# PATIENT SATISFACTION TOWARDS HEALTH SERVICES AT THE OUT-PATIENT DEPARTMENT CLINIC OF WANGNUMYEN COMMUNITY HOSPITAL, SAKAEO PROVINCE, THAILAND

**NY NET**

**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 2007**

Thesis
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**PATIENT SATISFACTION TOWARDS HEALTH SERVICES AT THE OUT-PATIENT DEPARTMENT CLINIC OF WANGNUMYEN COMMUNITY HOSPITAL, SAKAEO PROVINCE, THAILAND**

.....

Ms. Ny Net
Candidate

.....

Prof. Santhat Sermsri
Ph.D.
Major-Advisor

.....

Assoc. Prof. Jiraporn Chompikul
Ph.D.
Co-Advisor

.....

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

.....

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

Thesis
entitled

**PATIENT SATISFACTION TOWARDS HEALTH SERVICES AT THE OUT-PATIENT DEPARTMENT CLINIC OF WANGNUMYEN COMMUNITY HOSPITAL, SAKAEO PROVINCE, THAILAND**

was submitted to the Faculty of Graduate Studies, Mahidol University
for the degree of Master of Primary Health Care Management

on
March 13, 2007

.....
Ms. Ny Net
Candidate

.....
Prof. Teera Ramasoota
M.D., Dip. Thai Board of Prev. Med.
Chair

.....
Assoc. Prof. Jiraporn Chompikul
Ph.D.
Member

.....
Prof. Santhat Sermsri
Ph.D.
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
ASEAN Institute for Health Development
Mahidol University

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NY NET 4937988 ADPM/M

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

THESIS ADVISORS: SANTHAT SERMSRI, Ph.D., JIRAPORN CHOMPIKUL, Ph.D.

ABSTRACT

This cross-sectional study was conducted to assess patient's satisfaction with health services at the outpatient department (OPD) clinic of Wangnumyen Community Hospital, Sakaeo province, Thailand, and to determine the association between satisfaction and explanatory factors. Suggestions and comments from the patients were also revealed in this study.

Using a structured questionnaire, data were derived from 236 patients consuming the OPD clinic services. Descriptive statistics were used to describe satisfaction level and explanatory variables while the association between these factors and patient satisfaction was determined by Chi-square test and/or Pearson correlation test.

The average score of patient satisfaction was 4.2 and 23.3% of the patients were highly satisfied with the health services. Patients were highly satisfied with availability of medical resources (37.3%), physical environment (36.9%), and interpersonal manner of service providers (30.9%), quality of care (24.1%), medical expenses (14.8%), and accessibility (13.9%). Female gender, being in a set payment health insurance scheme, having good attitude and surprisingly, high expectation and high transportation costs, were significantly associated with high satisfaction level. The majority of comments from patients were critical of long waiting times for seeing doctors and pharmacists, late commencement of doctor's working time, and poor interpersonal manner of doctors and nurses.

Reinforcement of the regulation on working hours and recruitment of more doctors are recommended. Two ways communication during the provision of service and the establishment of a good communicator model are also recommended. Patient satisfaction studies should be conducted in parallel with studies on job satisfaction of service providers in order to understand the concerns that make patients dissatisfied and solve these problems accordingly.

KEY WORDS: PATIENT SATISFACTION, SERVICES AT THE OPD CLINIC

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| | | |
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| OPD | : | Out-patient Department |
| UCS | : | Universal Coverage Scheme |
| SSS | : | Social Security Scheme |
| CSMBS | : | Civil Servant Medical Benefit Scheme |

# CHAPTER 1
# INTRODUCTION

## 1.1 Rationale and justification

Living in the world of information and technology, nowadays patients are aware of their needs and rights. They know that health care facilities are established to provide satisfactory and quality health services to them. If the health care facilities fail to do so, they are considered unsuccessful in implementing their assigned tasks. Health care facility performance can be best assessed by measuring the level of patient's satisfaction. A completely satisfied patient believes that the organization has potential in understanding patient needs and demands related to health care.

The objectives of health care have changed with the requirements of society and the availability of resources and technology. The 19th century was an era which was "symptom-centered". Health was being referred to the elements of empirical perception/local understanding without any scientific examination. The early 20th century was basic science or disease-centered era. Health was being referred to scientific reasoning and experimenting on disease, including diagnosis and treatment of diseases. In the middle of the 20th century experienced clinical science or patient centered era**.** Health was centered mainly in hospitals and clinics and diagnosis and treatment of individuals was performed. Late of 20th century was public health science or community-centered era. Health has been focused on diagnosis and treatment of community. End of 21st century saw political health science or people centered era. Health has become people's matter and need public participation, including proper allocation of resources responding to public needs. The World Health Organization conference, supporting health for all, held in 1990 defined future development in health to be human centered. A lot of stress has been made on investment in health, patient care and patient's right to delivery of quality health care leading to patient satisfaction (1), (2).

There is a general agreement that measurement of patient satisfaction fulfills several distinct functions (3). Satisfaction can simply describe health care services from the patient's point of view and patient satisfaction may be thought of as a measure of the "process" of care. Problem areas can be isolated and ideas towards solutions may be generated (4). Evaluation of health care is regarded by many as the most important function of patient satisfaction research. The function of patient satisfaction work was wholly concerned with evaluation (5). At least four fields of evaluation need consideration in the health care context. These are evaluation of specific treatment, evaluation of patterns of care for particular patient groups, evaluation of organizations, and evaluation of health system. Patient satisfaction studies have proved valuable in all these fields (6).

Thailand has been developing health care services in order to improve the quality in every aspect according to the patient needs. Many key performance indicators are used to monitor and evaluate the results of working organizations and their staffs. Patient satisfaction is the essential indicator that indicates the quality of health service at all level of health care facilities. Understanding the different influences on variation in patient satisfaction is important. To improve health care provision, managers need to be able to differentiate between a factor they control that is a part of a wider social and political context (7).

Based on the health plan at the provincial level which emphasizes patient-centered service improvement and organization development, the rate of patient satisfaction at 80% is the minimum goal for every hospital to attain. Wangnumyen Community Hospital is in the process of promoting itself for being an accreditation hospital. In connection to these, the study on patient satisfaction towards the out patient department clinic services of Wangnumyen Community Hospital in Sakaeo province is beneficial to provide reliable information to improve health service quality.

Wangnumyen Community Hospital is a sixty-bed community hospital which is located in Wangjumpae village of Wangnumyen sub-district, Wangnumyen district of

Sakeao province. The total number of population covered by this hospital is 99, 232. The out-patient department (OPD) clinic of Wangnumyen Community Hospital has four doctors, five nurses and two village health volunteers together providing medical care services to patients. The average number of patients visiting the OPD clinic is around two hundred per day

## 1.2 Research questions

1. What is the level of patient satisfaction towards the health services at the OPD clinic of Wangnumyen Community Hospital in Sakaeo province?

2. What are the factors related to the patient satisfaction with the health services at the OPD clinic of Wangnumyen Community Hospital in Sakaeo province?

## 1.3 Research objectives

### 1.3.1 General objectives

1. To assess patient satisfaction towards the health services at the OPD clinic of Wangnumyen Community Hospital in Sakaeo province

2. To determine factors related to the patient satisfaction level

### 1.3.2 Specific objectives

1. To assess the level of patient satisfaction towards the health services at the OPD clinic of the Wangnumyen Community Hospital in Sakaeo province

2. To determine the association between predisposing characteristics, enabling resources, need factor and patient satisfaction towards the health services at the OPD clinic of Wangnumyen Community Hospital in Sakaeo province

3. To describe the patients' opinion on improving the health care services in the OPD clinic of Wangnumyen Community Hospital in Sakaeo province.

## 1.4 Conceptual framework

In this study, the conceptual framework was derived from the Behavioral Model of Health Services Use (an Emerging Model-Phase 4) developed by Ronald M. Adersen. Consumer satisfaction is the health outcome affected by three key factors, including predisposing characteristics, enabling resources and need factors of the consumer. In the formulation of the studied conceptual framework only some factors of the model were included.

**Conceptual framework**

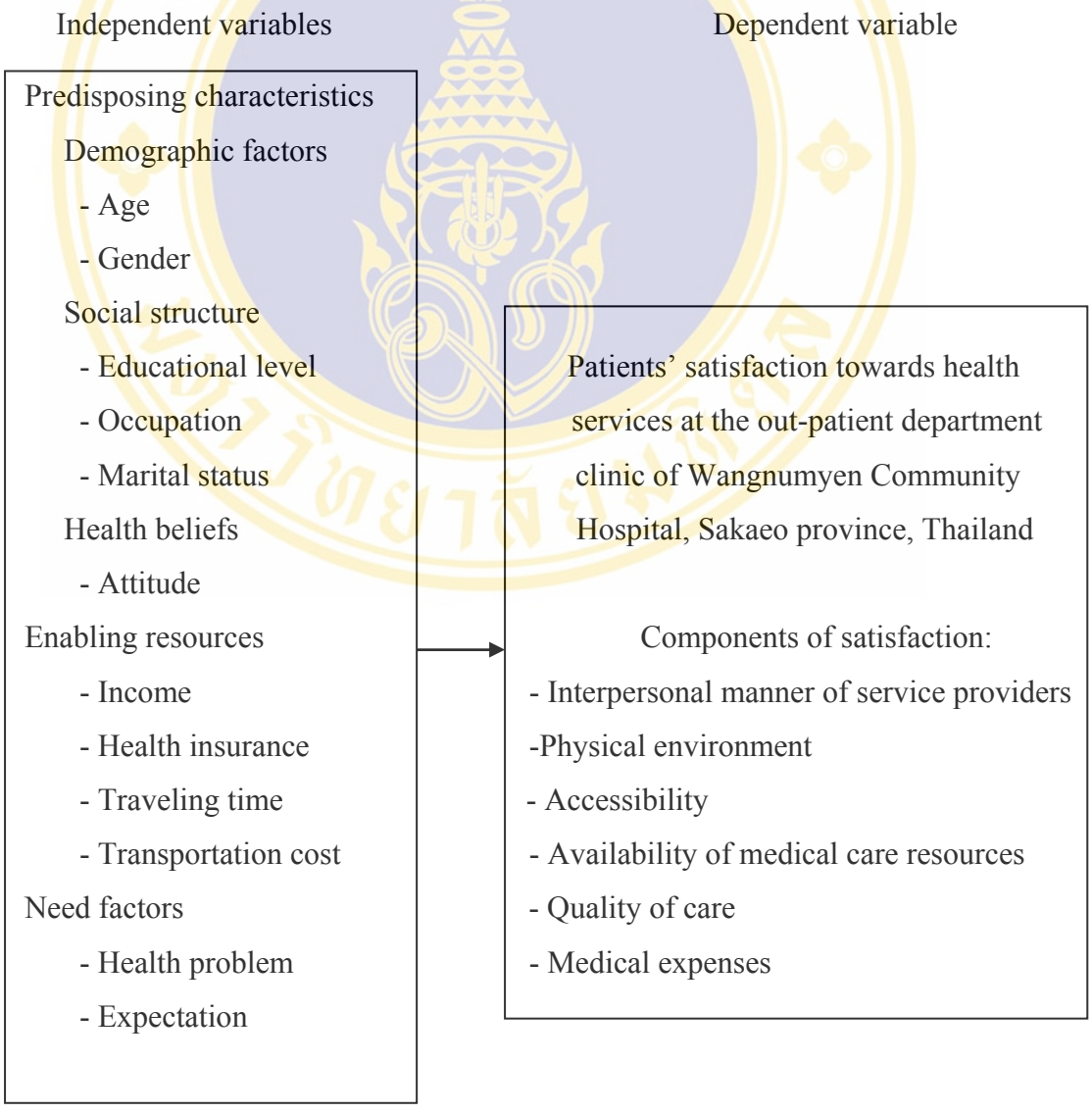



**Figure 1** Conceptual Framework

## 1.5 Variables and operational definitions

### 1.5.1 Independent variables

**Age** refers to the age of the patient on the interview date.

**Gender** refers to the primary sex characteristics of the patient in which only males and females are included.

**Education level** means the highest level of education that the studied patient attained.

**Occupation** refers to a current main job or occupation of the patient.

**Marital status** refers to whether the respondent was single, married, divorced, separated, or a widow or widower.

**Attitude** means cognitive perceptions of patients towards the health services that they are utilizing at the OPD clinic of Wangnumyen Community Hospital. The patient's attitude will be asked by using a set of questions.

**Expectation** means what a patient anticipates or looks forward to receive from the OPD clinic of Wangnumyen Community Hospital, such as quality or characteristics of health services, in order to address his/her health problem. The patient's expectation will be asked by using a set of questions.

**Income** refers to the patient's family income earned per month in response to open questions.

**Health insurance** covers any type of health insurance scheme covering patient health.

**Transportation cost** means the amount of payment that a patient spends for the means of transportation between home and the OPD of Wangnumyen Community Hospital. Patients were asked about this information during the time of data collection

**Travel time** refers to the time that patients consume to travel between home and the OPD of Wangnumyen Community Hospital for health services. Patients were asked for this information during the time of data collection.

**Health problem** refers to the presenting health experience and/or current illness that brought the patient to the hospital. The information about patient's health problem was collected by using a questionnaire.

**Out-patient department services** in this research refers to the services provided by an administrative arrangement which allows patients to see a physician for consultation, investigation and minor treatment and which requires no overnight stay at the hospital for medical care.

### 1.5.2 Dependent variables

**Patient's satisfaction** refers to the patient's state of being satisfied with health services at the out-patient department clinic that are available in the Wangnumyen Community Hospital. Patient refers to the persons who consume the health services at the OPD clinic of this hospital during the time of conducting interviews.

The indicators for patient satisfaction in this research comprise accessibility, interpersonal manner, physical environment, availability of medical care resources, quality of care and medical expenses. They are defined as below:

**Interpersonal manner of service provider** refers to the way in which health service providers interact personally with patients. They include courtesy, respect, concern, and friendliness.

**Accessibility** refers to the comfort-ability to access the health care services in terms of reception, waiting times for service at the OPD clinic and convenience.

**Physical environment** refers to features of the setting in which the health services are provided. This includes pleasantness of atmosphere, clarity of signs and directions, orderly facilities and equipment, cleanliness and the space of OPD clinic.

**Availability of medical resources** means the OPD clinic's resources available for patients in terms of an adequate number of health service providers, medical facilities and equipment.

**Quality of care** means patient's perception of health service providers' competence in diagnosis and treatment, and their time spent with patients and of the quality of medical products and treatment instrument/equipment. The competence of health service providers includes thoroughness and significance of mistakes for the patient.

**Medical expense** refers to the total cost paid out of the pocket of patient for registration, diagnosis, treatment and medicines.

### 1.6 Limitation of study

This study is conducted with limited resources making it impossible to include many important questions and variables. Since the study was conducted in a hospital, the results may be distorted by information bias. Besides, the researcher could not be observe the way that health service providers interact personally with patients during the process of making diagnosis and/or minor interventions due to patient's rights. Moreover, the researcher could not able to get information about health problem and other particular data of the study patients, which are recorded at the OPD clinic services, because the hospital has to keep patient's confidentiality.

### 1.7 Expected outcomes of study

Expected outcomes of this study were the assessment of the level of patient satisfaction with health services provided at the OPD clinic of Wangnumyen

Community Hospital in Sakaeo province; the determination of key factors related to the patient satisfaction; and critical comments and suggestions with positive meaning from patients.

In addition, the results from this study are useful as information indicating the patterns of care for outpatients at the Wangnumyen Community Hospital. These also could help provide an essential feed back to the management team of the hospital on the way they organize the work at the OPD clinic. This feed back would be very useful for the hospital management team to use it as one tool, among others, in much better managing the quality of services at the OPD to meet patient satisfaction at the desired rate as mentioned in the health plan.

# CHAPTER 2
# LITERATURE REVIEW

## 2.1 Satisfaction

### 2.1.1 Concept of patient satisfaction

Linder-Pelz (1982) approached a definition of patient satisfaction through content analysis of satisfaction studies. Five social- psychological variables were proposed as probable determinants of satisfaction with health care. These are *occurrences* which actually takes place and perhaps more importantly, the individual's *perception* of what occurred; *value* that is an evaluation in terms of good or bad of an attribute or an aspect of a health care encounter; *expectation* which is belief about the probability of certain attributes being associated with an event or object, and the perceived probable outcome of that association; *interpersonal comparisons* in which an individual rates the health care encounter by comparing with all such encounters known to or experienced by him or her; *entitlement* that is an individual's belief that she/he has proper, accepted grounds for seeking or claiming a particular outcome (8).

Risser (1991) defined patient satisfaction as the degree of congruency between a patient's expectation of ideal nursing care and his perception of the real nursing care that he receives (9). Swan (1985) suggested that patient satisfaction is a positive emotional response that is desired from a cognitive process in which patients compare their individual experience to a set of subjective standards (10). Linder-Pelz (1982) defined patient satisfaction as an expression of an attitude, an affective response, which is related to both the belief that the care possesses certain attributes-components/dimension and the patient's evaluation of those attributes; and as the individual's positive evaluations of distinct dimensions of health care (8).

### 2.1.2 Determinants of satisfaction

#### 2.1.2.1 Expectation

Expectations emerge repeatedly as having a fundamental role in expressions of satisfaction. 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 (11). Risser (1975) and Fitzpatrick (1984) mentioned that the elemental bearing of expectations is reflected in several definitions of patient satisfaction, and it is supported by research evidence. For example, Abramowitz et al (1987) found that not only can patients hold different expectations and satisfaction with specific aspects of care, but that expectations and satisfaction with specific of care play independent roles in predicting patient satisfaction (12), (13), (14).

Expectations make more complex the concept of satisfaction as an evaluative tool. As patient satisfaction is a recognized component of Quality Assurance, it is therefore tempting to equate "high" levels of reported satisfaction with "high" levels of quality of care (15). However, in considering patient satisfaction study results, it is necessary that "expressions 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" (4). In the nursing context, for example, several theories have disputed that satisfaction can simply be equated with quality of nursing care. In addition to nursing treatment, a patient's quality of life is affected by environmental, informational, personal or social variables, and that a mediating variable-perception-is necessary (16), (17). Bond and Thomas (1992) summarized the problem succinctly: different levels of satisfaction may indicate different perspectives on nursing care quality rather than different levels of satisfaction with the same experience (5).

Larsen and Rootman (1976) hypothesised that the more a doctor's performance meets a patient's expectations, the more satisfied the patient will be with the physician's services (18). The hypothesis was strongly supported. The few later studies in which the relationship between patient expectations and overall satisfaction

has been explored consistently suggest that patients with “lower expectations” tend to be more satisfied (14).

There may, however, be confounding variables which need to be considered; for example, there exist relationships between level of patient expectations, socioeconomic status and associated values and attitudes among different patient groups. Stimson and Webb (1975) identified three categories of satisfaction: “background”, “interaction” and “action”. “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 centres on behavior which is at odds with these expectations. “Interaction” expectations refer to patient’s 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. Of the three, Stimson and Webb (1975) regarded interaction expectations as the most important (11).

This framework has been taken up in later work. For instance, Fitton and Acheson (1979) studied patients’ expectations with regard to five common management actions taken by GPs. They further divided “action” expectations 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 (19).

**2.1.2.2 Patient characteristics**

It is commonly believed that satisfaction with health care may be dependent on variables such as social class, marital status, gender and age. A meta-analysis of work reported before 1989, however, concluded that socio-demographic are at best a minor predictor of satisfaction. Fitzpatrick (1990) and Fox and Storms (1981) are among the many reviewers who highlight the lack of consistency of the effects of these variables in satisfaction studies (20), (14), (21), (22).

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 (23), (24), (25). Cartwright and Aderson (1981) found that older respondents expected less information from their doctor (26). Hopton et al (1993) and Khayat and Salter (1994) found that younger patients were less satisfied with issues surrounding the consultation in the primary care setting (27), (28). Younger patients were also 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 (29).

Educational attainment has been identified as having a significant bearing on satisfaction, the trend being that greater satisfaction is associated with lower level of education (20). Much of this evidence is from the U.S. Anderson and Zimmerman (1993) found that level of education to be the only variable significantly related to patient satisfaction with consultations in two Michagan clinics, patients with lower levels of education being most satisfied (30). Similarly, Schutz et al (1994) found that higher educational attainment was strongly associated with dissatisfaction in patients undergoing colonoscopy (31).

The relationship between satisfaction and social "class" is less consistent, a problem being that socioeconomic variables are often simply not assessed. Hall and Dornan (1990) viewed social status as having "nearly significant relations" with satisfaction, but as greater satisfaction were associated with higher social status. The authors added that it was "perplexing, to say the least, "that results for social status and education went in opposite directions (20).

It has generally been found that patient gender does not affect satisfaction values, a conclusion reached also in the meta-analysis done by Hall and Dornan (1990) (32), (33), (27), (20). One or two dissenting reports have appeared. Khayat and Salter (1994) reported that significantly more men than women were satisfied overall with

their general practitioners. Another British study found that female inpatients were far more likely to complain of rigid timetables and lack of privacy than men (28).

A number of "social-psychological artifacts" may affect expressions of patient satisfaction (34). "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 patients may be reluctant to complain for fear of unfavorable treatment in the future (35), (36). Related to ingratiating response bias is "self-interest bias". This propose that as most social programs-which includes health care services- act as providers, clients are likely to perceive that expressions of satisfaction will contribute to the continuation of the service which in turn will be in their own self-interest. LeVois et al (1981) noted that 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 (34). Two further phenomena are particularly interesting when considering Williams' (Williams, 1994) theory that dissatisfaction is only expressed when an extreme negative event occurs. Firstly, "gratitude" as a phenomenon is well recognized as confusing satisfaction results. In he U.K. gratitude has often been associated with more elderly population. (37). An early study of hospital inpatient satisfaction reported that 68% of the sample felt unable to express desires, fears, or criticisms to the medical staff. The emphasis for these patients was on self-control, on a minimum of dependency, on being "cooperative", "undemanding", "considerate", and "grateful" (38). Ley (1972) noted an additional phenomenon influencing response: simple indifference. Patients may feel problems will not be remedied and so there would be no point in commenting on them, either because the problem is too trivial or perhaps too large (36).

### 2.1.3 Components of satisfaction

Several classification of components have been proposed, some appropriate only for specific health care contexts, others aiming at broad applicability. Abdellah and Levine (1965) attempted an early identification of key components, proposing adequacy of the facilities, effectiveness of the organizational structure, professional qualifications and competency of personnel and the effect of care on the consumers (39). Reviewing U.S. patient satisfaction research conducted from 1957 to 1974, Risser (1975) reported that four components emerged: cost, convenience, the provider's personal qualities and nature of the interpersonal relationship, and the provider's professional competence and perceived quality of care received (12).

Ware et al (1983), in a review, presented a more definitive taxonomy with eight dimensions (40). They are as follows:

- 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 times, ease of reaching providers);
- 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 equipment, pleasantness of atmosphere); and
- Availability-presence of medical care resources (e.g. enough medical facilities and providers)

Ware's classification has been the basis for much later work, as statistical techniques such as factor analysis have been promoted as providing "evidence" that

satisfaction is a multidimensional construct (14), (41). Fitzpatrick (1990) proposed almost identical dimensions to Ware's — bar "finances" — for the UK setting (21).

However, as many satisfaction studies are conducted in very specific contexts it is understandable that any standard classification never seems entirely appropriate (3).

**Accessibility**

In the standard Ware/Fitzpatrick framework, a broad 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 (42), public transport (14) and waiting times at health centers (43) have all been found to relate to patient dissatisfaction. UK, outpatient departments seem particularly prone to long waiting times (44).

**Interpersonal aspects of care**

The interpersonal aspects of care are regarded as the principal component of satisfaction (24). Two aspects regarded as particularly important are communication and empathy (45), (46).

Sociological models based on both psychoanalytical and Parsons' analyses of the health professional/patient relationship propose a spectrum of high to low control in medical encounters (19), (47). Central to these models is the balance of power. 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 (30), (48), (49). Furthermore, there is evidence that nurses - who have a lower social status than doctors - also rate badly in terms satisfaction with communication (23), (50), (51), (52), (53), (54).

Successful interactions depend also on the social skills of the participants. Non-verbal communication is often the primary mode of transmitting emotions and attitudes which would be rarely spoken out loud. Body positioning-location, distance, and posture-can transmit important perceptions of relative power. LaCrosse (1975) found that non verbal behavior such as leaning slightly forwards and nods of the head make patients see doctors as warmer and more attractive, while Larsen and Smith (1981) found doctors' forward lean and body posture to be associated with higher patient satisfaction (55), (56). Eye contact is particularly important in establishing a rapport, in monitoring reactions and in requesting feedback, and if eye contact is broken the nature of the conversation is likely to become more formal, impersonal and brief (57).

**Technical aspect of care**

Fitzpatrick (1984) noted that many patients appear to have more confidence in commenting on convenience, cost, and doctors' and nurses' personal quality than in expressing dissatisfaction with medical skill (13). 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. Fitton and Acheson (1979) found a positive correlation between doctors' and patients' rating of the seriousness of their medical condition, only a handful of patients misjudged the seriousness of their problem (19).

Stimson and Webb (1975) proposed several reasons 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 I general, or a particular medical problem, will vary from practitioner to practitioner. Secondly, physicians can never be certain of the outcomes of their actions as medicine operates at the level of probable course of an illness and the probable effect of treatment. Thirdly, the doctor never has a complete monopoly over relevant medical knowledge: patient can- and many do – acquire knowledge from other sources, and some may well have as much 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 (11).

The main reason of satisfaction studies fail to emphasize the importance of the technical quality of the care delivered is that patients assume a basic level of competence in medical procedures undertaken upon them. If the medical procedures are found to be deficient, this is associated with patient complaints- a clear indicator of dissatisfaction with a service (3).

**Patient education/information**

The patient's right to be informed constitutes one of the most important rationales for patient's education. Beyond patient's right, issues of patient education are relevant to legal mandates, particularly regarding processes such as "informed consent" (58). Patient education has further been shown to have cost-benefit 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 behaviour (59), (60). Patient education has been linked with positive clinical outcomes such as improved adherence to a therapeutic regime, reduced anxiety, enhanced ability to cope with symptoms, enhanced recovery after surgery, and enhanced recovery after outpatient procedures (61), (62), (60), (63). 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 doctor's advice (64). Similarly, patients dissatisfied with the information received at neurological outpatient clinics were found to be far less likely to take medication as advised (65).

**2.2 Satisfaction with health facilities among Thais**

In the study of client satisfaction towards curative services in general hospital in Bangkok, it was determined that the areas of dissatisfaction were long waiting time, weak physician patient relationship, and poor cleaning and hospital settings (66).

The study on client satisfaction towards the health services of Lad Yao hospital in Lad Yao district, Nakhonsawan province, revealed that the average score of client satisfaction was 3.9 and only 52% of clients felt satisfied with the services. The rehabilitation service achieved client satisfaction level about 85% while promotion-prevention and curative care services achieved 40% and 51% respectively. In this study, patient attitude was found to be significantly associated with the satisfaction level and identified as a predictive factor of satisfaction in all kinds of health services. Besides, age, education level, actual expectation compared with the previous expectation was found to be significantly associated with the satisfaction level of patients (67).

In the study of client satisfaction on outpatient medical care service in Sampran community hospital, Thailand, it was found that older patients had higher level of satisfaction and age had association with satisfaction. Female clients and married clients were more satisfied with medical services than male and single clients. (68). The study on satisfaction with health care services and real reasons for health seeking behavior among Thai people: a case of Klong Yong, Nakhon Pathom province, reported that patients with acute illness used health services at the health center more than those with chronic illness(69).

Sita R.D., in his study about consumers' satisfaction towards health care services provided by a health center in Muang district, Loei province of Thailand, found that repeat visitors had a higher proportion of high satisfaction than the first time visitors (70). The study of Roy reported that clients with lower income were more satisfied than those with high income (68).

The survey conducted in April 2005 and 2006 by Wangnumyen Community Hospital found that the overall satisfaction level reported by patients who had utilized the outpatient department (OPD) clinic were 75.68% and 81.7% respectively (71), (72). It was also found that the quality of care at the OPD clinic, doctors' manner, doctors' attention and respect paid to patients, nurses' manner, time spent with patients, and physical examination received satisfaction level 78% , 80.4%, 80%, 78.4%, 71.6%, and 73.6% consecutively (71).

**2.3 Satisfaction with health facilities in other country**

The study of Ansari about client satisfaction towards health center services in Urban Islamabd reported that clients with low income were significantly more satisfied with services than those with high income (73). In the study of patient satisfaction towards outpatient department services in Pakistan Institute of Medical Services, Islamabad, and the researcher found that 54% of patients had high satisfaction level. And 53% of them were highly satisfied with physical facility (74).

**2.4 Health insurance schemes in Thailand**

As of April 2002, one year after the implementation of the scheme, the Universal Coverage Scheme (UCS) covered approximately 45 million people in Thailand. The remaining 18 million received medical care through the Civil Servant Medical Benefit Scheme (CSMBS) or the Social Security Scheme (SSS). Each scheme is different in its financing and payment system, the eligible population, and the services provided (75).

**Table 1** Comparison of characteristics of insurance schemes in Thailand in 2002

| Characteristics | CSMBS | SSS | UCS |
|---|---|---|---|
| *I. Scheme nature* | | | |
| Beneficiaries | Fringe benefit | Compulsory | Social welfare |
| Model | Public reimbursement | Public contracted | Public contracted |
| Covered population | Government employees and their dependents | Private formal sector employees with > 1 worker | People not covered by CSMBS or SSS |
| *II. Benefit package* | | | |
| Ambulatory services | Public only | Registered public and private | Registered public and private |
| Inpatient services | Public | Registered public and private | Registered public and private |
| Choice of provider | Free choice | Registration required | Registration required |
| Cash benefit | No | Yes | No |
| Conditions included | Comprehensive package | Work related illness are covered by WCF | Comprehensive package |
| Conditions excluded | No | 15 conditions | 12 conditions |
| Maternity benefits | Yes | Yes | Yes |
| Annual physical check-ups | Yes | No | Yes |
| Prevention and health promotion | Yes | Health education, immunization | Yes |
| Services not covered | Special nurse | Private bed, special nurse | Private bed, special nurse |

**Table 1** Comparison of characteristics of insurance schemes in Thailand in 2002 (cont.)

| Characteristics | CSMBS | SSS | UCS |
|---|---|---|---|
| *III. Financing* | | | |
| Sources of funds | General tax | Tripartite, 1.5% of payroll each | General tax |
| Financing body | Ministry of finance | Social Security Office | National Health Security Office |
| Payment mechanism | Fee-for-service (>2000 bath) | Capitation (1500 bath) | Capitation for OP, DRG for IP (1202 bath) |
| Co-payment | Yes, IP at public/private hospital, IP private limits only for life-threatening care | Maternity, emergency services, if beyond ceiling | Yes, 30 bath per visit |
| Per capita tax subsidy, 1999 | 2106 bath | 519 bath | 1275 bath |

Source: Thailand Investing in Health Report, 2004.

## 2.5 Theoretical model used for construction of a conceptual framework

The Behavioral Model of Health Services Use by Ronald M. Andersen (76)

It suggested that people's use of health services is a function of their predisposition to use services, factors which enable or impede use, and their need for use (77), (78).

Predisposing characteristics consist of demographic factors, social structure and health beliefs, genetic factors and psychological characteristics. Demographic factors such as age and gender represent biological imperatives suggesting the likelihood that people will need health services (79).

Social structure is measured by a broad array of factors that determine the status of a person in the community, his or her ability to cope with presenting problems and commanding resources to deal with these problems, and how healthy or unhealthy the physical environment is likely to be. Measures used to assess social structure include education, occupation, ethnicity, social networks, social interactions, and culture. Measures of these concepts rightly fit into the social structure component (81).

Health beliefs are attitudes, values, and knowledge that people have about health and health services that might influence their subsequent perception 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 (76).

With the explosive development of gene mapping, genetic counseling, and the possibilities of gene therapy, genetic measures represent a potentially viable, important, and definable predisposing component (80). Psychological characteristics considered as predisposing variables have included mental dysfunction, cognitive impairment (81), and autonomy (82).

Both community and personal enabling resources must be present for use to take place. First health personnel and facilities must be available where people live and work. Then, people must have the means and know-how to get those services and make use of them. Income, health insurance, a regular source of care, and travel and waiting times are some of the measures that can be important. Besides, organizational factors such as various kinds of medical care providers and types of health services organization; and social relationship which serves as resource to facilitate or impede health services' use are the measures that can be included as additional enabling resources (76).

The importance of need is the prime determinant of use at the expense of health beliefs and social structure (83), (84) (77), (84). Any comprehensive effort to model health services' use must consider how people view their own general health and

functional state, as well as how they experience systems of illness, pain, and worries about their health and whether or not they judge their problems to be of sufficient importance and magnitude to seek professional help (76). The biological imperative is better represented by the evaluated component of need (85). Evaluated need represents professional judgment about people's health status and their need for medical care (76).

Health status outcomes allow extending the measures of access to include dimension which are particularly important for health policy and health reform. They provide some answers to the question of whether or not it matters to revisit utilization studies and access concepts. "Effective access" is established when utilization studies show that use improves health status or consumer satisfaction with services. "Efficient access" is shown when the level of health status or satisfaction increase relative to the amount of health care services consumed. (86), (87).

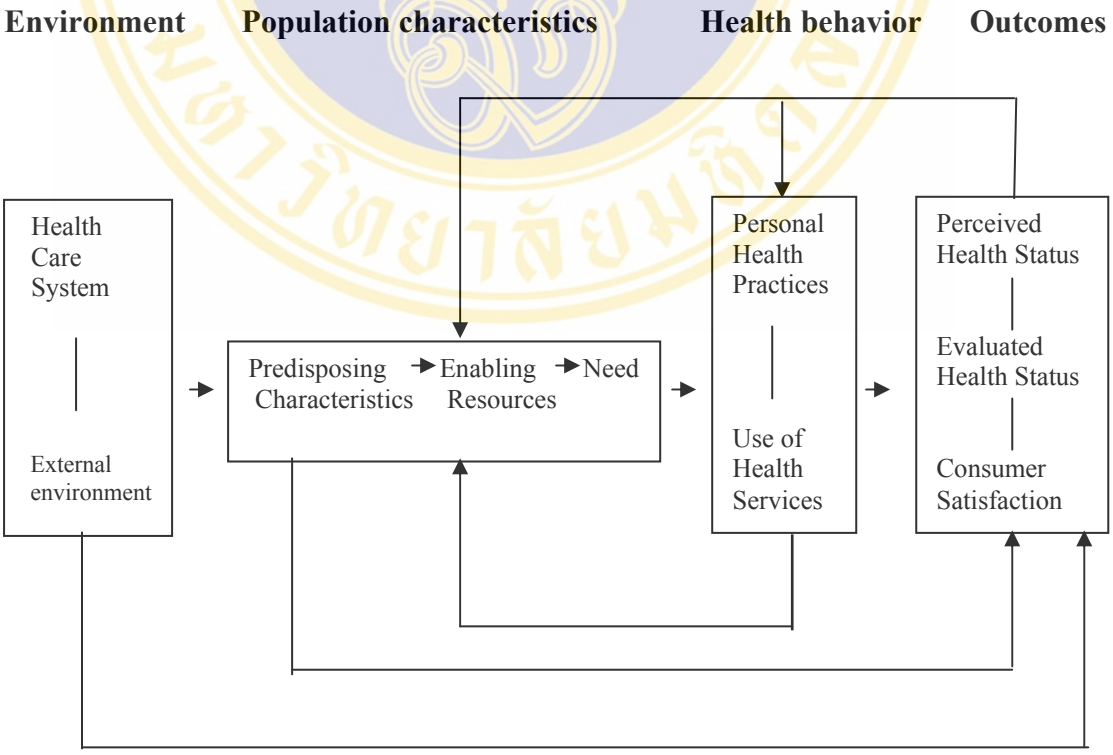



**Figure 2** An Emerging Model-Phase 4

# CHAPTER 3
# RESEARCH METHODOLOGY

## 3.1 Study design

The study design was a cross-sectional study. The data was collected by interviewing patients who had utilized health services at the out-patient department (OPD) clinic of Wangnumyen Community Hospital of Sakaeo province, Thailand.

## 3.2 Study population

The target population of this study included all patients who had utilized health services at the OPD clinic of Wangnumyen Community Hospital in Sakaeo province from January 30 to February 5, 2007 (excluded weekend). Sample was patients who consumed OPD clinic services of the hospital and were available at the time of data collection. Parents or grandparents were the respondents of patients whom their age less than 14 years old.

## 3.3 Study site

Wangnumyen Community Hospital was selected as the study health facility which catered to the population of Wangnumsombun and Wangnumyen districts with the total number of 99,232 populations. There were two seasons, including dry season and rainy season with a bit cold during the period between December and January. Main occupation of the population is agriculture and wooden furniture enterprise. Study population were recruited from the patients attended the OPD clinic of Wangnumyen Community Hospital, which were available at the time of data collection.

### 3.4 Sample size determination

The sample size of patients was determined by using the proportion with replacement formula as below:

$$n = \frac{Z^2 P(1-P)}{E^2}$$

where,

n = estimated sample size

Z = Z-score when 95% confidence interval for estimating client satisfaction, Z was equal to 1.96

P = proportion of patients satisfied with the health services = 0.52 (cited in the research by Tangmankongworakoon, 2006)

E = error desired setting at 0.065

$$\text{So, } n = \frac{(1.96)^2(0.52)(1-0.52)}{(0.065)^2} = 226.95$$

The minimum expected sample size was 227. To reduce error, 236 respondents were interviewed instead of 227 determined by the above formula.

### 3.5 Sampling technique

Systematic random sampling was applied to draw the patients in order to get information about the aspects of those health services. Patient was selected one within a k interval. The k interval is calculated by using this formula:

$$k = \frac{a}{n} \times d$$

k = sampling interval k

a = actual number of patients consumed services at the OPD clinic per day

d = total number of days planned for data collection

n = required number of patients consumed services at the OPD clinic

### 3.6 Research Instrument

The research instrument was a structured questionnaire which was designed by the researcher under the guidance of the advisors. The questionnaire was translated into Thai language which is used locally in the study area. A pretest of 30 questionnaires was conducted in the OPD clinic of Watananakorn Community Hospital with very similar background of patients to that of the actual data collection for its reliability and the questionnaire was also tested for its content validity by the experts who have expertise in such a research area. In pretest, the value of Cronbach's alpha coefficient for expectation, attitude, and satisfaction parts were 0.79, 0.63, and 0.93 respectively. As the Cronbach's alpha coefficient for attitude section was not high, the questionnaire was modified specifically question number sixth of the section in order to increase the level of reliability.

The questionnaire was divided into five sections focusing on the followings:

a. Patient's predisposing characteristics (except attitude), enabling resources, and need factors (except expectation);

b. Patient's expectation towards health services at the OPD clinic of Wangnumyen Community Hospital;

c. Patient's attitude towards health services at the OPD clinic of Wangnumyen Community Hospital;

d. Patient's satisfaction towards health services at the OPD clinic of Wangnumyen Community Hospital;

e. Patient's suggestions and comments for improving health services at the OPD clinic of Wangnumyen Community Hospital.

### 3.7 Methods for data collection

Before data collection, with the assistance from the MPHM office the researcher had sought permission for study from the Provincial Health Office of Sakaeo province. Then the Director of Wangnumyen Community Hospital was also asked for permission and cooperation.

Four data collectors were used. They were nurses working in the in-patient department of Wangnumyen Community Hospital but did not wear hospital dress so that bias of influence could be avoided. The data collectors were informed about the study by the researcher to have a clear understanding and unbiased approach to the data collection process.

All patients were taken from those who visited the OPD clinic of Wangnumyen Community Hospital for both first and repeated visitors. The first number was randomly selected and then the numbers were selected by adding the interval number (four patients) up to all samples were selected. The selected patients were requested to be interviewed to get their views.

In the existing procedure of the hospital, when patient arrived at the OPD for medical care, patients were registered by the patient's general history collection unit. Patients then were sent to the clinical history collection desks of the OPD clinic where they had to be checked for blood pressure, pulse, temperature, information about underlying diseases and allergic to medicines; to be classified for order number to see physicians; and to wait for their turn for receiving an examination by the physicians as well. After being examined by the physicians, patients went for laboratory testing based on their physician demand. Finally, patients received medications from the pharmacy. In this study, patients were identified for data collection during the time they were waiting to receive medications. They were requested by the interviewers to provide their general and specific information according to the questionnaire.

The data was checked on the spot, error rectified and missing data incorporated in the forms. The researcher observed the data collection process by herself and counter checked the entries at random to ensure quality of the data collection.

### 3.8 Data analysis

The researcher used Epidata for data entry and Minitab version 13 for data analysis.

Frequency and percentage were calculated for predisposing characteristics (age, gender, education level, occupation, marital status, attitude), enabling resources (income, health insurance, transportation cost and travel time), need factor (health problem) and for the level of patient satisfaction in each category of age, education, occupation, marital status, income, health insurance, traveling time, transportation cost, and health problem groups. Minimum, maximum, mean and standard deviation were also calculated for quantitative data.

Mean, standard deviation, median, inter-quartile range and quartile deviation were calculated for patient satisfaction, expectation and attitude as the data being rated in scale.

Chi-square test was performed to determine relationships between the satisfaction level and age, gender, marital status, education, occupation, income, expectation, attitude, health insurance schemes, traveling time, transportation cost and health problem of patients. Pearson correlation test was performed after the failure of detection for the association between attitude and satisfaction by the Chi-square test.

### 3.9 Measurement of variables

1. Age (years) was classified according to a five year aged groups. To simplify the presentation of tubular form, age was presented in 5 groups

2. Gender was classified into male and female groups.

3. Education attainment level was categorized into six groups:
   1) No education
   2) Primary school
   3) Secondary school
   4) High school or diploma
   5) Bachelor degree or higher
   6) Others

4. Occupation of patients was categorized into six types:

1) Agriculture

2) Government employee

3) Non-governmental organization employee

4) Self-employee

5) Unemployed

6) Others

5. Marital status of patients was classified into four groups:

1) Single

2) Married

3) divorced/separated

4) widow/widower

6. Income was measured by asking patients about their average family income per month. It was divided into 3 groups based on Best criteria: (Max-Min)/Number of class interval

7. Attitude was measured by using a set of questions. Patients were asked to scale their perceptions towards health services. Three scales were as follows:

1 = Agree

2 = Undecided

3 = Disagree

It was categorized into two levels by using median score as cut off point:

Good attitude (≥ median)

Poor attitude (< median)

8. Health insurance was classified into four types:

1) Civil Servant Benefit Medical Service (CSBMS)

2) Social Security Scheme (SSS)

3) 30-baht health card program (UCS)

4) Other

9. Traveling time was measured in minutes. It was classified into 3 groups:

< 30 minutes

30 – 60 minutes

> 60 minutes

10. Transportation cost was fees for transportation measured in baht. It was classified into five groups based on Best criteria: (Max-Min)/Number of class interval

11. Expectation was measured by asking patients about the degree of their expectation towards health services. Three degrees were applied:

Might be excellent

Might be good/ok/acceptable/affordable

Might not be good

The expectation was classified into two levels by using median of mean score as cut off point:

High expectation (≥median)

Low expectation (<median)

12. Health problems were measured by asking the study patients about the current problem brought them to hospital. It was grouped into 3 groups:

1) Acute health problem

2) Chronic health problem

3) Others

13. Patient satisfaction was measured by using a set of questions. Patients were asked to rate their contentment level towards health services. Likert's five points rating scale were applied as follows:

5 = Very satisfied

4 = Satisfied

3 = Neutral

2 = Dissatisfied

1 = Very dissatisfied

Patient's satisfaction was classified into 3 levels by using mean score + and – one standard deviation as cut off point:

High satisfaction (> mean score + one SD)

Medium satisfaction (mean score-one SD to mean score + one SD)

Low satisfaction (< mean score-one SD)

# CHAPTER 4
# RESULTS

This cross-sectional study was conducted to ascertain the patient satisfaction with health services at the out-patient department (OPD) clinic of Wangnumyen Community Hospital in Sakaeo province of Thailand. Two hundred thirty six patients were interviewed at the OPD clinic. Four interviewers were entrusted for data collection from January 30 to February 5, 2007 (excluded weekend). Results are hereby presented in descriptive and tubular forms. They are presented in the followings sections:

1. Patient's satisfaction towards health services
2. Patient's predisposing characteristics (except attitude), enabling resources, and need factors (except expectation)
3. Patient's expectation towards health services at the OPD clinic of Wangnumyen Community of Hospital
4. Patient's attitude towards health services at the OPD clinic of Wangnumyen Community Hospital
5. Association between dependent and independent variables
6. Patient's comments and suggestions for improving the quality of health services at the OPD clinic of Wangnumyen Community Hospital

## 4.1 Patient's satisfaction towards health services at the OPD clinic of Wangnumyen Community Hospital

In order to measure the level of patient satisfaction, interpersonal manner of health service providers, accessibility, physical environment, availability of medical resources, quality of care, and medical expense were used as indicators. The satisfaction section consisted of 23 questions. The level of patient's satisfaction towards health services at the OPD clinic of Wangnumyen Community Hospital was measured by Likert's scale having five grades as 1 = very dissatisfied, 2 = dissatisfied,

3 = neutral, 4 = satisfied, 5 = very satisfied. The patient satisfaction was classified into three levels by using mean + and – one standard deviation. The score given by patient less than the mean score minus one standard deviation was considered as low satisfaction and score more than mean score plus one standard deviation was taken as high satisfaction while the score in between mean score minus and plus one standard deviation was considered as medium satisfaction.

The overall satisfaction of patients towards health services at the OPD clinic of Wangnumyen Community Hospital was computed by dividing it into high satisfaction, medium satisfaction and low satisfaction level. The patients securing a score of more than mean score plus one standard deviation (>4.57) were considered as highly satisfied while those securing less than the score of mean score minus one standard deviation (<3.87) were considered as lowly satisfied. And the patients securing a score in between 3.87 and 4.57 were taken as having medium satisfaction.

In this study, Table 2 below shows that patients had high satisfaction; medium satisfaction and low satisfaction with health services at the OPD clinic of Wangnumyen Community Hospital were 23.3%, 61.4% and 15.3% respectively. The minimum score was equal to 3.26 while maximum score was 4.82. The mean score was 4.22 with standard deviation 0.35.

**Table 2** Overall satisfaction of patients towards health services at the OPD clinic of Wangnumyen Community Hospital

| **Satisfaction** | **Frequency** | **Percentage** |
|---|---|---|
| High satisfaction (>4.57) | 55 | 23.3 |
| Medium satisfaction (3.87-4.57) | 145 | 61.4 |
| Low satisfaction (<3.87) | 36 | 15.3 |
| Min =3.26 Max = 4.82 Mean= 4.22 SD = 0.35 | | |

As shown in Table 3 below, the distribution and the level of patient's satisfaction towards health services at the OPD clinic of Wangnumyen Community Hospital are described as follows.

Regarding interpersonal manner of health service providers, four questions were used to ask patients about the physician's examination and treatment given to them, physician's respect to patients' wishes, physician's attention paid to patients' privacy, and the freedom of patients' complaints during medical examination and treatment. As shown in table 3 below, 30.9% of the patients had high satisfaction while more than half (58.9%) of the patients had medium satisfaction and only 10.2% of the patients had low satisfaction with the interpersonal manner of health service providers of the OPD clinic.

The component related to accessibility had 5 questions asking about reception's facilitation given to patients, adequate seats at the waiting area, waiting time at the OPD clinic to see physicians, appointment for medical care right away, and convenience of place to get medical care. Table 3 below shows the descriptive data related to the accessibility of the patients to health services at the OPD clinic of Wangnumyen Community Hospital. Patients with high satisfaction, medium satisfaction and low satisfaction were 13.9%, 75.9%, and 10.2% respectively. The majority were moderately satisfied with the accessibility.

With regard to the physical environment of the OPD clinic, four questions were used to ask the patients about the cleanliness and space of the location of services, the atmosphere of the OPD clinic, signs and directions indicating service areas, and the tidiness of facilities and equipment at the OPD clinic. As shown in table 3 below, 36.9% of the patients were highly satisfied while the proportion of patients with medium and low satisfaction towards the physical environment at the OPD clinic were almost the same, 31.3% and 31.8% consecutively.

In the availability of medical resources component**,** two questions were asked about availability of physicians and health staff, and availability of medical

instruments and equipment to provide medical care. Table 3 below shows that 37.3% of the patients had high satisfaction while more than half (55.5%) of the patients had medium satisfaction. Only 7.2% of patients were lowly satisfied with the availability of medical resources at the OPD clinic.

The quality of care component comprised of six questions asking about thoroughness of physician's examination and treatment, cleanliness of medical instruments and equipment, ability of physicians and pharmacists in providing medical care services, competence and experiences of physicians, quality of medications, and time spent by physicians with patients. As shown in table 3, highly satisfied, moderately satisfied and lowly satisfied patients were 24.1%, 67.4% and 8.5% respectively.

As regard of medical expense, two questions were asked about types of health insurance covered and payment out of pocket for medical care needs. Table 3 below shows that 66.5% of the patients had medium satisfaction and 18.7% of the patients had low satisfaction. Only 14.8% of the patients had high satisfaction with the medical services expense.

In general, the patients seemed to be satisfied with all components, except medical expense that the patients were likely to be neutral.

**Table 3** Satisfaction of patient towards health services at the OPD clinic of Wangnumyen Community Hospital by component

| Satisfaction | Number (Percent) | | | Mean SD |
|---|---|---|---|---|
| | Low | Medium | High | |
| Interpersonal manner of health service providers | 24 (10.2) | 139 (58.9) | 73 (30.9) | 4.41 (0.52) |
| Accessibility | 24 (10.2) | 179 (75.9) | 33 (13.9) | 4.04 (0.48) |
| Physical environment | 75 (31.8) | 74 (31.3) | 87 (36.9) | 4.49 (0.48) |
| Availability of medical resources | 17 (7.2) | 131 (55.5) | 88 (37.3) | 4.37 (0.59) |
| Quality of care | 20 (8.5) | 159 (67.4) | 57 (24.1) | 4.38 (0.48) |
| Medical expense | 44 (18.7) | 157 (66.5) | 35 (14.8) | 3.06 (0.46) |

### 4.2 Patient's predisposing characteristics, enabling resources and need factors

In this study, the predisposing characteristics, enabling resources and need factors included age, gender, marital status, education level, occupation, average family income, health insurance scheme, traveling time, transportation cost, and the health problem of the patients.

The results in Table 4 below indicate that youngest patient was 14 and oldest patient was 96 years old. The mean and the standard deviation of age were 48.91 and 16.59 years respectively. Patients were distributed in a five year aged group. Five year aged groups with age range between 14 and 96 years were tabulated. The patients with the aged group of equal and more than sixty years old were more than one fourth (28.4%) while patients with the aged group less than sixty years old were less than one fourth in each group.

**Table 4** Socio-demographic characteristics of the patients

| Characteristics | Frequency (n=236) | Percent |
|---|---|---|
| **Age** (years) | | |
| ≤29 | 28 | 11.9 |
| 30-39 | 42 | 17.8 |
| 40-49 | 55 | 23.3 |
| 50-59 | 44 | 18.6 |
| ≥60 | 67 | 28.4 |
| Min=14 Max= 96 | | |
| Mean =48.91 SD = 16.59 | | |
| **Gender** | | |
| Male | 66 | 28.0 |
| Female | 170 | 72.0 |
| **Marital Status** | | |
| Single | 17 | 7.2 |
| Married | 193 | 81.8 |
| Divorced/separated/widow/widower | 26 | 11.0 |
| **Education level** | | |
| No education | 32 | 13.6 |
| Primary school | 156 | 66.1 |
| Secondary and higher | 48 | 20.3 |
| **Occupation** | | |
| Agriculture | 91 | 38.5 |
| Government and NGO employee | 20 | 8.5 |
| Self-employee | 32 | 13.6 |
| Unemployed | 33 | 14.0 |
| Others | 60 | 25.4 |

**Table 4** Socio-demographic characteristics of the patients (cont.)

| Characteristics | Frequency (n=236) | Percent |
|---|---|---|
| **Income (baht)** | | |
| 400-16933 | 218 | 92.4 |
| 16934-33466 | 13 | 5.5 |
| 33467-50000 | 5 | 2.1 |
| Min = 400 Max = 50000 | | |
| Mean = 6402 SD = 7103 | | |
| **Health insurance** | | |
| UCS | 208 | 88.1 |
| Others | 28 | 11.9 |
| **Traveling cost (n=224)** | | |
| 10-88 baht | 174 | 77.7 |
| 89-167 baht | 34 | 15.2 |
| 168-246 baht | 9 | 4.0 |
| 247-325 baht | 5 | 2.2 |
| 326-400 baht | 2 | 0.9 |
| Min = 10 Max = 400 | | |
| Mean = 68.90 SD = 61.68 | | |
| **Traveling cost problem** | | |
| Yes | 50 | 21.2 |
| No | 186 | 78.8 |
| **Traveling time (minute)** | | |
| <30 | 81 | 34.3 |
| 30-60 | 137 | 58.0 |
| 30-60 | 137 | 58.0 |
| **Traveling time problem** | | |
| Yes | 34 | 14.4 |
| No | 202 | 85.6 |

**Table 4** Socio-demographic characteristics of the patients (cont.)

| Characteristics | Frequency (n=236) | Percent |
|---|---|---|
| **Health problem** | | |
| ***Previous health problem/experience*** | | |
| Yes | 206 | 87.3 |
| No | 30 | 12.7 |
| ***Previous visit/admission to hospital*** | | |
| Yes | 161 | 68.2 |
| No | 75 | 31.8 |
| ***Current problem*** | | |
| Acute health problems | 100 | 42.4 |
| Chronic health problems | 91 | 38.5 |
| Others | 45 | 19.1 |

Female patients were more than two third consisting of 72% of total patients while male were only 28 %. The majority of patients (81.8%) were married while the total percentage of divorced/separated or widow/widower, and single were 11.0%, and 7.2% respectively.

Most (66.1%) of the patients attained primary school and 20.3% of patients had secondary school or higher education. Only 13.6% of patients had no education.

Related to occupation, patients were divided into five groups, including agriculture, governmental and non-government employee, self-employee, unemployed and other groups. Agriculture group was the larger group (38.5%). The second, third and fourth groups were other group (25.4%), unemployed group (14%) and self-employee group (13.5%) respectively. Only 8.5% of patients were in the government and non-governmental employee group. Labor was the main occupation specified in the other group.

As regards to the average family income per month in baht, patients were distributed into three groups on the basis of class interval (Best criteria). First group was equal and less than 16,933 baht, second group was between 16,934 to 33,466 baht and third group was 33,467 to 50,000 baht. The biggest income group (92.4%) was the one earning equal or less than 16933 baht. The minimum income was 400 baht while maximum income was 50000 baht. Mean and standard deviation of income were 6,402 and 7,103 baht respectively.

Regarding the type of health insurance used by patients for their visit to the OPD clinic of Wangnumyen Community Hospital, Table 4 demonstrates that 88.1% of the patients used universal health coverage scheme (UCS) while 11.9% of patients used other schemes such as civil service medical benefit scheme (CSMBS), social security scheme (SSS) and self-payment.

Table 4 shows that more than half (58%) of the patients spent time between 30 to 60 minutes for traveling to get medical care at the OPD clinic of Wangnumyen Community Hospital. There were more than one third (34.3%) of patients spent less than 30 minutes for traveling. Based on two groups categorized, 14.4% of the patients had problem with the time they spent for traveling while 85.6% of the patients did not have any problem with the traveling time to the hospital.

In this study, 224 patients had spent money for their transportation to the hospital. Out of 224, 77.7% of the patients spent money equal and less than 88 baht for traveling to the hospital while the rest of the patients spent more than 88 baht for the transportation cost. Among all of them, 78.2% of the patients did not have any problem with the transportation cost and only 21.2% of the patients encountered the problem with the money they spent for traveling to the hospital.

With connection to the question asking about having previous health problem/experience and/or underlying diseases, 87.3% of the patients answered that they had underlying diseases such as hypertension, diabetes mellitus, heart diseases, lung diseases, thyroid disease, thalassemia; and health problem/experiences such as

baby delivery, accident, diarrhea, common cold, anxiety, musculo-skeletal diseases, teeth problem, abdomen surgery, peptic ulcer, and fever and headache. Only 12.7% of the patients had neither previous health problem/experiences nor underlying diseases.

There were 68.2% of the patients used to visit or admit in Wangnumyen Community Hospital or in other hospitals before while 31.8% of the patients had never visited/admitted in any hospital before.

The current health problems that brought patients to the OPD clinic of Wangnumyen Community Hospital were categorized into three groups: acute health problems, chronic health problems and others. Acute health problems were the group of illness or health problems such as fever, headache, allergy and/or skin rash, eye diseases, herpes zoster, herpes simplex, teeth ache, stomatitis, upper respiratory infection, and gastro-intestinal tract diseases etc. Chronic health problem included diabetes mellitus, hypertension, musculo-skeletal diseases, chronic lung diseases, heart diseases, and mental health problem. Others were the group with quite or healthy status people who came to see physicians at the OPD clinic for the sake of checking up their health, requesting for referral letter, and medical report. Patients visited the OPD clinic because of acute health problems, chronic health problems and others were 42.4%, 38.5% and 19.1 consecutively.

### 4.3 Patient's expectation towards health services at the OPD clinic of Wangnumyen Community Hospital

The patients were asked about their expectation towards health services provided by the OPD clinic of Wangnumyen Community Hospital before they experienced with the health services. There were six questions in the expectation section, including interpersonal manner of service providers, comfortability of the OPD clinic, features of the OPD clinic surrounding, availability of medical resources at the OPD clinic, quality of care and total cost paid out of pocket for medical expense; and 100% of patients expressed their expectation to all questions, except the question concerning

the total cost paid out of pocket which 88.1% of the patients did not have the expectation.

The overall expectation of patients towards health services at the OPD clinic of Wangnumyen Community Hospital as shown in table 5 below was computed by dividing into high expectation and low expectation level. The patients securing a score of median or more than that (≥2.4%) were considered as highly expected while those securing less than score of median (<2.4%) were considered as lowly expected.

**Table 5** Overall Expectation of Patients Towards Health Services at the OPD clinic of Wangnumyen Community Hospital

| Expectation | Frequency | Percent |
|---|---|---|
| High expectation (≥2.4) | 139 | 58.9 |
| Low expectation (<2.4) | 97 | 41.1 |
| Min =1.8 Max = 3.0 Median = 2.4 QD = 0.5 | | |

As shown in Table 5, more than half (58.9%) of patients highly expected and less than half (41.1%) of them lowly expected towards health services at the OPD clinic of Wangnumyen Community Hospital. The minimum score was equal to 1.8 while maximum score was 3. The median was 2.4 with quartile deviation 0.5.

Table 11 in the appendix shows that more than half of patients expected at excellent, adequate or no problem level in questions regarding interpersonal manner of health service providers (56.4%), comfortability of the OPD clinic that would serve them in accessing to health care services (53.4%), features of the OPD clinic surrounding (51.7%), quality of care (52.5%), and total cost paid out of pocket for medical expense (64.3%), except the question of the availability of medical resources at the OPD clinic (44%). More detail about patient's expectation is indicated in the appendix, table 11.

### 4.4 Patient's attitude towards health services at the OPD clinic of Wangnumyen community hospital

The patients were asked about their attitude towards health services provided by the OPD clinic of Wangnumyen Community Hospital. There were nine questions in the attitude section, including interaction of health service providers; convenience to access to health care services at the OPD clinic; features of the OPD clinic surrounding, adequacy of health service providers, medical facilities, equipment and medications; quality of medical care; total cost paid out of pocket for health services; recommendation of patients to their families and friends to utilize the health services at the OPD clinic in the future; patient's tendency to utilize health service at the OPD clinic; and patient's consideration regarding everything of medical care services.

Regarding the overall attitude of patients towards health services at the OPD clinic of Wangnumyen Community Hospital, patient's attitude was computed by dividing into good attitude and poor attitude. The patients securing a score of median or more than that (≥26) were considered as having good attitude and those securing less than score of median (<26) were considered as having poor attitude.

Table 6 below shows that more than half of patients (51.3%) had good attitude while less than half of them (48.7%) had poor attitude towards health services at the OPD clinic of Wangnumyen Community Hospital. The minimum score of attitude was equal to 20 while the maximum score was 27. The median score of attitude was 26 with the quartile deviation 1.

**Table 6** Overall Attitude of Patients Towards Health Services at the OPD Clinic of Wangnumyen Community Hospital

| Attitude | Frequency | Percentage |
|---|---|---|
| Good attitude (≥26) | 121 | 51.3 |
| Poor attitude (<26) | 115 | 48.7 |
| Min =20 Max =27 Median=26 QD = 1 | | |

According to the patient's attitude, Table 12 in the appendix shows that the majority (98.3%) of the patients agreed that health service providers had good interaction with them during their provision of health care services while 0.4% of the patients disagreed and only 1.3 % of the patients undecided about the interaction of the health service providers.

Regarding the accessibility to health care services at the OPD clinic of Wangnumyen Community Hospital, most of the patients (96.2%) agreed that it was convenient for them to access to health care services at the OPD clinic. There was 3.4% of the patients disagreed and only 0.4% of the patients undecided about that.

With respect to patients attitude on physical environment of the OPD clinic, there were 97.9% and 2.1% of the patients were agreed and undecided, respectively, with the statement that they were delighted with the features of the OPD surrounding. And no one disagreed about this statement.

Based on the attitude of patients towards adequate number of health service providers, medical facilities, equipment and medications, most (92.4%) of the patients agreed while 2.1% of them disagreed. And 5.5% of the patients undecided.

According to patient's attitudes on quality of care, the majority (96.2%) of the patients agreed with the statement that the medical care they had been receiving from the OPD clinic was just good quality while 3.8% of the patients undecided.

With regard to the statement mentioned about the total cost paid out of pocket for registration, diagnosis, treatment and medications, 47% of the patients agreed that it was reasonable and affordable while 41.5% of them disagreed and 11.5% undecided about that.

There were 100% of patients agreed with the statement that they would recommend their relatives and friends to utilize the health services provided by the OPD clinic of Wangnumyen Community Hospital, and 98.3% of the patients agreed with that they would come and utilize the health services at this OPD clinic again whenever they had health problem, and only 1.7% of them undecided with this statement.

Regarding patient's attitude on all things considered, there were 97.9% of the patients agreed with that the medical care they received from the OPD clinic was very good, and 2.1% of them undecided. More detail about patient's attitude is demonstrated in the appendix, table 12.

### 4.5 Association between explanatory factors and satisfaction

The association between the predisposing characteristics, enabling resources, and need factors of patients and the patients' satisfaction was determined by using Chi-square test. Most variables, including age, education level, occupation, marital status, income, health insurance, traveling time, transportation cost, and health problem were regrouped in order to get enough frequency for statistical analysis.

As shown in Table 7 below, the association between gender, health insurance scheme used by patients, transportation cost, expectation and satisfaction level of patients were detected by Chi-square test while other independent variables were not found to be associated with satisfaction level (Table 8).

The Table 7 shows that female group had higher proportion (24.1%) of the high satisfaction level than male group (9.1%). It could be concluded that female gender had significant association with high satisfaction level (p-value = .026).

The patients used UCS had lower proportion (19.2%) of high satisfaction level when compared with the other scheme-SSS, CSMBS, self-payment grouped together. It could be concluded that being a set payment health insurance scheme was significantly associated with high satisfaction level (p-value = .004).

Regarding transportation cost, it was found that those who paid transportation costs more than 88 baht for traveling to visit the hospital had higher proportion (34.0%) of high satisfaction level when compared with those who paid less than 88 baht for the transportation. The association between transportation cost and the level of patient's satisfaction was statistically significant (p-value =.015). It could be concluded that having high transportation costs was significantly associated with high satisfaction level.

The result showed that patients with high expectation had higher proportion (29.5%) of high satisfaction level than those with low expectation. It could also be concluded that having high expectation had significant association with high satisfaction level (p-value = .0001)

**Table 7** Explanatory factors associated with satisfaction

| Independent Variables | Satisfaction level | | | P-value |
|---|---|---|---|---|
| | Low | Medium | High | |
| **1.Gender group** | | | | .026 |
| Male | 12 (18.2) | 48 (72.7) | 6 (9.1) | |
| Female | 32 (18.8) | 97 (57.0) | 41 (24.1) | |
| **2.Health insurance scheme** | | | | .004 |
| UCS | 33 (15.9) | 135 (64.9) | 40 (19.2) | |
| Others | 11 (39.3) | 10 (35.7) | 7 (25.0) | |
| **3.Transportation cost** | | | | .015 |
| ≤ 88 baht | 35 (20.1) | 112 (64.4) | 27 (15.5) | |
| > 88 baht | 8 (16.0) | 25 (50.0) | 17 (34.0) | |
| **4.Expectation** | | | | .0001 |
| High expectation | 16 (11.5) | 82 (59.0) | 41 (29.5) | |
| Low expectation | 28 (28.9) | 63 (64.9) | 6 (6.2) | |

Regarding patient's attitude, Table 8 below shows that the association between attitude and satisfaction level was not detected by the Chi-square test. However, this association was detected by Pearson correlation test (r =0.18, p-value = 0.006). This result showed that patients having good attitude were more satisfied with health services at the OPD clinic of Wangnumyen Community Hospital than those having poor attitude. It could be concluded that having good attitude was significantly associated with high satisfaction level.

**Table 8** Explanatory factors not associated with satisfaction

| Independent Variables | Satisfaction level | | | P-value |
|---|---|---|---|---|
| | Low | Medium | High | |
| **1.Age (years)** | | | | .808 |
| 14-39 | 16 (22.8) | 41 (58.6) | 13 (18.6) | |
| 40-59 | 18 (18.2) | 62 (62.6) | 19 (19.2) | |
| ≥60 | 10 (15.0) | 42 (62.7) | 15 (22.3) | |
| **2.Education level** | | | | .631 |
| Primary school and no education | 33 (17.6) | 116 (61.7) | 39 (20.7) | |
| Secondary school and higher | 11 (22.9) | 29 (60.4) | 8 (16.7) | |
| **3.Occupation** | | | | .839 |
| Agriculture | 15 (16.5) | 58 (63.7) | 18 (19.8) | |
| Government/NGO/Self-employee | 11 (21.6) | 28 (54.9) | 12 (23.5) | |
| Others | 18 (19.2) | 59 (62.7) | 17 (18.1) | |
| **4.Marital status** | | | | .824 |
| Single/divorced/widow/widower | 8 (18.6) | 25 (58.1) | 10 (23.3) | |
| Married | 36 (18.6) | 120 (62.2) | 37 (19.2) | |
| **5.Icome group (baht)** | | | | |
| ≤16933 | 41 (18.8) | 134 (61.5) | 43 (19.7) | .954 |
| >16933 | 3 (16.7) | 11 (61.1) | 4 (22.3) | |
| **6.Traveling time (minutes)** | | | | .708 |
| <30 | 16 (19.8) | 53 (65.4) | 12 (14.8) | |
| 30-60 | 25 (18.4) | 80 (58.8) | 31 (22.8) | |
| >60 | 3 (15.8) | 12 (63.1) | 4 (21.1) | |

**Table 8** Explanatory factors not associated with satisfaction (cont.)

| Independent Variables | Satisfaction level | | | P-value |
|---|---|---|---|---|
| | Low | Medium | High | |
| **7.Traveling time problem** | | | | .393 |
| Yes | 4 (11.8) | 21 (61.8) | 9 (26.4) | |
| No | 40 (19.8) | 124 (61.4) | 38 (18.8) | |
| **8. Transportation cost problem** | | | | |
| Yes | 9 (18.0) | 26 (52.0) | 15 (30.0) | .124 |
| No | 35 (18.8) | 119 (64.0) | 32 (17.2) | |
| **9. Health problem** | | | | .473 |
| ***Previous health probl/experien*** | | | | |
| Yes | 36 (17.5) | 128 (62.1) | 42 (20.4) | |
| No | 8 (26.7) | 17 (56.7) | 5 (16.6) | |
| ***Previous visit/admission to hosp*** | | | | .555 |
| Yes | 27 (16.8) | 101 (62.7) | 33 (20.5) | |
| No | 17 (22.7) | 44 (58.7) | 14 (18.6) | |
| ***Current illness/health experience*** | | | | .720 |
| Acute health problem | 19 (19.0) | 62 (62.0) | 19 (19.0) | |
| Chronic health problem | 16 (20.7) | 59 (64.8) | 16 (17.5) | |
| Others | 9 (20.0) | 24 (53.3) | 12 (26.7) | |
| **10 Attitude** | | | | .288 |
| Good attitude | 18 (14.9) | 79 (65.3) | 24 (19.8) | |
| Poor attitude | 26 (22.6) | 66 (57.4) | 23 (20.0) | |

## 4.6 Patient's suggestions and comments for improving the quality of health services at the OPD clinic of Wangnumyen Community Hospital

Out of 236 patients, 74.6% of the patients provided suggestions and comments for improving the quality of health services at the OPD clinic while 25.4% of the patients did not. Mostly, each patient gave his/her suggestions and comments by focusing on more than one point of view.

Regarding the question of the important things/areas that should be done to improve the quality of health services, patients gave suggestions and comments as in the Table 9 below:

**Table 9** Patient's Suggestions and Comments for Improving the Quality of Health Services at the OPD Clinic of Wangnumyen Community Hospital (Mostly, each patient provided more than one point of view)

| Suggestions and comments | Frequency | Percent |
|---|---|---|
| 1. The waiting time for seeing doctors, and pharmacists | 53 | 30.1 |
| 2. The commencement of working hours of doctors | 39 | 22.2 |
| 3. The interpersonal manner of nurses and doctors | 31 | 17.6 |
| 4. Specialty in the areas of pediatric; eyes; and ear, nose and throat care | 27 | 15.3 |
| 5. The size of OPD clinic's space and billboard of hospital's name; car park; and cleanliness of space and toilets | 26 | 14.8 |
| 6. The quality of physical examination by physicians and quality of drugs as well | 11 | 6.2 |
| 7. The quantity of toilets, especially toilets for disabled and elderly people; and chairs at the waiting area | 10 | 5.7 |
| 8. The operation time of fan and/or air-condition up to the whole day during the hot season; using microphone to announce patients; and turning on television during the afternoon working hours | 10 | 5.7 |
| 9. Possibility of having one stop service at the OPD clinic | 3 | 1.7 |
| 10. The quantity of new equipments | 2 | 1.1 |
| 11.The possibility of having a standard cost for drugs | 1 | 0.6 |

In connection with patient's suggestions and comments on what should be improved for better quality of health services as shown in Table 9, patients also provided their ideas about how to improve those things. Their ideas are presented as follows:

Doctors and nurses should be more polite and friendly when interacting with patients. They should smile and speak with beautiful words rather than blame crying children patients; ask patients more about what's wrong with them and provide clearer explanation and better advice to the patients.

Increase number of doctors and dentists. Recruit specialist such as ENT doctors, ophthalmologists, pediatricians. Number of doctors should be increased for the afternoon working hours of the OPD clinic. Doctors should start working as early as the schedule stated, especially for the afternoon session.

Toilets and space should be cleaned more often and tissue paper in the toilets should be provided. Special toilets for elderly people and disabled should be constructed. Bigger size of billboard for hospital's name should be made. Better quality of medications with higher price should be available and used.

First time visitors should be separated from those who already used to see doctors before. The order number to see doctor for the emergency cases should not be applied. Elderly, children and DM patients should be arranged for seeing doctors before other patients. With regard to illiterate, and blind patients they should be given more verbal information and accompanied by the health staff to the place they must receive services.

# CHAPTER 5
# DISCUSSION

In this study, the questionnaire was comprised of 53 questions in total concerning predisposing factors, enabling resources and need factors of patients, patient's satisfaction towards health services at the OPD clinic of Wangnumyen Community Hospital, and suggestions and comments by the patients to improve the quality of health services. Patient's satisfaction was the dependent variable of this study. Methodological concerns and important issues are discussed in this chapter as follows:

## 5.1 Methodological concerns

This study was conducted in the hospital during office working hours so that the patients might be reluctant to express truly their opinions and feelings towards health services at the OPD clinic because they might be afraid of unfavorable treatment in the future. The questionnaire was designed for interviewing in order to minimize and/or avoid any misunderstanding or confusion about questions, and missing data. Systematic random sampling had been performed to avoid selection bias. Moreover, the researcher observed the process of the data collection by herself to ensure the quality of the data. However, the interviewers for this study were the nurses working at the inpatient department of the hospital and these nurses sometimes worked at the OPD clinic as their additional duties in order to assist the OPD staffs who have been limited numbers, so that the personality and recognition of these interviewers could inevitably influence patients' answers.

Previous patient satisfaction surveys done by Wangnumyen Community Hospital were different from this study in terms of the method and moment of the questioning procedure. This difference could lead to the different results between the hospital surveys and this study.

## 5.1 Patient's satisfaction towards health services at the OPD clinic of Wangnumyen Community Hospital

According to the result of the overall satisfaction indicated by this study, nearly one fourth (23.3%) of the patients were highly satisfied and 61.4% were moderately satisfied. Only 15.3% of patients were lowly satisfied with health services at the OPD clinic of Wangnumyen Community Hospital.

In connection with this result, the proportion of high satisfaction level of this study was slightly less than half (23.3%) of the high satisfaction proportion (54%) of the study conducted by Anjum J. about patient satisfaction towards out patient department services in Pakistan Institute of Medical Services, Islmabad (74). Satisfaction level of this study was also lower than the satisfaction level found by the study of Tangmankongworakoon who reported that the level of the overall satisfaction of the clients towards the services of Lad Yao hospital was 52% (67). Moreover, the satisfaction level of this study was much lower when compared with the finding of survey conducted by Wangnumyen Community Hospital. The surveys found that the overall satisfaction level received from the patients at the OPD clinic of Wangnumyen Community Hospital in April 2005 and April 2006 were 75.68% and 81.7% consecutively (71), (72).

As one can see there is a wide variation in the level of satisfaction received by patients in different studies conducted in different times and places. There might be many factors that lead to the wide variation of the aforesaid satisfaction level, such as the variation in quality of services provided by health facilities, the difference in cultural setting both in service providers and consumers, and the different classification of satisfaction components, the different determination of satisfaction level applied for those studies etc. For instance, this study divided satisfaction into three levels: low, medium and high satisfaction by using mean score + and – one standard deviation while other studies classified satisfaction into two levels: satisfied and less satisfied or high and low satisfaction by using 80% of total score as the cut-off point, or using median or mean score as cut-off point. The above different

determination of satisfaction level might be one leading factor of the wide variation in the proportion of satisfaction level obtained from those studies. Considering this reason, one can see that this study used higher criteria (91% of total score as the cut-off point) to classify satisfaction level.

With regard to the level of satisfaction in six components, namely interpersonal manner of service providers, accessibility, physical environment, availability of medical resources, quality of care, and medical expense, this study revealed that patients were highly satisfied with the first three top components, namely availability of medical resources (37.3%), physical environment (36.9%), and interpersonal manner of service providers (30.9%). This study also indicated that accessibility, medical expense, and quality of care received lower satisfaction: 13.9%, 14.8%, and 24.1%, respectively, when compared with other components. However, physical environment received the highest proportion of low satisfaction 31.8% among other components. Medical expenses (18.7%), accessibility (10.2%) and interpersonal manner of service providers (10.2%) also received low satisfaction with quite high proportion. These findings could reflect that patients were more concerned about accessibility, medical expense, quality of care and physical environment components than the others.

The proportion of high satisfaction level in the component concerning physical environment of this study was lower when compared with the finding of Anjum J. (74) who found that 53% of the patients were highly satisfied with physical facility. The results of this study also showed that quality of care component received lower proportion of high satisfaction when compared with the result of patient satisfaction surveyed by Wangnumyen Community Hospital, in which it was found that quality of care received 78% of satisfaction level from patients consumed services at its OPD clinic (71). The different satisfaction level obtained by this study and by the survey of the hospital might be explained by the views related to psychosocial determinants. A number of “social-psychological artifacts” may affect expressions of the patient satisfaction (34). There were some arguments of “Social desirability response bias” that patients may report greater satisfaction than they actually feel because they

believe that positive comments are more acceptable to survey administrators. A number of observers had suggested that patients may be reluctant to complain for fear of unfavorable treatment in the future (35), (36). Besides, the different finding among these three studies might also be explained by the classification of satisfaction components. Several classification of components have been proposed, some appropriate only for specific health care contexts, other aiming at broad applicability. However, as many satisfaction studies are conducted in very specific context it is understandable that any standard classification never seems entirely appropriate (3). For instance, this study classified quality of care as one component of patient satisfaction, in which this component consisted of six specific items while the quality of care classified by the hospital comprised a single item asking about the quality of care in general. This difference might be a reason that made satisfaction level differently obtained.

Regarding interpersonal manner of health service providers, the results indicated that more than half of patients were very satisfied with a very friendly and courteous manner of physicians given to them during the treatment and examination (56.4%), and with the freedom in complaining about their health problems when they were with physicians (52.5%). Patients were concerned in physicians' and staffs' respect to their wishes (45.3% of patients were very satisfied with) and in the attention to their privacy given by physicians (40.2% of patients were very satisfied with). The results of this study were lower than that of satisfaction survey of Wangnumyen Community Hospital, which showed doctors' manner, doctors' attention and respect paid to patients, nurses' manner obtained satisfaction level 80.4%, 80% and 78.4% consecutively (71). These findings could reflect the level of communication skill and empathy of physicians and their staff working at the OPD clinic of Wangnumyen Community Hospital, which affected patient satisfaction level. These findings could also support the previous studies which found that the interpersonal aspects of care are regarded as the principle component of satisfaction (24). Two aspects regarded as particularly important are communication and empathy (45), (46).

With regard to accessibility to health services at the OPD clinic, the majority (78.4%) of the patients was very satisfied with convenient places where they received medical care, and half of the patients were very satisfied with the adequacy of seats at the waiting area. Mostly, patients were concerned about getting an appointment for medical care right away at the OPD clinic (17.8% of patients were very satisfied with). Waiting time was the second top priority of patients' concern in this component (33% of patients were satisfied with). The result regarding the waiting time of this study could support previous studies, which reported that waiting time at health centers had been found to relate to patient dissatisfaction (43), (66). UK, outpatient departments seem particularly prone to long waiting time (44). With regard to patient's concern about getting appointment for medical care right away, it could reflect the current appointment system of Wangnumyen Community Hospital, which might affect patient satisfaction.

With respect to quality of care component, 60.6% of the patients were very satisfied with the medications they received that were good and well-packed. Only 37.3% of the patients were very satisfied with the time that their physicians and staffs spent with them. This could reflect that patients were more concerned with the time that physicians and their staffs spent with them than other items in this component Other items such as thoroughness of checking during examination and treatment by physicians, cleanliness of equipment and medical equipment used by physicians to examine and treat patients, ability of physicians and pharmacists in providing medical care services, and competence and experience of physicians and staff, received high satisfaction roughly less than 50%. These results could reflect that the patients were less satisfied with the quality of care component when compared with the results of satisfaction survey of Wangnumyen Community Hospital (71). The results of the hospital survey revealed that service providers spent time with the patients and physical examination by physicians received satisfaction level 71.6% and 73.6% respectively. The difference between these two studies might be resulted from information bias. "Ingratiating response bias" occurs when patients use the satisfaction survey to ingratiate themselves with medical staff. "Self-interest bias" proposes that as most social programs-which includes health care services-act as

providers, clients are likely to perceive that expressions of satisfaction will contribute to the continuation of the service which in turn will be in their own self-interest (35), (36). Patients' feelings of unable to express desires, fears, or criticisms to the medical staff might also be another reason for the difference of these studies. The different nature of questions used to ask patients and the different questioning procedure could also explain this difference. The hospital survey used general questions and let patients fill questionnaire out by themselves while this study interviewed patients with the questions considerably detailed and specific which probably led to the generation of lower levels of satisfaction than that of the hospital.

### 5.3 Patient's predisposing characteristics, enabling resources, and need factors

The minimum age of the patients was 14 years while maximum age was 96 years, and the mean of age was 48.91 with standard deviation 16.59. The younger group had age range of 14 - 59 years. In this group, 18.9 % of patients had high satisfaction level. The elder group had age range of 60 to 96 years, and 22.4% of patients had high satisfaction level. So elder group was more satisfied than younger group, but the association between the age and patient's satisfaction was not proved by statistical test. The result was similar to the one determined by Partha P.R., in which he concluded that the older patients had higher level of satisfaction when compared with the younger age group (68). However, this study was different from Partha P.R.'s study in terms of the absence of association between age and satisfaction level. The result of this study also supported by the finding of Williams S. J. and Calnan M. study (1991), in which they concluded that older people have been found to be far more satisfied with most aspects of their hospital care than younger and middle aged people (29).

With reference to the patients' gender, it was found that females (24.1%) were more satisfied with health services than males (9.1%) and association was significant. This result was consistent with the finding of Partha P.R.'s study, in which he found that female clients were more satisfied than males (68). This finding was in contradiction with the report of Khayat and Salter (1994). They reported that

significantly more men than women were satisfied overall with their general practitioners (28). Moreover, there was a difference from the result of a meta-analysis conducted by Hall and Dornan (1990) whom their research found that gender did not affect satisfaction values (32), (33), (27), (20). Women were more likely to be open than men. This might be the reason that women could express their satisfaction more than men could.

Regarding marital status, it was found that single patient group (23.3%) had more satisfaction level than married patient group (19.2%). The result of this study was in opposite with the result of Partha P.R.'s research, in which he reported that even though the results were statistically not significant, married clients had higher level of satisfaction with medical care service than single clients (68). The difference between these results could be explained by Fitzpatrick (1990) and Fox and Storms (1981) who highlighted the lack of consistency of the effects of social class, marital status, gender and age (20), (14), (21), (22).

Even though the result was statistically not significant, patients who belonged to uneducated and primary school group (20.7%) were more satisfied than those with secondary school and higher education group (16.7%). This result was similar to the study of Partha P.R. who found that clients with primary school and below (66.7%) were more satisfied than the clients with secondary school and above (68). This finding was also supported by the study of Tangmankongworakoon, in which she indicated that the clients who graduated at the higher level were satisfied less (67). Evidence from the United States study by Anderson and Zimmerman (1993) revealed that patients with lower levels of education were being most satisfied (30). Similarly, Schutz et al (1994) found that higher educational attainment was strongly associated with dissatisfaction in patients undergoing colonoscopy (31). However, this study was conducted in the remote area where the majority (79.7%) of the patients had attained primary school and no education.

Regarding occupation categories, the group comprised of governmental, non-governmental employees and self-employees was found more satisfied than the

agriculture and other group. However, the association between occupation and satisfaction level of patients was not proved by statistical test. This result was inconsistent with the findings of the study by Partha P.R. who concluded that the unemployed group was more satisfied than the employed group (68). Hall and Dornan (1990) in their study about patient socio-demographic characteristics as predictors of satisfaction with medical care: a meta-analysis, viewed social status as having "nearly significant relations" with satisfaction, but as greater satisfaction was associated with higher social status (20). From these views, it could be related with the result of this study, in which the patients with more satisfied group were the better social classes when compared with other groups.

With respect to average family income, patients in the group that earned more than 16933 baht per month were more satisfied than those in the group that earned less. However, no statistical association could be established. This result is opposite to the study conducted by Partha P.R. who found that clients with lower income reported higher level of satisfaction with the medical care service (68). It was also contradictory with the study of Shahid P.A. about client satisfaction towards health center services in urban Islamabad. He found that the lower income group was significantly more satisfied than the higher income group (73). The difference of these findings might be related to the different interest of patients in different communities or setting with social class. The better occupation the more income earned and the better occupation the higher social class. And patients with better social class were more satisfied than those with low social class.

For health insurance coverage, the majority (88.1%) of patients were covered by UCS while only 11.9% of patients were covered by other schemes such as CSMBS, SSS, and self-payment. This study found that patients (25%) covered by other scheme group were more satisfied than those (19.2%) covered by the UCS even though the result was statistically not significant. This finding was different from the result of Tangmankongworakoon 's study, in which she found that the group (57.8%) of clients used UCS were more satisfied than other group (48.8%); but her result was also not statistically significant (67). However, there was one different point between these

two studies regarding health insurance scheme categories. In Tangmankongworakoon study, UCS was grouped with the CSMBS while this study grouped CSMBS with other group and left UCS as a single group. Considering the differences of each scheme in terms of its financing and payment system, the eligible population and the services provided (75), it could be implied that patients covered by UCS were less privileged and lower social class when compared with those covered by CSMBS and SSS. This might be related with the study of Hall and Dornan (1990) who viewed social status as having "nearly significant relations" with satisfaction, but as greater satisfaction was associated with higher social status (20).

In this study, patients who spent time between 30-60 minutes (22.8%) and more than 60 minutes (21.1%) for reaching the hospital were more satisfied than those who spent less than 30 minutes (14.8%). It was also found that patients with transportation costs over 88 baht (34%) were more satisfied than those whose costs were equal to or less than 88 baht (15.5%). Besides, patients in both groups with the traveling time problem (26.4%) and transportation cost problem (30%) had higher proportion of high satisfaction when compared with those in the groups without problem of traveling time (18.8%) and of transportation cost (17.2%). Moreover, the statistical test proved that the transportation cost was significantly associated with the satisfaction level of patients. These results might support the study of Levoie et all related to psychosocial determinants, in which he mentioned that 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 (34). This can also reflect the willingness of the patients to get highly satisfied health services even though they tried very hard to access to the health services in terms of longer time and more fare spent for transportation.

Although there was not significantly associated, patients (20.5%) who used to visit or admit to any hospital before were more satisfied than those (18.6%) who never used before. This result supported the finding of Sita R.D. who reported that repeated visitors (73.1%) had the level of high satisfaction higher than the first time

visitors (66.7%) (70). This result was similar to the finding of Tangmankongworakoon who found that clients with first-second visit (50.6%) were less satisfied than those with third visit up (52.3%) (67). There was, however, a different point between this study and Tangmankongworakoon 's study regarding the patient visit or admit to hospital. In this study, patients came to visit the hospital as their first time on the date of data collection were grouped singly as those never had previous visit or admission to any hospital before while Tangmankongworakoon 's study grouped the first and second visit together as one group.

It was found that the patients with acute health problems (42.4%) consumed health services at the OPD clinic more than those with chronic health problems (38.5%) and those in other group (19.1%) which was healthy group. This result is similar to Tsukamoto' s finding in his about satisfaction to health care services and real reason for health seeking behavior among Thais in Klong Yong, Nakhon Pathom province. Tsukamoto reported that patients with acute illness (32.4%) used health services at the health center more than those (23.8) with chronic illness (69). It was also found that the other group (26.7%) was the most satisfied group while acute health problem group (19%) was more satisfied when compared with the chronic health problem group (17.5%). This result was contradictory with the finding of Tangmankongworakoon who found that the unhealthy clients (54%) were more satisfied than those who were healthy group (51%). However, there was no significant association between health problem and satisfaction level proved by statistical test in these studies.

### 5.4 Patient's expectation towards health services at the OPD clinic of Wangnumyen Community Hospital

In this study, the result of overall expectation showed that the proportion of high expectation and low expectation were 58.9% and 41.1% respectively. Table 5 showed that the high expectation group had higher proportion (29.5%) of high satisfaction level than the low expectation group Having high expectation was significantly associated with high satisfaction level. This indicates that the patients with high

expectation were more satisfied with health services than those whose expectation was low. It could also be implied that patients got better health services than what they expected.

Patient's expectation was defined as the degree of congruency between a patient's expectation of ideal nursing care and his perception of the real nursing care that he received (9). Patient's expectation was also indicated as the determinant for satisfaction by previous studies. The finding of this study might be related to the hypothesis by Larsen Rootman (1976) that the more a doctor's performance meets a patient's expectation, the more satisfied the patient will be with the physician's services (18). However, this finding was inconsistent with the finding of previous study, in which it was found that patients with lower expectations tend to be more satisfied (14).

### 5.5 Patient's attitude towards health services at the OPD clinic of Wangnumyen Community Hospital

In this study, more than half of patients (51.3%) had good attitude while less than half of them (48.7%) had poor attitude. Patients with good attitude (20.0%) were more satisfied than those with poor attitude (19.8%). And the association between attitude and satisfaction level was proved by statistical test in this study (r =0.18, p-value =0.006). The finding of this study was consistent with the previous studies which revealed that attitude was the associating factor to, and the predictor for the satisfaction level (67). This finding was likely to support the definition by Linder-Pelz (1982) who defined patient satisfaction as an expression of an attitude, an affective response, which is related to both the belief that the care possesses certain attributes and the patient's evaluation of those attributes; and as the individual 's positive evaluation of distinct dimensions of health care (8).

As shown in Table 12 in appendix, patients agreed at a very high level (92.4% to 100%) with all items of questions in the attitude section, except the item mentioned about the total cost paid out of pocket for medical expenses that was reasonable and

affordable for them, in which 47% of patients agreed and 41.53% of them disagreed with. Actually, in this study the majority (88.1%) of patients was covered by UCS, and they have no been longer paying for health services since January 1, 2007. This finding might reflect the cognitive perceptions of patients towards medical expenses in the past rather than the time of interview.

### 5.6 Patient's suggestions and comments for improving health services at the OPD clinic of Wangnumyen Community Hospital

Among total patients, 74.6% of them provided their suggestions and comments and mostly each of them gave more than one point of views both in the areas of improvement and the way to improve them.

As shown in Table 9, the waiting time for seeing doctors and pharmacist was the first priority area (30.1%) for improvement and then the commencement of working hours of doctors was the second one (22.2%). These two areas seem to be related to each other very closely, and the first area must be affected by the second one. Looking back into the Table 3, these suggestions and comments seemed to prove the satisfaction level of patients had with the accessibility component, in which its proportion of high satisfaction was the lowest (13.9%) among other components.

According to patients' suggestions and comments, the interpersonal manner of nurses and doctors was the third priority area (17.6%) for improvement. Patients pointed out the way for better manner by commenting that doctors and nurses should be more polite and friendly when interact with patients. They should smile and speak with beautiful words and not blame crying children patients. Likewise, this priority area was matched with the finding showed in Table 3. The interpersonal manner component received high satisfaction level (30.9%) from patients as the third top among six components of satisfaction.

Table 9 indicated that there was a need for medical resources in terms of specialists in a certain common medical fields. Even though patients were more

satisfied (37.3%) with the availability of medical resource at the OPD clinic than all other components, this component was still the fourth priority area for improvement. These unmatched findings might have resulted from the questions which did not cover the availability of medical specialists.

Areas for improving number 5, 7 and 8 were all about physical environment. Since the number of suggestions and comments in those items was not equal with one another these areas were separated. If they were put together as one component, physical environment would be ranked as second priority for improving even though this component received high satisfaction level at the second top rank.

The sixth area for improvement was the quality of care component. In connection with this area patients also commented that doctors and nurses should ask patients more about what's wrong with patients; and provide clearer explanation and better advices to patients. Looking back into Table 5, the quality of care component received high satisfaction level at third rank from the bottom. According to this result, this component should be the third priority area for improving. However, the area pointed out by patients was just one item among six items of the quality component. And this might be the reason that led to unmatched problem-solution priority area.

In general, patients' suggestions and comments did support previous studies related to accessibility, interpersonal aspects of care, and technical aspects of care. Poor parking, public transportation, and waiting time at health centers have all been found to relate to patient's dissatisfaction (42), (14), (43). The interpersonal aspects of care are regarded as the principal component of satisfaction (24). Two aspects regarded as particularly important are communication and empathy (45), (46). Successful interactions depend on the social skills of the participants. Non verbal behavior such as leaning slightly forwards and nods of the head make patients see doctors as warmer and more attractive. Doctors' forward lean and body posture were associated with higher patient satisfaction (55), (56). Doctors 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 (11).

# CHAPTER 6
# CONCLUSION AND RECOMMENDATIONS

## 6.1 Conclusion

Patient satisfaction is the key indicator that can reflect the health service quality at any level of health care facilities. Wangnumyen Community Hospital has been conducting patient satisfaction survey both inpatient and outpatient department services twice a year since a few years for the sake of promoting itself to be an accreditation hospital.

The objectives of this study were to assess the level of patient satisfaction towards health services at the OPD clinic of Wangnumyen Community Hospital and to determine the association between dependent and independent variables. The dependent variable of interest was the patient satisfaction towards health services at the OPD clinic of Wangnumyen Community Hospital. The patient satisfaction was concerned with six components: interpersonal manner of health service providers, accessibility, physical environment, availability of medical care resources, quality of care and medical service expenses. Independent variables were predisposing factors such as age, gender, education level, occupation, marital status, and attitude; enabling resources including income, health insurance, traveling time, and transportation cost; and the need factors such as health problem and expectation. Patient attitude and expectation were separately studied in each section of the questionnaire.

A structured questionnaire was used as a study instrument for data collection. There were five sections in the questionnaire: general information regarding the patients, patient expectation towards health services, patient attitude towards health services, patient satisfaction towards health services, and patient suggestions/comments to improve the quality of health services at the OPD clinic of Wangnumyen Community Hospital. Cronbach's alpha coefficient was applied for the

reliability test of questionnaire and gave the result with 0.79, 0.63, and 0.93 for expectation section, attitude section and satisfaction section respectively. As the Cronbach's alpha coefficient of attitude section was not high, the questionnaire was modified specifically question number six of attitude section in order to increase the level of reliability test. The number of patients was calculated by using the proportion with replacement formula, and systematic random sampling was employed to select patients from the OPD clinic of the hospital. Four nurses working at the inpatient department of the hospital were the data collectors for this study and the data collection was conducted from January 30 to February 5, 2007. There were 236 patients participated in this study, and the data was analyzed by MINITAB version 13. The results were presented by using frequency, percentage, minima, maxima, mean, median, standard deviation, quartile deviation, Chi-square test was also performed for determining the association between dependent and independent variables.

The result revealed that the age of the patients was in between 14 to 96 years and the mean age was 48.91 years with standard deviation of 16.59. More female than male patients participated in this study. Females were more satisfied than male and female gender had significant association with high satisfaction level. The majority (81.8%) of patients were married and more than half (66.1%) of them had completed education up to primary school. Agriculture was the top rank (38.5%) respondent occupation in this study. The average family income per month of patients ranged from 400 to 50000 baht with mean income of 6402 baht and most (92.4%) of them had average family income equal or below than 16933 baht. Most (88.1%) of the patients used UCS for their health care needs. Patients covered by other schemes were more satisfied than those covered by UCS and being in a set payment health insurance scheme was significantly associated with high satisfaction level. The majority (77.7%) of patients spent equal to or less than 88 baht for transportation costs to the hospital and 21.2% of them encountered with the money they spent for the transportation. Surprisingly, patients who spent more than 88 baht for transportation costs were more satisfied than those who spent less and the high transportation cost was significantly associated with high satisfaction level. More than half (58%) of

patients spent time between half to one hour to travel to the hospital and only 14.4% of them had a problem with the time they spent for travel. 87.3% of patients had previous health care experiences and/or illness and 68.2% of them used to visit and/or were admitted to hospital. Acute health problems (42.4%) took place as the first and chronic health problems (38.5%) as the second reason for their visit to the OPD clinic, but the other group was most satisfied with health services.

The result of overall satisfaction level showed that the patients with high satisfaction, medium satisfaction and low satisfaction were 23.3%, 61.4%, and 15.3% respectively. This low proportion of high satisfaction level might have resulted from, among other reasons, the high criteria (91% of total score) of classification of satisfaction level.

Regarding the distribution of satisfaction level, it was found that patients were more satisfied with the availability of medical resources (37.3%), physical environment (36.9%) at the OPD clinic and then with interpersonal manner of health service providers (30.9%). On the contrary, patients were less satisfied with accessibility to health services at the OPD clinic (13.9%), medical expense (14.8%) and quality of care (24.1%).

The results of this study showed that 58.9% of patients highly expected and 41.1% of them lowly expected towards health services at the OPD clinic. More than half of patients had high expectation towards the interpersonal manner of service providers (56.4%), the comfortability of the OPD clinic that would serve them in accessing to health care services (53.4%), the features of the OPD clinic surrounding (51.7%), quality of care (52.5%), and the total cost paid out of pocket for medical expenses (64.3%). Only 44% of patients had high expectation towards the availability of medical resources at the OPD clinic. Surprisingly, high expectation was significantly associated with high satisfaction level in this study. This could reflect that patients got better health services/care more than what they expected.

The patients having good attitude were more satisfied with health services than those whose attitude was poor. Having good attitude towards health services at the OPD of Wangnumyen Community Hospital was significantly associated with high satisfaction level.

Patients provided suggestions and comments which were mostly concerned with accessibility to health services at the OPD clinic, in particular the waiting time for seeing doctors and pharmacists; the interpersonal manner of physicians and nurses, and the availability of human resource for health, especially doctors and medical specialists in eyes, ENT, and pediatric cares.

## 6.2 Recommendations

### 6.2.1 Recommendation for action

This study leads to a number of recommendations for contributing to the improvement of quality of health services at the OPD clinic of Wangnumyen Community Hospital as follows:

1. The accessibility to health services at the OPD clinic has been the major concern of patients, the researcher, therefore, strongly supports the comments given by patients, in which the hospital should consider waiting time for seeing doctors and pharmacists as a priority issue that needs to be addressed as soon as possible in order to meet the patient's satisfaction. The hospital should pay more attention to the regulation on working hours of his OPD clinic and put more efforts to reinforce the implementation of this regulation. And the recruitment of more doctors should also be considered.

2. This study also revealed that quality of care needs to be improved, in particular in the area of physical examination and treatment performance by doctors, and the duration of time that doctors spend with patients. Medical technical team of the hospital should review more often the physical examination and treatment

performance by doctors, and the improvement of this performance must be bound with the time that doctors spend with patients.

3. Networking between the community hospital and local health centers should be strengthened in order to share the responsibility for providing health care to patients. Patients with simple diseases such as common cold and headache which were the leading cause of morbidity found in this study should be treated at the local health centers. Besides, simple ANC cases also can be taken care by the local health centers So that it will help to reduce the workload of doctors at the OPD and ANC clinic. As a result, the doctors will have more time to carefully examine and treat patients with complicated diseases.

4. Interpersonal manner of doctors and nurses also should be considered to improve as much as possible. Two ways communication with politeness and friendliness should be applied during the provision of medical care services to patients. Good communicator model should be established for the OPD clinic as soon as possible so that it will help to increase patient satisfaction level.

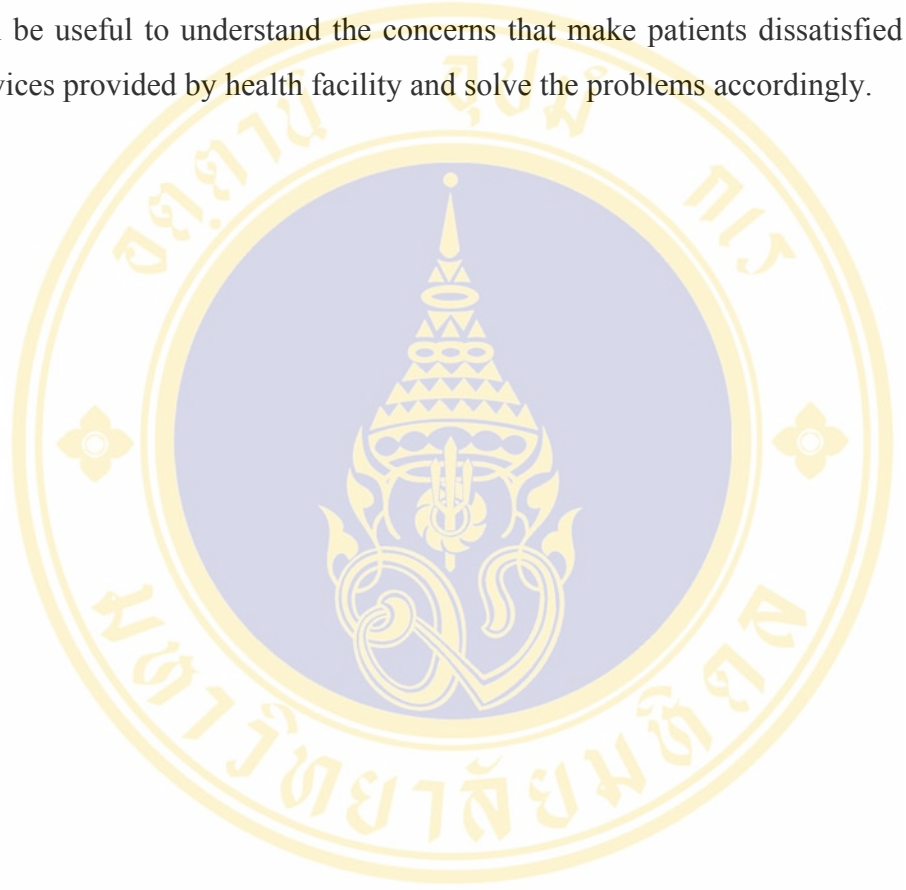
5. This study pointed out that patients less satisfied with their medical expense. Even though the amount of patients who paid out of pocket was less than those who did not pay anything, their satisfaction still need to be considered and improved by carefully discussing with patients on their ability to pay and matching their need rather than their demand in case of their ability to pay is limited. In addition, price of medications should be posted in front of the pharmacy in order to keep patients informed for the sake of transparency, and this will help the OPD clinic to satisfy his patients.

### 6.2.2 Recommendations for future research

1. Open questions for suggestions and comments from patients are very important and helpful to cross check with the results of patient satisfaction level. Therefore, the interviewers should courage patients to answer to the questions as

much as possible. Qualitative research should be conducted together with quantitative one for future studies on patient satisfaction with health services.

2. Further studies on patient satisfaction towards health services should be conducted in parallel with studies on job satisfaction of health service providers which will be useful to understand the concerns that make patients dissatisfied with health services provided by health facility and solve the problems accordingly.



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# APPENDIX

# APPENDIX A

## QUESTIONNAIRE
## PATIENT SATISFACTION TOWARDS HEALTH SERVICES AT THE OPD CLINIC OF WANGNUMYEN COMMUNITY HOSPITAL, SAKAEO PROVINCE, THAILAND

This questionnaire is prepared for assessing the satisfaction of patients with health services at the out-patient department of the Wangnumyen Community Hospital in Sakaeo province of Thailand. The information receiving from you will help improving the services of health care of this department. Your cooperation will be highly appreciated. Your response will be kept confidential. Therefore, please feel free to answer the questions. Thank you very much for your kind and truthful answers

Serial No:

Name of data collector:……..

Date of data collection: / /2007 (d/m/y)

Time of interview. Start:……End:……

**SECTION I: GENERAL INFORMATION REGARDING THE PATIENTS**

1. Age…….(Years)

2. Sex

- □ Male
- □ Female

3. Marital status

- □ Single
- □ Married
- □ Widow/Widower
- □ Divorced/Separated

4. Highest level of education you attained

- □ No education

□ Primary school

□ Secondary school

□ High school or diploma

□ Bachelor or higher level

□ Others (Please specify :……)

5. Main occupation

□ Agriculture

□ Government employee

□ Non-governmental organization employee

□ Self-employee

□ Unemployed

□ Others (Please specify :……)

6. Average family income per month:……..baht/month

7. Type of health insurance that you utilize for this hospital visit

□ Civil Servant Medical Benefit Scheme (CSMBS)

□ Social Security Scheme (SSS)

□ 30 bath health card scheme (UCS, including low income & elderly card)

□ Other (Specify……)

8. How long does it take from your home to this hospital?

……hr……..min.

9. Do you have any problem with the time you spend for traveling to hospital?

□ Yes

□ No

10. How much money do you spend on traveling to the hospital?

……baht.

11. Do you encounter any problem with the money you spend for traveling to the hospital?

□ Yes

□ No

12. Before this visit, did you have any health problem/illness such as DM, hypertension, heart disease, accident, delivery baby, others, etc.)?

□ No

□ Yes (if yes, please specify…….)

13. Have you ever visited or been admitted in any hospital before?

□ No

□ Yes

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

…… ……..

**SECTION II: PATIENT EXPECTATION TOWARDS HEALTH SERVICES AT THE OPD CLINIC OF WANGNUMYEN COMMUNITY HOSPITAL**

**A number of statements regarding the expectation of patients towards health services at the OPD of this hospital are presented below. Three possible reactions are listed under each statement. Please choose the alternative in which the answer that it comes closest to the level of patient's expectation, and tick (√) in the appropriate box to mark patient's expectation.**

Before you come to this hospital,

1. What is your expectation to the manner of the service providers that would be expressed to you (e.g. respect, friendliness, concern and courtesy)?

□1) I expected that the manner of the service providers might not be good

□2) I expected that the manner of the service providers might be acceptable/ok

□3) I expected that the manner of the service might be excellent

2. What is your expectation to the comfort-ability of the OPD that would serve you in accessing to the health care services (e.g. reception, waiting times for service, and convenience)?

□1) I expected that the comfort-ability of the OPD might not be good

□2) I expected that the comfort-ability of the OPD might be acceptable/ok

□3) I expected that the comfort-ability of OPD might be excellent

3. What is your expectation to the features of the OPD surrounding that you would experience (e.g. cleanliness and space, clarity of signs and directions, orderly facilities and equipment and pleasantness of atmosphere)?

□1) I expected that the features of the OPD surrounding might not be good

□2) I expected that the features of the OPD surrounding might be acceptable/ok

□3) I expected that the features of the OPD surrounding might be excellent

4. What is your expectation to the availability of resources at the OPD for your health needs (e.g. adequate number of service providers, medical equipment and facilities)?

□1) I expected that the resources at the OPD might not be adequate

□2) I expected that the resource at the OPD might be quite adequate

□3) I expected that the resources at the OPD might be adequate

5. What is your expectation to the quality of care at the OPD (e.g. quality of medications and medical instrument/equipment, thoroughness of service providers and their time spent with you)?

□1) I expected that the quality of care at the OPD might not be good

□2) I expected that the quality of care at the OPD might be acceptable/ok

□3) I expected that the quality of care at the OPD might be excellent

6. What is your expectation to the total cost paid out of your pocket for health services at the OPD (e.g. payment for registration, diagnosis, treatment and medications)?

□1) I expected that the total cost paid out of my pocket might not be affordable

□2) I expected that the total cost paid out of my pocket might be affordable

□3) I expected that the total cost paid out of my pocket might be no problem

□4) No pay as it is covered all by health insurance scheme

**SECTION III: PATIEN ATTITUDE TOWARDS HEALTH SERVICES AT THE OPD CLINIC OF WANGNUMYEN COMMUNITY HOSPITAL**

Based on the reaction of patient to each statement below, please tick (√) in the appropriate box to mark correctly the answer of patient to the following statements:

| No. | Statements | Degree of attitude | | |
|---|---|---|---|---|
| | | Agree | Undecided | Disagree |
| 1 | The health service providers at the OPD have a good interaction with me during the provision of health care services. | | | |
| 2 | Here, I feel convenient to access to health care services at this OPD. | | | |
| 3 | I am delighted with the features of the OPD surrounding. | | | |
| 4 | This OPD has adequate number of service providers, medical facilities, equipment and medications. | | | |
| 5 | The medical care I have been receiving from this OPD is just good quality. | | | |
| 6 | I am glad that the total cost paid out of my pocket for registration, diagnosis, treatment and medications is reasonable and affordable for me. | | | |
| 7 | I would recommend my relatives and friends to utilize the health services provided by this OPD | | | |
| 8 | I would come and utilize the health services at this OPD again whenever I have health problem. | | | |
| 9 | All things considered, the medical care I receive from this OPD is very good. | | | |

**SECTION IV: PATIENT SASTIFACTION TOWARDS HEALTH SERVICES AT THE OPD CLINIC OF WANGNUMYEN COMMUNITY HOSPITAL**

Based on the reaction of patient to each statement below, please tick (√) in the appropriate box to mark correctly the satisfaction level of patient with the following statements:

**Scale**:5 = Very satisfied, 4 = Satisfied, 3 = Neutral, 2 = Dissatisfied, 1 = Very dissatisfied

| No. | Statements | Satisfaction level | | | | |
|---|---|---|---|---|---|---|
| | ***Interpersonal manner of health service providers*** | 1 | 2 | 3 | 4 | 5 |
| 1 | Physicians examine and treat me in a very friendly and courteous manner | | | | | |
| 2 | Physicians and their staff who treat me should give me more respect about my wishes | | | | | |
| 3 | When I am receiving medical care, physicians and their staff should pay more attention to my privacy | | | | | |
| 4 | I feel free to complain about my health problem when I am with my physicians. | | | | | |
| | ***Accessibility*** | | | | | |
| 5 | Staffs at the reception ease me to obtain all information I need about health services here | | | | | |
| 6 | There are enough seats at the waiting area | | | | | |
| 7 | I do not have to wait too long for getting medical care at this OPD | | | | | |
| 8 | Here, I find it hard to get an appointment for medical care right away at this OPD. | | | | | |
| 9 | Places where I get medical care are very conveniently located. | | | | | |
| | ***Physical environment*** | | | | | |
| 10 | The location of services is clean and has enough space to use | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| 11 | I feel the atmosphere of this OPD is good | | | | | |
| 12 | There are clear signs and directions to indicate where to go in the service area of this OPD | | | | | |
| 13 | Facilities and equipment at the OPD are tidy | | | | | |
| | ***Availability of medical resources*** | | | | | |
| 14 | Physicians and their health staffs are available whenever I need during my visit. | | | | | |
| 15 | I think my physician's office has adequate medical instruments and equipment needed to provide complete medical care. | | | | | |
| | ***Quality of care*** | | | | | |
| 16 | Physicians are careful to check everything when examining and treating me. | | | | | |
| 17 | Medical instruments an equipment that physicians use when examining and treating me are very clean. | | | | | |
| 18 | The ability of physicians, pharmacists who give me medical care services is perfect. | | | | | |
| 19 | My physicians and their staff are very competent and have experiences with my medical problem. | | | | | |
| 20 | Medications I receive are good and well-packed. | | | | | |
| 21 | Physicians and their staff spend plenty of time with me | | | | | |
| | ***Medical service expense*** | | | | | |
| 22 | I feel insured and protected financially against my medical problem. | | | | | |
| 23 | I have to pay for more of my medical care needs than I can afford. | | | | | |

**SECTION V : Patient's suggestions and comments to improve the quality of health services at the OPD of Wangnumyen Community Hospital**

**There are two questions in this section that need patient answer. According to the patient answer, please write down patient's suggestions and /or comments in the space below:**

1. What are the important things/problems that you think this OPD should be done to improve the quality of health services?

……
……
……
……
……
……
……
……

2. Please give your suggestions, if any, on how those things/problems can be done to improve the quality of health services?

……
……
……
……
……
……

……..**Thank you very much for your very kind cooperation**

**Table 9** Pecentage of of patient's satisfaction towards health services at the OPD of Wangnumyen Community Hospital by the item of questions

| Questions | Percent (n=236) | | | | | Mean SD | Median IQR |
|---|---|---|---|---|---|---|---|
| | Very satisfied | Satisfied | Neutral | Dissatisfied | Very dissatisfied | | |
| ***Interpersonal manner of service providers*** | | | | | | | |
| 1. Physicians examine and treat me in a very friendly and courteous manner | 56.3 | 38.6 | 5.1 | 0.00 | 0.0 | 4.51 (0.59) | 5 (1) |
| 2. Physicians and their staff who treat me should give more respect about my wishes | 45.3 | 47.5 | 6.8 | 0.4 | 0.0 | 4.37 (0.63) | 4 (1) |
| 3. When I am receiving medical care, physicians and their staff should pay more attention to my privacy | 40.2 | 49.6 | 8.5 | 1.7 | 0.0 | 4.28 (0.69) | 4 (1) |
| 4. I feel free to complain about my health problem when I am with my physicians | 52.5 | 42.8 | 4.7 | 0.0 | 0.0 | 4.47 (0.58) | 5 (1) |
| ***Accessibility*** | | | | | | | |
| 5. Staff at the reception ease me to obtain all information I need about health services here | 43.2 | 50.9 | 5.5 | 0.4 | 0.0 | 2.96 (0.19) | 3 (0) |
| 6. There are enough seats at the waiting area | 50.0 | 36.4 | 4.2 | 5.1 | 4.3 | 2.05 (0.94) | 2 (2) |
| 7. I do not have to wait too long for getting medical care at the OPD | 33.1 | 41.1 | 11.0 | 9.3 | 5.5 | 3 (0) | 3 (0) |

**APPENDIX B**

**Table 9** Pecentage of of patient's satisfaction towards health services at the OPD of Wangnumyen Community Hospital by the item of questions (Cont.)

| Questions | Percent (n=236) | | | | | Mean SD | Median IQR |
|---|---|---|---|---|---|---|---|
| | Very satisfied | Satisfied | Neutral | Dissatisfied | Very dissatisfied | | |
| 8.Here, I find it hard to get an appointment for medical care right away at this OPD | 17.8 | 30.5 | 13.6 | 8.4 | 29.7 | 2.98 (0.12) | 3 (0) |
| 9. Places where I get medical care are very conveniently located | 78.4 | 21.2 | 0.0 | 0.0 | 0.4 | 2.97 (0.14) | 3 (0) |
| ***Physical environment*** | | | | | | | |
| 10. The location of services is clean and have enough space to use | 56.2 | 40.9 | 2.1 | 0.4 | 0.4 | 4.51 (0.60) | 5 (1) |
| 11. I feel the atmosphere of this OPD is good | 53.4 | 43.6 | 2.1 | 0.9 | 0.0 | 4.49 (0.58) | 5 (1) |
| 12. There are clear signs and directions to indicate where to go in the service area of this OPD | 56.2 | 40.8 | 1.7 | 0.9 | 0.4 | 4.51 (0.62) | 5 (1) |
| 13. Facilities and equipment at the OPD are tidy | 50.2 | 46.8 | 2.6 | 0.4 | 0.0 | 4.46 (0.57) | 5 (1) |
| ***Availability of medical resources*** | | | | | | | |
| 14. Physicians and their health staffs are available whenever I need during my visit | 44.9 | 48.7 | 4.7 | 0.4 | 1.3 | 4.35 (0.70) | 4 (1) |
| 15. I think my physician's office has adequate medical instruments and equipment needed to provide complete medical care | 44.5 | 50.8 | 3.4 | 1.3 | 0.0 | 4.38 (0.61) | 4 (1) |

**Table 9** Pecentage of of patient's satisfaction towards health services at the OPD of Wangnumyen Community Hospital by the item of questions (Cont.)

| Questions | Percent (n=236) | | | | | Mean SD | Median IQR |
|---|---|---|---|---|---|---|---|
| | Very satisfied | Satisfied | Neutral | Dissatisfied | Very dissatisfied | | |
| ***Quality of care*** | | | | | | | |
| 16. Physicians are careful to check everything when examining and treating me | 42.8 | 48.3 | 7.2 | 1.7 | 0.0 | 4.32 (0.68) | 4 (1) |
| 17. Medical instruments and equipment that physicians use when examining and treating me are very clean | 48.1 | 48.9 | 3.0 | 0.0 | 0.0 | 4.45 (0.55) | 4 (1) |
| 18. The ability of physicians, pharmacists who give the medical care services is perfect | 45.8 | 47.9 | 5.9 | 0.4 | 0.00 | 4.38 (0.61) | 4 (1) |
| 19. My physicians and their staff are very competent and have experiences with my medical problem | 46.6 | 46.2 | 7.2 | 0.0 | 0.0 | 4.39 (0.62) | 4 (1) |
| 20. Medications I receive are good and well-packed | 60.6 | 31.8 | 7.6 | 0.0 | 0.0 | 4.52 (0.63) | 5 (1) |
| 21. Physicians and their staff spend plenty of time with me | 37.3 | 52.1 | 8.5 | 2.1 | 0.0 | 4.24 (0.69) | 4 (1) |
| ***Medical expense*** | | | | | | | |
| 22. I feel insured and protected financially against my medical problem | 75.42 | 21.61 | 2.12 | 0.85 | 0.0 | 4.71 (0.54) | 5 (0) |
| 23. I have to pay for more my medical care needs than I can afford | 0.4 | 0.0 | 17.8 | 3.8 | 78.0 | 1.41 (0.80) | 1 (0) |

**Table 10** Percentage of patient's expectation towards health services at the OPD Clinic of Wangnumyen Community Hospital by the item of questions

| Questions | Percent | | | Mean SD | Median IQR |
|---|---|---|---|---|---|
| | Not good/adequate/ affordable | Acceptable/Ok/ quite adequate/ affordable | Excellent/adequate/ no problem | | |
| What is your expectation to the manner of service providers that would be expressed to you (n=236) | 0.8 | 42.8 | 56.4 | 2.55 (0.51) | 3 (1) |
| What is your expectation to the comfortability of the OPD clinic that would serve in accessing to health care services (n=236) | 0.8 | 45.8 | 53.4 | 2.52 (0.51) | 3 (1) |
| What is your expectation to the features of the OPD clinic surrounding that you would experience (n=236) | 0.4 | 47.9 | 51.7 | 2.51 (0.50) | 3 (1) |
| What is your expectation to the availability of medical resources at the OPD clinic for your health care needs (n=236) | 3.0 | 53.0 | 44.0 | 2.41 (0.55) | 2 (1) |
| What is your expectation to the quality of care at the OPD clinic (n=236) | 0.8 | 46.6 | 52.6 | 2.51 (0.51) | 3 (1) |
| What is your expectation to the total cost paid out of your pocket for medical services at the OPD clinic (n=28) | 3.6 | 32.1 | 64.3 | 3.07 (0.97) | 3 (2) |

**Note:** There was only 28 patients paid out of pocket. They were the Social Security Scheme Card holders, Civil Service Medical Benefit Scheme card holders and self-payment.

**Table 11** Attitude of Patients Towards Health Services at the OPD Clinic of Wangnumyen Community Hospital by the Item of Questions

| Questions | Percent (n=236) | | | Mean SD | Median IQR |
|---|---|---|---|---|---|
| | Agree | Undecided | Disagree | | |
| The health service providers at the OPD have a good interaction with me during the provision of health care services | 98.3 | 1.3 | 0.4 | 2.97 (0.17) | 3 (0) |
| Here, I feel convenient to access to health care services at this OPD | 96.2 | 3.4 | 0.4 | 2.95 (0.22) | 3 (0) |
| I am delighted with the features of the OPD surrounding | 97.9 | 2.1 | 0.0 | 2.97 (0.14) | 3 (0) |
| This OPD has adequate number of service providers, medical facilities, equipment and medications | 92.4 | 5.5 | 2.1 | 2.90 (0.36) | 3 (0) |
| The medical care I have been receiving from this OPD is just good quality | 96.2 | 3.8 | 0.0 | 2.96 (0.19) | 3 (0) |
| I am glad that the total cost paid out of my pocket for registration, diagnosis, treatment and medications is reasonable and affordable for me | 47.0 | 11.5 | 41.5 | 2.05 (0.94) | 2 (2) |
| I would recommend my relatives and friends to utilize the health services provided by this OPD | 100 | 0.0 | 0.0 | 3 (0) | 3 (0) |
| I would come and utilize the health services at this OPD again whenever I have health problem | 98.3 | 1.7 | 0.0 | 2.98 (0.12) | 3 (0) |
| All things considered, the medical care I receive from this OPD is very good | 97.9 | 2.1 | 0.0 | 2.97 (0.14) | 3 (0) |

# BIOGRAPHY

| | |
|---|---|
| **NAME** | Ny Net |
| **DATE OF BIRTH** | May 5th, 1960 |
| **PLACE OF BIRTH** | Prey Veng Province. Cambodia |
| **INSTITUTION OF ATTENTED** | 1983-1989 |
| | Medical Doctor Diploma |
| | Faculty of Medicine |
| | University of Health Science |
| | Phnom Penh, Cambodia |
| | Master of Primary Health Care Management |
| | ASEAN Institute for Health Development |
| | Mahidol University, Thailand |
| **FELLOWSHIP/** | JICA/TICA |
| **RESEARCH GRANT** | |
| **RECENT POSITION** | Director |
| | Bureau of ASEAN Affairs |
| | Ministry of Heath |
| | Phnom Penh, Cambodia |