

CHAPTER 1

INTRODUCTION

1.1 Overview

Diabetes is considered to be an extremely critical problem at global level as it is not completely curable and causes subsequent problems at various levels. For instance, at personal level diabetes directly affects the patients' health that could lead to other secondary diseases such as eye vagueness, blindness, kidney disease, cardiovascular constriction which leads to a lack of blood circulation in heart muscles, inflammation of nerve edge, high blood pressure, cerebrovascular constriction which leads to paralytic conditions, and infected wounds as well as gangrene. In some cases, arms and legs may essentially be cut-removed subsequently leading to permanent deformation. Moreover, diabetes was found to be the 10th causal factor responsible for death in developing countries (Murray and Lopez, 1996). However, it was found to be the 6th death causal factor in Thailand (the Policy and Plan Office, Ministry of Public Health, 1996). At family level, diabetes was found to directly affect the economic status of the family that was required to spend an average of 5,582 Baht per head per annum for treatment (Rattanapitak et al, 1992 cited in Arunnate, 1998). It can be seen from those data that diabetes has the effects on personal health status, family economy, and inevitably on the economy of the country and of the world.

From the global situation in relation to diabetes, it was estimated that the number of diabetic patients would increase from 100 million people to 160 million people by the end of the last decade (Zimmet, 1995 cited in Mingxia, 1997). This is because there have been changes in consumption behaviors, life styles, and city life. People's life span is longer while having less exercise activities. The economic status and quality of life of people are better than in the past (Murray and Lopez, 1996; Green, Simons-Morton and Potvin, 1997). In Thailand, the number of diabetic patients was reported to increase from 339,170 cases in 1993 to 394715 cases in 1994 with continually rising tendency (Policy and Plan Office, Ministry of Public Health, 1994 and 1995 cited in Chaisate and Khemleuk-ampol, 1998). The majority of patients were diabetic patients of insulin independent type, with the age of 40-60 years (Laochote, 1993; Medical Health Department, Ministry of Public Health, 1999). In Khon Kaen Province, the tendency of diabetes prevalent rate was also found to increase from 1.3% in 1993 to 2.4% in 1998 (Khon Kaen Provincial Public Health Office, 1997; Chaisate and Khemleuk-ampol, 1998).

1.2 Problems with Diabetes in Phuwiang District

Phuwiang District is one of the districts in Khon Kaen Province. There was an increase in the number of diabetic patients registered for treatment at the Diabetic Clinic of Phuwiang District Hospital from 404 cases in 1994 to 1,060 cases in 1999 with an increase of 111 new cases each year (Phuwiang District Hospital, 1999). Therefore, the special clinic was set up particularly for providing services for diabetic

patients at Phuwiang Hospital. Treatment sessions were organized regularly on Tuesday and Wednesday of every week. The patients registered for treatment would require undergoing blood test for fasting blood sugar levels. After that, the nurses of the Diabetic Clinic would provide health education on self-care practice to the patients on group basis. The program was focusing on the diabetic patients without involvement of the relatives or family members who functioned in patient care.

The evaluation of the past operation within the Diabetic Clinic of Phuwiang Hospital by a study of OPD cards found that 98% of the diabetic patients registered for treatment services were the patients of insulin independent type and 60% of the patients were elderly people. Regarding the disease control aspect, it was found that 51% of the patients could not control their blood sugar levels (FBS > 140 mg%). In addition, the patients were found to develop various secondary diseases including diabetic scars (44%), hypertension (21%), tuberculosis (11%), and a lack of blood circulation within heart muscles (10%) (Phuwiang Hospital, 1999). The main reason responsible for uncontrollability of blood sugar level down below 140 mg% was improper and incorrect self-care behaviors for the disease control of the diabetic patients. Random interviews of 30 diabetic patients who came for treatment services at the Diabetic Clinic of Phuwiang Hospital on self-care behaviors found evidences of misbehaviours including improper eating behaviors (80%), a lack of exercises (80%), improper exercises (70%), incorrect medicinal treatment (56%), and discontinuous and irregular medicine intake (5%). In addition, 17% of the patients missed medical appointments with the reasons of no transportation (70%), no accompany (70%), and time constraint (30%).

The statistics of secondary disease development and blood sugar level and the data on patients' self care gained from the interviews indicated that the patients had problems with self caring and accessibility to the services. In addition, provision of health education to the patients within the Diabetic Clinic was not sufficiently effective to initiate proper behavior change for the disease control in the diabetic patients. The author, therefore, carried out analysis of factors affecting the practice and the disease control of diabetic patients. The study of Thaweewan Kingcokekrowd (1997) found that additional to personal factors of the patients such as educational level; occupation; and knowledge about diabetes, social factors, which are supports from their family and communities, also had positive link with diabetic patients' self caring behaviours. In addition, the study of Fisher (1998) found that the life styles of the family in terms of social, traditional, and cultural factors were also related to the disease control of the diabetic patients. From those study outcomes, it may be seen that family supports were extremely important for the disease control of diabetic patients.

1.3 Social Supports

Social supports mean activities or various factors, both abstract and concrete things, experienced by a person and these that help the person to feel loved, cared, attended, respected, valuable and being parts of social network which relates and connects to each other (Cobb, 1976). A person receiving support would be fulfilled and content with the treats resulting from a relationship among people in the society. In addition, sufficient support will lessen stress enabling the person to develop proper self-

adaptation (Cohen and Wills, 1985). Various factors combined into social support had been described by several authors and could be summarised as the followings.

There are 3 aspects of social support as follows:

1. **Emotional support** is a factor that makes the person who receives support feels loved and cared for (Cobb, 1979). It is an expression of positive emotion of one person to another in terms of acceptance and respect and can be seen in a relationship between very close persons such as a married couple, family members, and friends.
2. **Information support** refers to reception of news materials and other various information such as receiving advice and suggestions that could be applied in solving existing problems or receiving feedback on behaviours and practice of a person (Schaefer et al, 1981 cited in Tilden, 1985).
3. **Instrumental support** such as support of things, money, and manpower refers to a relationship developed with other people in terms of providing tangible assistance (Hanujareonkul S., 1990) such as direct help, providing things and services.

1.4 Family Healthcare Leaders (FHLs)

FHLs mean one or more family members of diabetic patients who function in caring for health and hygienic status of people in the family including the diabetic patients. The FHL system emphasises on self-reliance and sustainable family care with supports of necessary knowledge and skills from health care personnel for healthy states of both physical and mental health (Khon Kaen Provincial Public Health Office, 1999).

1.4.1 FHLs roles in providing social support for diabetic patients in the family

It can be said that family healthcare leaders are critically important persons in providing social support for diabetic patients to enable the patients in developing correct self-care behaviors. In 2000, in order to evaluate the potential of FHLs in caring for diabetic patients in the family, I conducted a random interview with 30 family healthcare leaders within the area of Phuwiang District on knowledge and skills in caring for diabetic patients. Of these 30 leaders 95% responded that diabetes control only relied on medicinal treatment, 89% did not know the types of food restricted for diabetic patients, 97% did not know the benefits of exercise activities, 92% did not know proper exercise techniques, and 87% used to encounter abnormal signs in diabetic patients but did not know correct and proper caring methods. These data indicated that FHLs, who functioned in health caring of the family members especially in the family with diabetic patients, lacked of proper knowledge, attitudes, and practices in patient care. In addition, there had been no training program for FHLS in Phuwiang district to

provide knowledge, skills and support to help diabetic patients develop proper self-care behaviours in controlling diabetes.

1.4.2 FHLs development for diabetic patient care in Phuwiang district

From the concept of social support provision and to develop potential of diabetic patient caretakers, I was interested in organising the training program for family healthcare leaders in order for them to gain knowledge and understanding about diabetes, diabetic patient care, and skills in using a record form for social support provision. The family healthcare leaders were aimed to be able to provide social support for diabetic patients in terms of emotional, informational, and instrumental supports, which were divided into 6 aspects: dietary control, exercise, medicinal intake, skin and foot care, medical examination, and observation of secondary diseases and primary care. The training program adopted an integrated training technique that combined several activities including group discussion, slide shows with lecturing, demonstration, practical training, distribution of the diabetic patient care handbook prepared by the Medical Department, Ministry of Public Health, and practice by recording social support provision given to diabetic patients onto the provided forms. There was a follow-up process of the participants' work on a monthly basis for 6 months by the author and the sub-district public health officers using the record form, in order to investigate any problems occurring during patient care activities of the participants at home as well as to retrain them. After that, the process outcome was evaluated by a post-test of the participants' knowledge, their attitudes towards being patient caretakers, and their social support provision for diabetic patients. The pre- and post- training data were compared. The author expected that after completion of this

project operation the participant family healthcare leaders as diabetic patient caretakers would have a better level in knowledge, understanding, and skills in patient care. They would be able to provide proper, correct and continual social support for diabetic patients, who would consequently develop proper self-care behaviours, be able to control blood sugar level, lessen chances of secondary disease development, and be able to live longer. The training program might also be used as a guideline for development of family healthcare leaders' roles in health caring of other types of chronic patients in the family; as a guideline for family healthcare leader operation in Khon Kaen province and at policy levels of the Ministry of Public Health afterwards.

This complete project report is presented in detail in 5 chapters as follows:

Chapter 1 details an overall situation of diabetes; diabetes problems in Phuwiang district (in relation to numbers of diabetic patients, development of secondary disease in those patients, their self-care behaviours, factors affecting self-care behaviours of diabetic patients, and social support provision); family healthcare leaders and their roles as social support providers for diabetic patients in the family; and development of family healthcare leaders for diabetic patient care in Phuwiang district.

Chapter 2 provides the detail of this training project for family healthcare leaders in providing social support, using of the record form for insulin independent diabetic patient care of Phuwiang district, Khon Kaen province.

Chapter 3 describes the detail of the project evaluation process which included evaluation of the input, the training process, the effects on the participants, and the effects on the diabetic patients by comparison of pre- and post-training data.

Chapter 4 contains discussion and conclusion of the outcomes of this study whereas recommendations on further uses of the study outcomes and on further studies are outlined in **Chapter 5**.