various medical situations. Physicians will choose protocols as they see fit, and as outcomes are measured, the data can be used to revise best-practice standards (The Healthcare Delivery System, 2005).

The SERVQUAL (Service Quality) Model

Most of contemporary theories have viewpoints of the service quality from both provider and customer. In 1991, Parasuraman et al. (1985) propose a model, SERVQUAL scale that gaps to be identified and actual service delivery to be measured. Zeithaml *et al*. (1990) suggest criteria in five dimensions of service quality that used to explain the expectations and perceptions of customers:

- *Tangibles*: physical evidence, appearance of physical facilities, personnel, and communication materials.
- *Reliability*: ability to perform the promised service dependably and accurately.
- *Responsiveness*: willingness to help customers and provide prompt service.
- *Assurance*: knowledge and courtesy of employees and their ability to convey trust and confidence.
- *Empathy*: provision of individualized caring attention to customers.

The SERVQUAL model of service quality explains that the customer evaluates the quality of a service experience as the outcome of the difference between expectation and reception of the service (Zeithaml et al. 1990; cited in Renganathan, 2011).

The patient's perception of the quality in health care services is reflective of the patients' satisfaction to its service quality (SERVQUAL). A number of studies in patients satisfaction with medical services have been conducted since 1990 that have been strengthened the competitiveness of medical institutions. However, there is still no standard model to measure for patient satisfaction. There are only a few studies regarding the measurement of patients' perceptions of the quality of treatment. The

studies of patients' satisfaction to the medical services are crucial, because they provide their cognitive and emotional reaction to the medical services they receive and the medical institution can use this information to identify their weaknesses from the customers' point of view for improvement of services. Also, sharing the results of service quality surveys with staff, including doctors, will enhance to improve their services and sense of responsibility, thereby contributing to the establishment of a client-oriented organization culture (Jung and Lee, 2009).

2.3 Waiting time

Patients arrive and leave the hospital at various times since they attend in various outpatient units within the hospital system. The amount of time that patients spend to wait for doctor and other services is one of factor which affects the utilization of health care services (Fernandes et al., 1994; dos Santos et al., 1994). Also, the patients perceive long waiting times as barriers to actually obtaining services (Kurata et al., 1992). In a competitive among the healthcare business, management of patient waiting time acts as an important role in ability to attract new business. It is difficult to sell services if patients are dissatisfied with waiting time that spend so long from when they entered the waiting room to the time they actually left the hospital (Mackey and Cole, 1997). In addition, waiting time becomes a factor in retaining current users of the services. Patient satisfaction has increasingly important role as a measurement of quality of health care performance. To satisfy the patient, the organization has potential to understand the patient needs and demands related to health care (Net et al., 2007). A study in the United Kingdom concluded that, patient satisfaction is directly correlated with waiting times to see a doctor (Maitra and Chikhani, 1992) while another study found that, because of prolonged waiting times, a substantial number of patients left outpatient departments (Fernandes et al., 1994; cited in Umar and Oche, 2011).

Waiting time varies depending on the service capacity of the healthcare setting. Waiting time is also called 'customer sacrifice' and customers must sacrifice their time and other opportunities to make a decision for health services. International literature shows mean waiting times of 38 minutes in Chicago and 56 minutes in

California. West Indies ED reported median waiting times of 178 minutes. According to a survey in the United Kingdom 66% of patients wished to see a doctor within two hours of arrival. South African targets for waiting time are based on the severity of the condition. Very sick unstable (priority one) patients should be seen immediately on arrival and for stable patients a maximum waiting time of 120 minutes is suggested in the ED (Rauf, Blitz and Geyser, 2008).

2.4 Customers' Satisfaction

Satisfaction is a judgment of people from over time as they reflect on their experience. The client satisfaction is an attitude towards a total experience of health care. Satisfaction composes of cognitive and emotional which relates to previous experiences, expectations and social networks (Keegan et al, 2002; cited in Health Strategy Implementation Project, 2003). Satisfaction is achieved when the customers' perception of the quality of care and services that they receive in healthcare setting has been positive, satisfying, and meets their expectations (Health Strategy Implementation Project, 2003).

The level of satisfaction is important to improve the service in the public. Measuring satisfaction used to be as feedback to staff and managers in an internal level. Nowadays, satisfaction is become broader as external level ensuring one organization to be ranked among others. In general, patients who have high expectations of health care are intended to have low satisfaction scores (Pemeger 2004, BOdcer and Thompson 2006; cited in Lees and Chadha, 2011). The environments in received care services are also affected to the satisfaction (Lees and Chadha, 2011).

Patient satisfaction plays an important role as an indicator of the quality of care provided by health care providers that meets or exceeds the patient's needs and expectations. Understanding patients' expectations and motivations for seeking the healthcare will be maximized patient satisfaction and enhanced the delivery of health care. Recent American clinical review had the factors which seem to be affecting to the client satisfaction as follows:

- Empathy/attitude;
- Timeliness of care (waiting time);
- Technical competence of care providers: MDs, RNs;
- Pain management; and
- Information dispensation

(Leading Practices in Emergency Department Patient Experience)

Important factors influencing clients include literacy levels, intellectual, physical disability levels, ability of language and cultural diversity. Social elements may be considered as dictating that the client provide feedback and express their satisfaction, financial status, educational status, demographics and technology. As showed in some research literature, many factors affected to the satisfaction that should be considered (Irish Society for Quality & Safety in Healthcare, 2003).

Measurement of Satisfaction

Ware and et al (1976) developed the Patient Satisfaction Questionnaire (PSQ; Ware, Snyder, & Wright, 1976a, b) to assess the quality of medical care. The original questionnaire composed of 80 items and applied in general population studies for the health services delivery programs. The most recent version of the instrument is PSQ-III which consists of 50 items covering of global satisfaction with medical care and satisfaction including technical quality, interpersonal manner, communication, financial aspects of care, time spent with doctor and accessibility of care. Improvement of PSQ-III version represented as both general domain and dimensions tapping unique aspects of satisfaction (Marshall and Hays, 1993).

Influence factors to satisfaction

Factors that may influence to satisfaction should be considered as follows:

Patient/customer expectation

Expectations are an important factor influenced on the overall satisfaction among client their experience in healthcare services which fulfilled in expectation (Mahon, 1996). However, some literature argues that there is no association between satisfaction and fulfillment of customer expectations since the client's evaluation of a service may be independent of actual care received (Williams, 1994; cited in Irish Society for Quality & Safety in Healthcare, 2003).

Age

Older respondents have higher satisfaction in general which can be explained as lower expectations of health care. (Pope and Mays, 1993; Williams and Calnan, 1991; Owens and Batchelor, 1996; cited in Irish Society for Quality & Safety in Healthcare, 2003).

Illness

Sicker and experienced psychological stress clients are less satisfied. It is difficult to prove that the experience of sickness or experience of health service treatment or other factors caused the dissatisfaction (Hall and Milburn, 1998; Cleary et al, 1992; cited in Irish Society for Quality & Safety in Healthcare, 2003).

Prior experience of satisfaction

Satisfaction is linked to prior satisfaction with health care and guiding to the customers decision (Crow et al, 2003; cited in Irish Society for Quality & Safety in Healthcare, 2003).

Patient/client – professional relationship

The most important health service factor affecting satisfaction is the relationship between customer practitioner including information and technical competence (Crow et al, 2003; cited in Irish Society for Quality & Safety in Healthcare, 2003).

Choice of service provider

Care provided under fee-for-service arrangements has more satisfaction than service with prepaid schemes. The customers with little or no choice in their treatment will intend to have poor score on satisfaction (Irish Society for Quality & Safety in Healthcare, 2003) (Irish Society for Quality & Safety in Healthcare, 2003)

Gender, ethnicity, and socio-economic status

Evidence about the effects of gender, ethnicity, and socio-economic status is equivocal

due to the small amount of literature available on each (McGee, 1998; Crow et al, 2003; cited in Irish Society for Quality & Safety in Healthcare, 2003)

2.5 Related Literature

Some studies have been found that the communication barriers between physician and patient can decrease level of satisfaction. This barrier includes lack of warmth and friendliness of the doctor, failure to consider to patient's concerns and expectations, unclear explanation concerning diagnosis and causation of illness, and excessive use of medical jargon (Korsch, Gozzi & Francis, 1968; Roter, Stewart, Putnam, Lipkin, Stiles & Inui, 1997; cited in Jackson et al., 2001).

From the study in satisfaction of OPD patients in Sassoon General Hospital, the good level of satisfaction respect to registration services, doctor services, nurse services, lab services and pharmacy staff services. However, there were found unsatisfied in the cleanliness of waiting area and inadequate of sitting arrangement while waiting for the services. The statistical significant found in the association of patient satisfaction with gender, socioeconomic status, waiting time before consulting the doctor, waiting time at pharmacy counter and availability of medicines (Bilkish et al., 2012).

From the study in China from 17 provinces in 2008, it investigated the relations between patient's trust in medical service, patient's attitude towards health policy and patient's overall satisfaction with medical service. It found that patient's overall satisfaction with medical service including satisfaction with doctor patient interaction, treatment process, medical facilities and hospital environment and medical costs were significantly influenced by both patients' trust in medical service and patient's attitude towards health policy while patient's satisfaction with waiting time in hospital was not influenced these causes (BMC Public Health, 2011).

In the study of patient satisfaction using in-depth interviews with 36 patients in Poland, there was no single definition of satisfaction among the participants. However, there are some characteristics of satisfaction in common including (1) good doctor–patient interaction (2) health improvement (3) expectations fulfillment (4) availability of health care (5) combination of multiple characteristics and (6) absence of dissatisfaction. Using of in-depth interviews to explore patient experiences will allow for an accurate and complex explanation of patient satisfaction. **(**Marcinowicz , Chlabicz , and Grebowski, 2010)

Mandokhail et al. (2007) had studied the satisfaction towards OPD service in Banphaeo hospital. It was found that that 86.67 percent of patients were having high level of satisfaction including the performance as accessibility to health services, quality of services, equity, efficiency and sustainability. Strong political support, community participation, financial reforms and high quality of service are the keys to success of this hospital. The patients had comments and suggestions about inappropriate manners of doctors and hospital staffs, long waiting time for seeing doctor and getting the medicines providing some news paper/magazine or television during the waiting, shortage of pharmacists and the availability of treatment room.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Research design

This study was a cross-sectional descriptive research with the purpose to determine the level of satisfaction on service quality, waiting time and outcome of care, to identify the personal profile and influencing factors, to find the relationship between the personal profile of the respondents and influencing factors to the level of customers' satisfaction on service quality, waiting time and outcome of care and to evaluate level of customers' satisfaction towards OPD care service at Somdejphraphuthalertla Hospital, Muang District, Samut Songkram Province.

3.2 Site of study

General Medicine Department, Somdejphraphuthalertla Hospital, Muang District, Samut Songkram Province

3.3 Sampling and Sample Size

The target populations for this study were all customers who come for OPD visit at General Medicine Department, Somdejphraphuthalertla Hospital during from February 24, 2013 to March 31, 2013.

Inclusion Criteria

- Male/Female clients who were above 18 years.
- Thai nationality
- Willingness to participate

Exclusion criteria

- Customers with severe physical or mental impairment
- Returning customers who already answered the questionnaire

This study used formula of TARO YAMANE applying to calculate a sample size. The numbers of patients in OPD (from 12 departments) was about 167,000 cases per year in 2011, statistic formula (Yamane) was used to calculate the sample size as follows.

$$n = \frac{N}{1 + Ne^2}$$

n = the desire sample size

N = the estimated population

e = the level of precision of relative error of estimation = 0.05

Using this formula, the sample size was the number as follow:

$$n = \frac{167{,}000}{1+167{,}000\ (0.05)^2}$$

= 399 cases

3.4 Research instrument

1. Questionnaire constructions (comprises of 6 components) as shown inTable1.

Table 1 Questionnaire constructions

Section 1 Personal Profile	Section 2 Travelling	Section 3 Hospital's Environment	Section4 Service process	Section 5 Personality	Section 6 Waiting time
- Age - Gender - Marital status	- Distance - Travelling time - Travelling	- Cleanliness - Ventilation - Loudness - Safety	- Registration process - Vital signs process	-Receptionists - Nurses and physician's assistants at	-Registration counter - Vital signs check-up

Table 1 Questionnaire constructions (cont.)

Section 1 Personal Profile	Section 2 Travelling	Section 3 Hospital's Environment	Section4 Service process	Section 5 Personality	Section 6 Waiting time
- Education - Occupation - Monthly income - Number of visit - Health problem in this visit	method - Travelling expense - Convenience for transportation	- Cleanliness - Ventilation - Loudness - Safety	- Diagnosis and treatment process -Lab and X-ray process - Pharmacy process - Payment process	General Medicine Department - Primary Doctors - Lab and X-ray technicians - Pharmacists - Cashiers	-Examination with a doctor -Lab and X-ray results - Pharmacy counter - Cashier counter

In section 2, there were concerning on customer's travelling from home to the hospital with five questions in all, which were as follows:

Question 1 Travelling distance from home to the hospital

Question 2 Travelling time

Question 3 Travelling method

Question 4 Travelling expense

Question 5 Convenience of travelling in overall

In section 3, There were concerning on the hospital's environment with four questions in all, which were as follows:

Question 1 Cleanliness

Question 2 Ventilation

Question 3 Loudness

Question 4 Safety

In section 4, There were concerning on customer's satisfaction toward the hospital service process at OPD with six questions in all, which were as follows:

Question 1 Registration process

Question 2 Vital signs process

Question 3 Diagnosis and treatment process

Question 4 Lab and X-ray process

Question 5 Pharmacy process

Question 6 Payment process

In section 5 There were concerning on customer's satisfaction toward personality of healthcare providers at OPD with six questions in all, which were as follows:

Question 1 Receptionists

Question 2 Nurses and physician's assistants at General Medicine Department

Question 3 Primary Doctors

Question 4 Lab and X-ray technicians

Question 5 Pharmacists

Question 6 Cashiers

In section 6 There were concerning on customer's satisfaction toward waiting time at OPD with six questions in all, which were as follows:

Question 1 Registration counter

Question 2 Vital signs check-up point

Question 3 Examination with a doctor

Question 4 Lab and X-ray results

Question 5 Pharmacy counter

Question 6 Cashier counter

Overall satisfaction with three questions, which were as follows:

Question 1 Overall satisfaction toward OPD service

Question 2 Future visit to choose or not to choose the hospital

Question 3 Recommend to the other customers to come to the hospital

Open-ended questions, which was as follows:

Question 4 Suggestions or comments for the OPD services which were divided in five groups including transportation, hospital's environment, service process, personal performance of healthcare providers/staffs and waiting time.

3.5. Data Analysis

The collected data from survey was translated to codes which used the SPSS version 17 (licensed for Chulalongkorn University) to analyze the data accordingly.

In section 1 for Personal profile (Socio-Demographic Characteristics) was translated in codes in table 2 as follows:

Table 2 Translated code for personal profile

Variables	Type of Scale	Value
Age	Ratio	Current age in year
Gender	Nominal	1 = male 2 = female
Marital status	Nominal	1 = Single 2 = Married 3 = Widow 4 = Separate
Education level	Ordinal	1 = Primary school and lower 2 = High school 3 = Certificate/Diploma 4 = Bachelor's degree and higher

Table 2 Translated code for personal profile (cont.)

Variables	Type of Scale	Value
Occupation	Nominal	1 = Agriculture
		2 = Employee
		3 = Self Employed
		4 = Government Officer
		5 = Dependent
		6 = Other
Income per month (Baht)	Ratio	1 = Less than 10,000
		2 = 10,000-25,000
		3 = 26,000-50,000
		4 = More than 50,000
Number of OPD visit	Nominal	1 = First time
		2 = Second time
		3 = Three time or more
Health problem in this visit	Nominal	1=Hypertension/Heart Disease
		2=Digestive disease
		3=Hormone, Diabetes, Thyroid
		4=Pulmonary system problem
		5=Orthopedic and muscle problem

In section 2 for travelling were translated to codes in table 3 as follows:

Table 3 Translated code for travelling

Variables	Type of Scale	Value
Question 1 Distance	Ratio	Amount of distance in kilometer
Question 2 Travelling time	Ratio	Amount of time in minutes
Question 3 Travelling methods	Nominal	1=Motorcycle 2=Personal car 3=Public transportation 4=By Walk 5=others
Question 4 Travelling expense	Ratio	Amount of expense in Baht
Question 5 Convenience of travelling in overall	Nominal	1=Yes 2=No

In section 3 for hospital's environment, section 4 service process, section 5 for personality, section 6 for waiting time and satisfaction in overall were translated to codes as follows:

Table 4 Translate code for environment, service process, personality, waiting time and satisfaction in overall

Variables	Type of Scale	Value
Section 3 Hospital's environment in question 1-6	Ordinal/5-Likert scale	1= Very Dissatisfied 2= Dissatisfied 3= Fair 4= Satisfied 5= Very Satisfied
Section 4 Service process in question 1-6	Ordinal/5-Likert scale	1= Very Dissatisfied 2= Dissatisfied 3= Fair 4= Satisfied 5= Very Satisfied
Section 5 Personality in question 1-6	Ordinal/5-Likert scale	1= Very Dissatisfied 2= Dissatisfied 3= Fair 4= Satisfied 5= Very Satisfied
Section 6 Waiting time in question 1-6	Ordinal/5-Likert scale	1= Strongly disagree 2= Disagree 3= Uncertain/neutral 4=Agree 5=Strongly agree
Satisfaction in overall Question 1 Overall satisfaction toward OPD service	Nominal	1= Yes 2= No
Question 2 Future visit to choose or not to choose the hospital	Nominal	1= Yes 2= No
Question 3 Recommend to the other customers to come to the hospital	Nominal	1= Yes 2= No
Open-ended questions Question 4 Suggestions or comments for the OPD services which translated in codes for five groups.		1= transportation 2= hospital's environment 3=Service process 4=Personal performance of healthcare providers/staffs 5=Waiting time. 6=Others 7=No comment or further suggestion.

3.6 Validity and Reliability

After literature reviewing, the questionnaire had developed by the researcher based on references in previous research which needed for this study. Test of validity and reliability was reviewed by the thesis committees and three experts in the healthcare services field. Before the real data collection, pretest was done during January 19, 2013 to January 21, 2013 in 30 patients who came to use the OPD services at General Medicine Department in Thapla hospital, Thapla District, Uttaradit Province which had similar baseline as the study site. Cronbach's alpha coefficient was applied to measured reliability (Internal consistency). Cronbach's alpha coefficient is one of the most commonly used tools for measuring reliability (Coakes, 2001 cite in Thahanthai, 2003). The score of reliability test for 4 items of hospital's environment was .680, for the 6 items of service process was .775, for the 6 items of personality was .725 and for the 6 items of waiting time was .872. It was a strong evidence of reliability and internal consistency.

- **Data Collection**

Before starting data collection, the researcher had asked for permission from the director of Somdejphraphuthalertla hospital about one month in advance. The formal letter of permission signed by the director had been submitted to the Ethic Review Committee, Chulalongkorn University accordingly. The participants were approached by 4 well-trained assistant interviewers. The assistant interviewers were nurses who had been worked in a private hospital and also a colleague of researcher. They were trained to conduct interview for 3-4 days about the study criterions, methods for structured face to face interview and approaching technique to participants. Pilot test was also secured before conducting field interview. Data collection was self-administered through questionnaire and all questionnaires were in Thai language. For the customer who cannot read, the data collectors would read out the question to them and filled in the answers. All 400 respondents who were in the Inclusion Criteria as mentioned in sampling and sample size were taken from the customers who visited the OPD at General Medicine Department, Somdejphraphuthalertla hospital. This

was non-probability sampling (quota) and the assistant interviewers collected data at the cashier counter (exit point); thus, the respondents could evaluate all OPD service nodes starting from out-patient registration counter, vital signs check-up point, health assessment and treatment by doctors, lab and X-ray department, pharmacy counter and cashier counter. The 4 well-trained assistant interviewers tired to approach the respondents in every 30 minutes which was time during 08.00-12.00 hrs. in the morning and 13.00-16.00 hrs. in the afternoon. The expected numbers of completed questionnaires were about 50 sets /day and were total 400 sets in 8 weeks of data collection.

- **Statistical Analysis**

The statistical analyses of this study included:

1. Descriptive statistics was used to organize and described characteristics of data such as the personal profiles, satisfaction to service process, satisfaction to personality of staffs and satisfaction to waiting time.
2. Inferential statistics was used on summarized data to make inferences from a small group of data to a possible larger one (Salkind, 2000). In this study, personal profile variables were analyzed for association with customers' satisfaction by Mann-Whitney U test and Kruskal-Wallis test which association was determined if P-Value was less than 0.05.

3.9 Ethical Considerations

Ethical approval was obtained from the Ethical Committee of Chulalongkorn University and the purpose and procedure of the research were clearly explained not only to the research assistants but also the respondent prior to the interviews. Before in interview, the purpose of the study was explained to the respondents. Then oral consent as well as written consent was taken from each respondent .The name of respondent was not recorded and data was code .The respondents were feel free participate or withdrawal any time trough out the interview process and none were

traced . All data was kept Privacy and confidentiality were strictly maintained, the questionnaires were coded anonymously

3.10 Limitation

1) Data was collected only in 8 weeks and results could be different from collecting in longer period of time.

2) There were a number of foreigner customers who especially came from Myanmar who use the OPD services. However, Thai nationality clients were candidate in this study since all questionnaires were instructed in Thai language.

3) The study was conducted in public hospital and finding could not be extended to private hospital or other type of health care facilities such as primary health care or community hospital.

3.11 Expected Benefit from the research

Policy Implications

Public hospitals will consider emphasizing on quality of services delivery to satisfy their potential customers.

Hospital Implication

The hospital can apply the satisfaction measurement model to improve the healthcare services continually.

CHAPTER IV
RESEARCH RESULT

This chapter presents the result of the cross-sectional survey from respondents at Outpatient Department in Somdejphraphuthalertla Hospital. The samples sampling were selected stratified sampling from General Medicine Department and calculated from 400 respondents. The samples were collected from 400 respondents at the OPD cashier (exit node) of the hospital during February 24 to March 31, 2013. Descriptive statistics such as frequency, percentages, mean, and standard deviation were used to analyze data and inferential statistics was used for relationship between independent variables and dependent variables. The data were presented into four parts to provide the reader with as much information as possible.

Part 1 The personal profile of respondents at General Medicine Department, Somdejphraphuthalertla Hospital.

Part 2 The travelling of respondents from residence area to Somdejphraphuthalertla Hospital.

Part 3 The level of satisfaction to the hospital environment, service process, personality of staffs and waiting time.

Part 4 The relationship between the personal profile of the respondents and influencing factors to the level of *customers'* satisfaction on service process, personality of staffs and waiting time at Somdejphraphuthalertla Hospital.

Part 5 Other recommendations from the customers

Part 1 The personal profile of respondents at General Medicine Department, Somdejphraphuthalertla Hospital

The data were obtained from General Medicine Department of 400 respondents. According to gender, the majority of respondents were female at 70.2%. The age of the respondents ranged between 18 – 90 years old and the average age of the sample was 51 years. The respondents were distributed in four groups: the 18-35 group was 23.0%, the 36-55 group was 34.5% while the 56-75 made the largest group at 36.0% and the over 75 group was 6.5%. The married status was 64.5%, the single was 21% and the widow was 11% respectively. The majority at 54.0% were graduated from primary school, 22.2% were high school and 15.0% were bachelor and above. Regarding the occupation, about 30.5% of respondents were employee at private section and 32.8% were unemployed (dependents, students, others). Regarding the income, the majority of respondents (69.0%) had monthly income below 10,000 Baht, 25.0% had ranged 10,000-25,000 Baht and 6.0% had ranged 26,000-50,000 Baht. The number of visits; 6.2% of respondents were at the first time visit, 8.5% at the second times and 85.2% at third times and over. The concerned problem of the visit were hypertension or heart disease (35.2%),

diabetes or hormone problem (17%) and others (26% which were not included pulmonary system and digestive disease problems). 50.2% of respondents knew the causes of diseases, but did not specify while 38.2% did not know the causes of diseases . The detail is shown in Table 5.

Table 5: The personal profile of respondents at General Medicine Department

Personal Profile	Number	Percentage
Total	**400**	**100**
• Gender		
Male	119	29.8
Female	281	70.2
• Age		
18-35	92	23.0
36-55	138	34.5
56-75	144	36.0
Over 75	26	6.5
Min = 18 , Max = 90 , Mean = 51		
• Status		
Single	84	21.0
Married	258	64.5
Widow	44	11.0
Divorced	14	3.5
• Education level		
Primary School	216	54.0
High School	89	22.2
Diploma	35	8.8
Bachelor or higher	60	15.0

Table 5: (Cont.) The personal profile of respondents at General Medicine Department

Personal Profile	Number	Percentage
• Occupational		
Agriculture	50	12.5
Employee	122	30.5
Business owner	43	10.8
Government officer	27	6.8
Freelance	27	6.8
Others	131	32.8
• Income per month (Baht)		
Lower than 10,000	276	69.0
10,000-25,000	100	25.0
26,000-50,000	24	6.0
• Number of visit		
1 time	25	6.2
2 times	34	8.5
3 times or more	341	85.2
• Health problem in this visit		
Hypertension or heart disease	141	35.2
Digestive disease	12	3.0
Hormone, diabetes or thyroid problem	68	17.0
Pulmonary system problem	4	1.0
Orthopedic or muscle problem	28	7.0
Others diseases	104	26.0
Not specify (did not reveal information)	43	10.8
Know cause that concerned to the disease	45	11.3
Know cause of disease, but not specify	201	50.2
Do not know cause of disease	154	38.5

Part 2 The travelling of respondents from residence area to Somdejphraphuthalertla Hospital.

The majority of respondents (44.5%) were living far from the hospital within 5-10 kilometers and 28.8% within 11-20 kilometers. The distance ranged between 0.5-80 kilometers and the average was 10.7 kilometers. 65.2% of respondents were spent time between 15-30 minutes while 23.8% were spent time less than 15 minutes to travel to the hospital. The average travelling time was 22 minutes which the minimum was 1 minutes and the maximum was 90 minutes. Most of respondents (37.2%) used public transportation to the hospital while the other used personal car (34.2%) and motorcycle (26.2%). There were 76.5% of respondents had travelling expense less than 50 Baht and 19.8% between 50-100 Baht. The travelling expense ranged between 0-400 baht which average was 38.5 Baht. The majority of respondents (93.0%) thought they were convenience to travel to the hospital while the rest of them (7.0%) did not agree with that. The detail is shown in Table 6.

Table 6: The travelling of respondents from residence area to the hospital

Travelling	Number	Percentage
• Distance (kilometer)		
Lower than 5	81	20.2
5-10	178	44.5
11-20	115	28.8
Over 20	26	6.5
Min = 0.5 , Max = 80 , Mean = 10.7		
• Travelling time (minutes)		
Lower than 15	95	23.8
15-30	261	65.2
Over 30	44	11.0
Min = 1 , Max = 90 , Mean = 22		
• Transportation method		
Motorcycle	105	26.2
Personal car	137	34.2
Public transportation	149	37.2
Walk	2	0.5
Other	7	1.8
• Travelling expense (Baht)		
Lower than 50	306	76.5
50-100	79	19.8
Over 100	15	3.8
Min = 0 , Max = 400 , Mean = 38.5		
• Overall travelling		
Convenience	372	93.0
Inconvenience	28	7.0

Part 3 The level of satisfaction to the hospital environment, service process, personality of staffs and waiting time

The score of satisfaction to the hospital environment ranged from 1-5. The highest average score was 4.05 for safety while 3.84 for cleanness, 3.75 for ventilation and 3.45 for loudness respectively. Majority of respondents satisfied with the ventilation at 46.5%, safety at 46.0%, cleanness at 45.2% and loudness at 38.2%. There were 32.5% of the respondents had very satisfied to safety and 5% had very dissatisfied to loudness. The detail is shown in Table 7.

Table 7: Satisfaction to the hospital environment

Level of Satisfaction	**Percentage (%)**					
	Very Dissatisfied	**Dissatisfied**	**Fair**	**Satisfied**	**Very Satisfied**	**Mean**
Hospital Environment						
- Cleanness	1.2	3.0	28.2	45.2	22.2	3.84
- Ventilation	1.8	6.8	25.8	46.5	19.2	3.75
- Loudness	5.0	10.8	32.2	38.2	13.8	3.45
- Safety	2.0	2.2	17.2	46.0	32.5	4.05

The score of satisfaction to the service process ranged from 1-5. The highest average score was 4.04 for diagnosis and treatment plan while 3.98 for payment and universal coverage service, 3.95 for blood test and X-ray, 3.89 for basic physical examination and also receiving medicine at pharmacy, and 3.75 for outpatient registration service respectively. Majority of respondents satisfied with basic physical examination at 54.0%, payment and universal coverage service at 51.0%, blood test and X-ray at 49.5%, outpatient registration service at 48.0%, receiving medicine at pharmacy at 47.5% and diagnosis and treatment plan at 40.8%. There were 35.2% of the respondents had very satisfied to diagnosis and treatment plan and 3.0% had very dissatisfied to outpatient registration service. The detail is shown in Table 8.

Table 8: Satisfaction to the service process

Level of Satisfaction	**Percentage (%)**					
	Very Dissatisfied	**Dissatisfied**	**Fair**	**Satisfied**	**Very Satisfied**	**Mean**
Service Process						
- Outpatient registration	3.0	5.0	25.0	48.0	19.0	3.75
- Basic physical examination	1.5	4.8	18.2	54.0	21.5	3.89
- Diagnosis and treatment plan	1.8	4.0	18.2	40.8	35.2	4.04
- Blood test and X-ray	1.0	3.2	21.0	49.5	25.2	3.95
- Receiving medicine at pharmacy	2.8	4.8	19.2	47.5	25.8	3.89
- Payment	1.8	2.0	18.8	51.0	26.5	3.98

The score of satisfaction to the personality of staffs ranged from 1-5. The highest average score was 4.10 for primary doctor while 4.00 for pharmacists and staffs at

pharmacy, 3.99 for cashier or universal coverage staffs, 3.96 for laboratory and x-ray staffs, 3.87 for outpatient registration staffs and 3.80 for nurse and physician's assistant at outpatient department respectively. Majority of respondents satisfied with pharmacists and staffs at pharmacy at 53.2%, laboratory and x-ray staffs at 51.5%, cashier or universal coverage staffs at 51.0%, outpatient registration staffs at 49.8%, nurse and physician's assistant at outpatient department at 44.5% and primary doctor at 43.5%. There were 36.8% of the respondents had very satisfied to primary doctor and 3.0% had very dissatisfied to nurse and physician's assistant at outpatient department. The detail is shown in Table 9.

Table 9: Satisfaction to personality of staffs

Level of Satisfaction	**Percentage (%)**					
	Very Dissatisfied	**Dissatisfied**	**Fair**	**Satisfied**	**Very Satisfied**	**Mean**
-Staffs at outpatient registration	2.8	5.5	17.8	49.8	24.2	3.87
-Nurse and physician's assistant at outpatient dept.	3.0	6.8	21.8	44.5	24.0	3.80
-Primary doctor	1.0	4.5	14.2	43.5	36.8	4.10
-Laboratory and x-ray staffs	1.0	4.5	17.2	51.5	25.8	3.96
-Pharmacists and staffs at Pharmacy	0.5	4.0	16.5	53.2	25.8	4.00
-Cashier/UC staffs	0.2	3.2	19.8	51.0	25.8	3.99

The score of satisfaction to the waiting time ranged from 1-5. The highest average score was 3.75 for payment and universal coverage while 3.74 for doing blood test and x-ray, 3.63 for diagnosis and treatment, 3.52 for basic physical examination and also for receiving medicines at pharmacy and 3.40 for outpatient registration respectively. Majority of respondents satisfied with doing blood test and x-ray at 52.5%, payment and universal coverage at 49.5%, receiving medicines at pharmacy at 49.2%, diagnosis and treatment at 47.0%, basic physical examination at 46.0% and outpatient registration at 39.2%. There were 17.8% of the respondents had very satisfied to payment and universal coverage, and 5.5% had very dissatisfied to outpatient registration. The detail is shown in Table 10.

Table 10: Satisfaction to the waiting time

Level of Satisfaction	**Percentage (%)**					
	Very Dissatisfied	**Dissatisfied**	**Fair**	**Satisfied**	**Very Satisfied**	**Mean**
-Outpatient registration	5.5	14.2	28.0	39.2	13.0	3.40
-Basic physical examination	3.8	9.8	28.8	46.0	11.8	3.52
-Diagnosis and treatment	2.8	8.8	26.2	47.0	15.2	3.63
-Doing blood test and x-ray	2.2	6.5	22.5	52.5	16.2	3.74
-Receiving medicines at Pharmacy	5.0	8.5	26.8	49.2	10.5	3.52
-Payment	2.2	5.8	24.8	49.5	17.8	3.75

In overall, 94.2% were satisfied to the OPD (General Medicine) services while 5.8% were dissatisfied. 99% of respondents would return to use the services while the rest of them (1.0%) would not return. Moreover, 86.8% of respondents would suggest the others to use the hospital service and 13.2% would not recommend. The detail is shown in Table11.

Table 11: Overall Satisfaction

Overall	**Number**	**Percentage**
1. Overall satisfaction		
- Satisfied	377	94.2
- Dissatisfied	23	5.8
2. Return to use the services in the future		
- Yes	396	99.0
- No	4	1.0
3. Suggest the others to use the hospital service	347	86.8
- Yes	53	13.2
- No		

Part 4 The relationship between the personal profile of the respondents and influencing factors to the level of *customers'* satisfaction on service process, personality of staffs and waiting time at Somdejphraphuthalertla Hospital.

Personal profile variables were analyzed for association with customers' satisfaction by by Mann-Whitney U test and Kruskal-Wallis test which association was determined if P-Value was less than 0.05.

Genders, age, marital status, education, occupation, monthly income, number of visit and health problem were analyzed for association with satisfaction to hospital environment. Education and number of visit were significantly associated with satisfaction to cleanness at p-value = 0.004 and 0.017 respectively. Education, income and age were significantly associated with satisfaction to ventilation at p-value = 0.000, 0.001 and 0.013 respectively while education also was significantly associated with satisfaction to loudness at p-value = 0.001. For safety, education still had significant association with satisfaction at p-value = 0.000 while income and health problem had significant association at p-value = 0.004 and 0.014 respectively. The detail is shown in Table 12.

Table 12 Association between personal profile and customer's satisfaction to hospital environment

Personal profile and hospital environment	P-Value			
	Cleanness	Ventilation	Loudness	Safety
Gender	0.651[a]	0.404[a]	0.377[a]	0.912[a]
Age	0.100[b]	0.013[b]	0.109[b]	0.016[b]
Status	0.677[b]	0.250[b]	0.469[b]	0.291[b]
Education	0.004[b]	0.000[b]	0.001[b]	0.000[b]

Table 12 Association between personal profile and customer's satisfaction to hospital environment (Cont.)

Personal profile and hospital environment	P-Value			
	Cleanness	Ventilation	Loudness	Safety
Occupation	0.283 [b]	0.163 [b]	0.275 [b]	0.019 [b]
Income	0.193 [b]	0.001 [b]	0.767 [b]	0.004 [b]
Number of visit	0.017 [b]	0.072 [b]	0.139 [b]	0.403 [b]
Health problem	0.962 [b]	0.225 [b]	0.304 [b]	0.014 [b]

P-value by Mann-Whitney U test (a) and Kruskal-Wallis test (b)

In different age groups, there was different satisfaction to the hospital environment in ventilation and safety at significant p-value= 0.013 and 0.016 respectively. The mean scores of satisfaction to ventilation in age group at 18-35, 36-55, 56-75 and over 75 years were 3.62, 3.62, 3.90 and 4.00 while the mean scores of satisfaction to safety were 3.90, 3.94, 4.20 and 4.27 respectively. The detail is shown in Table 13.

Table 13 Mean score of satisfaction to hospital environment among different age groups

Age range (years)	Number	Mean	
		Ventilation (P-value=0.013)	Safety (P-value=0.016)
18-35	92	3.62	3.90
36-55	138	3.62	3.94
56-75	144	3.90	4.20
Over 75	26	4.00	4.27
Total/Average mean	400	3.75	4.05

In different level of education, there was different satisfaction to the hospital environment in cleanness, ventilation, loudness and safety at significant p-value= 0.004, 0.000, 0.001 and 0.000 respectively. The mean scores of satisfaction to cleanness among respondents of the education level at primary school or lower, high school, certificated or diploma and bachelor degree or above were 3.97, 3.78, 3.60 and 3.62; the mean scores of satisfaction to ventilation were 3.96, 3.54, 3.46 and 3.47; the mean scores of satisfaction to loudness were 3.62, 3.36, 3.09 and 3.18; the mean scores of satisfaction to loudness were 3.62, 3.36, 3.09 and 3.18 respectively. The detail is shown in Table 14.

Table 14 Mean score of satisfaction to hospital environment among different level of education

Education	Number	Mean			
		Cleanness (P-value=0.004)	Ventilation (P-value=0.000)	Loudness (P-value=0.001)	Safety (P-value=0.000)
Primary school and lower	216	3.97	3.96	3.62	4.25
High school	89	3.78	3.54	3.36	3.91
Certificate/Diploma	35	3.60	3.46	3.09	3.69
Bachelor and higher	60	3.62	3.47	3.18	3.75
Total/Average mean	400	3.84	3.75	3.45	4.05

In different occupation, there was different satisfaction to the hospital environment in safety at significant p-value= 0.019. The mean scores of satisfaction to safety in the occupation of agriculture, employee, self-employee, government officer, freelance and other were 4.16, 4.09, 3.70, 4.37, 3.78 and 4.07 respectively. The detail is shown in Table 15.

Table 15 Mean score of satisfaction to hospital environment among different occupation

Occupation	Number	Mean Safety (P-value=0.019)
Agriculture	50	4.16
Employee	122	4.09
Self Employed	43	3.70
Government officer	27	4.37
Freelance	27	3.78
Other	131	4.07
Total/Average mean	400	4.05

In different income, there was different satisfaction to the hospital environment in ventilation and safety at significant p-value= 0.001and 0.004 respectively. The mean scores of satisfaction to ventilation among respondents who had monthly income at below 10,000, 10,000-25,000, 26,000-50,000 Baths were 3.84, 3.63 and 3.17 while the mean scores of satisfaction to safety were 4.12, 3.82 and 4.12 respectively. The detail is shown in Table 16.

Table 16 Mean score of satisfaction to hospital environment among different income

Income (Baht per month)	Number	Mean	
		Ventilation (P-value=0.001)	Safety (P-value=0.004)
below 10,000	276	3.84	4.12
10,000-25,000	100	3.63	3.82
26,000-50,000	24	3.17	4.12
Total	400	3.75	4.05

In different number of visit, there was different satisfaction to the hospital environment in cleanness at significant p-value= 0.017. The mean scores of satisfaction to cleanness among respondents who had first time, second time and third time or more visits were 4.00, 4.15 and 3.80 respectively. The detail is shown in Table 17.

Table 17 Mean score of satisfaction to hospital environment among different occupation

Number of visit	Number	Mean Cleanness (P-value=0.017)
First time	25	4.00
Second time	34	4.15
Third time or more	341	3.80
Total/Average mean	400	3.84

In different health problem, there was different satisfaction to the hospital environment in safety at significant p-value= 0.014. The mean scores of satisfaction to safety among respondents who had hypertension and heart disease, digestive disease, hormone/ diabetes/thyroid, pulmonary system, orthopedic and muscle, others and not specify problem were 4.27, 3.92, 3.91, 4.00, 3.93, 3.96 and 3.86 respectively. The detail is shown in Table 18.

Table 18 Mean score of satisfaction to hospital environment among different health problem

Health Problem	Number	Mean Safety (P-value=0.014)
Hypertension and heart disease	141	4.27
Digestive disease	12	3.92
Hormone, diabetes, thyroid	68	3.91
Pulmonary system	4	4.00
Orthopedic and muscle	28	3.93
Others	104	3.96
Not specify	43	3.86
Total/ Average mean	400	4.05

Genders, age, marital status, education, occupation, monthly income, number of visit and health problem were analyzed for association with satisfaction to service process in six nodes. Age, education and income were significantly associated with satisfaction to outpatient registration at p-value = 0.005, 0.009 and 0.046 respectively. Education, age and income were significantly associated with satisfaction to diagnosis at p-value = 0.001, 0.006 and 0.008 respectively. Age and education also was significantly associated with satisfaction to lab service at p-value = 0.001 and 0.007 and with satisfaction to pharmacy service at p-value = 0.003 and 0.004 respectively. For payment/universal coverage service, education, age and occupation had significant association with satisfaction at p-value = 0.004, 0.019 and 0.046 respectively. The detail is shown in Table 19.

Table 19 Association between personal profile and customer's satisfaction to service process

Personal profile and service process	P-Value					
	Registration	Physical exam	Diagnosis	Lab test	Pharmacy	Payment
Gender	0.451[a]	0.258[a]	0.725[a]	0.640[a]	0.241[a]	0.904[a]
Age	0.005[b]	0.123[b]	0.006[b]	0.001[b]	0.003[b]	0.019[b]
Status	0.381[b]	0.845[b]	0.324[b]	0.084[b]	0.071[b]	0.068[b]
Education	0.009[b]	0.041[b]	0.001[b]	0.007[b]	0.004[b]	0.004[b]
Occupation	0.055[b]	0.236[b]	0.139[b]	0.292[b]	0.069[b]	0.046[b]
Income	0.046[b]	0.331[b]	0.008[b]	0.060[b]	0.062[b]	0.052[b]
Number of visit	0.337[b]	0.210[b]	0.505[b]	0.748[b]	0.595[b]	0.520[b]
Health problem	0.020[b]	0.073[b]	0.002[b]	0.059[b]	0.155[b]	0.111[b]

P-value by Mann-Whitney U test (a) and Kruskal-Wallis test (b)

In different age groups, there was different satisfaction to service process in registration service, doctor service, lab service, pharmacy service and payment service at significant p-value= 0.005, 0.006, 0.001, 0.003 and 0.019 respectively. The mean scores of satisfaction to registration service in age group at 18-35, 36-55, 56-75 and over 75 years were 3.64, 3.63, 3.85 and 4.23; the mean scores of satisfaction to doctor service were 3.83, 3.99, 4.18 and 4.23; the mean scores of satisfaction to lab service were 3.78, 3.83, 4.11 and 4.27; the mean scores of satisfaction to pharmacy service were 3.64, 3.88, 3.99 and 4.27; the mean scores of satisfaction to payment service were 3.78, 3.96, 4.09 and 4.23 respectively. The detail is shown in Table 20.

Table 20 Mean score of satisfaction to service process among different age groups

Age range (years)	Number	Mean				
		Registration Service (P-value =0.005)	Doctor Service (P-value =0.006)	Lab Service (P-value=0.001)	Pharmacy Service (P-value=0.003)	Payment Service (P-value=0.019)
18-35	92	3.64	3.83	3.78	3.64	3.78
36-55	138	3.63	3.99	3.83	3.88	3.96
56-75	144	3.85	4.18	4.11	3.99	4.09
Over 75	26	4.23	4.23	4.27	4.27	4.23
Total/ Average mean	400	3.75	4.04	3.95	3.89	3.99

In different level of education, there was different satisfaction to the service process in registration service, vital sign service, doctor service, lab service, pharmacy service and payment service at significant p-value= 0.009, 0.041, 0.001, 0.007, 0.004 and 0.004 respectively. The mean scores of satisfaction to registration service among respondents of the education level at primary school or lower, high school, certificated or diploma and bachelor degree or above were 3.88, 3.71, 3.46 and 3.50; the mean scores of satisfaction to vital sign service were 3.99, 3.88, 3.69 and 3.70; the mean scores of satisfaction to doctor service were 4.19, 3.99, 3.77 and 3.72; the mean scores of satisfaction to lab service were 4.06, 3.92, 3.74 and 3.68; the mean scores of satisfaction to pharmacy service were 4.04, 3.67, 3.77 and 3.73; the mean scores of satisfaction to payment service were 4.12, 3.94, 3.69 and 3.73 respectively. The detail is shown in Table 21.

Table 21 Mean score of satisfaction to service process among different level of education

Education	Number	Mean					
		Registration Service (P-value= 0.009)	Vital sign Service (P-value= 0.041)	Doctor Service (P-value= 0.001)	Lab Service (P-value= 0.007)	Pharmacy Service (P-value= 0.004)	Payment Service (P-value= 0.004)
Primary school and lower	216	3.88	3.99	4.19	4.06	4.04	4.12
High school	89	3.71	3.88	3.99	3.92	3.67	3.94
Certificate/Diploma	35	3.46	3.69	3.77	3.74	3.77	3.69
Bachelor and higher	60	3.50	3.70	3.72	3.68	3.73	3.73
Total/ Average mean	400	3.75	3.89	4.04	3.95	3.89	3.99

In different occupation, there was different satisfaction to the service process in payment service at significant p-value= 0.046. The mean scores of satisfaction to payment service in the occupation of agriculture, employee, self-employee, government officer, freelance and other were 4.08, 4.08, 3.74, 4.11, 3.63 and 3.98 respectively. The detail is shown in Table 22.

Table 22 Mean score of satisfaction to hospital environment among different occupation

Occupation	Number	Payment Service Mean (P-value=0.046)
Agriculture	50	4.08
Employee	122	4.08
Self Employed	43	3.74
Government officer	27	4.11
Freelance	27	3.63
Other	131	3.98
Total/Average mean	400	3.99

In different income, there was different satisfaction to service process in registration service and doctor service at significant p-value= 0.046and 0.008 respectively. The mean scores of satisfaction to registration service among respondents who had monthly income at below 10,000, 10,000-25,000, 26,000-50,000 Baths were 3.82, 3.56 and 3.71 while the mean scores of satisfaction to doctor service were 4.13, 3.79 and 4.00 respectively. The detail is shown in Table 23.

Table 23 Mean score of satisfaction to service process among different income

Income (monthly)	Number	Mean	
		Registration Service (P-value=0.046)	Doctor Service (P-value=0.008)
below 10,000	276	3.82	4.13
10,000-25,000	100	3.56	3.79
26,000-50,000	24	3.71	4.00
Total/Average mean	400	3.75	4.04

In different health problem, there was different satisfaction to service process in registration service and doctor service at significant p-value= 0.020 and 0.002 respectively. The mean scores of satisfaction to registration service among respondents who had hypertension and heart disease, digestive disease, hormone/ diabetes/thyroid, pulmonary system, orthopedic and muscle, others and not specify problem were 3.93, 4.17, 3.57, 4.25, 3.89, 3.56 and 3.65 while the mean scores of satisfaction to doctor service were 4.26, 4.08, 3.85, 3.00, 4.25, 3.89, 3.88 respectively. The detail is shown in Table 24.

Table 24 Mean score of satisfaction to service process among different health problem

Health Problem	Number	Mean	
		Registration Service (P-value=0.020)	Doctor Service (P-value=0.002)
Hypertension and heart disease	141	3.93	4.26
Digestive disease	12	4.17	4.08
Hormone, diabetes, thyroid	68	3.57	3.85
Pulmonary system	4	4.25	3.00
Orthopedic and muscle	28	3.89	4.25
Others	104	3.56	3.89
Not specify	43	3.65	3.88
Total/ Average mean	400	3.75	4.04

Genders, age, marital status, education, occupation, monthly income, number of visit and health problem were analyzed for association with satisfaction to personality of staffs in six nodes. Education and age were significantly associated with satisfaction to outpatient registration staffs at p-value = 0.000, 0.001 respectively. Age, education and health problem were significantly associated with satisfaction to nurses and physician assistants at p-value = 0.000, 0.001 and 0.007 respectively. Age, education and health problem also were significantly associated with satisfaction to doctors at p-value = 0.000 in all variables. Education, age and income were significantly associated with satisfaction to lab staffs at p-value = 0.001, 0.003 and 0.006 respectively. For pharmacists and staffs, education, occupation and income had significant association with satisfaction at p-value = 0.001, 0.002 and 0.005 respectively. For cashiers/universal coverage staffs, age, income and education had significant association with satisfaction at p-value = 0.001, 0.001 and 0.003 respectively. The detail is shown in Table 25.

Table 25 Association between personal profile and customer's satisfaction to personality of staffs

Personal profile and personality of staffs	P-Value					
	Registered staffs	Nurses and assistants	Doctors	Lab Staffs	Pharmacists and staffs	Cashiers
Gender	0.931[a]	0.299[a]	0.200[a]	0.667[a]	0.799[a]	0.833[a]
Age	0.001[b]	0.000[b]	0.000[b]	0.003[b]	0.011[b]	0.001[b]
Status	0.348[b]	0.189[b]	0.377[b]	0.074[b]	0.227[b]	0.098[b]
Education	0.000[b]	0.001[b]	0.000[b]	0.001[b]	0.001[b]	0.003[b]
Occupation	0.034[b]	0.252[b]	0.031[b]	0.103[b]	0.002[b]	0.007[b]
Income	0.064[b]	0.188[b]	0.006[b]	0.006[b]	0.005[b]	0.001[b]
Number of visit	0.161[b]	0.234[b]	0.543[b]	0.659[b]	0.932[b]	0.883[b]
Health problem	0.249[b]	0.007[b]	0.000[b]	0.092[b]	0.023[b]	0.101[b]

P-value by Mann-Whitney U test (a) and Kruskal-Wallis test (b)

In different age groups, there was different satisfaction to personality of staffs in receptionist manner, nurse manner, doctor manner, lab technician manner, pharmacist manner and cashier manner at significant p-value= 0.001, 0.000, 0.000, 0.003, 0.011 and 0.001 respectively. The mean scores of satisfaction to receptionist manner in age group at 18-35, 36-55, 56-75 and over 75 years were 3.70, 3.78, 3.99 and 4.35; the mean scores of satisfaction to nurse manner were 3.48, 3.78, 3,92 and 4.38; the mean scores of satisfaction to doctor manner were 3.74, 4.12, 4.24 and 4.58; the mean scores of satisfaction to lab technician manner were 3.75, 3.91, 4.10 and 4.27; the mean scores of satisfaction to pharmacist manner were 3.79, 4.00, 4.08 and 4.27; the mean scores of satisfaction to cashier manner were 3.73, 3.97, 4.13 and 4.23 respectively. The detail is shown in Table 26.

Table 26 Mean score of satisfaction to personality of staffs among different age groups

Age range (years)	Number	Mean					
		Receptionist Manner (P-value= 0.001)	Nurse Manner (P-value= 0.000)	Doctor Manner (P-value= 0.000)	Lab technician Manner (P-value= 0.003)	Pharmacist Manner (P-value= 0.011)	Cashier Manner (P-value= 0.001)
18-35	92	3.70	3.48	3.74	3.75	3.79	3.73
36-55	138	3.78	3.78	4.12	3.91	4.00	3.97
56-75	144	3.99	3.92	4.24	4.10	4.08	4.13
Over 75	26	4.35	4.38	4.58	4.27	4.27	4.23
Total/ Average mean	400	3.87	3.80	4.11	3.96	4.00	3.99

In different level of education, there was different satisfaction to personality of staffs in receptionist manner, nurse manner, doctor manner, lab technician manner, pharmacist manner and cashier manner at significant p-value= 0.000, 0.001, 0.000, 0.001, 0.001 and 0.003 respectively. The mean scores of satisfaction to receptionist manner among respondents of the education level at primary school or lower, high school, certificated or diploma and bachelor degree or above were 4.05, 3.79, 3.40 and 3.63; the mean scores of satisfaction to nurse manner were 3.97, 3.65, 3.49 and 3.57; the mean scores of satisfaction to doctor manner were 4.31, 3.94, 3.69 and 3.85; the mean scores of satisfaction to lab technician manner were 4.10, 3.97, 3.54 and 3.72; the mean scores of satisfaction to pharmacist manner were 4.11, 3.99, 3.63 and 3.82; the mean scores of satisfaction to cashier manner were 4.11, 3.97, 3.66 and 3.78 respectively. The detail is shown in Table 27.

Table 27 Mean score of satisfaction to personality of staffs among different level of education

Education	Number	Mean					
		Receptionist Manner (P-value= 0.000)	Nurse Manner (P-value= 0.001)	Doctor Manner (P-value= 0.000)	Lab Technician Manner (P-value= 0.001)	Pharmacist Manner (P-value= 0.001)	Cashier Manner (P-value= 0.003)
Primary school and lower	216	4.05	3.97	4.31	4.10	4.11	4.11
High school	89	3.79	3.65	3.94	3.97	3.99	3.97
Certificate/ Diploma	35	3.40	3.49	3.69	3.54	3.63	3.66
Bachelor and higher	60	3.63	3.57	3.85	3.72	3.82	3.78
Total/ Average mean	400	3.87	3.80	4.11	3.96	4.00	3.99

In different occupation, there was different satisfaction to personality of staffs in receptionist manner, doctor manner, pharmacist manner and cashier manner at significant p-value= 0.034, 0.031, 0.005 and 0.007. The mean scores of satisfaction to receptionist manner in the occupation of agriculture, employee, self-employee, government officer, freelance and other were 4.10, 4.98, 3.67, 4.93, 3.33 and 3.85; the mean scores of satisfaction to doctor manner were 4.24, 4.13, 3.88, 4.41, 3.52 and 4.13; the mean scores of satisfaction to pharmacist manner were 4.12, 4.14, 3.65, 4.11, 3.67 and 3.98; the mean scores of satisfaction to cashier manner were 4.20, 4.07, 3.72, 4.04, 3.70 and 3.96 respectively. The detail is shown in Table 28.

Table 28 Mean score of satisfaction to hospital environment among different occupation

Occupation	Number	Mean			
		Receptionist Manner (P-value=0.034)	Doctor Manner (P-value=0.031)	Pharmacist Manner (P-value=0.005)	Cashier Manner (P-value=0.007)
Agriculture	50	4.10	4.24	4.12	4.20
Employee	122	3.98	4.15	4.14	4.07
Self Employed	43	3.67	3.88	3.65	3.72
Government officer	27	3.93	4.41	4.11	4.04
Freelance	27	3.33	3.52	3.67	3.70
Other	131	3.85	4.15	3.98	3.96
Total/Average mean	400	3.87	4.11	4.00	3.99

In different income, there was different satisfaction to personality of staffs in doctor manner, lab technician manner, pharmacist manner and cashier manner at significant p-value= 0.006, 0.006, 0.005 and 0.001respectively. The mean scores of satisfaction to doctor manner among respondents who had monthly income at below 10,000, 10,000-25,000, 26,000-50,000 Baths were 4.20, 3.84 and 4.17; the mean scores of satisfaction to lab technician manner were 4.05, 3.73 and 3.92; the mean scores of satisfaction to pharmacist manner were 4.07, 3.80 and 3.96; the mean scores of satisfaction to cashier manner were 4.08, 3.75 and 3.96 respectively. The detail is shown in Table 29.

Table 29 Mean score of satisfaction to personality of staffs among different income

Income (monthly)	Number	Mean			
		Doctor Manner (P-value=0.006)	Lab technician Manner (P-value=0.006)	Pharmacist Manner (P-value=0.005)	Cashier Manner (P-value=0.001)
below 10,000	276	4.20	4.05	4.07	4.08
10,000-25,000	100	3.84	3.73	3.80	3.75
26,000-50,000	24	4.17	3.92	3.96	3.96
Total/Average mean	400	4.11	3.96	4.00	3.99

In different health problem, there was different satisfaction to personality of staffs in nurse manner, doctor manner and pharmacist manner at significant p-value= 0.007, 0.000 and 0.023 respectively. The mean scores of satisfaction to nurse manner among respondents who had hypertension and heart disease, digestive disease, hormone/ diabetes/thyroid, pulmonary system, orthopedic and muscle, others and not specify problem were 4.01, 3.75, 3.62, 3.50, 4.07, 3.66 and 3.56; the mean scores of satisfaction to doctor manner were 4.34, 4.25, 4.07, 4.00, 4.50, 3.88, 3.65; the mean scores of satisfaction to pharmacist manner were 4.13, 3.61, 3.94, 4.25, 4.25, 3.94 and 3.70 respectively. The detail is shown in Table 30.

Table 30 Mean score of satisfaction to personality of staffs among different health problem

Health Problem	Number	Mean		
		Nurse Manner (P-value=0.007)	Doctor Manner (P-value=0.000)	Pharmacist Manner (P-value=0.023)
Hypertension and heart disease	141	4.01	4.34	4.13
Digestive disease	12	3.75	4.25	3.67
Hormone, diabetes, thyroid	68	3.62	4.07	3.94
Pulmonary system	4	3.50	4.00	4.25
Orthopedic and muscle	28	4.07	4.50	4.25
Others	104	3.66	3.88	3.94
Not specify	43	3.56	3.65	3.70
Total/ Average mean	400	3.80	4.11	4.00

Genders, age, marital status, education, occupation, monthly income, number of visit and health problem were analyzed for association with satisfaction to waiting time in six nodes. Education was significantly associated with satisfaction to waiting time at outpatient registration at p-value = 0.021 while status was significant associated with satisfaction to waiting time for basic physical examination at –value = 0.009. For waiting time to see doctor and payment/universal coverage service, income had significant association with satisfaction at p-value = 0.011 and 0.028 respectively. There is no significant association between personal profiles and satisfaction to waiting time for lab and pharmacy service. The detail is shown in Table 31.

Table 31 Association between personal profile and customer's satisfaction to waiting time

Personal profile and waiting time	P-Value					
	Registration	Physical examination	Diagnosis	Lab tests	Pharmacy	Payment
Gender	0.857[a]	0.495[a]	0.230[a]	0.750[a]	0.948[a]	0.979[a]
Age	0.211[b]	0.978[b]	0.113[b]	0.405[b]	0.348[b]	0.777[b]
Status	0.646[b]	0.009[b]	0.304[b]	0.197[b]	0.147[b]	0.918[b]
Education	0.021[b]	0.373[b]	0.108[b]	0.654[b]	0.275[b]	0.202[b]
Occupation	0.544[b]	0.510[b]	0.055[b]	0.323[b]	0.488[b]	0.203[b]
Income	0.237[b]	0.786[b]	0.011[b]	0.357[b]	0.637[b]	0.028[b]
Number of visit	0.153[b]	0.194[b]	0.506[b]	0.060[b]	0.216[b]	0.244[b]
Health problem	0.943[b]	0.696[b]	0.720[b]	0.217[b]	0.120[b]	0.855[b]

P-value by Mann-Whitney U test (a) and Kruskal-Wallis test (b)

In different status, there was different satisfaction to the waiting time in physical examination at significant p-value= 0.009. The mean scores of satisfaction to the waiting time in physical examination among respondents of the education level at primary school or lower, high school, certificated or diploma and bachelor degree or above were 3.55, 3.59, 3.07 and 3.57 respectively. The detail is shown in Table 32.

Table 32 Mean score of satisfaction to waiting time among different status

Status	Number	Mean Physical Examination Waiting time (P-value=0.009)
Single	84	3.55
Married	258	3.59
Widow	44	3.07
Divorced	14	3.57
Total	400	3.52

In different level of education, there was different satisfaction to the waiting time in registration at significant p-value= 0.021. The mean scores of satisfaction to waiting time in registration among respondents of the education level at primary school or lower, high school, certificated or diploma and bachelor degree or above were 3.54, 3.35, 3.23 and 3.08 respectively. The detail is shown in Table 33.

Table 33 Mean score of satisfaction to waiting time among different level of education

Education	Number	Mean Registration waiting time (P-value=0.021)
Primary school and lower	216	3.54
High school	89	3.35
Certificate/Diploma	35	3.23
Bachelor and higher	60	3.08
Total/Average mean	400	3.40

In different income, there was different satisfaction to waiting time to doctor at significant p-value= 0.011. The mean scores of satisfaction to waiting time to doctor among respondents who had monthly income at below 10,000, 10,000-25,000, 26,000-50,000 Baths were 3.74, 3.36 and 3.58. The detail is shown in Table 34.

Table 34 Mean score of satisfaction to personality of staffs among different income

Income per month (Baht)	Number	Mean Doctor Waiting time (P-value=0.011)
below 10,000	276	3.74
10,000-25,000	100	3.36
26,000-50,000	24	3.58
Total	400	3.63

Part 5 Other recommendations from the customers

The questionnaire include with one open-ended question that are summarized in the table. Majority of respondents (73%) did not have any further comments or suggestions. 7.5% of respondents commented that the waiting time for physical examination and receiving medicine was too long. There were 6.8% of respondents suggested that the outpatient registration and pharmacy counter service process should be improved. The detail is shown in Table 35

Table 35: Suggestions made by respondents

Suggestions	Number	Percentage
• Transportation -The hospital should provide a shuttle bus from residence area to its place. -There should be more parking lots.	3	0.8
• Hospital environment -The restroom should be maintained clean. -The hospital should separate waiting room in each department to avoid noise disturbance.	9	2.2
• Service process -Outpatient registration should be improved. -Pharmacy counter should be improved.	27	6.8
• Personality of staffs and healthcare providers -The nurses and staffs should have more care.	20	5.0
• Waiting time - The waiting time for physical examination and receiving medicine should be improved.	30	7.5
• Others - Instruction signs flow to each station. - Provide the special care for senior citizen.	2	0.5

Table 35: Suggestions made by respondents (Cont.)

Suggestions	Number	Percentage
• No comments or further suggestion	292	73
• Compliments for services and staffs -The hospital services are getting better than before. -Doctors have enthusiastic care to patients. -The hospital has its good reputation and should remain as it deserved.	17	4.2

CHAPTER V

DISCUSSION, CONCLUSION AND RECOMMENDATION

There are three parts include in this chapter:

- Discussion
- Conclusion
- Recommendation

• Discussion

This objectives of this cross-sectional descriptive study were to (1) determine the level of satisfaction on service quality, waiting time and outcome of care (2) identify the personal profile and influencing factors, (3) find the relationship between the personal profile of the respondents and influencing factors to the level of customers' satisfaction on service quality, waiting time and outcome of care (4) evaluate level of customers' satisfaction towards OPD care service at Somdejphraphuthalertla Hospital, Muang District, Samutsongkram Province.

Data were collected in March 2013 and the results could be different if data were collected in a different time of the year because of different monthly income, different hospital's staffs or healthcare providers, seasonal diseases and other influencing factors. A self administered questionnaire and partial interview were appropriate to use for collecting data since the number of respondents in this study was high comparing to the limitation of time and budget. There was no refused case out of 400 respondents to participate in this study. There was only one case refused to sign consent form before taking the questionnaire. However, after giving an explanation about research objective and study again, this respondent agreed to continue to participate. The reliability test at the real setting of the study was higher than the one at pre-test study. The Cronbach's Alpha Coefficient on hospital environment was .83, service process was .89, personality of staffs was .91 and waiting time was .90.

The rest of discussion will be presented as the following:

- **Personal profile and level of satisfaction**

- **Gender**

In this study, the ratio of respondents was females: males at 1: 2.4. From the study, different gender did not have different level of satisfaction to the hospital environment, service process, personality of staffs and waiting time. The study from Crow et al. (2003) found that the effects of gender and socio-economic status are equivocal due to the small amount of literature available on each.

- **Age**

This study found that in different age groups, there was different satisfaction to the hospital environment in ventilation and safety at significant ($p < .05$). In addition, different age groups had different satisfaction to the service process and personality of staffs in each counters at significant ($p < .05$). In this study, the elder age of respondents tended to have more satisfaction than the younger one. This result was similarly to the study of Williams (1994) indicated that older respondents have higher satisfaction in general which can be explain as lower expectation of health care. However, there was no different satisfaction to the waiting time among the different age groups in this study.

- **Education**

In different education level, there were different satisfaction to all aspects of hospital environment (cleanness, ventilation, loudness, safety), service process and personality of staffs at all concerned counters, and waiting time at the registration counter at significant ($p < .05$). It agreed with the study of Thahanthai (2003) as she found that the different educational level had different satisfaction to the services. The result of this study showed that most of the respondents had an education level as primary school or lower at 54.0% while the bachelor degree or higher at 15.00%. It was found in this study that respondents who had lower level of education had more satisfaction than who had higher one. However, the mean score of satisfaction for respondents who had bachelor degree or higher had very closed to the respondents with primary

school and higher than the respondents with high school and diploma/vocational degree.

- **Occupation**

There was different satisfaction the hospital environment in safety concern and service process of payment/universal coverage among the respondents who had different occupation at significant ($p < .05$). In this study, the respondents who were agriculture had highest satisfaction mean score of safety while those who were self employed had least score of this item. In addition, the respondents who work as the government officer had highest mean score of payment/ universal coverage service process while the self employed respondents also had least mean score of this item.

As dept interviewed with some respondents who were agriculture, it found that this job had to face to unexpected accident daily such as cutting themselves by sharp instrument and falling during walking through slippery place in their farms or gardens. Thus, they feel very safe and comfortable while changing place from the work field to safer place as the hospital. Meanwhile, from the interview with some respondents who were self employed indicated that most of them had higher income than agriculture and had more chance to use the service in other private hospitals in Bangkok, the capital city, where provided pleasure facilities and full option of health services.

- **Income**

There was different satisfaction to the hospital environment in safety in the respondents who had different income at significant ($p < .05$). In this study, the respondents who had income lower than 10,000 Bath per month had the highest mean score of satisfaction to hospital's safety and waiting time at all concerned counters while the respondents who had within10, 000 - 25,000 Baht per month had least mean score of both items. In the study of Mandokhail et al. (2007), it found that patients were having high level of satisfaction to the quality of service and cost management from the strong political support and financial reforms of a hospital. In this study, the hospital also provided the universal coverage scheme that most of low income customers could be able to use the service under the scheme while the customers with

higher income had more choices to use the full option of health service with self-payment or insurance in other private hospitals or clinics.

- **Status**

There was different satisfaction to waiting time in the respondents who had different status at significant ($p < .05$). In this study, the respondents who were married had the highest mean score of satisfaction to waiting time while the respondents who were widow had least mean score of this item. As mentioned earlier, the study from Crow et al. (2003) found that the effects of gender and socio-economic status are equivocal due to the small amount of literature available on each.

- **Health problems/symptoms**

There was different satisfaction to safety concern and personality of staffs in the respondents who had different health problems/symptoms at significant ($p < .05$). In this study, the respondents who had hypertension/ heart disease showed the highest mean score of satisfaction to both safety and personality of staffs while respondents who had diabetes/hormone problem showed the least score of safety. Respondents who had diabetes/hormone problem the least score of safety and the respondents who did not specify for their health problems had least mean score of personality of staffs.
In the study of Hall and Milburn (1998), it found that sicker and experienced psychological stress customers are less satisfied. It is difficult to prove that the experience of sickness or experience of health service treatment or other factors caused the dissatisfaction.

- **Influencing factors to level of satisfaction**

In this study, the researcher focused on travelling of respondents and hospital's environment as influencing factors to level of satisfaction to the OPD service. There was 44.5% of respondents living close to the hospital within 5-10 kilometer and 65.2% of respondents spent time about 15-30 minutes for travelling from home to the hospital. As the results, 93% of respondents indicated that the over travelling was convenience to them. The location of hospital played very important role as accessibility to most customers that could easily travel by public transportation and

personal vehicles. The hospital's environment also was the main influence to customer's satisfaction. There were 4 aspects included cleanness, ventilation, loudness and safety that the researcher had focused on this study. The highest mean score of satisfaction was safety while the lowest one was loudness aspect. The major policy in all hospitals usually concern about patients' safety. Prevention for injury or hazard is the principle for hospital's physical setting. However, if there are a number of customers using the hospital service, it is difficult to avoid noise from conversation among them. From the study in China (BMC Public Health, 2011), it found that patient's overall satisfaction with medical facilities and hospital environment were significantly influenced by patient trust in medical service and patient's attitude towards health policy.

- **Overall Customer satisfaction toward the OPD services**

As overall customer's satisfaction, the subjects rated the level of satisfaction at high as 94.2%. This was similar to the studies of Mandokhail (2007), BMC Public Health (2011) and Bilkish (2012) where showed that most of respondent's satisfaction toward the healthcare service was moderate to high. Somdejphraphuthalertla Hospital is district level hospital which operated of 311 beds and located in the center of the Muang District, Samut Songkram Province. Muang is the largest district and approximated 65 kilometers from Bangkok, the capital city of Thailand; however, local people including who live nearby provinces are familiar and well-known to this hospital. Those people who live closed by the hospital within 5 kilometers or even further than 50 kilometers prefer to use the services in here more than other hospitals since it is convenient to travel, and there are common basic services for healthcare provided in the hospital. However, there was the rest number of 5.8 % for respondents who were dissatisfied to the hospital services and indicated that they would not return to use the services or not recommend to the others for future visits.

- **Suggestions and comments from the customers**

In this study, there were 73% of respondents that had no comments or further suggestion to the hospital. Most of this group indicated that the hospital already had provided good service to customer, so no further recommendation. Moreover, 4.2 %

of respondents gave compliments to the hospital services as it was better than before and it was well-known from its good reputation and should be remained as it deserved. However, there were 7.5% of respondents who complained about the waiting time for physical examination and receiving medicine at the pharmacy counter. In the study of Maitra and Chikhani (1992) in the United Kingdom, it showed that patient satisfaction is directly correlated with waiting times to see a doctor while another study of Fenandes et al. (1994) found that a substantial number of patients left outpatient departments because of prolonged waiting times. Therefore, the hospital should manage for patient waiting time in order to retain the customer royalty and attract potential customers to use its service.

- **Conclusion**

Cross-sectional descriptive research was done at Somdejphraphuthalertla hospital, Muang District, Samut Songkram Province during the period of February 24, 2013 to March 31, 2013. A self-administered questionnaire which included 32 checklist items, 6 fill in the blanks and 1 opened end question was well developed and used for data collection. Reliability test of the questionnaire was done among 30 respondents at Thapla hospital, Thapla District, Uttaradit Province. The result using Cronbach's Alpha Coefficient on hospital environment was .83, service process was .89, personality of staffs was .91 and waiting time was .90. Stratified sampling was used to select 400 respondents. The respondents administered the questionnaire by themselves. For the respondents who cannot read, the assistant researcher would read out the question to them and fill in the answer accordingly. The objectives were answered by using descriptive statistics for the personal profile and level of satisfaction to the hospital environment, service process, personality of staffs and waiting time. In addition, Mann-Whitney U test and Kruskal-Wallis test were used to find the relation at significant ($p < .05$) between personal profile, and satisfaction to the hospital environment, service process, personality of staffs and waiting time.

The majority of the respondents who participated in this study were females at 70.2% in the age groups of 56 – 75 at 36.0 %. The highest percentage of personal profile were married status at 64.5%, primary school graduated at 54.0%, employee in private

section at 30.5%, monthly income below 10,000 Baht at 69.0%. The majority of respondents visited the hospital for the third times or more at 85.2%. The main health problems on the visit were hypertension or heart disease at 35.2% and most of respondents know the cause of disease, but did not specify or indicate.

The travelling and hospital environment were influence factors to level of satisfaction while the service process, personality of staffs and waiting time were three aspects to answer the research questions and objectives in this study. The purpose of the study was to describe the level of customer's satisfaction toward services at out-patient department (General Medicine), Somdejphraphuthalertla Hospital and how service process, personality of staffs and waiting time were related to satisfaction. A brief conclusion of the results in the study is as follows:

1. The level of satisfaction toward OPD (General Medicine) service at Somdejphraphuthalertla Hospital on overall was high at 94.2%. and 99% of respondents indicated to return to use the service in the future.
2. The relationship between the personal profiles and satisfaction to service process, personality of staffs, waiting time was significant ($p < 0.05$) in many variables such as age, education, income and health status. However, there was no evidence for the relationship between gender and satisfaction in this study.

Detailed results are in chapter IV.

- **Recommendation**

Based on the study results and discussion, the following recommendations could be offered:

3.1 Recommendations for the OPD (General Medicine) at Somdejphraphuthalertla Hospital

(a) The results of the study showed that the customer satisfaction toward service was very high level. Therefore, the hospital should maintain the good level of service which had high score of satisfaction while improve on low score parts to achieve the hospital accreditation. While received the high score of overall satisfaction; however, the hospital should find out the weak part that should be improve in order to balance to this high score. For example, as suggested by some respondents, the cleanness of restrooms should be improved, the personality of staffs among nurses and physician's assistance should be aware of and the waiting time should be shorter in each service node. The healthcare providers and staffs should have teamwork for sustainability improvement of the services.

(b) In this study found that age and education were significant related to level of satisfaction among the respondents. The results showed that among the age group between 18-35 years tended to had least satisfaction to all aspects of services especially for the waiting time. Therefore, the hospital should provide the service in response to this group. For example, there should be television or variety of magazines available in the waiting area in order to entertain them while waiting for the services.

(c) The hospital should maintain the training program for the standard of service quality by following the standard guidelines that are suitable for all employees. Also, the survey of customer satisfaction should be done in every year to improve its services as continually quality improvement process.

3.2 Recommendations for future studies

(a) The quality of services should be evaluated from all concerned aspects such as perspectives from the healthcare providers and staffs, the hospital board committee and the customers. In future studies, it will be advantage for services improvement to collect data from all concerned parts as mentioned in above.

(b) Other out-patient department sections besides the General Medicine should be considered to evaluate for the level of satisfaction to healthcare services in the future study. Probably, it should be assessed at least once a year for completion and comparison.

(c) The future study should be extended to inpatient department satisfaction.

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APPENDICES

APPENDIX A

ADMINISTRATION

No.	ACTIVITIES	PRICE (BAHT)	TOTAL PRICE(BAHT)
1	Transportation	10,000	10,000
2	Pre-testing		
	• Photocopy questionnaires	1,000	1,000
	• Stationery	2,000	2,000
	• Miscellaneous Expenditure	2,000	2,000
3	Data collection		
	• Photocopy questionnaires	3, 000	3,000
	• Interviewers training	8,000	8,000
	• Interviewers per Diem	2 X 5 X 300	3,000
	• Miscellaneous Expenditure	1,000	1,000
4	Document Printing		
	• Paper + Printing	3,000	3,000
	• Photocopy (exam + final submit)	2,000	2,000
	• Stationery	1,000	1,000
	• Binding Paper (exam)	1,000	1,000
	• Binding Paper (submit)	2,000	2,000
	Total		**39,000**

APPENDIX B

ADMINISTRATION

Research	Time Frame (Month)																											
	12-Sep				12-Nov				12-Dec				13-Jan				13-Feb				13-Mar				13-Apr			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1.Literature review	■	■	■	■	■	■																						
2.Develop proposal		■	■	■	■	■	■																					
3.Tool development					■	■	■	■	■	■																		
4.Validity & Reliability test										■	■	■	■	■														
5.Proprosal Examination & Ethical Consideration										■	■	■	■	■	■	■												
6. Data Collection																	■	■	■	■	■	■	■	■				
7.Data analysis																			■	■	■	■	■	■	■			
8.Report writing																					■	■	■	■	■	■		
9.Thesis Examination & Revision & Manuscript																										■	■	■

APPENDIX C

THE QUESTIONNAIRE

CLIENTS' SATISFACTION TOWARDS OPD CARE SERVICE AT SOMDEJPHRAPHUTHALERTLA HOSPITAL, AMPHER MUANG SAMUTSONGKRAM PROVINCE

To Respondents

My name is Ms. Ariyawan Khiewkumpan. I am studying for my Master's degree in the Public Health Program at the College of Public Health Sciences, Chulalongkorn University. My thesis purpose is to access the clients' satisfaction toward OPD care service at Somdejphraphuthalertla Hospital. The result of this research will lead to hospital's improvement to respond to your satisfaction for provided health care services. All your reply will be kept in confidential and used for service improvement and academic knowledge only. Therefore, your replies will have no effect on your treatment from this hospital. I would like you sign for the informed consent form (AF-05) attached.

Thank you very much for taking time to complete this questionnaire.

Ariyawan Khiewkumpan
MPH student
The College of Public Health Sciences, Chulalongkorn University

Date _____
Code _____

Part 1 Personal Profile
Instruction: Please put √ for select answer or fill in the blank as required.

1. Age……..years

2. Gender
1. ( ) Male 2. ( ) Female

3. Marital status
1. ( ) Single 2. ( ) Married
3. ( ) Widow 4. ( ) Separate

4. Education level
1. ( ) Primary school and lower 2. ( ) High school
3. ( ) Certificate/Diploma 4. ( ) Bachelor's degree and higher

5. Occupation
1. ( ) Agriculture 2. ( ) Employee
3. ( ) Self Employed 4. ( ) Government Officer
5. ( ) Dependent 6. ( ) Other (specify)…….

6. Income per month (Baht)
1. ( ) Less than 10,000 2. ( ) 10,000-25,000
3. ( ) 26,000-50,000 3. ( ) More than 50,000

7. Number of OPD visit (included this visit)
1. ( ) First time 2. ( ) Second time
3. ( ) Three time or more

8. What is your health problem today? ……
Do you know the cause of this health problem?
( ) Yes (Please specify)…… ( ) No

Part 2 Travelling

1. The distance between your residence and the hospital is approximately…….kilometer (s)
2. Time spent from your residence to the hospital is around…….minutes
3. The vehicle you used (Please specify)…….
4. Travelling expense is around .....Baht.
5. Is it convenient for you to travel from your residence to the hospital?
   ( ) Yes, I'm convenient ( ) No, I'm inconvenient
   (Please specify the reason) ……..…

Part 3 Satisfaction towards the hospital's environment

Please put √ in the column for your level of satisfaction from dissatisfied (1 point) to very satisfied (5 points)

Satisfaction towards the hospital's environment.	**Dissatisfied**				**Very Satisfied**	**Reason (Please specify)**
	1	**2**	**3**	**4**	**5**	
1. The hospital is clean						
2. Good ventilation						
3. Not too noisy						
4. The hospital is safe						

Part 4 Satisfaction towards the service process

Please put √ in the column for your level of satisfaction from dissatisfied (1 point) to very satisfied (5 points)

Satisfaction towards the service process	**Dissatisfied**				**Very Satisfied**	**Reason (Please specify)**
	1	**2**	**3**	**4**	**5**	
1. Outpatient Registration (Staff explains about the process, registration form, service queue)						
2. Basic Physical Examination (Nurse and physician's assistant explain the steps of measurement of vital sign, blood pressure, and body temperature, and have expertise in using medical equipment)						
3. Diagnosis and Treatment plan (Physician examines and explains causes of diseases, diagnosis, and suggest the treatment plan)						
4. Blood test and x-ray (Staff explains the step, informs information regarding risk, limitations, and service queue						
5. Receiving medicines at Pharmacy (Pharmacist explains information of medication and usage, provide medicines according to physicians' orders completely, and arrange service queue)						
6. Payment (Staff explains about the expense, payment methods, and arrange service queue)						

Part 5 Satisfaction towards the personality of healthcare providers/staffs

Please put √ in the column for your level of satisfaction from dissatisfied (1 point) to very satisfied (5 points)

Satisfaction towards the personality of healthcare providers/staffs	**Dissatisfied**				**Very Satisfied**	**Reason (Please specify)**
	1	**2**	**3**	**4**	**5**	
1. Staff at Outpatient Registration (Greeting, smiling, clear and polite tone when speaking)						
2. Nurse and physician's assistant at Outpatient Department (General Medicine) (Groomed, polite manner and tones of voice, caring towards patients)						
3. Primary doctor (Polite, friendly to patients, clear explanation and understandable, not in a hurry when examining patients)						
4. Laboratory and x-ray staff (friendly**,** clear and polite tones of voice, and willing to answer questions)						
5. Pharmacists and staff at Pharmacy (friendly**,** clear and polite tones of voice, and willing to answer questions)						
6. Cashier staff (friendly**,** clear and polite tones of voice, precise in collecting money and giving changes)						

Part 6 Satisfaction towards the waiting time

Please put √ in the column for your level of satisfaction from dissatisfied (1 point) to very satisfied (5 points)

Satisfaction towards the waiting time	**Dissatisfied**				**Very Satisfied**	**Reason (Please specify)**
	1	**2**	**3**	**4**	**5**	
1. Outpatient Registration Staff (Quick service and allow less than 30 minutes of waiting time)						
2. Basic Physical Examination (Appropriate waiting time and queuing to get the measurement of vital sign, blood pressure, and body's temperature)						
3. Diagnosis and Treatment plan (Appropriate queuing and waiting time in seeing doctors)						
4. Doing blood test and x-ray (Appropriate queuing and waiting time in doing blood test and x-ray)						
5. Receiving medicines at Pharmacy counter. (Appropriate queuing and waiting time in receiving medicines)						
6. Payment (Appropriate queuing and waiting time in making payment)						

1. In overall, are you satisfied with the service of Outpatient Department?
( ) Yes ( ) No (Please specify the reason).....

2. Will you use the service of Somdejphraphuthalertla Hospital again?
( ) Yes ( ) No (Please specify the reason).....

3. Will you recommend Somdejphraphuthalertla Hospital to other people?
( ) Yes ( ) No (Please specify the reason).....

4. Do you have any suggestions or opinions regarding the service of Outpatient Department at Somdejphraphuthalertla Hospital?
……
……
……

APPENDIX D
THE QUESTIONNAIRE (Thai version)

แบบสอบถาม
ความพึงพอใจของผู้ใช้บริการต่อการให้บริการด้านสุขภาพแผนกผู้ป่วยนอก
โรงพยาบาลสมเด็จพระพุทธเลิศหล้า
อำเภอเมือง จังหวัดสมุทรสงคราม

เรียน ผู้ตอบแบบสอบถาม

ข้าพเจ้านางสาวอริยวรรณ เขียวกุมพันธ์ นิสิตระดับปริญญาโท สาขาวิชาสาธารณสุขศาสตร์ ภาควิชาสาธารณสุขศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย จุดประสงค์ของการศึกษาวิจัยนี้เพื่อวัดระดับความพึงพอใจของผู้ใช้บริการต่อการให้บริการด้านสุขภาพแผนกผู้ป่วยนอก โรงพยาบาลสมเด็จพระพุทธเลิศหล้า ซึ่งผลของการวิจัยนี้สามารถนำมาปรับปรุงคุณภาพการให้บริการด้านสุขภาพเพื่อเพิ่มระดับความพึงพอใจของผู้ใช้บริการต่อไป ทั้งนี้ข้อมูลจากคำตอบของท่านจะถูกปกปิดเป็นความลับและใช้เพื่อการปรับปรุงในการให้บริการและเพื่อการศึกษาเท่านั้น ดังนั้นคำตอบของท่านจะไม่มีผลใด ๆ ต่อการรักษาในโรงพยาบาลแห่งนี้ โปรดกรุณาอ่านรายละเอียดในแบบฟอร์มหนังสือแสดงความยินยอมในการให้สัมภาษณ์ (AF-05) ตามที่แนบมานี้

ขอขอบพระคุณอย่างสูงที่สละเวลาของท่านในการตอบแบบสอบถามในครั้งนี้

นางสาวอริยวรรณ เขียวกุมพันธ์
นิสิตปริญญาโท สาขาวิชาสาธารณสุขศาสตร์
ภาควิชาสาธารณสุขศาสตร์ จุฬาลงกรณ์มหาวิทยาลัย

วันที่ _____

รหัส _____

ส่วนที่ 1 ข้อมูลทั่วไป

โปรดเลือกคำตอบโดยใส่เครื่องหมาย √ หรือเติมในช่องว่างให้สมบูรณ์

1. อายุ……..ปี

2. เพศ

1. ( ) ชาย 2. ( ) หญิง

3. สถานภาพสมรส

1. ( ) โสด 2. ( ) แต่งงาน

3. ( ) หม้าย 4. ( ) หย่าร้าง

4. ระดับการศึกษา

1. ( ) ระดับประถมศึกษาหรือต่ำกว่า 2. ( ) ระดับมัธยมศึกษา

3. ( ) ประดับประกาศนียบัตรทางวิชาชีพ 4. ( ) ระดับปริญญาตรีหรือสูงกว่า

5. อาชีพ

1. ( ) เกษตรกร 2. ( ) ลูกจ้าง

3. ( )ธุรกิจส่วนตัว 4. ( ) ราชการ

5. ( ) อาชีพอิสระ 6. ( ) อื่น ๆ (โปรดระบุ)…….

6. รายได้ต่อเดือน (บาท)

1. ( ) น้อยกว่า 10,000 2. ( ) 10,000-25,000

3. ( ) 26,000-50,000 3. ( ) มากกว่า 50,000

7. จำนวนครั้งในการใช้บริการแผนกผู้ป่วยนอก (รวมการใช้บริการในครั้งนี้ด้วย)

1. ( ) ครั้งแรก 2. ( ) ครั้งที่สอง

3. ( ) ครั้งที่สามหรือมากกว่านั้น

8. อาการป่วยของท่านในวันนี้คือ……

ท่านทราบสาเหตุของอาการป่วยหรือไม่

( ) ทราบ (โปรดระบุ)…… ( ) ไม่ทราบ

ส่วนที่ 2 การเดินทางจากที่พักมาโรงพยาบาล

1.ระยะทางจากที่พักถึงโรงพยาบาลโดยประมาณ…… กิโลเมตร

2. เวลาเดินทางจากที่พักถึงโรงพยาบาลโดยประมาณ……...นาที

3. พาหนะที่ใช้เดินทาง (โปรดระบุ)…….

4. ค่าเดินทางโดยประมาณ.....บาท

5. โดยรวม ท่านสะดวกในการเดินทางจากที่พักมาโรงพยาบาลหรือไม่

( ) สะดวก ( ) ไม่สะดวก (โปรดระบุ)……

ส่วนที่ 3 ความพึงพอใจต่อสิ่งแวดล้อมภายในโรงพยาบาล

โปรดเลือกคำตอบโดยใส่เครื่องหมาย √ ในช่องคะแนนความพึงพอใจจากน้อยที่สุด (1 คะแนน) ไปยังมากที่สุด (5 คะแนน)

ความพึงพอใจต่อสิ่งแวดล้อมภายในโรงพยาบาล	น้อยที่สุด				มากที่สุด	เหตุผล (โปรดระบุ)
	1	2	3	4	5	
1. โรงพยาบาลสะอาด						
2. การระบายอากาศดี						
3. เสียงไม่ดังจนเกินไป						
4. มีความปลอดภัย						

ส่วนที่ 4 ความพึงพอใจต่อกระบวนการของการให้บริการ

โปรดเลือกคำตอบโดยใส่เครื่องหมาย √ ในช่องคะแนนความพึงพอใจจากน้อยที่สุด (1 คะแนน) ไปยังมากที่สุด (5 คะแนน)

ความพึงพอใจต่อกระบวนการของการให้บริการ	น้อยที่สุด				มากที่สุด	เหตุผล (โปรดระบุ)
	1	2	3	4	5	
1. การลงทะเบียนผู้ป่วยนอก (เจ้าหน้าที่ชี้แจงขั้นตอน, แบบฟอร์มลงทะเบียน, จัดคิวให้บริการ)						
2. การตรวจร่างกายเบื้องต้น (พยาบาลและผู้ช่วยแพทย์อธิบายขั้นตอนของการตรวจวัดชีพจร ,ความดันโลหิตและอุณหภูมิร่างกาย, มีความเชี่ยวชาญในการใช้เครื่องมือทางการแพทย์)						
3. การตรวจวินิจฉัยโรคและรักษา (แพทย์ตรวจและอธิบายอาการโรค, วินิจฉัยโรค, แนะนำแผนการรักษา)						
4. การตรวจเลือดและทำเอกซเรย์ (เจ้าหน้าที่ชี้แจงขั้นตอน, แจ้งข้อมูลเกี่ยวกับความเสี่ยงหรือข้อจำกัด, จัดคิวให้บริการ						
5. การรับยาที่แผนกจ่ายยา (เภสัชกรอธิบายข้อมูลและวิธีการใช้ยา จ่ายยา, จ่ายยาได้ครบตามที่แพทย์สั่ง, จัดคิวให้บริการ)						
6. การชำระเงิน (เจ้าหน้าที่ชี้แจงค่าใช้จ่าย, วิธีชำระเงิน, จัดคิวให้บริการ)						

ส่วนที่ 5 ความพึงพอใจต่อบุคลิกภาพและลักษณะส่วนบุคคลของผู้ให้บริการ
โปรดเลือกคำตอบโดยใส่เครื่องหมาย √ ในช่องคะแนนความพึงพอใจจากน้อยที่สุด (1 คะแนน) ไปยังมากที่สุด (5 คะแนน)

ความพึงพอใจต่อบุคลิกภาพและลักษณะส่วนบุคคลของผู้ให้บริการ	น้อยที่สุด				มากที่สุด	เหตุผล (โปรดระบุ)
	1	2	3	4	5	
1. เจ้าหน้าที่ฝ่ายลงทะเบียนผู้ป่วยนอก (ให้การต้อนรับ, ยิ้มแย้มแจ่มใส, น้ำเสียงสุภาพและชัดเจน)						
2. พยาบาลและผู้ช่วยแพทย์แผนกผู้ป่วยนอก (อายุรกรรม) (กริยามารยาทเรียบร้อย, น้ำเสียงสุภาพ, มีความดูแลเอาใจใส่ผู้ป่วย)						
3. แพทย์ที่ให้การรักษา (สุภาพ, เป็นกันเองกับผู้ป่วย, อธิบายได้ชัดเจนและเข้าใจง่าย, ไม่เร่งรีบในการตรวจผู้ป่วย)						
4. เจ้าหน้าที่ฝ่ายตรวจเลือดและทำเอกซเรย์ (ยิ้มแย้มแจ่มใส, น้ำเสียงสุภาพและชัดเจน, ยินดีตอบข้อซักถามเพิ่มเติม)						
5. เภสัชกรและเจ้าหน้าที่ฝ่ายห้องยา (ยิ้มแย้มแจ่มใส, น้ำเสียงสุภาพและชัดเจน, ยินดีตอบข้อซักถามเพิ่มเติม)						
6. เจ้าหน้าที่ฝ่ายชำระเงิน (ยิ้มแย้มแจ่มใส, น้ำเสียงสุภาพและชัดเจน, รอบคอบในการเก็บและทอนเงินได้อย่างถูกต้อง)						

ส่วนที่ 6 ความพึงพอใจต่อระยะเวลาการรอรับบริการ

โปรดเลือกคำตอบโดยใส่เครื่องหมาย √ ในช่องคะแนนความพึงพอใจจากน้อยที่สุด (1 คะแนน) ไปยังมากที่สุด (5 คะแนน)

ความพึงพอใจต่อระยะเวลาการรอรับบริการ	น้อยที่สุด				มากที่สุด	เหตุผล (โปรดระบุ)
	1	2	3	4	5	
1. ฝ่ายลงทะเบียนผู้ป่วยนอก (บริการรวดเร็วและใช้เวลารอลงทะเบียนน้อยกว่า 30 นาที)						
2. การตรวจร่างกายเบื้องต้น (เวลาในการรอตรวจชีพจร,วัดความดันโลหิตและอุณหภูมิร่างกายมีความเหมาะสมและเป็นไปตามลำดับคิว)						
3. การตรวจวินิจฉัยโรคและรักษา (เวลาในการรอพบแพทย์มีความเหมาะสมและเป็นไปตามลำดับคิว)						
4. การตรวจเลือดและทำเอกซเรย์ (เวลาในการรอเจาะเลือดและทำเอกซเรย์มีความเหมาะสมและเป็นไปตามลำดับคิว)						
5. การรับยาที่แผนกจ่ายยา (เวลาในการรอรับยามีความเหมาะสมและเป็นไปตามลำดับคิว)						
6. การชำระเงิน (เวลาในการรอชำระเงินมีความเหมาะสมและเป็นไปตามลำดับคิว)						

1. โดยภาพรวมท่านพึงพอใจในการให้บริการของแผนกผู้ป่วยนอกหรือไม่?

( ) พอใจ ( ) ไม่พอใจ (โปรดระบุเหตุผล).....

2. ท่านจะมาใช้บริการที่โรงพยาบาลสมเด็จพระพุทธเลิศหล้าอีกหรือไม่?

( ) มา ( ) ไม่มา (โปรดระบุเหตุผล).....

3. ท่านจะแนะนำผู้อื่นให้มาใช้บริการที่โรงพยาบาลสมเด็จพระพุทธเลิศหล้าหรือไม่?

( ) แนะนำ ( ) ไม่แนะนำ (โปรดระบุเหตุผล).....

4. ท่านมีความคิดเห็นหรือข้อเสนอแนะสำหรับการให้บริการแผนกผู้ป่วยนอกที่โรงพยาบาลสมเด็จพระพุทธเลิศหล้าอย่างไร?

BIOGRAPHY

Miss Ariyawan Khiewkumpan, RN

EDUCATION

Master of Public Health in Public Health (May 2013) Chulalongkorn University, Thailand

Associate's in Nursing (June2009) LaGuardia Community College of CUNY, NY

Graduate Diploma in Ecotourism Management (May 2002) Srinakharinwirot University, Thailand

Bachelor of Arts in Political Science (November 2001) Ramkhamhaeng University, Thailand

Bachelor of Arts in History (March 1998) Kasetsart University, Thailand

NURSING-RELATED EXPERIENCE

Referral Correspondence Officer, Bumrungrad International Hospital (Jan 2013-Present)

Admission officer-Cost estimator, Samitivej Sukhumvit Hospital, BKK (July2010-August 2011)

Registered Nurse, Regal Heights Rehabilitation and Health Care Center, NY (Nov 2009-Feb 2010)

Nursing Volunteer, Gouverneur Hospital, NY (Sep 2009-Oct 2009)

Nursing Intern, Northshore Hospital, NY (Dec 2007/June 2009)

Nursing Intern, Elmhurst Hospital, NY (March 2008-Dec 2008)

PROFESSIONAL EXPERIENCE

Researcher Assistant, the New York Public Service Commission, NY (Jan 2009-Apr 2009)

College Tutor, the New York State Education Department, NY (Dec 2006-June 2007)

Secretary, Fat Cat Company Limited (Export-Import), Bangkok, Thailand (Mar 2000-May 2003)

School Teacher, Rung Arun School, Bangkok, Thailand (Jan 1999-Jan 2000)

PROFESSIONAL DEVELOPMENT

• Registered Nurse, RN license of New York # 621581 • CPR Certification.