

**CLIENT SATISFACTION TOWARDS THE SERVICES OF
LAD YAO HOSPITAL, LAD YAO DISTRICT,
NAKHONSAWAN PROVINCE,
THAILAND**



**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF PRIMARY HEALTH CARE MANAGEMENT
FACULTY OF GRADUATE STUDIES
MAHIDOL UNIVERSITY**

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Thesis
entitled

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LAD YAO DISTRICT, NAKHONSAWAN PROVINCE,
THAILAND**



Ms. Thatsanai Tangmankongworakoon
.....
Ms. Thatsanai Tangmankongworakoon
Candidate

J. Chompikul
.....
Asst.Prof. Jiraporn Chompikul
Ph.D
Major-Advisor

Sirikul Isaranurug
.....
Assoc. Prof. Sirikul Isaranurug
M.D., Dip. Thai Board of Pediatrics
Co-Advisor

M.R. Jisnuson Svasti
.....
Prof. M.R. Jisnuson Svasti
Ph.D.
Dean
Faculty of Graduate Studies

Sirikul Isaranurug
.....
Assoc. Prof. Sirikul Isaranurug
M.D., Dip. Thai Board of Pediatrics
Chair
Master of Primary Health Care Management
ASEAN Institute for Health Development
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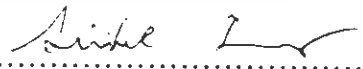
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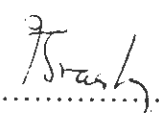
on
March 13, 2006



.....
Ms. Thatsanai Tangmankongworakoon
Candidate


.....
Asst.Prof. Jiraporn Chompikul
Ph.D.
Chair


.....
Assoc. Prof. Somporn Triamchaisri
Ph.D.
Member


.....
Assoc. Prof. Sirikul Isaranurug
M.D., Dip. Thai Board of Pediatrics
Member


.....
Prof. M.R. Jisnuson Svasti
Ph.D.
Dean
Faculty of Graduate Studies
Mahidol University


.....
Assoc. Prof. Sirikul Isaranurug
M.D., Dip. Thai Board of Pediatrics
Director
A'ASEAN Institute for Health Development
Mahidol University

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CLIENT SATISFACTION TOWARDS SERVICES OF LAD YAO HOSPITAL,
LAD YAO DISRICT, NAKHONSAWAN PROVINCE, THAILAND.

THATSANAI TANGMANKONGWORAKOON 4838002 ADPM / M

M.P.H.M. (PRIMARY HEALTH CARE MANAGEMENT)

THESIS ADVISORS: JIRAPORN CHOMPIKUL, Ph.D.,
SIRIKUL ISARANURUG, M.D.,Dip.Thai Board of Pediatrics

ABSTRACT

A cross-sectional descriptive study was conducted on clients utilizing services of Lad Yao hospital, Lad Yao district, Nakhonsawan province, Thailand, in order to evaluate the client satisfaction of services of Lad Yao hospital in terms of promotive, preventive, curative and rehabilitative care, and identify the relationship between satisfaction towards the services and independent variables such as client's expectation, attitude, and socio-demographic characteristics. In addition, a predictive factor for satisfaction and comments from the clients were also revealed in this study.

Using a self-administered-questionnaire, data were derived from 398 clients utilizing hospital services, aged at least 18 years old during the period of data collection. Descriptive statistics was used to describe satisfaction level and independent variables while the relationships between these factors and client satisfaction were determined by correlation analysis and Chi-square test. Logistic regression was further applied for predictive factor identification. Kruskal-Wallis test was performed as an additional test for determining the difference of satisfaction levels among the different reasons for visitation.

The average score of client satisfaction was 3.9 and only 52% of clients felt satisfied with the services. Regarding each aspect of care, there were 40%, 50.9% and 84.6% of satisfied clients from the services of promotion-prevention, curative care and rehabilitation services, respectively. Age, educational level, the actual experience compared with the previous expectation, and attitude were found to be significantly associated with the satisfaction level. Attitude was identified as a predictive factor of satisfaction in all kind of health services. Moreover, it was revealed that among different reasons of visit, there was no significant difference of satisfaction level. A majority of comments from clients were based on inadequacy of staff and long waiting times.

Strategies emphasizing improving the image of the hospital should be continuously implemented since a good attitude could lead to higher satisfaction level. Satisfaction surveys and qualitative research in each service unit were suggested for further study to identify client satisfaction details.

KEY WORDS: CLIENT SATISFACTION, SERVICES OF HOSPITAL
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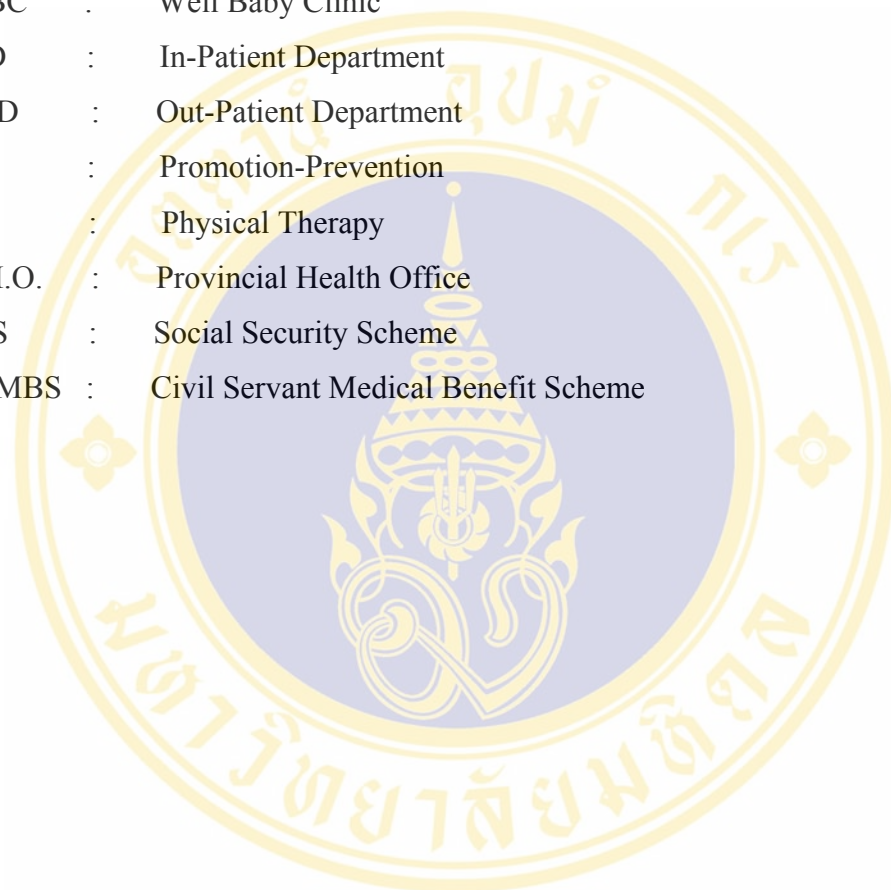
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LIST OF ABBREVIATIONS

ANC	:	Antenatal Care
WBC	:	Well Baby Clinic
IPD	:	In-Patient Department
OPD	:	Out-Patient Department
PP	:	Promotion-Prevention
PT	:	Physical Therapy
P.H.O.	:	Provincial Health Office
SSS	:	Social Security Scheme
CSMBS	:	Civil Servant Medical Benefit Scheme



CHAPTER 1

INTRODUCTION

1.1 Rationale and justification

There is general agreement that client satisfaction is an integral component of services quality (1) and expanded definitions of health service quality typically make explicit mention of patient satisfaction (2) The last 20 years have witnessed an accelerating increase in the attention given to client satisfaction with health services. There are various reasons for giving importance to the client perspective. First, client satisfaction is an important outcome in its own right since it predicts patient compliance with treatment, reattendance at a clinic, provider change and even improvement in health status. Secondly, measures of client satisfaction can assess communication in the consultation such as information transfer, client involvement in decisions and reassurance. Thirdly, client satisfaction studies inform planning as part of a range of assessment indicators used to compare different alternatives of organizing or providing health care.(3)

The concept of quality service in health care system has been first introduced in developed countries. However, this is drastically becoming a global issue. Thailand has been developing health care services in order to improve the quality in every aspect based on the client needs. Key performance indicators are used to monitor and evaluate the fruitfulness of working organizations and their staffs. Undeniably, client satisfaction is the essential indicator that indicates the service quality at any level of health care services. Additionally, understanding the different influences on variation in client satisfaction is important. To improve health care provision, managers need to be able to differentiate between a factor they control over and that is part of a wider social and political context. (4)

According to the Health Plan at provincial level, emphasizing on client-focused service improvement and organization development, the rate of patient or client satisfaction at 80% is the minimum goal for every hospital to achieve.



Figure 1 Map of Thailand



Figure 2 Map of Nakhonsawan Province

Lad Yao hospital, 60-bed community hospital, is in Lad Yao district Nakhonsawan province with the population of 100,000 in catchment's area. There are 5 medical doctors (intern doctors are not included), 3 dentists, 10 pharmacists, 68 registered nurses, 4 technical nurses and 270 overall staff working in the hospital. In average there are about 600 out-patients and 60 in-patients per day.

To achieve Hospital Accreditation, Lad Yao hospital has been conducting several methods to improve their own service quality however it seems very far from the goal. Since client satisfaction is one of key performance indicators that can reflect many dimensions of the service quality. Nonetheless, the whole picture for client satisfaction towards the services provided by the hospital in four aspects of services consist of curative, rehabilitative, preventive and health promotion programs has not been documented. Each service unit had implemented client satisfaction survey on their own preferred methods, in other words there are still no standard of satisfaction

survey used in Lad Yao hospital nowadays. Figures obtained from prior satisfaction surveys had only been used for filling in the report rather than making use as a really effective indicator so that it has been quite reluctant for the administrators to use these results as a reference in planning process. To obtain reliable information about client satisfaction, the reliable methods should be applied. Not only the result of satisfaction and the information from the respondents that the administrators can make use for service quality development planning but the process of data collection also will let the clients and staffs perceive how the hospital concerns with client satisfaction and intends to improve the service quality.

In this study, client satisfaction towards services provided by Lad Yao hospital in four aspects including curative, rehabilitative, and preventive and health promotion program will be examined as the variable of interest. The variables including, convenience, courtesy, information, out of pocket costs and quality of care are going to be used for considering how the clients are satisfied with the hospital services. Besides this, independent variables such as age, gender, education level, health status, family income, health insurance and client expectation have to be determined if they are related to client satisfaction in this study. Moreover, the suggestions for service improvement from the respondents will also be addressed.

1.2 Research question

1. What is the level of client satisfaction towards the services of Lad Yao hospital?
2. What are the factors that related to the level of satisfaction?

1.3 Research objectives

1.3.1 General objectives

1. To evaluate the satisfaction of clients who have utilized the services provided by Lad Yao hospital.
2. To identify factors related to clients' satisfaction.

1.3.2 Specific objectives

1. To evaluate the satisfaction of clients who have utilized the services provided by Lad Yao hospital in terms of promotion, prevention, curative and rehabilitative services.

2. To identify the relationship between client's expectation and satisfaction towards the services.

3. To identify the relationship between client's attitude and satisfaction towards the services.

4. To determine the relationship between socio-demographic characteristics (age, gender, education level, occupation, state of health, family income, health insurance and health problem) of clients and their satisfaction towards the services.

5. To find out the predictive factors of satisfaction.

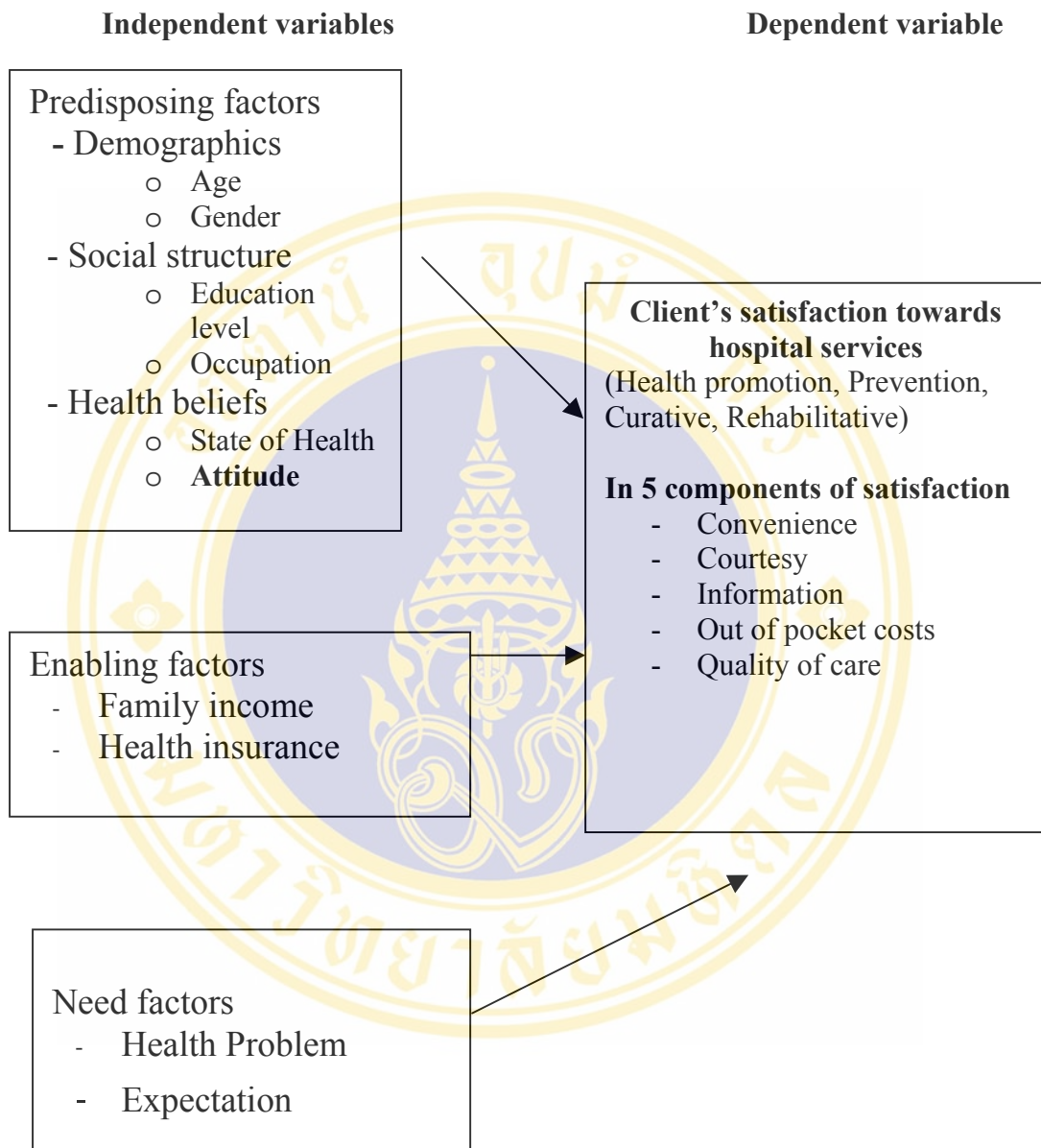
6. To find out comments and suggestions from clients who has utilized services of Lad Yao hospital

1.4 Conceptual framework

Conceptual framework of this study was derived from Behavioral model by Ronald M. Andersen. Consumer satisfaction is the outcome affected by 3 main factors including environment, population characteristics and health behavior. Not all factors mentioned in the model were used to formulate the conceptual framework of this study.

Since satisfaction is subjective issue expressed by the clients, in this study, population characteristics were stressed rather than any other main factors. Words health beliefs used in the conceptual framework was not the same meaning as the words of health belief in health belief model (more detail can be found in chapter 2).

Conceptual framework



1.5 Variables and operational definition

Dependent variables

Client

It refers to the persons who utilize the services of Lad Yao hospital at the time of interviewing.

Client's satisfaction

It refers to client's feeling and contentment with utilizing hospital services at Lad Yao hospital including promotion, prevention, curative and rehabilitative services that have been available in the hospital.

The indicators for client's satisfaction in this study consist of convenience, courtesy, information, out of pocket costs and quality of care.

Convenience: In this study, it means accessibility of hospital services including service system, availability of personnel, working hour, waiting time and the condition of places.

Courtesy: In this study, it refers to the manner that the provider expresses politely, respectfully to the clients.

Information: In this study, it is the information given by doctor or health personnel that make clients clear about their health problem and provided treatment.

Out of pocket costs: In this study, it refers to fee for registration and treatment.

Quality of care: In this study, it means patient's perception or the doctors and health personnel's time spent enough with patients, doctor's knowledge and skills on diagnosis and treatment, quality of medicines and equipments.

The levels of satisfaction are ranked in 5 scales of Likert as very satisfied (5), satisfied (4), neutral (3), dissatisfied (2) and very dissatisfied (1)

Clients whose average score of satisfaction equal or above 4 are classified as clients who satisfied with the services and the rest are clients who are not satisfied with the services.

Hospital Services

Hospital services refer to Health services provided in Lad Yao Hospital which are categorized into 4 aspects including; Health promotion, Prevention, Curative and

rehabilitative services. In this study, each service unit was considered by their own major aspect of care as shown in the Table 1.

Table 1 Aspects of Care and Services Provided by Lad Yao Hospital

Aspect of care	Service units
Health Promotion and Prevention	<ul style="list-style-type: none"> - Antenatal Clinic (ANC) - Well Baby Clinic (WBC) - Menopause Clinic
Curative services	<p>Out-patient</p> <ul style="list-style-type: none"> - Out-patient Department (OPD) - Emergency Room (ER) - Dental clinic <p>In-patient</p> <ul style="list-style-type: none"> - Ward I - Ward II - Post-labor room
Rehabilitative services	<ul style="list-style-type: none"> - Physical therapeutic room - Dental clinic (Denture)

E.g. Antenatal clinic was grouped in the Health promotion and prevention aspects, despite the fact that services provided at this unit actually include not only health promotion and prevention but also treatment in case of pregnant woman has the health problem.

Dental clinic itself have been providing in all 4 aspects of care, however, the majority of oral health promotion activities have been performed outside the hospital whereas oral treatment and oral rehabilitation (denture) have been done in the hospital so data collected from this clinic would represent curative aspect and rehabilitation, respectively.

Independent variables

Age

It refers to the age of the client at the time of interviewing. Clients aged at least 18 years old will be included in the study.

Gender

It refers to primary sex characteristics of the client including 2 categories: male and female

Educational level

It refers to the highest education level that the interviewed client educated. In this study education levels are categorized in 5 groups : 1) higher or equal to bachelor degree 2) Diploma or high school 3) Secondary , 4) primary school and 5) other

Occupation

The occupation of the respondent categorized in 4 groups: 1) Agriculture, 2) Employee, 3) Government official, and 4) other

State of health

State of health was identified in 2 ways;

- By using the medical history recorded in OPD card, health problem of the clients was stated as with or without systemic disease.

- By using questionnaire, clients were asked to assess themselves either they were healthy or unhealthy.

Family income

The family income per month was asked with open-ended question.

Health insurance

It refers to any kind of health insurance provided to the client for health services which is categorized in 2 groups including:

: Free of service charge and 30 baht program

: Social Security Scheme

: CSBMS (Civil Servant Benefit Medical Service)

: Other

Health problem

By using the questionnaire, the reasons that brought clients came to hospital were asked to identify what the recent health problems of the clients were.

Expectation

It refers the quality or characteristics of services that the clients wish or hope to attain from the hospital such as good quality of services, right to be informed or to be listened, environment and waiting time.

These expectation would be further assessed with the actual experience by the clients whether it was; better than, worse than or according to their previous expectation.

1.6 Limitation

Since data was collected during the office hours, client satisfaction towards the services provided by over-time clinic was not able to be assessed. The study was conducted in the hospital so that clients might hesitate to answer the real opinion.

CHAPTER 2

LITERATURE REVIEW

The topics of literature included

- Health Services in Thailand
- Health Insurance Scheme
- Satisfaction
 - Definition
 - Evolution of Satisfaction
 - Determinants of satisfaction
 - Components of satisfaction
- Theoretical Model

2.1 Health Services in Thailand

Observing changing disease patterns have carried out health development with in the National Economic Development Plan. The following strategies to ensure implementation of 8th five-year National Economic and Social Development Plan towards achieving the desired image of health for Thai people have been developed:

- Increase efficiency and coverage of National health care service.
- Promote positive health behavior and community participation in health development.
- Reform of client protection for health services and related products.
- Reconstruct the health manpower production and development system.
- Promote self- reliance at all levels.
- Increase the potential and competitiveness of domestic health related industries
- Recognize the system of public health administration.

Three types of institutions including health centers, which are located at subdistrict level, provide health care services in Thailand. Health centers are staffed by nurses or health workers and mostly serve outpatient. They provide integrated health services for people in each locality, as well as training, supervision and guidance for public health personnel and health volunteers. At district level the government facilitates community hospitals, staffed with general practitioners. Community hospitals provide out and in-patient services, involving curative, rehabilitative, preventive health care and health promotion.

General hospitals established in major cities play a role as referral centers for community hospitals. They are staffed with specialists and serve the population in urban and suburban areas. Some general hospitals developed service qualities through sub-specialist services and function as regional hospital. (5)

Role of community hospitals

The district health system creation represents a major break through. The district health system is a self-containing segment of the national health system. It's providing a geographical focus for strengthening of the health infrastructure, which is precondition for the creation of sustainable primary health care programs. By defining population base that are manageable in size and coincide with administrative areas, organizational, planning, and monitoring functions and facilitated. The district health care system includes all facilities, up to including, the hospital at first referral level, diagnostic centers (such as laboratories) and logistic support services, as well as the personnel that staff them. This system provides a point of convergence to channel regional and global health-for-all information to the local population and to generate pressure for reform. A sound district level infrastructure will help ensure a balanced mix of promotion, prevention, curative and rehabilitative programs, planned in response to changing local needs. (6)

The district providers an excellent organization frame works to introduce changes in the health system. At district level, policies, plan and practical reality can

meet, and feasible solutions can be developed. The WHO Global Program Committee in 1986 adopted the following definition of the district health system:

District health systems; consist of a large variety of interrelated elements that contribute to health in homes, schools, workplaces and communities, through the health and other sectors. It includes self-care and health workers and facilities, up to and including hospitals at first referral level and appropriate laboratory, other diagnostic and logistic support services.(7)

Thus far, the functioning of the health centers has received attention in developing countries. A major challenge now being addressed is improvement of functioning of the first level of referral namely the district hospital. A likewise reorganization and rationalization of services and management, as undertaken at the health center level, may be required at the district hospital level; especially in the countries where maternal mortality rates are high. Because antenatal care can be of no help if a woman is in need of intervention such as caesarian section. Furthermore, district hospitals should have a close collaboration with district health offices as well as other government offices at the district level. Jointly they are representing the district health system for health promotion and development in the community.

Until 1994, the MOPH had developed 652 community hospitals with a capacity varying from 10 to 90 or more beds. These community hospitals were well distributed all over the country and have been providing medical care and rehabilitative services, prevention and promotion services. (8)

2.2 Health Insurance Schemes

Health insurance provides two basic functions: access to effective health care services when needed, and effective protection of family income and assets from the financial costs of expensive medical care. Tax-based welfare schemes are also considered health insurance. Supachutikul classified various health insurance schemes in Thailand into four categories according to their nature and objectives (9).

Medical Welfare Scheme (MWS)

This scheme provided free medical care for indigence, for example, the poor, the elderly and children up to secondary school and the disabled. It also extends to monks, community leaders, health volunteers and their families.

Civil Servant Medical Benefit Scheme (CSMBS)

This is a fringe benefit to government employees and dependents to compensate low public salary.

Compulsory Social Insurance

- Social Security Scheme (SSS) -a tripartite contribution scheme by the employer, the employee and the government ensures health security for formal sector employees.

- Workmen Compensation Scheme (WCS) -an employer liability scheme to protect the employee from work-related injuries, illnesses and funeral grants.

- Traffic Accident Insurance -ensures access to care by traffic accident victims through compulsory premium paid by all car owners to private insurance firms.

Voluntary Schemes

Private Health Insurance a voluntary risk related premium contribution covers mainly the better off. Government Health Card Scheme (HCS) -a voluntary alternative for the uninsured, e.g. rural informal sector workers who are not eligible for low income scheme, the self-employed and employee in small firms of less than 10 employees who are not eligible for the social insurance scheme . Several small-scale communities financing saving schemes provide limited health benefits to its members. Payments are made retrospectively to members at the end of the year according to the funds available. Self-help funeral grants are more common than health benefits showing wide discrepancies.

2.3 Satisfaction

2.3.1 The Definition of Satisfaction

Risser (1975) pointed out that patient satisfaction has been defined as “the degree of congruency between a patient’s expectation of ideal nursing care and his perception of the real nursing care he received”(10)

Swan, et al, (1985) proposed definition of patient satisfaction with medical care and nursing care in a hospital viewed patient satisfaction as a positive emotional respond that is desired from a cognitive process in which patient compare their individual experience to a set of subjective standards. (11)

Oliver, (1993) stated that the word “satisfaction” is derived from the Latin (satis=enough and faction=to do or make). These terms illustrate the point that satisfaction implies a filling or fulfillment response. (12)

Linder-Pelz (1982) defined patient’s satisfaction as “the individual’s positive evaluations of distinct dimensions of healthcare”. Expression of satisfaction is an expression of an **attitude**, an affective response, which is related to both the belief that the care possesses certain attributes. (13)

2.3.1 Evolution of Client Satisfaction

In the health sector patients are the clients of the health services. Thus client perception of satisfaction, their positive evaluation or assessment have been major focus of health behavior research, satisfaction is complexity determined, it involves trust, client characteristics, need as well as their perception of physician and their personal skill, together with their perception of whether or not they are responding appropriately to treatment.(14)

Satisfaction studies historically began to appear in health care literature in the late 1950’s. At that time there was growing awareness of the clients as an evaluator of

health care. Throughout 1960's and 1970's a number of important studies had been done that assessed the quality of health care as revealed by the client satisfaction. (15)

Mechanic (1954) studied about client satisfaction and found that one third of those who changed their physician or hospital was because of dissatisfaction. Doctors did not adequately meet client satisfaction and failed to explain the procedure and assumption in treatment during the treatment process. The other reason for dissatisfaction that led to change of doctor according to Mechanic's study was the doctor lack of interest, motivation, skill and competency. (16)

Donabedian (1980) proposed a conceptual structure and explained satisfaction study as providers' success to meet client values and expectations. (17)

The very first and taxonomy of client satisfaction with medical care was developed by Ware and associates that included satisfaction questionnaire and client responses to open-ended questions posed to identify satisfaction and dissatisfaction. Since then a great number of studies have been done on client satisfaction evaluating service and service provider. (18)

In 1999, a study was conducted in Sweden showing that consumer satisfaction studies began in Sweden in 1990's with an aim to improve quality of the services and increase efficiency and effectiveness of the process. (19)

In 1999, a study took place in Canada which showed that government of Canada has declared the present era as an era of efficiency, the market and consumer choice, by reducing professional power and increasing the power of the public (20)

2.3.3 Determinants of satisfaction

Expectation

Stimson and Webb (1975) were among the first to suggest that "Satisfaction" is related to the perception of the benefits of care and the extent to which these meet

the patient's expectations.(21) The elemental bearing of expectations is reflected in several definitions of patient's satisfaction and is supported by research evidence, for example, finding that not only can patients hold different aspects of care, but that expectations and satisfaction with specific aspects of care play independent roles in predicting patient's satisfaction.(22),(23),(24)

Expectations make more complex the concept of satisfaction as an evaluative tool. As patient satisfaction is a recognized component of Quality Assurance (25), it is therefore tempting to equate "high" levels of reported satisfaction with "high" levels of quality of care. However, relating to patient satisfaction study results, it is necessary that "expression of satisfaction should always be interpreted in the context of some understanding of the rationale that underlies those expressions rather than being taken at face value" (26). For physician care, the hypothesis that the more a doctor's performance meets a patient's expectations, the more satisfied the patient will be with the physician's services was strongly supported (27). The few later studies in which the relationship between level of patient's expectations and overall satisfaction has been explored consistently suggested that patients with "lower expectations" tend to be more satisfied. There may, however, be confounding variables which need to be considered; for example, there exist relationships between level of patient's expectation, socioeconomic status and associated values and attitudes amongst different patient groups (28).

The assumption is frequently made that expectations refer to some notion of "standards" or "aspirations", but few attempts have been made to see if such attitudes exists as identifiable, stable properties of individuals or groups (23). There are three arguments. Firstly, a new patient is unlikely to have any expectations. Secondly, patients may not believe in the legitimacy of their own expectations in the face of highly technical or esoteric treatments. Thirdly, if the Parsonian sick role holds true, then the patient might deem the very idea of evaluation unfounded. (28)

Expectation was identified into three categories: "background", "interaction", and "action". (21)

“Background” expectations are explicit expectations resulting from accumulated learning of the consultation / treatment process. Although background expectations vary with the illness and particular circumstances, certain patterns of activity or routines are expected, and much criticism centers on behavior which is at odds with these expectations.

“Interaction” expectations refer to patients’ expectations regarding the exchange which will take place with their doctor, for example the manner and technique of questioning and the level of information released by the doctor. Expectations about the action the doctor will take – such as prescribing, referral or advice – are “action” expectations.

“Action” expectations were further divided into “ideal” and “actual” expectations, “ideal” being the action the patient would like the doctor to take and “actual” being the action the patient thinks will be taken.

Of the three, “interaction” expectations are regarded as the most important.

There is evidence that expectations vary according to knowledge and prior experience, and are therefore likely to change with accumulating experience.

Patient characteristics

It is commonly believed that satisfaction with health care may be dependent upon variables such as social class, marital status, gender, and – in particular – age. Socio-demographic characteristics were concluded to be at best a minor predictor of satisfaction.

Perhaps the most consistent determinant characteristic is patient **age**, with a body of evidence from various countries to suggest that older people tend to be more satisfied with health care than do younger people. (29),(30),(31) The literature appears to support this, it was found that older respondents expected less information from their doctor(32) and younger patients were less satisfied with issues surrounding the

consultation and less likely to comply with prescriptions or medical advice. Older people have also been found to be far more satisfied with most aspects of their hospital care than younger or middle aged people.(33),(34)

Educational attainment has been identified as having a significant bearing on satisfaction, the trend being that greater satisfaction is associated with lower levels of education. (35)

The relationship between satisfaction and **social “class”** is less consistent, a problem being that socioeconomic variables are often simply not assessed.

It has generally been found that patient **gender** does not affect satisfaction values.

Ethnic origin is perhaps one of the most complex determinant characteristics. From the US there is the evidence that whites on the whole are more satisfied than non-whites (36), however, the interaction of ethnicity and socioeconomic status has been shown to confuse results (37). A study of the importance of ethno-cultural differences in UK general practice context presented a different conclusion.

Little work has examined possible associations between psychological status – in terms of problems such as anxiety – and satisfaction. (38)

Psychosocial determinants

Five social-psychological variables were proposed as probable determinants of satisfaction with health care:

1. Occurrences – the event which actually takes place, and perhaps more importantly, the individual’s perception of what occurred;
2. Value – evaluation, in terms of good or bad, of an attribute or an aspect of a health care encounter;

3. Expectations – beliefs about the probability of certain attributes being associated with an event or object, and the perceived probable outcome of that association;

4. Interpersonal comparisons – an individual's rating of the health care encounter by comparing it with all such encounters known to or experienced by him or her; and

5. Entitlement – an individual's belief that s/he has proper, accepted grounds for seeking or claiming a particular outcome.

A number of “social-psychological artifacts” may affect expressions of patient satisfaction (40). “Social desirability response bias” argues that patients may report greater satisfaction than they actually feel because they believe positive comments are more acceptable to survey administrators. Similarly, “ingratiating response bias” occurs when patients use the satisfaction survey to ingratiate themselves with researchers or medical staff, especially if there are any reservations over the anonymity of respondents. A number of observers have suggested that patient may be reluctant to complain for fear of unfavorable treatment in the future. (41),(42)

Related to ingratiating response bias is “self-interest bias”. This proposes that as most social programs – which include health care services – act as providers, clients are likely to perceive that expressions of satisfaction will contribute to the continuation of service which in turn will be in their own self-interest. This theory is supported by both the “economic view”, that individuals seek to maximize their own self-interest, and the “social exchange perspective”, that behavior is governed by an exchange of activities. (40)

A further factor is predicted by “cognitive consistency theory”, according to which patients are likely to report they are satisfied as a way of justifying the time and effort they themselves have invested in their treatment at the unit. It can be asserted that patients who continue in the face of adverse program or personal conditions are the most likely to be influenced by this type of bias. Similarly, patients' evaluations of services may in some cases reflect a sensitivity to the “Hawthorne Effect”, which

postulates that the additional attention implicit in the data collection process and the apparent concern of the research sponsors about the patients' level of satisfaction are likely to lead to a positive perception of the service and consequently to positive ratings.(38)

2.3.4 Components of satisfaction

Classification of components

Several classifications of components have been proposed, some appropriate only for specific health care contexts, others aiming at broad applicability. An early identification of key components, proposing the following: adequacy of the facilities; effectiveness of the organizational structure; professional qualifications and competency of personnel; and the effect of care on the consumers (43). After reviewing US patient satisfaction research, four components were emerged (22): cost; convenience; the provider's personal qualities and the nature of the interpersonal relationship; and the provider's professional competence and the perceived quality of care received.

A more definitive taxonomy with eight dimensions was presented in a review by Ware et al.:

- Interpersonal manner – features of the way in which providers interact personally with patients (e.g. respect, concern, friendliness, courtesy);
- Technical quality of care – competence of providers and adherence to high standards of diagnosis and treatment (e.g. thoroughness, accuracy, unnecessary risks, making mistakes);
- Accessibility / convenience – factors involved in arranging to receive medical care (e.g. waiting time, ease of reaching provider);
- Finances – factors involved in paying for medical services;
- Efficacy / outcomes of care – the results of services provided (e.g. improvements in or maintenance of health)
- Continuity of care – constancy in provider or location of care;

- Physical environment – features of setting in which care is delivered (e.g. clarity of signs and directions, orderly facilities and equipments, pleasantness of atmosphere); and
- Availability – presence of medical care resources (e.g. enough medical facilities and provider)

However, as many satisfaction studies are conducted in very specific contexts it is understandable that any standard classification never seems entirely appropriate. (44)

Accessibility

Definition of accessibility includes issues such as physical access to hospitals, GP surgery hours, appointment systems, receptionists, changing doctors, home visits, and appointment waiting lists. Poor parking, public transport and waiting times at health center have all been found to relate to patient dissatisfaction. (38)

Interpersonal aspects of care

The interpersonal aspects of care are regarded as the principal component of satisfaction (30). Two aspects are regarded as particularly important: communication and empathy.

Power is primarily related to status and competence: the doctor's power is carried in a generally higher social status, more medical knowledge and perceived competence. Hypotheses that this balance of power may influence satisfaction with physicians have, however, not been confirmed by research. Furthermore, there is evidence that nurses – who have a lower social status than doctors – also rate badly in terms of satisfaction with communication.

Successful interactions depend also on the social skills of the participants. Non-verbal communication, for example, is often the primary mode of transmitting emotions and attitudes which would rarely be spoken out loud. Body positioning – location, distance, and posture – can transmit important perceptions of relative power.

Reassurance, empathy, and familiarity are recognized as important aspects of the doctor / patient relationship (21), but a direct association with satisfaction is unproved. It was also found that almost all encounters described by patients as “exceptionally good” focused on aspects such as kindness, friendliness, and emotional support rather than technical care. The importance of empathy and reassurance in the patient / health professional relationship in the coping strategies of patients with cancer is well-recognized. This evidence seems to suggest that the health professional is perceived as communicating well when the patient feels he / she shows individualized interest, understanding and reassurance.

Technical aspects of care

Fitzpatrick noted that many patients appear to have more confidence in commenting on convenience, cost, and doctors’ and nurses’ personal qualities than in expressing dissatisfaction with medical skill. (23)

There is, however, some evidence that patients are generally fairly good at assessing technical aspects of care or have a reasonable level of medical knowledge.

Stimson and Webb proposed several reasons to explain why the competence gap should not be seen as absolute. Firstly, the health professional’s knowledge is never complete: the degree of knowledge about medicine in general, or a particular medical problem, will vary from practitioner. Secondly, physicians can never be certain of the outcomes of their actions as medicine operates at the level of the *probable* effect of treatment. Thirdly, the doctor never has a complete monopoly over relevant medical knowledge: patients can – and many do – acquire knowledge about their condition as does a junior doctor. Fourthly, the doctor may not always be in possession of all the information that may be relevant to a particular illness, especially information held by the individual patient. (21)

However, if the medical procedures are found to be deficient, this is associated with patient complaints – a clear indicator of dissatisfaction with a service, which is often handled by different mechanisms within provider units. (38)

Patient education / information

The patient's right to be informed constitutes one of the most important rationales for patient education.

Beyond patient's rights, issues of patient education are relevant to legal mandates, particularly regarding processes such as "informed consent". Patient education has further been shown to have cost-benefits to society in terms of reduced number and / or length of hospital stays, more appropriate use of hospital services, less absenteeism from school and work, reduction in accidents, and acquisition of health awareness behavior. Patient education has been linked with positive clinical outcomes such as improved adherence to a therapeutic regime, reduced anxiety, and enhanced ability to cope with symptoms, enhanced recovery after surgery, and enhanced recovery after outpatient procedures. In addition, enhanced information has been found to improve satisfaction. An early study of GP patients found that satisfaction related significantly to comprehension of information, and that greater comprehension of information related to higher compliance with the doctor's advice. Similarly, patient dissatisfied with the information received at neurological outpatient clinics were found to be far less likely to take medication as advised. Studies highlighting the importance of patient information as a component of satisfaction have helped lead to the proliferation of literature for patients.

1.3.5 Theoretical model used for construction a conceptual framework

Behavioral Model by Ronald M. Andersen

Andersen et al. considered an individual's access to and use of health services to be a function of three characteristics; the specific factors are unique for each type of service:

Predisposing Factors - socio-cultural characteristics of individuals that exist prior to their illness. There are three dimensions:

- Demographics - age, gender, marital status, and family size
- Social structure - education, occupation, ethnicity, and makeup of family

- Health beliefs - attitudes regarding medical care, medical practitioners, illness, or thoughts about one's state of health.

Enabling Factors - the logistical aspects of obtaining care, including family and community resources. There are two dimensions:-

- Economic ability to pay for care - measured by income and/or health insurance coverage
- Community factors - geographic location and population density, which affect service availability.

Need Factors -either a subjective acknowledgement of need (an individual's perception that the situation can benefit from professional help) or an objective professional recognition of need for service (i.e. diagnoses of functional and health problems). Needs are the most immediate cause of health service use (45).

Among the predisposing characteristics, demographic factors such as age, gender represent biological imperatives suggesting the likelihood that people will need health services.

Social structure is measured by a broad array of factors that determine the status of a person in community, his or her ability to cope with presenting problems, and how healthy or unhealthy the physical environment is likely to be.

Traditional measures used to assess social structure include education, occupation, ethnicity, and makeup of family

Health beliefs are attitudes, values, and knowledge that people have about health and health services that might influence their subsequent perceptions of need and use of health services. Health beliefs provide one means of explaining how social structure might influence enabling resources, perceived need, and subsequent use (45).

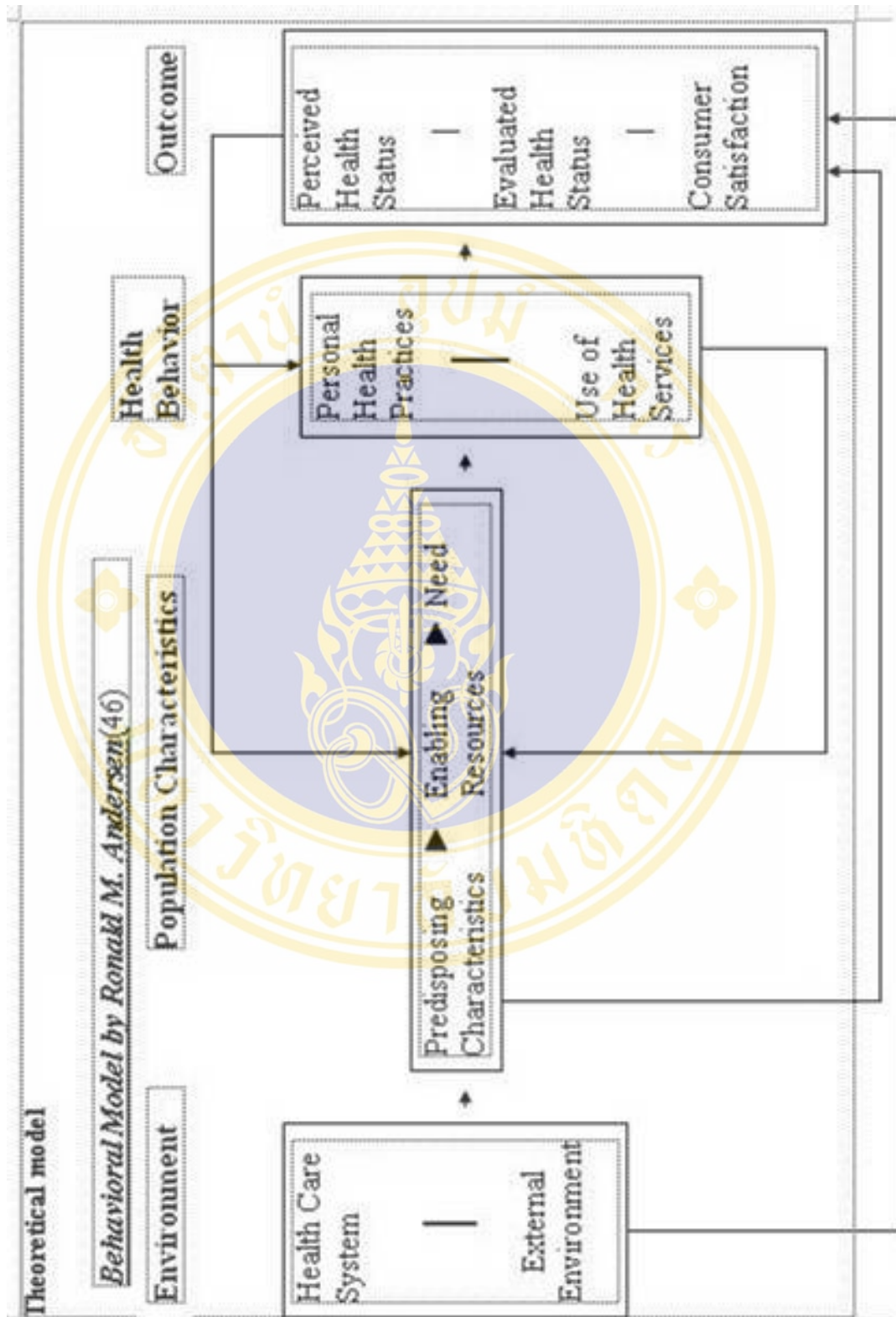


Figure 3 Behavioral Model by Ronald M. Andersen

CHAPTER 3

METHODOLOGY

3.1 Research design

Cross-sectional descriptive study

3.2 Study Population

The target population is patients aged at least 18 years old who have utilized the services at Lad Yao hospital during the time of data collection. In addition, Clients who can communicate very well and are willing to response the questionnaire.

3.3 Sample size

Sample size of clients has been determined by using the following statistical formula (45).

$$n = \frac{Z^2 PQ}{d^2}$$

Where,

n = sample size estimation

Z = Z-score when 95% confidence interval for estimating client satisfaction is calculated.

P = Proportion satisfaction (0.6) (satisfaction level from OPD of Lad Yao hospital)

Q = 1-P (1-0.6 = 0.4)

d = degree of accuracy desired setting at 0.05

So,

$$n = \frac{(1.96)^2 (0.6) (0.4)}{(0.05)^2} = 368.79$$

The required sample size is at least 369

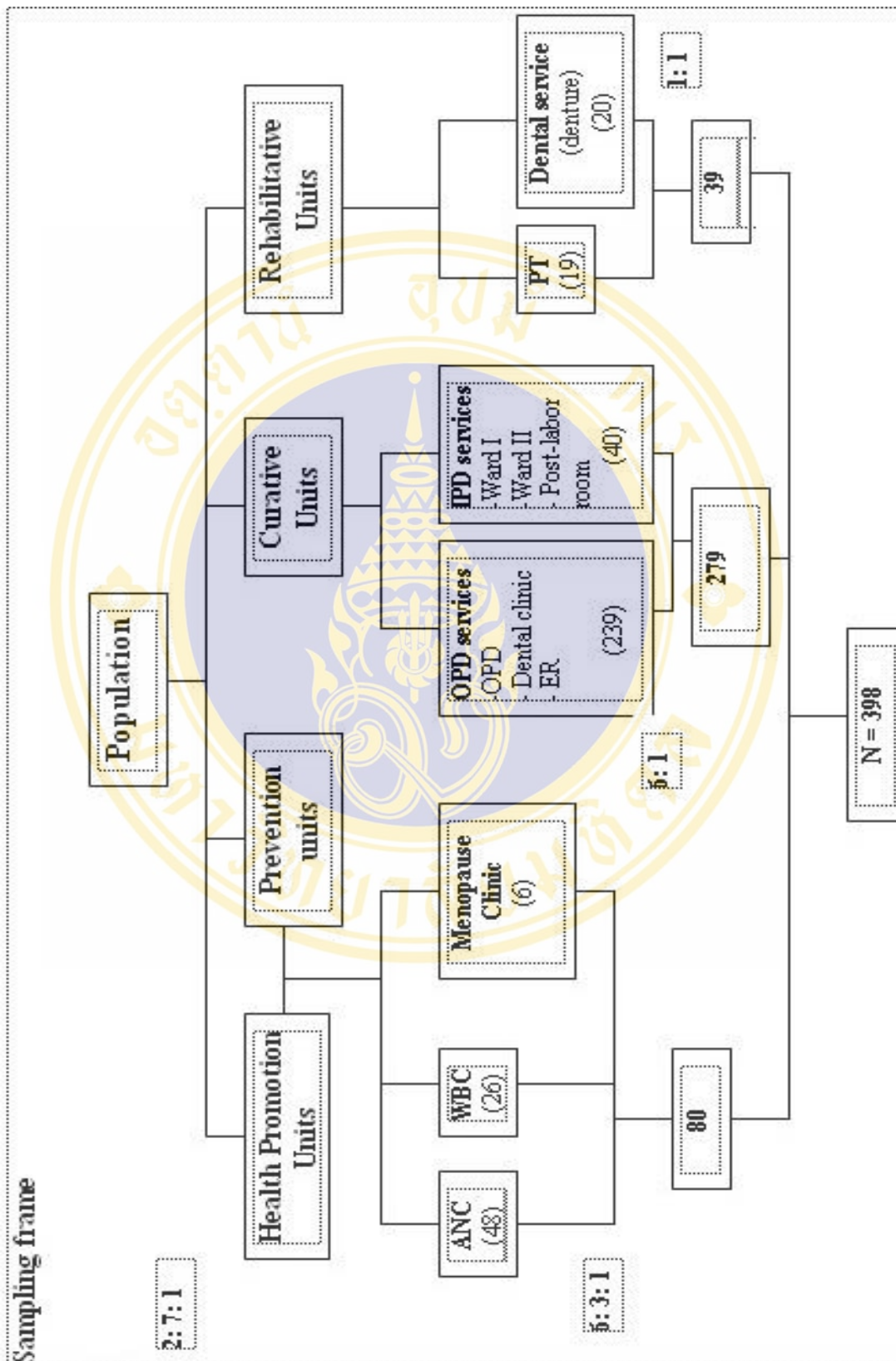


Figure 4 Sampling frame

3.4 Sampling Technique

Stratified sampling was used to draw the samples in order that information about 4 aspects of services could be obtained. The population was stratified into 4 groups according to mainly provided service (Health promotion, Prevention, Curative and Rehabilitative services).

Proportional to size method was applied for determining the number of the samples from each service unit.

During the period of data collection, respondents were randomly selected in systematic way (systematic random sampling).

3.5 Data collection tools

: OPD cards of patients were used for the data about health problem of the clients

: The data was collected by using a self-administered questionnaire focusing on 5 parts:

- I – Socio-demographic characteristics
- II – Expectation towards services of Lad Yao hospital
- III – Attitude towards services of Lad Yao hospital
- IV – Satisfaction towards services of Lad Yao hospital
- V – Suggestion or comments from clients about the services of Lad Yao hospital

3.6 Methods of data collection

1. Pre-testing the questionnaire

- Test of content validity

Developed questionnaire had been tested for validity by the experts working in related field.

- Test of reliability

Pre-testing had been accomplished in a group of respondents (30 subjects) who were socio-demographically and culturally similar to the study population. Reliability of the questionnaire had been tested by Cronbach's alpha test. Cronbach's alpha coefficients were 0.70, 0.81 and 0.96 for the expectation part, attitude part and satisfaction part, respectively. Respondent's opinions, comments, understanding and answers had been taken note whereas the comments on difficulties encountered during interviewing had also been made.

2. Data collection

- Informed the director of the hospital for permission
- Team preparation for data collecting (the interviewer training and calibrating about the concept of the research and questionnaire). Staffs working in the hospital were avoided to be trained as data collectors since their personalities and client's recognition might influence the clients. Secondary and high school students were trained to assist the researcher during the process of data collection in order that bias from characters of interviewers could be minimized
- Informed respondents about the purpose of the study and asked for willingness to participate.
- Data was collected from each service unit according to the calculated number:
 - ANC (12 respondents/day),
 - WBC (12-14 respondents/day),
 - Menopause clinic (6 respondents/day),
 - Out-Patient (38(OPD), 5(Dental clinic), 4 (ER) respondents/day),
 - IPD (8 respondents/day),
 - Physical therapy (4 respondents/day) and
 - Five respondents / day from the patient who come for denture visit at dental clinic.

3.7 Data analysis

Frequency and Percentage were calculated for socio-demographic characteristics (gender, education level, health status and health insurance) as well as level of satisfaction in each category (curative, rehabilitative, preventive and health promotion services).

Median and inter-quartile range were calculated for satisfaction as the data were rating scale.

Mean and standard deviation were calculated for age and family income. In addition, Mean and standard deviation were also presented and used to classify client satisfaction into two groups (satisfied and non-satisfied groups).

Pearson's correlation was performed to identify the association between satisfaction and 2 variables; age and income.

Spearman Rank correlation was performed to identify the association between satisfaction and 2 variables; expectation (including actual experiences comparing with the previous expectation) and attitude.

Kruskal-Wallis test was applied to determine whether or not the reason of the services led the difference of satisfaction level.

Chi-square test was performed to identify association between each factor in socio-demographic characteristics and the level of satisfaction.

Logistic regression will be performed to determine main factors affecting client satisfaction after adjusting for other factors.

CHAPTER 4

RESULTS

This descriptive study was conducted to determine the client satisfaction towards services of Lad Yao hospital. The data were collected during January 24th to February 1st, 2006 by using self-administered questionnaire facilitated by four trained high school students. Eighty cases (20.1%) came for promotion and prevention (ANC = 48 (12.1%), WBC = 26 (6.5%) and 6 (1.5%) from menopause clinic), 279 (70.1%) for curative services (ER = 20 (5%), Dental clinic = 31 (7.8%), OPD = 189 (47.5%), Ward I = 16 (4%), Ward II = 15 (3.8%) and 8 (2%) from post-labor room) and 39 (9.8%) from rehabilitative units (19 (4.8%) and 20 (5%) were patients who came for physical therapy and denture, respectively) during the period of data collection. According to the aspects of the services such as health promotion-prevention, curative services and rehabilitative unit, these results were presented in following parts.

1. Socio-demographic characteristics (Predisposing factors (except attitude), enabling factors and need factors (except expectation)).
2. Expectation towards services of Lad Yao hospital and the actuality-expectation comparison.
3. Attitude towards services of Lad Yao hospital
4. Satisfaction towards services of Lad Yao hospital
5. Association between dependent and independent variables
6. Suggestions and comments from the clients

4.1 Socio-demographic characteristics of the respondents

For this study, socio-demographic characteristics of the clients included gender, age, family income, education level, marital status, occupation, health status, health insurance and health problem which were described accordingly to the 4 aspects of care (Table 2).

From all 398 respondents the youngest and the oldest were 18 and 90 years old correspondingly with mean of 45.27 years and standard deviation of 19.1. Regarding aspects of care, the older clients utilized the services of rehabilitations while the younger utilized the services of health promotion and prevention.

Majority of the respondents were female (71.6%) for overall respondents. Only few male participated in promotion-prevention activities (5%) while there was increased ratio of male in rehabilitative care (male: female = 1:1.79).

Most of all the respondents belonged to marriage group (82.7%) and the other 17.4% were in the non-marriage group (single, divorce, widow, etc). Considering aspects of care, the distribution of marriage and non-marriage group were similar (about 80% were married and 20% were in the other group).

Bachelor degree was the highest education level of this study and only 13 (one respondent from promotion-prevention and twelve respondents from curative care) respondents were graduated at this level. Majority (60.05%) of the respondents were educated at primary school level. According to each aspect of services, about ten percent of clients who utilized rehabilitative services educated at the levels of secondary school and higher whereas there were nearly fifty percent of clients who utilized the services of health promotion and prevention educated these levels.

Agriculture was the most common occupation among the clients of Lad Yao hospital. Employee was the most common occupation of the clients who utilized the services of health promotion and prevention. Only 9 clients in this study earn their living by working as the government officers. Fifty nine clients who did not belong to any mentioned occupation were brought to the group of other (such as own business, student, priest, housewife, etc.).

The average income of 5826 baht was calculated from 396 clients whose families have earned income. The maximum and minimum income of this study equal to 60000 baht and 300 baht, consecutively (both belonged to the clients from curative

care). Average income of the clients of promotion-prevention aspect is highest compared to other aspects of care.

About eighty percent of all clients spent their lives with no saving. The highest percentage of clients with saving was in the services of health promotion and prevention.

Majority (65.6%) of respondents answered that they were healthy. The highest percentage of those who thought that they were healthy belonged to the group of respondents from promotion-prevention services (87.5%). Approximately 44% of the rehabilitative clients gave the answer of unhealthy when they were asked to evaluate their own health status. Regarding the group of clients who utilized curative services there were 60.57% who believed that they were still healthy even if they need the curative care from the hospital.

The percentage of clients with systemic disease was not much different from the percentage of clients without systemic diseases. Regarding the aspects of care, most of the clients who utilized the services of health promotion and prevention had no systemic diseases while half of clients who utilized the curative services had systemic diseases.

Thirty baht scheme was used by most of the clients in this study while the least number of clients (4.3%) used social security scheme. CSBMS had been used by only 5% of the clients in this study. There were 6% of all clients who had not used any privilege from health insurance scheme, in other words, the clients who had to pay from their own pockets.

Most of all clients had utilized services provided by Lad Yao hospital for more than two times. There were only 7.8% of clients came to hospital for the first time during the period of data collection.

Health problems or reasons that led the clients came to Lad Yao hospital were categorized into 5 groups as follows; Appointment, sickness, dental problem, admission (professional care was needed) and other (check-up, medical approval, etc.). It was found that having an appointment led all clients of promotion-prevention and rehabilitative services came to hospital whereas the clients utilizing curative care units came to hospital with different causes or health problems (73 clients with chronic diseases came to hospital because of appointment, 30 clients had dental health problem while 208 clients came to OPD and ER because of their sickness as well as 39 clients needed the professional care and had to stay in wards).

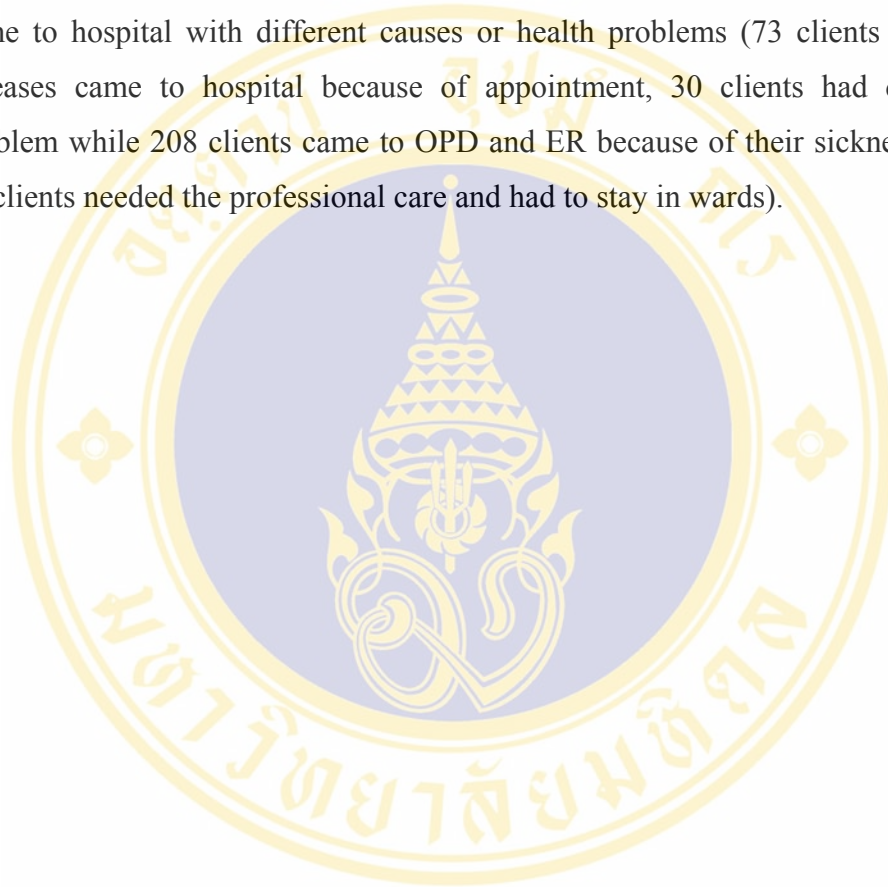


Table 2 Socio-Demographic Characteristics of The Clients

Characteristics	Promotion- Prevention n= 80	Curative n=279	Rehabilitative n=39	All n=398
Age				
- mean (SD)	29.75 (11.49)	48.06 (18.84)	57.10 (15.46)	45.27 (19.1)
- median (IQR)	26.5 (11)	47 (31)	60 (21)	43.5 (32.3)
Gender				
- male	4 (5.0)	95 (34.1)	14 (35.9)	113 (28.4)
- female	76 (95.0)	184 (45.9)	25 (64.1)	285 (71.61)
Marital status				
	n (%)			
- Single	7 (8.8)	48 (17.2)	5 (12.8)	60 (15.0)
- Married	68 (85.0)	230 (82.4)	31(79.5)	329 (82.7)
- Other	5 (6.2)	1 (0.4)	3 (7.7)	9(2.3)
Education level				
	n (%)			
- ≥Bachelor	1 (1.2)	12 (4.3)	0 (0.0)	13 (3.3)
-High school/Dip.	10 (12.5)	36 (12.9)	2 (5.1)	48 (12.1)
- 2°school	27 (33.8)	29 (10.4)	2 (5.1)	58 (14.6)
- 1°school	41 (51.3)	167 (59.9)	31 (79.5)	239 (60.0)
- other	1 (1.2)	35 (12.5)	4 (10.3)	40 (10.0)
Occupation				
	n (%)			
- Agriculture	32 (40.0)	144 (51.6)	16 (41.0)	192 (48.2)
-Gov. Off	0 (0.0)	8 (2.9)	1 (2.6)	9 (2.3)
- Employee	34 (42.5)	94 (33.7)	10 (25.6)	138 (34.7)
- Other	14 (17.5)	33 (11.8)	12 (30.8)	59 (14.8)
Income				
- mean (SD)	7638.3 (8285)	5319.5 (5495)	5718.4(5592.6)	5826.2(6219.3)
- median (IQR)	4500 (7000)	4000 (3000)	4800 (3500)	4000 (3000)
Saving				
	n (%)			
- saving	27 (33.8)	48 (17.3)	6 (15.4)	81 (20.4)
- no saving /no debt	34 (42.5)	154 (55.4)	18 (46.1)	207 (52.0)
- debt	19 (23.7)	76 (27.3)	15 (38.5)	110 (27.6)

Table 2 Socio-Demographic Characteristics of The Clients (Cont.)

Characteristics	Promotion- Prevention n= 80	Curative n=279	Rehabilitative n=39	All n=398
Health status				
- Unhealthy	10 (12.5)	110 (39.4)	17 (43.6)	137 (34.4)
- Healthy	70 (87.5)	169 (60.6)	22 (56.4)	261 (65.6)
Systemic disease				
n (%)				
- Yes	13 (16.3)	141 (50.5)	14 (35.9)	168 (42.2)
- No	67 (83.7)	138 (49.5)	25 (64.1)	230 (57.8)
Health insurance				
n (%)				
- 30 Baht	69 (86.3)	233 (83.5)	33 (84.6)	335 (84.2)
- SSS	3 (3.8)	14 (5.0)	0 (0.0)	17 (4.3)
- CSMBS	2 (2.5)	17 (6.1)	3 (7.7)	22 (5.5)
- Other	6 (7.5)	15 (5.4)	3 (7.7)	24 (6.0)
Visit				
n (%)				
- first visit	9 (11.3)	21 (7.5)	1 (2.6)	31 (7.8)
- second visit	9 (11.2)	36 (13.9)	3 (7.7)	48 (12.1)
- third visit up	62 (77.5)	222 (79.6)	35 (89.7)	319 (80.2)
Reason of visit				
- Appointment	80 (100)	73 (26.2)	39 (100)	192 (48.2)
- Sickness	-	128 (45.9)	-	128 (32.2)
- Dental	-	30 (10.8)	-	30 (7.5)
problem				
- Admission	-	39 (13.9)	-	39 (9.8)
- Other	-	9 (3.2)	-	9 (2.3)

4.2 Expectation of Clients Towards Services of Lad Yao Hospital

The clients were asked about their expectation towards services provided by Lad Yao hospital before they experienced the existent services then compared the actual experiences to their expectation. There were five questions of expectation in case of the clients had never expected about the services they did not need to answer for the comparison. In each question there were about twenty five percent of all clients did not expect and among the five questions of expectation, the topic of short waiting time was answered the most. Majority of the clients expected at the high level in every topic except the topic of short waiting time that only 31.3% expected at this level. Not only was the expectation of clients towards the services of Lad Yao hospital but also the actual experiences of clients after they utilized the existent services considered, majority of clients in each level of expectation (high, low and medium) thought that the actual experiences were according to their expectation. Regarding the low expectation group, about 56% of clients who low expected about the information from the doctors and health care providers assessed the actual experience worse than the previous expectation. (Table 3 and more detail in the appendix, Table 12)

Table 3 Expectation Towards Services of Lad Yao Hospital and The Comparison of The Actual Experience with The Previous Expectation

Questions of expectation	high 3	medium 2	low 1
1. Quality of care (N=296)	168 (56.8)	109 (36.8)	19 (6.4)
	Mean (SD) = 2.5 (0.6), Median (IQR)= 3 (1)		
: Comparing with the actual experience	n=168	n= 109	n=19
- worse than the expectation	13 (7.7)	11 (10.1)	6 (31.6)
- according to the expectation	127 (75.6)	80 (73.4)	8 (42.1)
- better than the expectation	28 (16.7)	18(16.5)	5(26.3)
	Mean (SD) = 2.1 (0.5), Median (IQR) = 2 (0)		
2. Information from the doctors or health care providers (N=295)	190 (64.4)	89 (30.2)	16 (5.4)
	Mean (SD) = 2.6 (0.6), Median (IQR) = 3 (1)		
: Comparing with the actual experience	n=190	n= 89	n= 16
- worse than the expectation	4 (2.1)	16(18)	9 (56.3)
- according to the expectation	160 (84.2)	59 (66.3)	4 (25)
- better than the expectation	26 (13.7)	14 (15.7)	3(18.7)
	Mean (SD) = 2.1 (0.5) Median (IQR) = 2 (0)		
3. Manner of the doctors (N=292)	195 (66.8)	87 (29.8)	10 (3.4)
	Mean (SD) = 2.6 (0.6) Median (IQR) = 3 (1)		
: comparing with the actual experience	N= 195	N= 87	N= 10
- worse than the expectation	8 (4.1)	9 (10.3)	1 (10)
- according to the expectation	151 (77.4)	65 (74.7)	5(50)
- better than the expectation	36 (18.5)	13 (15)	4(40)
	Mean (SD) = 2.1 (0.5), Median (IQR) = 2 (0)		

Table 3 Expectation Towards Services of Lad Yao Hospital and The Comparison of The Actual Experience with The Previous Expectation (Cont.)

Questions of expectation	high 3	medium 2	low 1
4. The condition of the hospital surrounding (N=299)	195 (65.2)	90 (30.1)	14 (4.7)
	Mean (SD) = 2.6(0.6) Median (IQR) = 3 (1)		
: comparing with the actual experience	n= 195	n= 90	n= 14
- worse than the expectation	6 (3.1)	14 (15.6)	4 (28.6)
- according to the expectation	165 (84.6)	57 (63.3)	5 (35.7)
- better than the expectation	24 (12.3)	19 (21.1)	5 (35.7)
	Mean (SD) = 2.1 (0.5) Median (IQR) = 2 (0)		
5. Short waiting time (N=303)	95 (31.3)	112 (37.0)	96 (31.7)
	Mean (SD) = 2.0 (0.8) Median (IQR) =2 (2)		
: comparing with the actual experience	n= 95	n= 112	n= 96
- worse than the expectation	16 (16.8)	20 (17.9)	27 (28.2)
- according to the expectation	57 (60)	81 (72.3)	49 (51)
- better than the expectation	22 (23.2)	11(9.8)	20 (20.8)
	Mean (SD) = 2.0 (0.6) Median (IQR) = 2 (0)		

4.3 Clients' Attitude Towards Services of Lad Yao hospital

Majority of the clients in each group agreed that Lad Yao hospital has been providing good quality of services, doctors always concern with their illness or health problem, health care providers take good care of them, they can easily get the clear answers from doctors or other health care providers and they will recommend Lad Yao hospital to other people who need health care.

Attitude of clients who utilized each aspect of care were similar, nevertheless nearly 100% of rehabilitative clients did agree (agree and strongly agree) in every sentence asking about their opinions whereas in other aspects of care such as promotion-prevention, about 15% of clients' opinions were not sure and disagree with the sentences mentioned for evaluating their attitudes (Table 4 and more detail in the Appendix , Table 13).

Table 4 Clients' Attitude Towards Lad Yao Hospital

Aspect of care	Percentage					Mean (SD)	Median (IQR)
	Strongly Agree (5)	Agree (4)	Not sure (3)	Disagree (2)	Strongly disagree (1)		
- All	14.5	76.0	10.3	1.5	0.7	3.96 (0.4)	4 (0.0)
- Promotion- Prevention	0.1	70.7	11.0	2.7	1.5	3.93 (0.6)	4 (0.4)
- Curative	10.7	75.9	11.5	1.3	0.7	3.93 (0.4)	4 (0)
-Rehabilitative	11.8	87.2	0.5	0.5	0.0	4.1 (0.2)	4 (0.2)

Note: Means score of attitude were not different from medians so that it was confirmed the result of positive attitude towards Lad Yao hospital in most of the respondents.

4.4 Clients' Satisfaction Towards Services of Lad Yao Hospital

In this study, 5 components of satisfaction such as convenience, courtesy, information, out of pocket cost and quality of care had been considered for measuring the satisfaction. Using satisfaction level at least 80%, the satisfied clients were the clients who gave the score of satisfaction more than or equal 4 in each items, in other words, the clients whose means score of satisfaction were more than or equal 4 would be categorized in satisfied group. Average satisfaction score, regarding all clients, was 3.88 (or 77.6%) and it was found that out of 398 clients there were 207 clients who were satisfied with the services (52.01%).

In the view of each aspect of care, Rehabilitative services achieved the highest satisfaction level (both mean score of satisfaction (4.19) and percentage of clients who satisfied the services (84.62%) whereas the percentages of clients who felt satisfied services of promotion-prevention and curative care were only 40% and 50.89% (Table 5). Regarding each component of satisfaction (convenience, courtesy, information, out of pocket cost and quality of care), satisfaction levels were looked similar with the highest scores in the aspect of rehabilitative services.

Among five components of satisfaction, regarding each item of questions addressed for satisfaction level and percentage of clients giving the scores of feeling satisfied or very satisfied, only in the convenience part that less than eighty percent of clients gave the score of 4 or 5 to most of the questions (Appendix, Table 14)

Considering dissatisfied clients, more than ten percent of clients utilizing the services of health promotion-prevention felt dissatisfied and very dissatisfied with the adequacy of medical staff and waiting time. Aside from adequacy of medical staff and waiting time, clients who utilized rehabilitative services answered neither dissatisfied nor very dissatisfied. Concerning the clients who were not classified in the satisfied group, most of them answered neutral rather than dissatisfied or very dissatisfied (for more detail, see the Appendix , Table 14).

Moreover, it was failed to detect the difference of satisfaction level between the reasons of visit to hospital when Kruskal-Wallis Test was performed (Appendix, Table 15).

Table 5 Client Satisfaction Towards Services of Lad Yao Hospital

Satisfaction	Services of Lad Yao Hospital			
	Promotion- Prevention n = 80	Curative n =279	Rehabilitative n =39	All n =398
- Convenience				
- Mean (SD)	3.6 (0.7)	3.8 (0.5)	4.1 (0.3)	3.8 (0.6)
- Median (IQR)	3.7 (0.7)	4 (0.4)	4 (0.1)	4(0.4)
- Courtesy				
- Mean (SD)	3.7 (0.8)	3.9 (0.6)	4.2 (0.5)	3.9 (0.6)
- Median (IQR)	4 (0.9)	4 (0.2)	4 (0.7)	4 (0.2)
- Information				
- Mean (SD)	3.8 (0.7)	3.9 (0.5)	4.2 (0.4)	3.9 (0.5)
- Median (IQR)	4 (0.8)	4 (0.2)	4 (0.8)	4 (0.2)
- Out of pocket cost				
- Mean (SD)	3.8 (0.7)	3.9 (0.6)	4.3 (0.4)	3.9 (0.6)
- Median (IQR)	4 (0.5)	4 (0.0)	4 (0.5)	4 (0.0)
- Quality of care				
- Mean (SD)	3.8(0.7)	3.9 (0.5)	4.2 (0.4)	3.9 (0.5)
- Median (IQR)	4 (0.8)	4 (0.1)	4 (0.6)	4 (0.1)
Overall Satisfaction level				
- Mean (SD)	3.7 (0.6)	3.9(0.4)	4.2 (0.4)	3.9 (0.5)
- Median (IQR)	3.9 (0.7)	4 (0.2)	4 (0.5)	4 (0.2)
- %	74.4	77.6	83.8	77.6
- % of clients whose means of satisfaction score ≥ 4	40%	50.9%	84.6%	52%

Note: Regarding means and medians of each component of satisfaction, most of the respondents gave the score of satisfaction very closed to the level of being satisfied (score of 4).

4.5 Association Between Dependent and Independent Variables

To find out the relationship between dependent and independent variables, number of clients from promotion-prevention had been merged with those from rehabilitative services. Some variables such as education level, occupation, health insurance and number of visit were regrouped in order to get enough clients for statistical analysis. Chi-square test was used to determine the association between satisfaction level and qualitative independent variables (Table 6). Pearson's correlation was used to measure association between satisfaction level and independent quantitative variables (age and income) whereas Spearman Rank correlation was used to measure association between satisfaction level and independent rating-scale variables (expectation and attitude) (Table 7)

Age, education level, attitude and the actual experience comparing with the previous expectation were significantly associated with satisfaction level.

The older clients, the more satisfaction as well as the clients who had more positive attitude and the actual experiences were better than or according to their expectation but the higher education level clients graduated, the lower satisfaction level.

These significantly associated factors were further tested by logistic regression to determine which one can be significant predictors for the client's satisfaction (education level was recoded: 1 for groups of secondary school/above and 0 for primary school/below). Attitude of clients towards services of Lad Yao hospital was found to be the good predictor for satisfaction. Since logistic regression was applied in different groups of clients such as all clients, promotion-prevention/rehabilitative and curative care, attitude was found to be the significant in all groups, education level was significant in the groups of all clients and curative care, actual experience comparing with the previous expectation could also be used for prediction in the group of all clients. Age was the significant predictor in the group of promotion-prevention/rehabilitative but the odds ratio and 95% confidence interval indicated that

age was quite weak for using as a satisfaction predicting factor (Table 8, 9 and 10). Regardless the aspects of services, after adjusting for the factors in the model, increasing in one score of the clients' attitude, it was likely that the client's satisfaction would increase 4.28 times.

Table 6 Association Between Satisfaction Level and Qualitative Independent Variables

Socio-demographic characteristics	PP/Rehab.		Curative		All	
	Dis-satisfied n (%)	satisfied n (%)	Dis-satisfied n(%)	satisfied n (%)	Dis-satisfied n (%)	satisfied n (%)
Gender						
- Male	6 (33.3)	12 (66.7)	46(48.4)	49(51.6)	52(46.0)	61(54)
- Female	48 (47.5)	53 (52.5)	91(49.5)	93(50.5)	139(48.8)	146(51.2)
χ^2	1.2		0.03		0.2	
(P-value)	0.3		0.8		0.6	
Education level						
- 2 ° school /above	27 (64.3)	15 (35.7)	53(68.8)	24(31.2)	80(67.2)	39(32.8)
- 1°school /below	27 (35.1)	50 (64.9)	84(41.6)	118(58.4)	111(39.8)	168(60.2)
χ^2	9.4		16.6		25.2	
(P-value)	0.002*		<0.001*		<0.001*	
Health status						
- Healthy	44 (47.8)	48 (52.2)	84 (9.7)	85(50.3)	128(49)	133(51)
- Unhealthy	10 (37.1)	17 (62.9)	53(48.2)	57(51.8)	63(46)	74(54)
χ^2	1.0		0.06		0.3	
(P-value)	0.3		0.8		0.6	
Health insurance						
- 30/ CSMBS	48 (44.9)	59 (55.4)	122(48.8)	128(51.2)	170(47.6)	187(52.4)
- SSS/ Other	6 (50)	6 (50)	15(51.2)	14(48.8)	21(51.2)	20(48.8)
χ^2	0.1		0.1		0.2	
(P-value)	0.7		0.8		0.7	
Occupation						
- Agriculture	16(33.3)	32(66.7)	65(45.1)	79(54.9)	81(42.2)	111(57.8)
- Employee	25 (56.8)	19 (43.2)	47(50)	47(50)	72(52.2)	66(47.9)
- Gov. Off/ Other	13 (48.1)	14 (51.9)	25(61.0)	16(39.0)	38(55.9)	30(44.1)
χ^2	5.22		3.25		5.26	
(P-value)	0.07		0.20		0.07	

Table 6 Association Between Satisfaction Level and Qualitative Independents Variables (Cont.)

Socio-demographic characteristics	PP/Rehab.		Curative		All	
	Dis-satisfied n (%)	satisfied n (%)	Dis-satisfied n (%)	satisfied n (%)	Dis-satisfied n (%)	satisfied n (%)
Marital Status						
- Single/Other	9 (45)	11 (55)	25 (51)	24 (49)	34 (49)	35 (51)
- Married	45 (45.5)	54 (54.5)	11 (48.7)	11 (51.3)	15 (47.7)	17 (52.3)
χ^2 (P-value)	0.001 1.0		0.09 0.8		0.06 0.8	
Visit						
- First-second	9 (40)	13 (60)	30 (52.6)	27 (47.4)	39 (49.4)	40 (50.6)
- Third visit up	45 (46.4)	52 (53.6)	107(48.2)	115(51.8)	152(47.7)	167(52.3)
χ^2 (P-value)	0.2 0.6		0.3 0.5		0.1 0.8	
Saving						
- with saving	16 (48.5)	17 (51.5)	26 (54.2)	22 (45.8)	42 (51.8)	39 (48.2)
- no saving/ no debt	25 (48.1)	27 (51.9)	79 (51)	76 (49)	104(50.2)	103(49.8)
- with debt	13 (38.2)	21 (61.8)	32 (42.1)	44 (57.9)	45 (40.9)	65 (59.1)
χ^2 (P-value)	1.0 0.6		2.2 0.3		3.1 0.2	

Table 7 Association Between Satisfaction Level and Quantitative Independent Variables

	PP/Rehab. n = 119	Curative n=279	All n =398
Satisfaction			
- mean (SD)	3.9 (0.6)	3.9 (0.4)	3.8 (0.5)
- median (IQR)	4 (0.5)	4 (0.2)	4(0.2)
%of mean \geq 4	54.6%	50.9%	52.0%
Income			
- mean (SD)	6961.0 (7548.6)	5319.5 (5495.0)	5826.2(6219.3)
- median (IQR)	4500 (7000)	4000 (3000)	4000 (3000)
- correlation (P-value)	-0.006 (0.9)	0.3 (0.1)	-0.01 (0.8)
Age			
- mean (SD)	38.7 (18.2)	48.1 (18.8)	45.3 (19.1)
- median (IQR)	32 (19)	47 (31)	43.5 (32.25)
- correlation (P-value)	0.3 (<0.001) *	0.1 (0.04) *	0.2 (<0.001) *
Attitude			
- mean (SD)	4.0 (0.5)	4.0 (0.4)	4.0 (0.5)
- median (IQR)	4 (0.2)	4 (0)	4 (0)
- correlation (P-value)	0.4 (<0.001) *	0.3 (<0.001) *	0.4 (<0.001) *
Expectation			
- mean (SD)	2.5 (0.5)	2.4 (0.5)	2.4 (0.5)
- median (IQR)	2.6 (0.6)	2.6 (0.8)	2.6 (0.8)
- correlation (P-value)	0.1 (0.2)	0.08 (0.2)	0.07 (0.1)
The actuality- expectation comparison			
- mean (SD)	2.2 (0.5)	2.0 (0.4)	2.1 (0.4)
- median (IQR)	2 (0.5)	2 (0)	2 (0.2)
- correlation (P-value)	0.4 (<0.001) *	0.2 (0.007) *	0.3 (<0.001) *

Table 8 Logistic Regression of Client's Satisfaction and Independent Variables (All Clients)

Predictor	Coef	SE Coef	Z	P	Odds Ratio	95% CI	
						Lower	Upper
Constant	-7.537	1.596	-4.72	<0.001			
age	0.011635	0.006721	1.73	0.083	1.01	1.00	1.03
actual	0.7219	0.2787	2.59	0.010*	2.06	1.19	3.55
attitude	1.4548	0.3623	4.02	<0.001*	4.28	2.11	8.71
education level	-0.7383	0.2786	-2.65	0.008*	0.48	0.28	0.83

Reference groups: age (the younger), actual (the lowest scale of assessment), attitude (lowest scale of attitude), education level (1^oschool/below)

Table 9 Logistic Regression of Clients' Satisfaction and Independent Variables (Promotion-Prevention/Rehabilitative Care)

Predictor	Coef	SE Coef	Z	P	Odds Ratio	95% CI	
						Lower	Upper
Constant	-10.728	3.277	-3.27	0.001			
age	0.05814	0.01724	3.37	0.001*	1.06	1.02	1.10
actual	0.4861	0.5217	0.93	0.351	1.63	0.58	4.52
attitude	1.8948	0.8178	2.32	0.021*	6.65	1.34	33.04
education level	0.1364	0.5368	0.25	0.799	1.15	0.40	3.28

Reference groups: age (the younger), actual (the lowest scale of assessment), attitude (lowest scale of attitude), education level (1^oschool/below)

Table 10 Logistic Regression of Clients' Satisfaction and Independent Variables (Curative Care)

Predictor	Coef	SE Coef	Z	P	Odds Ratio	95% CI	
						Lower	Upper
Constant	-6.424	1.931	-3.33	0.001			
age	0.000108	0.008039	0.01	0.989	1.00	0.98	1.02
actual	0.6571	0.3531	1.86	0.063	1.93	0.97	3.85
attitude	1.3519	0.4208	3.21	0.001*	3.86	1.69	8.82
education level	-0.9630	0.3418	-2.82	0.005*	0.38	0.20	0.75

Reference groups: age (the younger), actual (the lowest scale of assessment), attitude (lowest scale of attitude), education level (1^oschool/below)

4.5 Suggestions and comments from the clients

One hundred and forty eight respondents gave 251 comments in the questionnaire those could be considered in positive (47%) and negative (53%) ways. Nearly 55% of comments came from the clients who utilized the services of curative care and about 30% came from clients who utilized the services of health promotion-prevention. There were no comments related to out of pocket cost. The comments from the rehabilitative clients were rarely negative. Complaints about information were not mentioned in the suggestion part of the questionnaire. Most of the comments were related to the convenience which was more likely to be more negative than positive. The complaints about the inconvenience mostly stressed on inadequacy of the medical staffs and long waiting time. The cleanliness of the environment was the positive comments from the clients. According to the comments concerning the courtesy of staffs, some staffs were suggested to improve their service behaviors while some were praised because of their good manner, friendliness and enthusiastic accommodation.

Table 11 Comments from The Clients

Components	PP		Curative		Rehab.		All	
	+	-	+	-	+	-	+	-
Convenience	10	46	14	60	10	3	34	109
	(4)	(18.3)	(5.6)	(23.9)	(4)	(1.2)	(13.5)	(43.4)
Courtesy	12	4	20	18	18	0	50	22
	(4.8)	(1.6)	(8.0)	(7.2)	(7.2)	(0)	(20)	(8.8)
Information	2	0	8	0	5	0	15	0
	(0.8)	(0)	(3.2)	(0)	(2.0)	(0)	(6)	(0)
Cost	0	0	0	0	0	0	0	0
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Quality of care	2	0	15	2	2	0	19	2
	(0.8)	(0)	(6)	(0.8)	(0.8)	(0)	(7.6)	(0.8)
Total	26	50	57	80	35	3	118	133
N = 251	(10.3)	(20.0)	(22.7)	(31.9)	(13.9)	(1.2)	(47.0)	(53.0)

PP=Promotion-Prevention, Reh. = Rehabilitative services

CHAPTER 5

DISCUSSION

For this chapter these following topics were discussed;

1. Methodological concerns
2. Client satisfaction towards services of Lad Yao hospital
3. Client expectation towards services of Lad Yao hospital
4. Attitude towards services of Lad Yao hospital
5. Socio-demographic characteristics
6. Predictive factors of satisfaction

5.1 Methodological Concerns

This study was hospital-based survey conducted during the office hours so that information bias from the respondents could be inevitable since the surrounding of the hospital may cause the clients feel reluctant to complain for fear of unfavorable treatment. The questionnaire was designed for self-administering in order to reduce the hesitation of answering their real opinions and time saving as well. However, clients might not understand clearly how to answer each question or what the objectives of those questions were. Moreover, self-administered questionnaire could not be used with the clients who were not able to read and write so that interview must be performed to facilitate these clients participate in this study. The advantages of interview were; any misunderstanding or confusion about the questions had a chance to be clarified; missing data were minimized. To obtain the good quality of data, the interviewer had to be well-trained and properly selected. In this study, staffs providing services in the hospital were avoided because their personalities and recognition could influence the clients. Secondary and high school students were trained to assist the researcher in the process of data collection in order to minimize bias that can be occurred because of the characters of interviewer. Nevertheless,

monitoring had been done along the process of data collection with the intention that the mistakes or incomplete filled questionnaire could be corrected in time.

Systematic random sampling could be performed in the clients who utilized services at OPD, ANC, WBC and Dental clinic as the number of clients were large and consistent enough when other groups of clients such as in-patient, ER and physical therapy units consisted of few patients and unpredictable time of utilization (especially patients of ER). For the latter groups, data were derived from all patients utilizing services at the time of data collection and were willing to participate in this study. Selection bias was unavoidable in case of systematic random sampling was not able to be done.

In previous studies, client satisfaction was evaluated at specific unit of services such as OPD (47) or so board as health services (48). The methodology of studies and variables of interest were varied from study to study. In this study, several service units were included in order that the whole picture of client satisfaction towards services of Lad Yao hospital could be revealed while each aspect of care could also be considered at the same time.

5.2 Client Satisfaction Towards Services of Lad Yao Hospital

As mentioned in the Chapter 1 about the importance of client satisfaction study that 80% is the minimum goal for the rate of client satisfaction towards services of Lad Yao hospital. Even though the study was performed in the hospital, the figure of satisfaction level was still low and lower than the goal of hospital and provincial level.

ANC of Lad Yao hospital had conducted the client satisfaction survey by using self-administered questionnaire and satisfaction level was about 70% while OPD achieved satisfaction level at about 60%. This study, only 40% of clients from health promotion-prevention and about 51% of clients from curative care felt satisfied.

Client satisfaction in this study was quite low when compared with the previous survey of the hospital so that these issues might be considered; Promotion-prevention aspect did not consist of only ANC but also WBC and Menopause clinic which had no previous information of satisfaction level for comparing; ANC, WBC and menopause clinic might have some problems with services that were reflected by the lower satisfaction level. However these figures were from the quality assurance reported by nursing department of Lad Yao hospital and the methods of data collection and analysis entirely differed from this study.

The satisfaction level of the curative care was almost the same as found in the all client since about 70% of all respondents were from this aspect of care. This figure was according to the number of clients utilizing hospital services per day. It implied that curative care played a major role on the whole picture of clients' satisfaction towards services of the hospital. When the satisfaction situation of the hospital needs to be improved, the highlight should be done on every service unit providing curative care. In other words, rather than any other aspects of care, the major change will be occurred if this aspect of care can achieve the higher level of satisfaction.

Rehabilitative services consisted of physical therapy and denture services. The amounts of clients per day for these types of services were quite small when compared with other aspects of care. In one day, there were about 7-10 clients utilized physical therapy while five clients utilized denture services and all clients were appointed in advance. Long waiting time might not be a problem of the clients in this group and staffs could also spend more time with each client. Additionally, rehabilitative clients might be accustomed to the staffs providing them services since in the short period of time they had to come to hospital frequently due to the continuity of treatment. Therefore satisfaction level of rehabilitative clients was higher than other groups.

There were some argument of "Social desirability response bias" that patients may report greater satisfaction than they actually feel because they believe positive comments are more acceptable to survey administrators. A number of observers have

suggested that patient may be reluctant to complain for fear of unfavorable treatment in the future (41), (42).

Though percentage of clients who felt satisfied with the services was highest in the rehabilitative service, the number of respondents from this aspect was only thirty nine. Hence this result might not be sufficient to confirm that this aspect of care could truly provide the satisfactory services. In fact, satisfaction level was mainly studied for the whole picture of the hospital, satisfaction levels of each aspect of care were the yield product of this study. By the way, the results from this study can be used as clues for further satisfaction survey.

Client satisfaction is one of the key performance indicators of Lad Yao hospital to ascertain that the services providing to clients has been acceptable or any improvement is needed. Client satisfaction survey conducted in the hospital area could not address all inquiry of client opinion towards hospital, there are various methods those can help reflect the feeling, opinion or complaint from the clients who experienced the hospital services both formal and informal ways. The administrators of hospital should not use only the figure of satisfaction level to assess how well the performance of the hospital is.

5.3 Expectation Towards Services of Lad Yao Hospital

In this study client's expectation had not shown the significant association with satisfaction level however the results from assessing the existing services with the previous expectation services were found to be associated with satisfaction. Commonly, when the existent services could serve or better than those were expected, the satisfaction towards these services should be perfect.

In previous studies also mentioned about expectation as the determinant for satisfaction. The patients with lower expectation tend to be more satisfied and for the physician care there was evidence to support the hypothesis that the more doctors'

performance met the patient's expectation the more satisfied the patient would be with the physician's services (27).

Among all items of expectation, short waiting time was expected the least by clients. Clients may either directly or indirectly experience about long waiting time for several times so this could affect the clients' expectation towards the waiting time. Moreover, a large number of patients per day made the clients realize that they must spend more time in the hospital. This reflects that long waiting time due to large amount of clients with the shortage of medical staffs has been the chronic problem of the hospital. The program in health promotion and disease prevention should be encouraged in order that the number of sick people could be reduced and balanced to the number of limited staffs.

5.4 Attitude Towards Services of Lad Yao Hospital

In this study, majority of clients had the high level of attitude and strong association between this variable and the satisfaction level was found. Attitude was also revealed as a predictor for satisfaction level.

For the clients whose answers were neither strongly agree nor agree, "Not sure" was the most common answer. This was looked similar to the satisfaction part, clients selected "neutral" instead of "dissatisfied". These groups of clients especially for those who were not able to read and write might be really not sure with the given sentences or might avoid showing their displeasure via questionnaires.

In the previous studies about patient's satisfaction in health center, attitude was also determined as the associating factor to the level of satisfaction (49). It was claimed that the higher level of attitude towards the hospital clients had, clients were more likely satisfied with the services provided by that hospital.

Attitude was also included in the definition of patient's satisfaction - Expression of satisfaction is an expression of an **attitude**, an affective response, which is related to both the belief that the care possesses certain attributes (13).

All of question asked for clients' attitude were presented in positive meaning in order that positive thinking would be encouraged. Clients might answer their opinion according to those positive sentences instead of their real opinion. In addition, the clients uncaring for the answer of their real opinion might tick without any consideration and this was not easy to trace. Negative sentences should have been added in the questionnaire to obtain the broader ideas and homogeneity of the data could be monitored.

5.5 Socio-Demographic Characteristics

Means of respondents' age from curative and rehabilitative care were higher than 48 years old while mean age of respondents from promotion-prevention was less than 30 years old. It is very common that the older people are more susceptible to illness, especially chronic diseases, than the younger. Relating to service units in promotion-prevention aspect, aside from menopause clinic, clients utilizing services of ANC and WBC must be in the reproductive age therefore the average age of respondents in this aspect of care was the least.

Age was found to be the factors associated with satisfaction level in every aspect of services. It was shown that the older age clients were the more satisfaction they felt.

Age was found to be the factors associated with the client satisfaction in previous studies. It was found that the older age, the more satisfaction level (28, 29, and 30).

To test the association between independent and dependent variables, clients from promotion-prevention were regrouped with those from rehabilitative care. There

were quite big differences among these two groups such as age and satisfaction level. Therefore without adjusting for the factor of age, the results determining association might not be valid. After adjusting for the factors in the model of logistic regression, age was found to be a very weak predictor for satisfaction (Table 9).

There were few male clients utilizing services of health promotion-prevention since ANC and menopause clinic were provided to only female. However, it did not matter if the clients were male or female since the satisfaction was not significantly associated with the gender. It might be explained that health services were not specific services of interest in both gender for examples, female must be more interested in cosmetics or beauty services while male is probably more interested in services of the sports or automobile.

Most of respondents were married (Table 2). Since the study population were clients utilizing services of the hospital with the age not less than 18 years old and as prior mentioning about average age of the respondents, very few people were still single at this age.

Few respondents graduated at the level of Bachelor degree whereas the majority of the respondents graduated at the level of primary school (Table 2). In general, people who graduated at high level earn their living in the urban area or in the city so that the chance of obtaining respondents graduating at the high levels might be very little. If the study was conducted in private hospitals or big hospitals the number of respondents with higher educational level might increased. The age of clients could also be used for explaining the educational level of the respondents. The older people, especially in the rural area, were grown up during the period that education was not encouraged and the education provided in their area was limited at the level of primary school.

Education level was found to be the factors associated with satisfaction level in every aspect of services. It was shown that the clients who graduated at the higher level were satisfied less.

Education level was also found to be the factors associated with the client satisfaction in previous studies. It was found that education level has been identified as having significant bearing on satisfaction (34).

Agriculture and employee were the two most common occupations of the respondents in this study (Table 2). According to climate and topographic characteristics of Lad Yao district, rice and fruits are the main products of the district. Moreover employees in this study also mostly were employed for agricultural activities rather than working in the factory. Time of data collection could affect the occupation as well; very few respondents were government officers who must work during the office hours, the proportion of respondents working as government officials would have raised if the study had been conducted in the overtime clinics

Income and saving were asked to determine the economic status of the clients. People who live without saving might have the feeling of life insecurity or uncertainty so that they have to work much harder and may prioritize their health issues as the less important consideration. Only 20% of clients participating in this study had saving (Table 2). This figure implied that health promotion strategies must be strengthened and well-adjusted to the economic status and clients' consideration.

Self-assessed state of health and medical records were used to identify health status of the clients in this study (Table 2). It was found that the patients with chronic or systemic diseases did not always think that they were unhealthy with the reason that even though they had chronic diseases, they still could work well. In the other hand, some clients without any chronic or systemic disease assessed themselves as unhealthy persons. This might be explained by the thoughts of people that they should not have been sick unless they were unhealthy.

Health insurance used by the most clients in this study was thirty baht scheme, Social Security scheme should be used more than the figure presented in the result part since there were about 35% of clients were employee. These employees might

not the registered employees in the factory or company and have no regular wages or salary therefore they were registered in the thirty baht scheme.

5.6 Predictive Factors of Satisfaction

The significantly associating factors were tested for the strength of their relationships as the predictors of client satisfaction since these associations might be affected by confounding factors. To make sure that which factors could be counted as the genuinely relating factor and which factors are worth for strategic plan consideration, logistic regression was chosen as a tool serving for this purpose.

As shown in the tables 8-10, there was different view in each table. Not every factor was found as a predictor of satisfaction in all models. This implied that either regardless or regarding aspects of care, attitude displayed the remarkable scrutiny as a predictive factor with significant value and higher odds ratio.

CHAPTER 6

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

Client satisfaction is the essential indicator that can reflect the service quality at any level of health care services. Lad Yao hospital had conducted several methods to improve their own service quality and had assessed the level of client satisfaction. However, the whole picture of satisfaction towards services of the hospital had not been documented.

In this study, dependent variable of interest was client satisfaction towards the hospital services which were considered according to aspects of care such as health promotion-prevention, curative care and rehabilitation. Client satisfaction was concerned with five components: convenience, courtesy, information, out of pocket cost and quality of care. Independent variables included; Predisposing factors such as age, gender, education level, occupation, state of health and attitude towards services of the hospital; Enabling factors included family income and health insurance while health problem and expectation were included in need factors. Expectation and attitude were separately studied in each part of questionnaire.

Self-administered questionnaire was used as a tool for data collection. There were four parts in the questionnaire; Socio-demographic characteristics; Expectation towards services of the hospital; Attitude towards services of the hospital; Satisfaction towards services of the hospital and; Comments or suggestion from clients. Cronbach's alpha coefficients were used for reliability test of the questionnaire and came up with 0.70, 0.81 and 0.96 for expectation part, attitude part and satisfaction part, respectively.

The number of respondents was calculated by using the statistical formula and stratified systematic random sampling was applied to obtain the respondents from each service unit. The high school students were trained to assist the researcher during the process of data collection in terms of distributing the questionnaire according to the sampling technique and facilitating the respondents who were not able to read or write in the questionnaire. Because of small amount of clients per day and unpredictable time of utilization, systematic random sampling could not be used in ER, IPD and physical therapy (small number of clients).

There were 398 clients participating in this study, curative care contained the majority of respondents since the amount of clients was the most among every aspect of services.

Considering the average score of satisfaction, for group of all clients, satisfaction level was at 77.6% and there were only 52% of clients whose satisfaction level at least 80%. When each aspect of care was considered, there was only rehabilitative services that was able to achieve the goal of at least 80% of clients were satisfied with the services whereas health promotion-prevention aspect achieved the lowest level of satisfaction.

Client's expectation towards services of Lad Yao hospital was not significantly associated with the level of satisfaction in this study, nevertheless the association was found between the actuality-expectation comparison and the level of satisfaction. When the actual performance or the existent services were according to or better than the expectation of the clients, the satisfaction level tended to be more satisfied than when the actuality was worse than the expectation.

Attitude of the clients towards Lad Yao hospital was associated with level of satisfaction; the clients with more positive attitude were likely to be more satisfied than the clients with more negative attitude towards Lad Yao hospital. From this study, it could be assumed that the clients with positive attitude were about four times more likely satisfied than the clients with negative attitude were.

Age and education level were socio-demographic characteristics those were associated with satisfaction level of the clients in this study. The higher satisfaction level belonged to the older age clients while the higher education level of clients was the less satisfied they were.

The predictive factors of satisfaction for this study could be considered in each aspect of care. Attitude was the predictive factors for all aspects of care whereas age could only be used to predict satisfaction level of the clients from promotion-prevention/rehabilitative group. Aside from attitude, both actuality-expectation comparison and education level were found as the predictors for satisfaction of the group of all clients while only education level was found as the predictive factor for the satisfaction of clients who utilized the curative care.

The comments and suggestion derived from the respondents were shown in both positive and negative ways and mostly related to the convenience as well as the courtesy of the service providers. Complaints about the convenience emphasized on long waiting time and shortage of health care providers however the compliment about the cleanliness of the place was also addressed.

6.2 Recommendation

6.2.1 Recommendation for Program Implication

Concerning the argument stated in chapter 5 about obtained satisfaction level, the services achieving the lower satisfaction level should promptly reconsider their performances to improve the satisfactory situation whereas the services achieving the higher satisfaction level still need to progress their performance.

There were 4 factors found to be associated with satisfaction of clients. The hospital cannot do anything with the ages and educational levels of the clients whereas the actual performance that meet or better than clients' expectation and the good attitude towards the hospital can be created by the hospital. Therefore these following recommendations were proposed:

1. To gain clients' positive attitude towards Lad Yao hospital, the good image of the hospital must be advocated by;

- Motivating the staffs working in the hospital in terms of careful and enthusiastic services. (The director and nurse chief may wander around hospital especially during the rush hours.)

- Gathering participation of clients in the campaign of creating good image of the hospital e.g. competition in paintings, essays or slogans related to good service providing hospital or "Lad Yao my dream hospital" etc.

- Participating in the community activities especially in the special vacation such as Songkran festival, Sports day of other organizations (First-aid services), etc.

- Health promotion and disease prevention should be emphasized since majority of the population in Lad Yao district are not sick. The role model should start from everyone working in the hospital especially the heads or chiefs.

2. Improving the actual performance of the hospital in order to serve the clients' expectation as much as possible.

- Short waiting time and adequacy of medical staffs are preferable.

These two problems of long waiting time and staff inadequacy are related to each other. When the problem of medical staff inadequacy is solved, waiting time is likely shortened.

- Community involvement should be encouraged, for examples

- : The representatives of the community will be invited to be a part of hospital service committee,

- : Providing chances to the clients in sending their recommendations or constructive comments via postcards or SMS (Short Message Service) by monthly offering the motivation such as special rewards to the most useful recommendation or randomly selected for the fortunate participants.

Since both positive and negative comments related to the courtesy of staffs working in the hospital were given as well as the inconvenience related to the long waiting time and inadequate staffs, hospital must search for the appropriate strategies to deal with these kinds of complaints. To tackle the problem of staff inadequacies, there are 2 classic ways; first is allocating new staffs and second is try to increase the

competency of the staffs for higher productivity. Nonetheless, inadequate manpower has been used for excusing hospital selves from the clients' complaint with the long waiting time whereas the deficiency of the staff courtesy could not count shortage of staffs as an alibi. The poor courtesy of staffs can lead interpersonal conflict and the situation of dissatisfaction. Attitude towards Lad Yao hospital may become worse if the staffs do not concern about this at all.

Which one should be emphasized, administrators of the hospital have to give the answer. The comments and suggestion from the clients from several routes are helpful for guiding and monitoring the performance of hospital since satisfaction survey could not be implemented daily thus satisfaction monitoring system should be set up in order that the good things can be maintained and the bad things will be earlier corrected or improved.

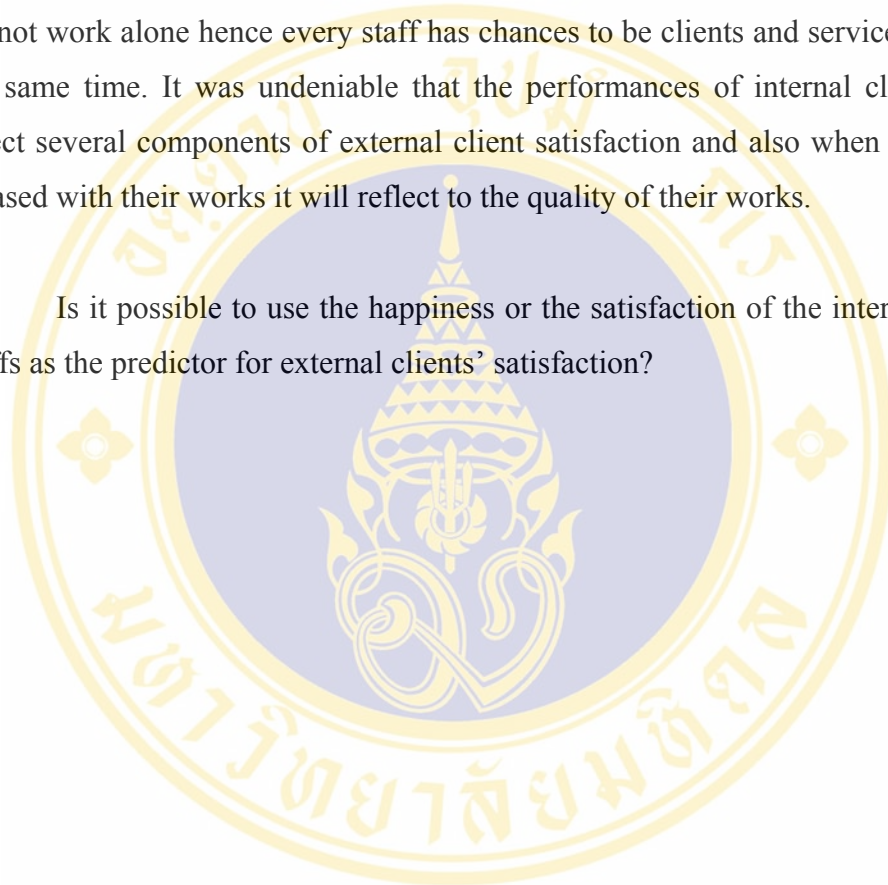
6.2.2 Recommendation for future study

Consequent satisfaction surveys should be conducted systematically in each unit of services with the higher number of respondents in order to determine the satisfaction level of each unit in detail and confirm the results from this study. Furthermore, the barriers of achieving higher satisfaction level could be extracted from the in depth surveys.

Client satisfaction should also be studied in the community. With the different setting, interesting variables for the study and the results possibly will come up in different dimensions and study methodology may also differ from this study. Recall bias should be cautious so appropriate study design must be encouraged. Moreover, clients may be less influenced by the environment during the process of data collection since the study will be performed in their own territory. The complaints or suggestions for service improvement might be expressed more genuinely and the obtained satisfaction level might become lower than those were studied within the surrounding of the hospital. May the attitude of clients in the community towards Lad Yao hospital differ from this study? Or any variables can influence the clients in the community to be satisfied or dissatisfied?

The clients of the hospital are not only the people who come to contact for services from the hospital but also the staffs working for the hospital. The nature of the routine works and the workload can lead the staff consequentially get stress, anxiety and burn out in some cases when they cannot cope with that stress. The staffs working in the hospital can be counted as the internal clients. Each service unit cannot work alone hence every staff has chances to be clients and service providers at the same time. It was undeniable that the performances of internal clients directly affect several components of external client satisfaction and also when the staffs are pleased with their works it will reflect to the quality of their works.

Is it possible to use the happiness or the satisfaction of the internal clients or staffs as the predictor for external clients' satisfaction?



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APPENDIX A

No. _____

Service _____

QUESTIONNAIRE**CLIENT SATISFACTION TOWARDS HOSPITAL SERVICES**

This questionnaire was constructed for assessing your satisfaction towards services provided by Lad Yao hospital. Information obtained from your opinion will be useful for the hospital service improvement and will be kept confidentially. Therefore, please do not hesitate to let us know your point of view. Thanks in advance for your truthful answers.

Name of data collector: _____

Date of data collection: ___ / ___ / ___ (D/M/Y)

Time of data collection: _____ to _____

Systemic disease No Yes specify _____

Experience of hospital service utilization (include this visit):

 1 time 2 times more than 2 times
Part I: Socio-demographic characteristics1. Gender Male Female

2. Age _____ year : Birth date ___ / ___ / ___ (DD / MM / YY)

4. Marital status Single Married Other _____

5. What is your highest educational level?

 Bachelor degree or higher level Diploma or High school Secondary or primary school Other specified _____

6. Occupation

- Agriculture government official
- Employee other specified _____

7. Do you have any chronic disease such as DM, hypertension, heart disease, etc?

- Yes Specified _____
- No

8. What is the problem that brings you to the hospital today?

9. What do you think about your health status at present?

- Healthy
- Unhealthy

10. How much that your family earn per month?

11. According to the monthly family income, how is your financial status?

- sufficient with saving
- sufficient with no saving
- not sufficient

12. What kind of health insurance that you utilize for this visit?

- 30 baht scheme (including low income and elderly card)
- Social security scheme
- CSMBS (Civil Servant Medical Benefit Scheme)
- Other _____

Part II: Expectation & Attitude towards services of Lad Yao hospital

Before utilizing the services, what is your expectation towards the services of Lad Yao Hospital? (Please select the choice that is closest to the level of your expectation)

1. What is your expectation to the quality of care?

- 1) I expected that the quality of care might not be good
- 2) I expected that the quality of care might be acceptable
- 3) I expected that the quality of care might be excellent

: The actual is

- 1) Less (worse) than the expectation
- 2) According to the expectation
- 3) More (better) than the expectation

2. What is your expectation to the information that you would obtain from the doctor or health care provider?

- 1) I expected that not any useful information might be obtained
- 2) I expected that some of useful information might be obtained
- 3) I expected that a lot of useful information might be obtained

: The actual is

- 1) Less (worse) than the expectation
- 2) According to the expectation
- 3) More (better) than the expectation

3. What is your expectation to the manner of the doctor that would be expressed to you?

- 1) I expected that the manner of the doctor might not be good
- 2) I expected that the manner of the doctor might be acceptable
- 3) I expected that the manner of the doctor might be excellent

: The actual is

- 1) Less (worse) than the expectation
- 2) According to the expectation

3) More (better) than the expectation

4. What is your expectation to the condition of the hospital surrounding (e.g. clean, enough facilities, ventilation, etc)?

- 1) I expected that the condition of the hospital might not be good
2) I expected that the condition of the hospital might be acceptable
3) I expected that the condition of the hospital might be excellent
 : The actual is

- 1) Less (worse) than the expectation
 2) According to the expectation
 3) More (better) than the expectation

5. What is your expectation to the short waiting time?

- 1) I expected that the waiting time might be more than 1 hour
2) I expected that the waiting time might be less than 1 hour
3) I expected that waiting time might not be over 30 minutes
 : The actual is

- 1) Less (worse) than the expectation
 2) According to the expectation
 3) More (better) than the expectation

Attitude

1. Usually, the quality of services provided by Lad Yao hospital is good.

Strongly agree Agree Not sure Disagree Strongly disagree

2. Doctors always concern with my illness or health problem.

Strongly agree Agree Not sure Disagree Strongly disagree

3. Health care providers take good care of me.

Strongly agree Agree Not sure Disagree Strongly disagree

4. If I wonder about my health status, prescribed drugs, or any information related the services, I can easily get the clear answers from doctors or other health care providers.

Strongly agree Agree Not sure Disagree Strongly disagree

5. I will recommend Lad Yao hospital to other people who need health care.

Strongly agree Agree Not sure Disagree Strongly disagree

Part III: Satisfaction towards services of Lad Yao hospital

Please tick () in the relevant boxes to identify your satisfaction level towards the following statements.

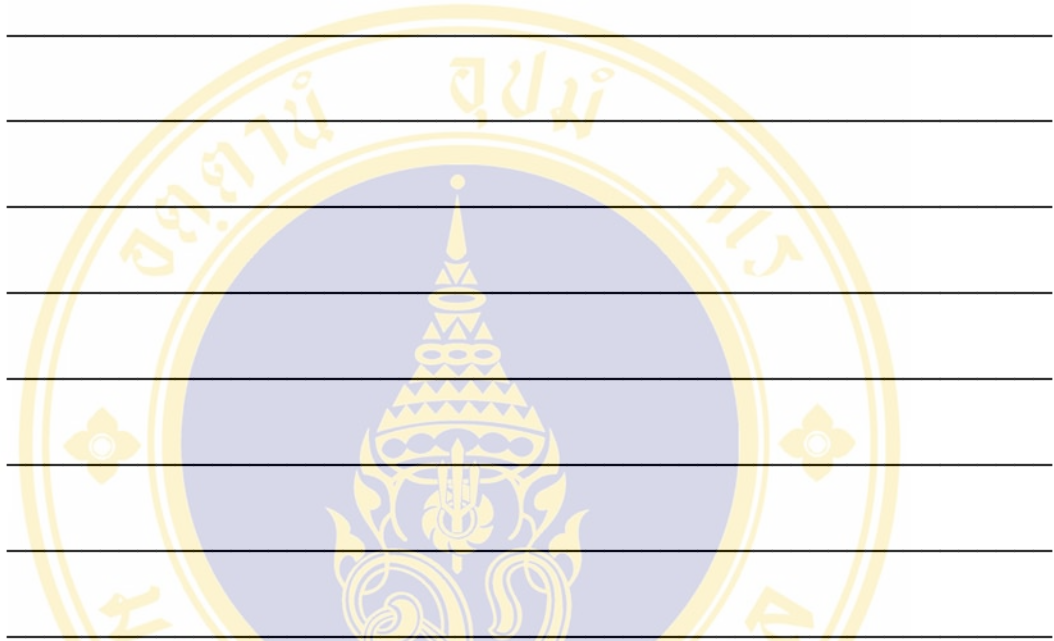
Scale: 5 = very satisfied, 4 = satisfied, 3 = neutral, 2 = dissatisfied, and
1 = very dissatisfied

No.	Satisfaction towards services of Lad Yao hospital	Satisfaction level				
		1	2	3	4	5
Convenience						
1.	The service system is simple and trouble-free					
2.	Enough medical staffs are available					
3.	Working hours when I can get medical care are convenient.					
4.	Waiting time for medical care is acceptable.					
5.	There are enough seats for waiting.					
6.	The ventilation inside the hospital is good.					
7.	The service area, rooms can be found easily.					
Courtesy						
8.	My doctors treat me in a friendly and courteous manner.					
9.	During my medical visits, I am always allowed to say everything that I think is important.					
10.	Medical staffs and doctors care about my privacy.					
11.	Medical staffs accommodate me in a friendly manner.					
Information						
12.	Doctors are good about explaining the reasons for medical tests.					
13.	If I have a medical question, I can reach a doctor for help without problem.					

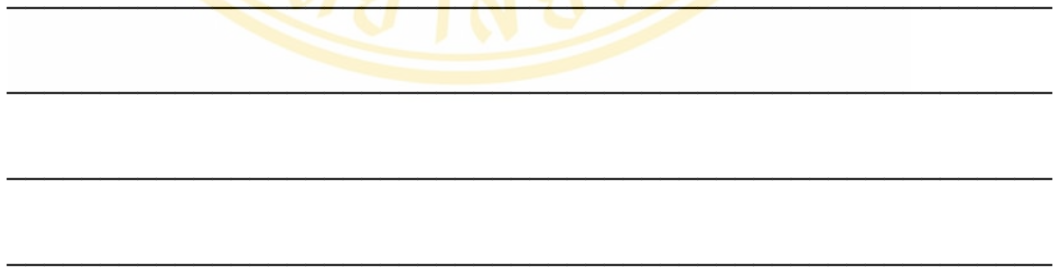
14.	I know clearly about diagnosis, treatment, and health care instruction.					
15.	I know the steps of services and where I can contact.					
No.	Satisfaction towards services of Lad Yao hospital	Satisfaction level				
		1	2	3	4	5
16.	I know what is the drug I got and understand how to use that drug safely					
Out of pocket cost						
17.	The amount that I have to pay to cover or insure my medical care needs is reasonable.					
18.	I have to pay for more of my medical care than I can afford.					
Quality of care						
19.	When I go for medical care, they are careful to check everything when treating and examining me.					
20.	My doctors are very competent and well-trained.					
21.	Medical staffs are skillful and careful.					
22.	Doctors always do their best to keep me from anxiety.					
23.	Equipments used for my medical care are sophisticated					
24.	Prescribed medicine is effective.					
25.	Pharmacists gave me prescribed medicines accurately					

Part IV: Suggestion

- 1. Please give your suggestion to improve the quality of services provided by Lad Yao hospital.**



- 2. What activity (ies) that impresses you during this visit?**



APPENDIX B

Table 12 Expectation in each question (by aspect of care)

Expectation	N=80				N=279				N=39			
	Promotion-Prevention				Curative				Rehabilitative			
	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect
1. Quality of care	33 (41.3)	26 (32.5)	6 (7.5)	15 (18.7)	114 (40.9)	72 (25.8)	12 (4.3)	81 (29)	21 (53.8)	11 (28.2)	1 (2.6)	6 (15.4)
N (%)												
- Mean(SD)	2.4(0.7)				2.5(0.6)				2.6(0.6)			
- Median (IQR)	3 (1)				3 (1)				3 (1)			
2. Comparing with the actual experience												
- worse (1)	1 (3%)	2 (7.7%)	3 (50%)	-	10 (8.8%)	8 (11.1%)	3 (25%)	-	2 (9.5%)	1 (9.1%)	0 (0%)	-
- according(2)	23 (69.7%)	20 (76.9%)	2 (33.3%)	-	90 (78.9%)	57 (79.2%)	6 (50%)	-	14 (66.7%)	3 (27.3%)	0 (0%)	-
- better (3)	9 (27.3%)	4 (15.4%)	1 (16.7%)	-	14 (12.3%)	7 (9.7)	3 (25%)	-	5 (23.8%)	7 (63.6%)	1 (100%)	-
N (%)												
- Mean(SD)	2.1 (0.5)				2.0 (0.5)				2.3 (0.6)			
- Median (IQR)	2 (1)				2 (0)				2 (1)			

Table 12 Expectation in each question (by aspect of care) (Cont.)

Expectation	N=80				N=279				N=39			
	Promotion-Prevention				Curative				Rehabilitative			
	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect
2. Information	46	21	3	10	124	60	11	84	20	8	2	9
N (%)	(57.5)	(26.2)	(3.8)	(12.5)	(44.5)	(21.5)	(3.9)	(30.1)	(51.3)	(20.5)	(5.1)	(23.1)
- Mean(SD)	2.6 (0.6)				2.6 (0.6)				2.6 (0.6)			
- Median (IQR)	3 (1)				3 (1)				3 (1)			
3. Comparing with the actual experience												
- worse (1)	1 (2.2%)	2 (9.5%)	2 (66.7%)	-	3 (2.4%)	14 (23.3%)	7 (63.6)	-	0 (0%)	0 (0%)	0 (0%)	-
- according(2)	34 (73.9%)	15 (71.4%)	0 (0%)	-	109 (87.9%)	42 (70%)	4 (36.4)	-	17 (85%)	2 (25%)	0 (0%)	-
- better (3)	11 (23.9%)	4 (19.1%)	1 (33.3%)	-	12 (9.7%)	4 (6.7)	0 (0%)	-	3 (15%)	6 (75%)	2 (100%)	-
- Mean(SD)	2.2 (0.5)				2 (0.4)				2.2 (0.6)			
- Median (IQR)	2 (0)				2 (0)				2 (1)			

Table 12: Expectation in each question (by aspect of care) (Cont.)

Expectation	N=80 Promotion-Prevention				N=279 Curative				N=39 Rehabilitative			
	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect
3. manner of the doctors N (%)	42 (52.5)	23 (28.8)	2 (2.5)	13 (16.2)	130 (46.6)	58 (20.8)	5 (1.8)	86 (30.8)	23 (59)	6 (15.4)	3 (7.7)	7 (17.9)
- Mean(SD)	2.6 (0.5)				2.6 (0.5)				2.6 (0.7)			
- Median (IQR)	3 (1)				3 (1)				3 (1)			
Comparing with the actual experience												
- worse (1)	3 (7.1%)	2 (8.7%)	0 (0%)	-	5 (3.8%)	7 (12.1%)	1 (20%)	-	0 (0%)	0 (0%)	0 (0%)	-
- according(2)	27 (64.3%)	16 (69.6%)	2 (100%)	-	108 (83.1%)	47 (81%)	3 (60%)	-	16 (69.6%)	2 (33.3%)	0 (0%)	-
- better (3)	12 (28.6%)	5 (21.7%)	0 (0%)	-	17 (13.1%)	4 (6.9)	1 (20%)	-	7 (30.4%)	4 (66.7%)	3 (100%)	-
Mean(SD)	2.18 (0.6)				2.1 (0.4)				2.4 (0.5)			
- Median (IQR)	2 (1)				2 (0)				2 (1)			

Table 12 Expectation in each question (by aspect of care) (Cont.)

Expectation	N=80 Promotion-Prevention					N=279 Curative					N=39 Rehabilitative				
	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect		Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect		Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect	
4. Environment	41	29	1	9		135	51	10	83		19	10	3	7	
N (%)	(51.2)	(36.3)	(1.3)	(11.2)		(48.4)	(18.3)	(3.6)	(29.7)		(48.7)	(25.6)	(7.7)	(18)	
- Mean(SD)	2.6 (0.5)					2.6 (0.6)					2.5 (0.7)				
- Median (IQR)	3 (1)					3 (1)					3 (1)				
5. Comparing with the actual experience															
- worse (1)	2	1	0	-		3	13	4	-		1	0	0	-	
	(4.9%)	(3.4%)	(0%)			(2.2%)	(25.5%)	(40%)			(5.25%)	(0%)	(0%)		
- according(2)	28	21	0	-		120	34	5	-		17	2	0	-	
	(68.3%)	(72.4%)	(0%)			(88.9%)	(66.7%)	(50%)			(89.5%)	(20%)	(0%)		
- better (3)	11	7	1	-		12	4	1	-		1	8	3	-	
	(26.8%)	(21.3%)	(100%)			(8.9%)	(7.8)	(10%)			(5.25%)	(80%)	(100%)		
- Mean(SD)	2.2 (0.5)					2.0 (0.4)					2.3 (0.6)				
- Median (IQR)	2 (1)					2 (0)					2 (1)				

Table 12 Expectation in each question (by aspect of care) (Cont.)

Expectation	N=80 Promotion-Prevention				N=279 Curative				N=39 Rehabilitative			
	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect	Positive (high) 3	Neutral (medium) 2	Negative (low) 1	Never expect
5. Waiting time	20 (25)	29 (36.3)	14 (17.5)	17 (21.2)	65 (23.3)	68 (24.3)	73 (26.2)	73 (26.2)	10 (25.6)	15 (38.5)	9 (23.1)	5 (12.8)
- Mean(SD)	2.1(0.73)				2.0(0.8)				2.0(0.8)			
- Median (IQR)	2 (1)				2 (2)				2 (2)			
Comparing with the actual experience												
- worse (1)	2 (10%)	11 (37.9%)	7 (50%)	-	12 (8.8%)	7 (11.1%)	17 (25%)	-	2 (20%)	2 (13.3%)	3 (33.3)	-
- according(2)	11 (55%)	16 (55.2%)	2 (14.3%)	-	41 (78.9%)	56 (79.2%)	44 (50%)	-	5 (50%)	9 (60%)	3 (33.3)	-
- better (3)	7 (35%)	2 (6.9%)	5 (35.7%)	-	12 (12.3%)	5 (9.7)	12 (25%)	-	3 (30%)	4 (26.7%)	3 (33.3)	-
- Mean(SD)	1.9(0.7)				2.0(0.6)				2.1(0.7)			
- Median (IQR)	2 (1)				2 (0)				2 (1)			
Expectation												
		2.5 (0.4)				2.4 (0.5)				2.4 (0.5)		
		2.6 (0.6)				2.6 (0.8)				2.6 (0.8)		
Actuality- expectation comparison												
		2.1 (0.4)				2 (0.4)				2.2 (0.6)		
		2 (0.4)				2 (0)				2 (0.8)		

Table 13 Attitude towards Lad Yao hospital (by items and aspects of services)

Aspects of care	Frequency and percentage					Mean (SD)	Median (IQR)
	Strongly agree(5)	Agree (4)	Not sure (3)	Disagree (2)	Strongly disagree(1)		
Question no.1	Usually, the quality of services provided by Lad Yao hospital is good.						
- All (N=398)	53 (13.3)	291 (73.1)	42 (10.6)	9 (2.3)	3 (0.7)	3.96 (0.6)	4 (0)
- Promotion-Prevention (n=80)	17 (21.25)	50 (62.5)	8 (10.0)	4 (5.0)	1 (1.25)	3.98 (0.8)	4 (0)
- Curative (n=279)	32 (11.5)	206 (73.8)	34 (12.2)	5 (1.8)	2 (0.7)	3.94 (0.6)	4 (0)
- Rehabilitative (n=39)	4 (10.3)	35 (89.7)	0 (0)	0 (0)	0 (0)	4.1 (0.3)	4 (0)
Question no.2	Doctors always concern with my illness or health problem.						
- All (N=398)	45 (11.3)	299 (75.1)	46 (11.6)	6 (1.5)	2 (0.5)	3.95 (0.6)	4 (0)
- Promotion-Prevention (n=80)	10 (12.5)	57 (71.25)	10 (12.5)	2 (2.5)	1 (1.25)	3.91 (0.7)	4 (0)
- Curative (n=279)	30 (10.8)	209 (74.9)	35 (12.5)	4 (1.4)	1 (0.4)	3.94 (0.6)	4 (0)
- Rehabilitative (n=39)	5 (12.8)	33 (84.6)	1 (2.6)	0 (0)	0 (0)	4.1 (0.4)	4 (0)

Table 13 Attitude towards Lad Yao hospital (by items and aspects of services) (Cont.)

Aspects of care	Frequency and percentage						Mean (SD)	Median (IQR)
	Strongly agree(5)	Agree (4)	Not sure (3)	Disagree (2)	Strongly disagree(1)			
Question no.3	Health care providers take good care of me.							
- All (N=398)	50 (12.6)	302 (75.9)	38 (9.5)	4 (1.0)	4 (1.0)	4 (1.0)	3.98 (0.6)	4 (0)
- Promotion-Prevention (n=80)	11 (13.75)	58 (72.5)	8 (10.0)	2 (2.5)	1 (1.25)	1 (1.25)	3.95 (0.7)	4 (0)
- Curative (n=279)	34 (12.2)	210 (75.3)	30 (10.7)	2 (0.7)	3 (1.1)	3 (1.1)	3.97 (0.6)	4 (0)
- Rehabilitative (n=39)	5 (12.8)	34 (87.2)	0 (0)	0 (0)	0 (0)	0 (0)	4.13 (0.3)	4 (0)
Question no.4	I can easily get the clear answers from doctors or other health care providers							
- All (N=398)	41 (10.3)	309 (77.6)	41 (10.3)	5 (1.3)	2 (0.5)	2 (0.5)	3.96 (0.6)	4 (0)
- Promotion-Prevention (n=80)	11 (13.7)	55 (68.7)	13 (16.3)	0 (0)	1 (1.3)	1 (1.3)	3.94 (0.6)	4 (0)
- Curative (n=279)	26 (9.3)	220 (78.9)	28 (10.0)	4 (1.4)	1 (0.4)	1 (0.4)	3.95 (0.5)	4 (0)
- Rehabilitative (n=39)	4 (10.3)	34 (87.2)	0 (0)	1 (2.6)	0 (0)	0 (0)	4.05 (0.5)	4 (0)

Table 13 Attitude towards Lad Yao hospital (by items and aspects of services) (Cont.)

Aspects of care	Frequency and percentage					Mean (SD)	Median (IQR)
	Strongly agree(5)	Agree (4)	Not sure (3)	Disagree (2)	Strongly disagree(1)		
Question no. 5 I will recommend Lad Yao hospital to other people who need health care.							
- All (N=398)	39 (9.8)	311 (78.1)	38 (9.6)	6 (1.5)	4 (1.0)	3.9 (0.6)	4 (0)
- Promotion-Prevention (n=80)	7 (8.8)	63 (78.7)	5 (6.3)	3 (3.7)	2 (2.5)	3.9 (0.7)	4 (0)
- Curative (n=279)	27 (9.7)	214 (76.7)	33 (11.8)	3 (1.1)	2 (0.7)	3.9 (0.6)	4 (0)
- Rehabilitative (n=39)	5 (12.8)	34 (87.2)	0 (0)	0 (0)	0 (0)	4.1 (0.3)	4 (0)
All Questions							
- All (N=5 x 398 = 1990)	228 (14.5)	1512 (76.0)	205 (10.3)	30 (1.5)	15 (0.7)	3.9 (0.5)	4 (0)
- Promotion-Prevention (n= 5 x 80 =400)	56 (0.1)	283 (70.7)	44 (11)	11 (2.7)	6 (1.5)	3.9 (0.6)	4 (0.4)
- Curative (n= 5 x 279 =1395)	149 (10.7)	1059 (75.9)	160 (11.5)	18 (1.3)	9 (0.6)	3.9 (0.4)	4 (0)
- Rehabilitative (n= 5 x 39=195)	23 (11.8)	170 (87.2)	1 (0.5)	1 (0.5)	0 (0)	4 (0.2)	4 (0.2)

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items)

Aspects of care	Frequency and percentage					Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)		
Convenience	The service system is simple and trouble-free						
- All (N=398)	38 (9.5)	245 (61.6)	89 (22.4)	15 (3.8)	11 (2.7)	3.7 (0.8)	4 (1)
- Promotion-Prevention (n=80)	8 (10.0)	42 (52.5)	22 (27.5)	5 (6.2)	3 (3.8)	3.6 (0.9)	4 (1)
- Curative (n=279)	21 (7.5)	176 (63.1)	64 (22.9)	10 (3.6)	8 (2.9)	3.7 (0.8)	4 (1)
- Rehabilitative (n=39)	9 (23.1)	27 (69.2)	3 (7.7)	0 (0.0)	0 (0.0)	4.2 (0.5)	4 (0)
Question no.2	Enough medical staffs are available						
- All (N=398)	29 (7.3)	267 (67.1)	69 (17.3)	26 (6.5)	7 (1.8)	3.7 (0.8)	4 (1)
- Promotion-Prevention (n=80)	6 (7.5)	47 (58.7)	16 (20)	9 (11.3)	2 (2.5)	3.6 (0.9)	4 (1)
- Curative (n=279)	17 (6.1)	193 (69.2)	50 (17.9)	14 (5.0)	5 (1.8)	3.7 (0.7)	4 (0)
- Rehabilitative (n=39)	6 (15.4)	27 (69.2)	3 (7.7)	3 (7.7)	0 (0)	3.9 (0.7)	4 (0)

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage						Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)			
Question no.3	Working hours when I can get medical care are convenient.							
- All (N=398)	54 (13.6)	261 (65.6)	57 (14.3)	18 (4.5)	8 (2.0)		3.8 (0.8)	4 (0)
- Promotion-Prevention (n=80)	13 (16.2)	44 (55)	14 (17.5)	5 (6.3)	4 (5)		3.7 (1.0)	4 (1)
- Curative (n=279)	34 (12.2)	189 (67.7)	39 (14.0)	13 (4.7)	4 (1.4)		3.85 (0.7)	4 (0)
- Rehabilitative (n=39)	7 (17.9)	28 (71.8)	4 (10.3)	0 (0)	0 (0)		4.1 (0.5)	4 (0)
Question no.4	Waiting time for medical care is acceptable.							
- All (N=398)	28 (7.0)	251 (63.1)	80 (20.1)	28 (7.0)	11 (2.8)		3.6 (0.8)	4 (1)
- Promotion-Prevention (n=80)	2 (2.5)	44 (55)	23 (28.8)	8 (10)	3 (3.7)		3.4 (0.8)	4 (1)
- Curative (n=279)	20 (7.2)	179 (64.2)	53 (19)	19 (6.7)	8 (2.9)		3.7 (0.8)	4 (1)
- Rehabilitative (n=39)	6 (15.4)	28 (71.8)	4 (10.3)	1 (2.6)	0 (0)		4 (0.6)	4 (0)

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage						Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)			
Question no.5	There are enough seats for waiting.							
- All (N=398)	61 (15.3)	241 (60.6)	72 (18.1)	18 (4.5)	6 (1.5)		3.8 (0.8)	4 (0)
- Promotion-Prevention (n=80)	47 (16.9)	176 (63.1)	44 (15.8)	7 (2.5)	5 (1.7)		3.5 (0.9)	4 (1)
- Curative (n=279)	21 (7.5)	176 (63.1)	64 (22.9)	10 (3.6)	8 (2.9)		3.9 (0.8)	4 (0)
- Rehabilitative (n=39)	7 (18.0)	30 (76.9)	2 (5.1)	0 (0)	0 (0)		4.1 (0.5)	4 (0)
Question no.6	The ventilation inside the hospital is good.							
- All (N=398)	48 (12.0)	273 (68.6)	59 (14.8)	13 (3.3)	5 (1.3)		3.9 (0.7)	4 (0)
- Promotion-Prevention (n=80)	13 (16.3)	45 (56.2)	17 (21.2)	5 (6.3)	0 (0)		3.8 (0.8)	4 (1)
- Curative (n=279)	27 (9.7)	199 (71.3)	40 (14.3)	8 (2.9)	5 (1.8)		3.8 (0.7)	4 (0)
- Rehabilitative (n=39)	8 (20.5)	29 (74.4)	2 (5.1)	0 (0)	0 (0)		4.2 (0.5)	4 (0)

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage							Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)				
Question no.7	The service area, rooms can be found easily								
- All (N=398)	57 (14.3)	280 (70.4)	43 (10.8)	10 (2.5)	8 (2.0)			3.9 (0.7)	4 (0)
- Promotion-Prevention (n=80)	17 (21.3)	44 (55)	12 (15)	5 (6.2)	2 (2.5)			3.9 (0.9)	4 (0)
- Curative (n=279)	32 (11.5)	206 (73.8)	30 (10.8)	5 (1.8)	6 (2.1)			3.9 (0.7)	4 (0)
- Rehabilitative (n=39)	8 (20.5)	30 (76.9)	1 (2.6)	0 (0)	0 (0)			4.2 (0.5)	4 (0)
Courtesy									
Question no.8	My doctors treat me in a friendly and courteous manner.								
- All (N=398)	57 (14.3)	261 (65.6)	62 (15.6)	11 (2.8)	7 (1.8)			3.9 (0.7)	4 (0)
- Promotion-Prevention (n=80)	15 (18.8)	39 (48.7)	19 (23.7)	4 (5)	3 (3.8)			3.7 (0.9)	4 (1)
- Curative (n=279)	30 (10.7)	196 (70.3)	42 (15.1)	7 (2.5)	4 (1.4)			3.9 (0.7)	4 (0)
- Rehabilitative (n=39)	12 (30.7)	26 (66.7)	1 (2.6)	0 (0)	0 (0)			4.3 (0.5)	4 (1)

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage					Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)		
Question no.9	During my medical visits, I am always allowed to say everything that I think is important.						
- All (N=398)	50 (12.5)	285 (71.6)	44 (11.1)	15 (3.8)	4 (1.0)	3.9 (0.7)	4 (0)
- Promotion-Prevention (n=80)	10 (12.5)	43 (53.7)	18 (22.5)	8 (10)	1 (1.3)	3.7 (0.9)	4 (1)
- Curative (n=279)	29 (10.4)	215 (77.1)	25 (8.9)	7 (2.5)	3 (1.1)	3.9 (0.6)	4 (0)
- Rehabilitative (n=39)	11 (2.6)	27 (69.2)	1 (2.6)	0 (0)	0 (0)	4.3 (0.5)	4 (1)
Question no.10	Medical staffs and doctors care about my privacy.						
- All (N=398)	53 (13.3)	266 (66.8)	61 (15.3)	12 (3.0)	6 (1.6)	3.9 (0.7)	4 (0)
- Promotion-Prevention (n=80)	12 (15)	36 (45)	23 (28.7)	7 (8.8)	2 (2.5)	3.6 (0.9)	4 (1)
- Curative (n=279)	30 (10.7)	203 (72.8)	37 (13.3)	5 (1.8)	4 (1.4)	3.9 (0.7)	4 (0)
- Rehabilitative (n=39)	11 (2.6)	27 (69.2)	1 (2.6)	0 (0)	0 (0)	4.5 (0.5)	4 (1)

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage					Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)		
Question no.11	Medical staffs accommodate me in a friendly manner						
- All (N=398)	60 (15.1)	272 (68.3)	45 (11.3)	13 (3.3)	8 (2.0)	3.9 (0.8)	4 (0)
- Promotion-Prevention(n=80)	13 (16.3)	42 (52.5)	16 (20)	6 (7.5)	3 (3.7)	3.7 (0.9)	4 (1)
- Curative (n=279)	37 (13.3)	204 (73.1)	26 (9.3)	7 (2.5)	5 (1.8)	3.9 (0.7)	4 (0)
- Rehabilitative (n=39)	10 (25.6)	26 (69.2)	3 (7.7)	0 (0)	0 (0)	4.2 (0.5)	4 (1)
Information							
Question no.12	Doctors are good about explaining the reasons for medical tests.						
- All (N=398)	63 (15.9)	274 (68.8)	45 (11.3)	8 (2.0)	8 (2.0)	3.9 (0.7)	4 (0)
- Promotion-Prevention(n=80)	19 (23.7)	40 (50)	14 (17.5)	4 (5)	3 (3.8)	3.9 (0.9)	4 (1)
- Curative (n=279)	33 (11.8)	208 (74.5)	29 (10.4)	4 (1.4)	5 (1.8)	3.9 (0.7)	4 (0)
- Rehabilitative (n=39)	11 (28.2)	26 (66.7)	2 (5.1)	0 (0)	0 (0)	4.2 (0.5)	4 (1)

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage						Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)			
Question no.13 If I have a medical question, I can reach a doctor for help without problem.								
- All (N=398)	53 (13.3)	281 (70.6)	44 (11.1)	15 (3.8)	5 (1.3)	3.9 (0.7)	4 (0)	
- Promotion-Prevention(n=80)	11 (13.7)	49 (61.3)	12 (15)	6 (7.5)	2 (2.5)	3.8 (0.9)	4 (0.8)	
- Curative (n=279)	30 (10.8)	206 (73.8)	31 (11.1)	9 (3.2)	3 (1.1)	3.9 (0.7)	4 (0)	
- Rehabilitative (n=39)	12 (30.8)	26 (66.7)	1 (2.5)	0 (0)	0 (0)	4.3 (0.5)	4 (1)	
Question no.14 I know clearly about diagnosis, treatment, and health care instruction.								
- All (N=398)	52 (13.1)	279 (70.1)	47 (11.8)	13 (3.3)	7 (1.7)	3.9 (0.7)	4 (0)	
- Promotion-Prevention(n=80)	8 (10.0)	48 (60)	18 (22.5)	4 (5)	2 (2.5)	3.7 (0.8)	4 (1)	
- Curative (n=279)	34 (12.2)	204 (73.1)	27 (9.7)	9 (3.2)	5 (1.8)	3.9 (0.7)	4 (0)	
- Rehabilitative (n=39)	10 (25.6)	27 (69.2)	2 (5.1)	0 (0)	0 (0)	4.2 (0.5)	4 (1)	

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage						Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)			
Question no.15	I know the steps of services and where I can contact.							
- All (N=398)	45 (11.3)	280 (70.3)	58 (14.6)	11 (2.8)	4 (1.0)	3.9 (0.7)	4 (0)	
- Promotion-Prevention(n=80)	6 (7.5)	50 (62.5)	19 (23.7)	3 (3.8)	2 (2.5)	3.7 (0.8)	4 (1)	
- Curative (n=279)	27 (9.7)	204 (73.1)	38 (3.6)	8 (2.9)	2 (0.7)	3.9 (0.6)	4 (0)	
- Rehabilitative (n=39)	12 (30.8)	26 (66.7)	1 (2.5)	0 (0)	0 (0)	4.3 (0.5)	4 (1)	
Question no.16	I know what is the drug I got and understand how to use that drug safely							
- All (N=398)	53 (13.2)	282 (70.9)	51 (12.9)	8 (2.0)	4 (1.0)	3.9 (0.6)	4 (0)	
- Promotion-Prevention (n=80)	11 (13.7)	48 (60)	17 (21.3)	3 (3.7)	1 (1.3)	3.8 (0.8)	4 (1)	
- Curative (n=279)	31 (11.1)	208 (74.5)	32 (11.5)	5 (1.8)	3 (1.1)	3.9 (0.6)	4 (0)	
- Rehabilitative (n=39)	11 (28.2)	26 (66.7)	2 (5.1)	0 (0)	0 (0)	4.2 (0.5)	4 (1)	

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage					Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)		
Question no.17	The amount that I have to pay to cover or insure my medical care needs is reasonable.						
- All (N=398)	58 (14.6)	273 (68.6)	57 (14.3)	7 (1.8)	3 (0.7)	3.9 (0.6)	4 (0)
- Promotion-Prevention(n=80)	12 (15)	46 (57.5)	20 (25)	1 (1.25)	1 (1.25)	3.8 (0.7)	4 (1)
- Curative (n=279)	35 (12.5)	199 (71.3)	37 (13.3)	6 (2.2)	2 (0.7)	3.9 (0.6)	4 (0)
- Rehabilitative (n=39)	11 (28.2)	28 (71.8)	0 (0)	0 (0)	0 (0)	4.3 (0.5)	4 (1)
Question no.18	I have to pay for more of my medical care than I can afford.						
- All (N=398)	54 (13.6)	271 (68.1)	56 (14.1)	11 (2.7)	6 (1.5)	3.9 (0.7)	4 (0)
- Promotion-Prevention(n=80)	11 (13.7)	47 (58.8)	16 (20)	4 (5)	2 (2.5)	3.8 (0.8)	4 (1)
- Curative (n=279)	32 (11.5)	197 (70.6)	39 (14.0)	7 (2.5)	4 (1.4)	3.9 (0.7)	4 (0)
- Rehabilitative (n=39)	11 (2.6)	27 (69.2)	1 (28.2)	0 (0)	0 (0)	4.3 (0.5)	4 (1)

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage					Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)		
Question no.19 When I go for medical care, they are careful to check everything when treating and examining me.							
- All (N=398)	46 (11.6)	286 (71.9)	46 (11.5)	13 (3.3)	7 (1.7)	3.9 (0.7)	4 (0)
- Promotion-Prevention (n=80)	8 (10.0)	48 (60)	19 (23.7)	4 (5)	1 (1.3)	3.7 (0.8)	4 (1)
- Curative (n=279)	30 (10.8)	211 (75.6)	23 (8.2)	9 (3.2)	6 (2.2)	3.9 (0.7)	4 (0)
- Rehabilitative (n=39)	8 (20.5)	27 (69.2)	4 (10.3)	0 (0)	0 (0)	4.1 (0.6)	4 (0)
Question no.20 My doctors are very competent and well-trained.							
- All (N=398)	52 (13.1)	277 (69.6)	52 (13.1)	12 (3.0)	5 (1.2)	3.9 (0.7)	4 (0)
- Promotion-Prevention (n=80)	16 (20.0)	40 (50)	19 (23.7)	4 (5)	1 (1.3)	3.8 (0.8)	4 (1)
- Curative (n=279)	25 (8.9)	212 (80.0)	30 (10.7)	8 (2.9)	4 (1.4)	3.9 (0.6)	4 (0)
- Rehabilitative (n=39)	11 (28.2)	25 (64.1)	3 (7.7)	0 (0)	0 (0)	4.2 (0.6)	4 (1)

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

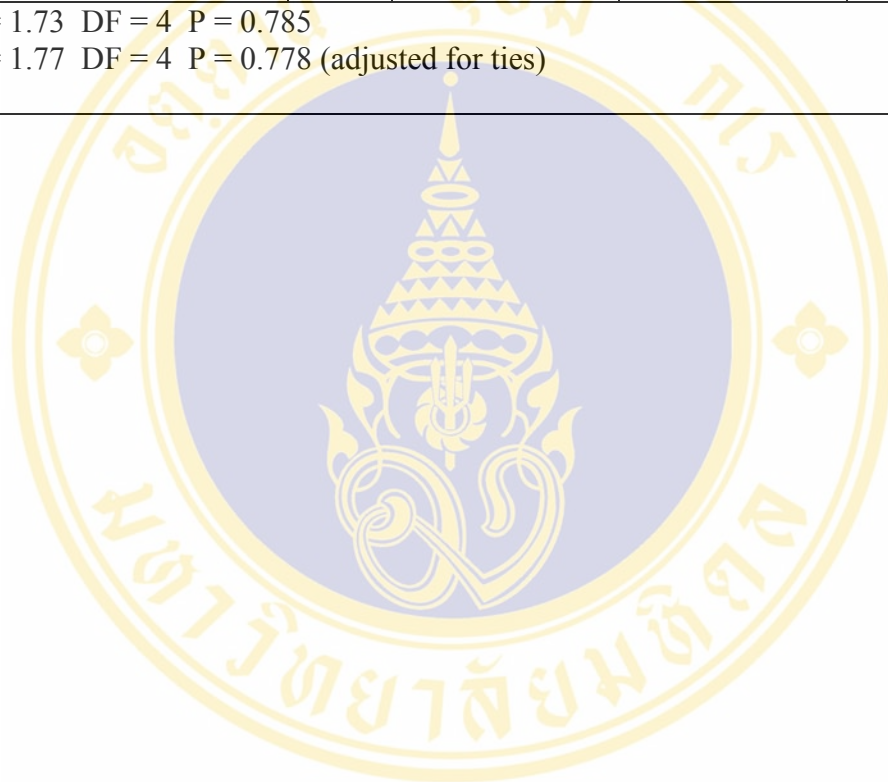
Aspects of care	Frequency and percentage						Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)			
Question no.21 Medical staffs are skillful and careful.								
- All (N=398)	56 (14.1)	273 (68.6)	52 (13.1)	12 (3.0)	5 (1.2)	3.9 (0.7)	4 (0)	
- Promotion-Prevention(n=80)	16 (20)	39 (48.7)	18 (22.5)	6 (7.5)	1 (1.3)	3.8 (0.9)	4 (1)	
- Curative (n=279)	32 (11.5)	207 (74.2)	30 (10.7)	6 (2.1)	4 (1.5)	3.9 (0.7)	4 (0)	
- Rehabilitative (n=39)	8 (20.5)	27 (69.2)	4 (10.3)	0 (0)	0 (0)	4.1 (0.5)	4 (0)	
Question no.22 Doctors always do their best to keep me from anxiety.								
- All (N=398)	51 (12.8)	267 (67.1)	66 (16.6)	10 (2.5)	4 (1.0)	3.9 (0.7)	4 (0)	
- Promotion-Prevention(n=80)	14 (17.5)	40 (50)	22 (27.5)	3 (3.7)	1 (1.3)	3.8 (0.8)	4 (1)	
- Curative (n=279)	27 (9.7)	200 (71.7)	42 (15.0)	7 (2.5)	3 (1.1)	3.9 (0.6)	4 (0)	
- Rehabilitative (n=39)	10 (25.6)	27 (69.3)	2 (5.1)	0 (0)	0 (0)	4.2 (0.5)	4 (1)	

Table 14 Clients' satisfaction towards services of Lad Yao hospital (by items) (Cont.)

Aspects of care	Frequency and percentage					Mean (SD)	Median (IQR)
	Very satisfied(5)	satisfied (4)	Neutral (3)	Dissatisfied (2)	Very dissatisfied(1)		
Question no.23	Equipments used for my medical care are sophisticated						
- All (N=398)	54 (13.6)	269 (67.6)	58 (14.6)	12 (3.0)	5 (1.2)	3.9 (0.7)	4 (0)
- Promotion-Prevention(n=80)	13 (16.3)	42 (52.5)	19 (24.8)	4 (5)	2 (2.5)	3.8 (0.9)	4 (1)
- Curative (n=279)	30 (10.7)	201 (72.0)	37 (13.3)	8 (2.9)	3 (1.1)	3.9 (0.7)	4 (0)
- Rehabilitative (n=39)	11 (28.2)	26 (66.7)	2 (5.1)	0 (0)	0 (0)	4.2 (0.5)	4 (1)
Question no.24	Prescribed medicine is effective.						
- All (N=398)	67 (16.8)	257 (64.6)	57 (14.3)	13 (3.3)	4 (1.0)	3.9 (0.7)	4 (0)
- Promotion-Prevention(n=80)	11 (13.7)	46 (57.5)	20 (25)	3 (3.8)	0 (0)	3.8 (0.7)	4 (1)
- Curative (n=279)	46 (16.5)	186 (66.7)	33 (11.8)	10 (3.6)	4 (1.4)	3.9 (0.7)	4 (0)
- Rehabilitative (n=39)	10 (25.6)	25 (64.1)	4 (10.3)	0 (0)	0 (0)	4.2 (0.6)	4 (1)

Table 15 Kruskal-Wallis Test for satisfaction and reasons of visit

Reason of visit	N	Median	Ave. Rank	Z
- Appointment	192	4	199.1	-0.07
- Sickness	128	3.98	192.6	-0.82
- Dental problem	30	4	221.9	1.11
- Admission	39	3.96	205.8	0.36
- Other	9	4	204.4	0.13
Overall	398		199.5	
H = 1.73 DF = 4 P = 0.785				
H = 1.77 DF = 4 P = 0.778 (adjusted for ties)				



BIOGRAPHY

NAME	Thatsanai Tangmankongworakoon
DATE OF BIRTH	February 27 th , 1976
PLACE OF BIRTH	Nakhonsawan, Thailand
INSTITUTION ATTENDED	Faculty of Dentistry, Chiang Mai University, Chiang Mai, Thailand. D.D.S. (1999)
FELLOWSHIP / RESEARCH GRANT	Japan International Co-operation Agency (JICA)
PRESENT POSITION	Dentist (Officer on Dental Public health department, Lad Yao hospital, Lad Yao district, Nakhonsawan, Thailand)