



CHAPTER I

INTRODUCTION

1. Background and Rationale

According to the health conditions in Thailand, it is obvious that the causes of the current health problems remain the same as those in the past. The development of technology and the environment that have been changed rapidly have led to the changes of living ways and health behaviors. As a result, several noninfectious diseases in the past such as hypertension, heart disease, and diabetes have increasingly become serious problems. Diabetes mellitus is one of chronic non-contagious diseases resulting from the abnormality of pancreas in producing insulin, eventually leading to the excessive levels of blood glucose. The important causes of diabetes include inheritance, obesity and lack of exercises. The elders aging over 40 years old are more likely to be diabetics. Diabetes mellitus has been widely considered as a great concern due to its adverse side effects, for example, heart disease and arteriosclerosis, which can contribute to the lameness or even death. In other words, it leads to the impact on health, economics and social aspects (Surakiat Archanupab, 1994).

According to the 1994 WHO Annual Report, there were more than 100 million diabetics worldwide (WHO, 1990 & Zimmet, 1992). In Thailand, the number of diabetics in 1998 was about 2 millions and there is a tendency to increase steadily. It is estimated that the current mortality rate of diabetics was 13.2 to 100,000 people

(document distributed in Meeting on Potential Improvement of Non-Infectious Diseases Project, Division of Non-contagious Diseases Control, Nakhon Si Thammarat Province, 2003.) In Nakhon Si Thammarat Province, the number of diabetics obtaining public health services have been increased continuously; from 7,280; 7,589; and 7,900 to 100,000 people in 1999, 2000 and 2001, respectively. Most of these diabetics were non-insulin dependent (NIDDM) and among these, there were more number of females (Provincial Office of Public Health, Nakhon Si Thammarat, 2001.)

From the official figures of Thung Song Hospital, the proportion of diabetics to Thung Song population between 1999 – 2001 were 2,117; 2,123; 2,772 to 100,000 people, respectively (Thung Song Hospital, 2002.) Based on the policy in the 9th Social and Economics National Plan, Ban Khaoro Public Health Center, Khaoro subdistrict, Thung Song District, Nakhon Si Thammarat Province, has carried out a project to identify the diabetics. The urinal examinations had been applied among the people aging over 40 years old living in the responsible areas of Ban Khaoro Health Center during 2000 - 2002. It was found that the number of the diabetics in 2000 was increasing; the total number was 53 people. Among these, 45 people were old patients while 8 people were new patients. In 2001 the total number of diabetics was 63 people; 53 old patients and 10 new patients. In 2002, the total number of diabetics was 77 people; 63 old patients and 14 new patients (Ban Khoaro Health Center, 2002).

According to the figures, it was likely that the number of diabetics was steadily increased. This may cause the great impacts on public health in terms of the increasing rates of diabetics, disables and deaths. Although the public health systems in Thailand become more advanced and it is easier for people to access health information and

services, the public health service provisions at the primary (prevention measures), secondary (effective screening and diagnostic measures) and tertiary (continuous treatment and recovery measures) levels remain insufficient and inadequate (Supawan Manosoonthon, 2001)

To achieve the goal of the National Social and Economics Plan, the doctors at Thung Song Hospital have offered on-site services for diabetics at Ban Khaoro Public Health Center with the aims of comfortable service accessibility, efficient complication diabetes mellitus prevention measures and expense reduction. The success of diabetes mellitus and complication diabetes mellitus prevention, however, depends on several factors. The key factor is the patients' health practices. The patients need to change or adapt their lifestyles to suit the treatment plan, for example, taking medicines, keeping punctual appointment with the doctors, controlling their diets and weights, having appropriate and regular exercises and avoiding any risk factors (Kaesorn Taewnonngew, 1994) Most diabetics undertaking the advice strictly can effectively control their health conditions. Nevertheless, a significant number of diabetics who have not followed the suggested health practices appear to be the considerable problem. This may, partially, be due to the invisible signs of the diseases that cause the patients to believe that they are healthy and have no sickness. Other factors include the habits of the patients, influences from their families and factors associated with health services provision. These include social and economics factors, experiences, knowledge and perception of diabetics on diseases, as well as, attitudes and satisfaction on health services provision (Pranee Mahapuntasak, 1995; Sakaorat Chaisamut, 2000; Nakhon Moonnum, 1998).

In the fiscal year 2003, Ban Khaoro health center carried out the screening for diabetes mellitus among the people aging over 40 years old under its responsible area. It was found that among the target group with the total number of 1,211 people, 1,179 people (97.35%) rejected the diagnosis for the diabetes mellitus. After the examination by the doctor, 84 people were identified as non-insulin dependent diabetics; 7 people were new patients while 77 people were old patients. Among these old patients, 51 people (64.00%) received the regular treatment at the health center, 18 people (21.42%) accessed the treatment at other health centers, 5 (6.00%) were the patients who missed the appointment with the health center and 10 (12.00%) rejected any treatment.

The problems of the diabetes mellitus treatment under the responsible area of Ban Khaoro Public Health Center including the treatment ceasing, irregular treatment, and changes of the health centers prompted me an interest in investigating the behaviors of the diabetics in accessing health services. In addition, the factors associated with these behaviors would be examined. The understanding may bring about more efficient and effective health services that can meet the diabetics' demands and satisfaction. Moreover, the understanding of factors associated with health services requirement of non-insulin dependent diabetics under the responsible areas of Ban Khaoro Public Health Center, Thung Song District, Nakhon Si Thammarat Province would lead to the development of the health services provision and the diabetes prevention measures.

2. Research Questions

1. Which factors are associated with non-insulin dependent diabetics utilization in receiving health services at Ban Khaoro health center, Thung Song District, Nakhon Si Thammarat Province?
2. Is there a different in terms of knowledge health perception social support and service satisfaction

3. Objectives of the Study

3.1 General Objective

To investigate Factors related to utilization behavior of noninsulin dependent diabetes mellitus patients At Ban Khaoro Health Center, Thung Song District, Nakhon Si Thammarat Province.

3.2 Specific Objectives

1. To investigate Factors related to utilization behavior of noninsulin dependent diabetes mellitus patients At Ban Khaoro Health Center, Thung Song District, Nakhon - Si -Thammarat Province.
2. To examine the reasons for accessing and refusing the health services of the non-insulin dependent diabetics at Ban Khaoro health center.
3. To explore the relationship of population characteristics, and facility factors in terms of convenience in transportation between the sample group accessing the health care services and the one refusing the health care services.

4. To examine the differences in the following aspects: knowledge, health perception, social status, levels of satisfaction in accessing the health services between the sample group receiving and refusing the health services.

4. Operational Definitions

1. Perceived complication diabetes mellitus refers to opinions of the diabetics on the possibility of complicating diabetes while being diabetics for example hypertension,
2. Perceived severity of diabetes mellitus and complication symptoms refers to opinions on the effect of the severity of diabetes on their body conditions, which can subsequently have impact on their social status.
3. Perceived benefits in accessing health services refers to opinions or understanding of the diabetics on beneficial effect of accessing regular health services e.g. consequences of blood glucose control and advice on the appropriate health practices
4. Satisfaction on services of health center staff refers to opinions of the diabetics on various types of services at the diabetes clinic e.g. hospitality and politeness of the staff, treatment quality, and advice on health practices.
5. Social supports refer to supports that the diabetics received from their families, friends, relatives, doctors, nurses, etc. and also strong encouragement in terms of positive reinforcement, acceptance and recognition, social participation, labor and financial supports, and health information.

6. General knowledge about self-care refers to the knowledge concerning how to look after themselves when becoming the diabetics to maintain their health at the constant conditions, control any risk factors and diabetes prevention. These include knowledge about the diets and exercises for the diabetics, complicating diseases and knowledge about drug taking.
7. The diabetics receiving health services at the health center refer to the non-insulin dependent diabetics who access the health services continuously at Ban Khaoro health center.
8. The diabetics refusing health services are non-insulin dependent diabetics who deny medical treatment, those who miss the appointment with the health center, and those who access the health services at any other health centers.
9. Herbal treatment refers to diabetes treatment by traditional ways e.g. herbal medicines (in liquid form) but these medicines are not legally registered and are not regarded as Thai traditional medication.
10. Consequences of blood glucose control in the diabetics receiving the treatment at the health center for three months
 - The diabetics who successfully control their blood glucose levels refer to the diabetics with the blood glucose levels when fasting at less than or equivalent to 126 mg/dl but no less than 90 mg/dl for 3 months during the experimental period.
 - The diabetics who can occasionally control their blood glucose levels refer to the diabetics with the blood glucose levels when fasting at less

than or equivalent to 126 mg/dl but no less than 90 mg/dl at least 2 out of 3 times of blood examinations during the follow-up periods.

- The diabetics who fail to control their blood glucose levels refer to the diabetics with the blood glucose levels when fasting less than 126 mg/dl but no less than 90 mg/dl less than 2 out of 3 times of blood examinations during the follow-up periods

11. Facility factors refer to distance, time and convenience in travelling to the health center.
12. Behaviors in accessing the health services of the diabetics refer to the health service access or refusal of the diabetics at the health center.

5. Expected Outcomes and Benefits

1. Based on the study, appropriate approaches can be designed to attract non-insulin dependent diabetics to access health services at the health center regularly.
2. The result of the study will provide information for improving the health service provision at the health center to meet the requirements of the patients and it can also be applied by other organizations under Ministry of Public Health that confront the similar problems.

6. Conceptual Framework

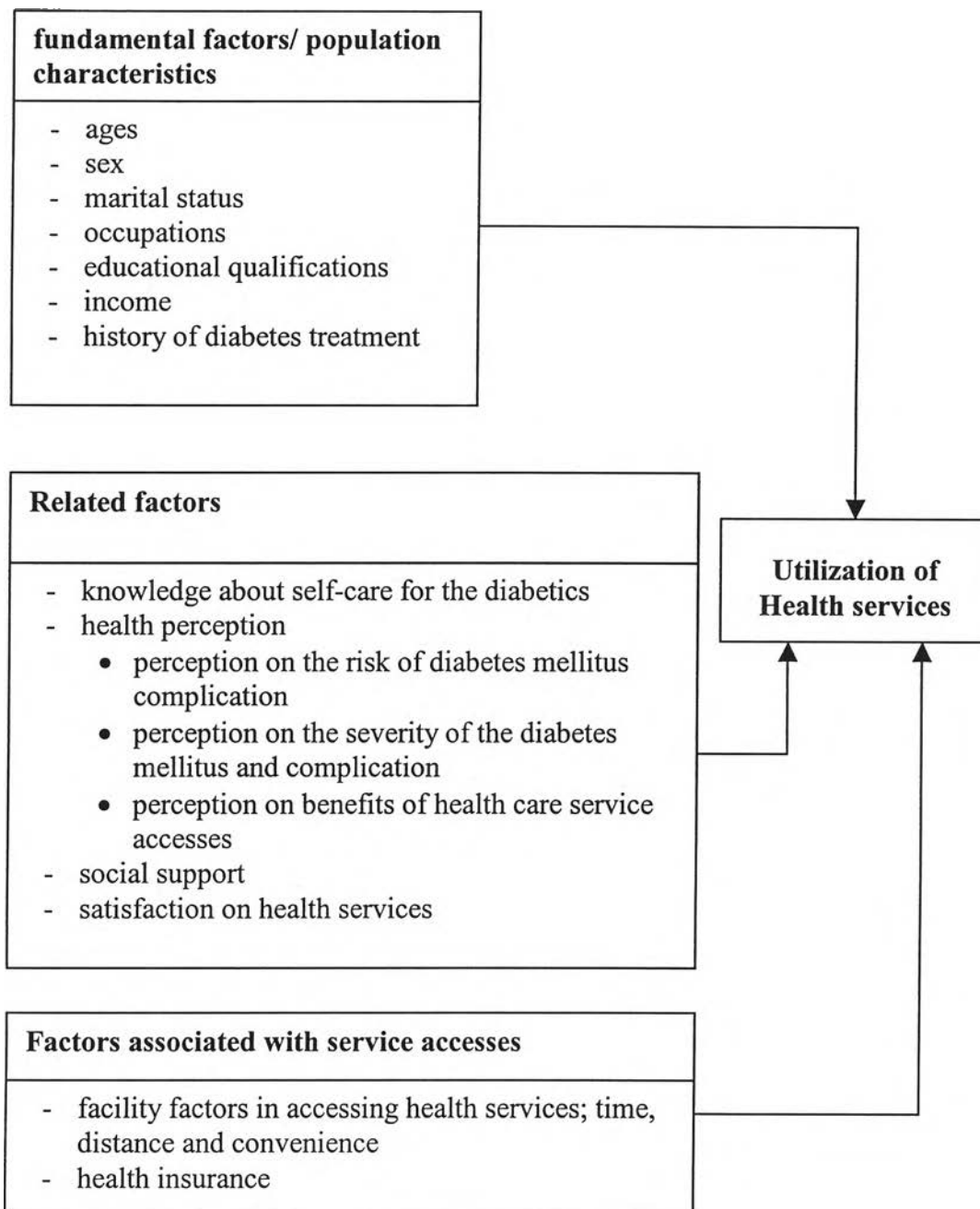


Figure 1.1: Conceptual Framework