

# ผู้ป่วยเบาหวานชนิดที่ 2 กับการใช้การแพทย์เสริมในพื้นที่ชนบทของประเทศไทย

## Type 2 Diabetes Mellitus (T2DM) and Complementary Therapeutics in Rural Area of Thailand

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### บทคัดย่อ

โรคเบาหวานชนิดที่ 2 เป็นการเจ็บป่วยเรื้อรังอันเกิดจากความผิดปกติของระบบเมตาบอลิก ที่มีอัตราเพิ่มสูงขึ้นอย่างรวดเร็วทั่วโลก โรงพยาบาลเชียงใหม่ ประเทศไทย เป็นโรงพยาบาลระดับตติยภูมิ ที่ให้บริการแก่ผู้ป่วยเบาหวานชนิดที่ 2 มากกว่า 2,000 คน ทั้งนี้พบว่าผู้ป่วยจำนวนหนึ่งได้ใช้การแพทย์เสริมควบคู่ไปกับการรักษาแผนปัจจุบัน แต่งานวิจัยเกี่ยวกับเรื่องนี้ยังค่อนข้างจำกัด การวิจัยเชิงพรรณนาครั้งนี้ใช้แบบสอบถามเพื่อทำการศึกษาผู้ป่วยเบาหวานชนิดที่ 2 ที่ใช้การแพทย์เสริม จำนวน 345 ราย ผลการศึกษาพบว่า ผู้ป่วยเบาหวานชนิดที่ 2 ส่วนใหญ่ใช้การแพทย์เสริมร่วมกับการแพทย์แผนปัจจุบันมากถึง 87% อัตราการใช้การแพทย์เสริม 53.9 % ทั้งนี้ 73.3 % มีปัญหาสุขภาพ สำหรับเหตุผลของการเลือกใช้การแพทย์เสริมเพราะเป็นความหวังว่าจะหายจากโรคดังกล่าว โดยประเภทของการแพทย์เสริมที่นิยมใช้เรียงตามลำดับคือ คือการดูแลสุขภาพจิต 76.3 % รองลงมาคือการใช้สมุนไพร 62.9 % การทำโยคะ 62.4 % และ 5.9% ที่ใช้การแพทย์เสริมแต่เพียงอย่างเดียว สำหรับกลุ่มที่ใช้การแพทย์เสริมพบว่าส่วนใหญ่ 58.1 % ไม่ได้แจ้งให้แพทย์ทราบก่อนที่จะใช้ และ 2.7% ลดยาเบาหวานลง ในขณะที่อีก 1.6 % หยุดยาเอง ในกลุ่มผู้ใช้การแพทย์เสริม พบว่า 8.1 % ระบุว่าไม่มีผลข้างเคียงแต่ไม่รุนแรง

การศึกษานี้ชี้ให้เห็นว่าผู้ป่วยเบาหวานชนิดที่ 2 นิยมที่จะใช้การแพทย์เสริมเพื่อเป็นทางเลือกในการดูแลสุขภาพ ซึ่งประเด็นที่ก่อให้เกิดปัญหาคือการลดขนาดยาหรือหยุดยาเองโดยไม่บอกผู้ทำการรักษา ซึ่งอาจจะมีผลต่อการรักษาโรค ดังนั้นบุคลากรทางการแพทย์จึงควรให้ความสนใจ โดยเฉพาะการให้ข้อมูลเรื่องปัญหาสุขภาพ และควรผสมผสานการรักษาโดยใช้การแพทย์เสริมในการดูแลผู้ป่วยเบาหวานชนิดที่ 2

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### Abstract

Diabetes mellitus (DM) is a serious chronic metabolic disorder with a rapid growth rate worldwide. Chiang Yuen Hospital Thailand, a secondary health care service for over 2,000 DM type 2 patients. Some of them used Complementary Alternative Medicine (CAM) in addition to conventional medicine, however research into CAM use by people with diabetes is limited. This study explored CAM use among T2DM patients. A descriptive research with questionnaires was applied to 345 T2DM patients. Participants reported extensive use of CAM with conventional medicines. The prevalence of CAM use was 53.9% and 73.3 % suffer from health problems. They used CAM as an alternative choice to provide hope. The most commonly used forms of CAM were spiritual care (76.3 %), 62.9% herbs and 62.4%Yoga, 87% of them used CAM with conventional medicine, while only 5.9% solely used CAM. Most (58.1%) did not verify their history of DM medication before the study, 2.7% reduced their dose of DM drugs, and 1.6% stopped using DM drugs. A few (8.1%) stated side effects from use of herbs but but not serous ones. This study showed that most T2DM patients prefer to use CAM for an alternative choice of self-care. The disclosure rate of CAM use to healthcare professionals was higher than for those who decided on their own to reduce or stop using DM drugs.

The self-administration of both conventional medicines and CAM without disclosure of CAM use to healthcare professionals may result in ineffective diabetes management and adverse side effects. CAM information needs to be incorporated into clinical practice and patient and professional education. The healthcare team should be concerned and should offer more information about their health problems and also integrate CAM within the care of diabetes mellitus.

**Keywords :** Diabetes mellitus (DM) ,T2DM patient, Complementary Alternative Medicine (CAM)

## Introduction

Diabetes mellitus (DM), is a serious chronic metabolic disorder; with a rapid growth rate worldwide, especially in developing countries, most DM patients will be between 45-64 years old. Its prevalence is estimated to increase from 2.8% to 4.4% from 2000 to 2030. Thus, the total number of people with diabetes is projected to rise from 171 million in 2000 to 366 million in 2030.<sup>1</sup> According to a report by WHO in December 2004, 3.2 million deaths are attributable to diabetes every year. This is 1 in 20 of all deaths.<sup>2</sup> Despite advances in the diagnosis, treatment and management of diabetes, the disease continues to be a serious health problem and affects the entirety of a person's being. Seeking treatment through complementary and / or alternative medicine (CAM) approaches has

become a strategy used by some patients to improve their well-being.<sup>3,4</sup> Its use in affluent countries around the world ranges from 33% to 72.8%.<sup>5</sup> This prevalence rate is higher than a recent study by Chang et al.<sup>6</sup> They state that the reasons of using CAM therapies include positive views of complementary therapies, ineffectiveness of conventional medicine, distress about side effects of conventional treatments, the high costs of prescribed medications, perceived lack of control of one's healthcare, dissatisfaction with healthcare providers and the increased availability of complementary therapies.

According to Chang et al.<sup>6</sup> (2007), the patterns of CAM use in T2DM mostly were Ayurveda, chiropractic care, prayer, deep-breathing exercises, diet-based therapies, energy healing therapy, folk medicine, guided imagery,

massage, qi gong, Reiki, tai chi, yoga, natural products and herbs. Egede<sup>7</sup> found also that the five CAM therapies most commonly used by people with diabetes were lifestyle changes, diet, spiritual healing, herbal remedies, massage therapy, and meditation training. Some used CAM singly or in combination. According to Jones *et al*<sup>4</sup>, the outcomes of most studies reported statistically significant findings in improved glucose control as measured by hemoglobin A1C levels, weight loss, decreased body-fat content, increased body response to insulin, decreased triglyceride levels. Some studies used meditation, yoga, biofeedback, and other relaxation techniques and reported that these methods may reduce stress and have a variety of beneficial effects for patients with diabetes.

In Thailand, more people have unhealthy lifestyles, especially poor diet, smoking and drinking and resulting in chronic illnesses including DM. The proportion reached 11.7% in 2011. In Thailand, 70% of people from 60 to 69 years of age currently suffer from chronic diseases including DM. In 2005, 11.7% of males and 21.7 percent of females reported some degree of physical illness. The rate was highest in the North and the Northeast, and lowest in the greater Bangkok area<sup>8</sup>. For DM management in Thailand, conventional medical care includes lifestyle modifications and the use of diabetic drugs. Even with the development of new drugs, little progress has been made in reducing the disease's complications.<sup>3</sup>

Maharakham province is located in the northeast of Thailand. This region has 19 provinces, and Maharakham itself has a population of 935,967. By the year 2006, T2DM prevalence was reported at 5.8 %, higher than the national average (5.0%). T2 DM is the 4<sup>th</sup> highest

ranking illness in this region of Thailand.<sup>8</sup> The health infrastructure is also highly unbalanced. Health personnel continue to be concentrated in Bangkok and in other urban areas. Bangkok has one doctor per every 879 people, compared to one doctor per every 7,466 people in the Northeast, and 4,534 people in North Thailand. In Bangkok, the population per hospital bed ratio is 1 to 224, compared to 1 to 747 in the Northeast, and 1 to 503 in the North.<sup>8</sup> Cheang Yuen village, a rural community, was selected as a setting for this study.

Chiang Yuen District is located in Maharakham Province and Chiang Yuen Hospital provides secondary care service to serve for more than 2,000 T2DM patients. Some of them were have complications and try out to use CAM with conventional medicine. The prevalence of using CAM among DM for T2DM is increasing. There is limited research knowledge due to the difficulty of research design in this area. Studies have been mostly descriptive using a single intervention of CAM that provides no clear evidence. This research therefore applied a descriptive evaluation of the use of CAM therapies for DM type 2 patients in the rural of Thailand.

### Research Objective

To describe the use of CAM by patients with diabetes mellitus type 2 (T2DM) at a community hospital clinic in Northeast Thailand.

**Methodology Setting:** Cheang Yuen village a rural community Maharakham province

**Population and Sampling:** Population target will be 345 patients with diabetes type 2.

**The inclusion criteria:** (a) With type 2 diabetes (b) Age >35 , both male and female (c) Can understand all questions on the questionnaire and

(d) Be able to communicate, understand the questions well, and give voluntary informed consent.

**Research Design:** Descriptive study

**Research Tools:** To describe the use of CAM by patients with diabetes mellitus type 2, an interview questionnaire and in-depth interview.

**Demographic data:** Age, socio-economic status, sex, educational level, occupation, marriage status, health insurance, religion, household income and the number of individuals in each household, exercise habit will be collected.

**CAM Use:** Through an interview questionnaire: knowledge of CAM, reasons for using CAM, patterns of CAM use (methods of practice/ specific forms of therapy), time duration of use, frequency of using or practice, age they started using CAM (post DM), outcomes or result, perceived of benefit, who suggested to use CAM; cost, satisfaction, whether CAM use was informed by physician, place to take CAM and by whom (in community or DM clinic, by health care provider or Folk medicine), use CAM alone or combined with conventional medicine.

**Data Collection Procedure** Demographic data and CAM use will collect during from August-December, 2009 Questionnaires were divided into three sections: demographic characteristics, pattern of CAM use, and experience of CAM use.

**Data Analysis:** Descriptive statistics analysis described the demographic data of the participants and presented this in terms of median range, mean, standard deviation (SD) and percentage

**Ethics Approved:** The research proposal was approved by the Research Committee, Faculty of

Nursing, Mahasakham University. Written consent was taken from all the patients after the procedure was explained to them.

## Result

### Characteristics of Sample

Characteristics of the sample including the demographic and clinical information: the majority of users were female (76.9%), middle-aged to elderly, with an elementary school education (93.0%). Most were farmers (86.6%) and married.

### Duration of CAM Used (years)

Most of CAM users were using CAM less than 6 months (34.41%), followed by less than 1 year (27.4%), 1-5 years (27.4%), and >5 years (17.7%) respectively.

### Cost / Expenditure for CAM used (per month)

Most (46.8%) paid at least \$16.67 CAM per month, the others spent between \$16.67 and \$33.33 (500-1000 BHT) and a few spent more than \$33.33 per month.

There were a variety of CAM services. It is quite popular and local people have easy access to use CAM. Most (46.8%) used CAM in the Thai Traditional Clinic at Chieng Yuen Hospital (22.6%).

### Decisions Regarding Disclosure of CAM Used

Most (62.9%) were non-disclosure to their healthcare professional and only 24.6% were disclosed.

The reasons of disclosure were 70.97% of them had expectation to health improving, 33.3% were concerned with adverse side effects and 17.74% anxious of herbs side effects.

The others hand of non-disclosure were: (a) They feel anxious about of the healthcare professionals will discourage CAM use or stop them from using CAM (52.94) (b) They thought of

not necessary and the healthcare professionals do not ask about their CAM used 48 (28.24) (c)They made it by themselves and feel CAM use is safe, thus there is no need to discuss its used (9.41%) and (d)They think healthcare professionals is not sufficient time to discuss or listening of them and patient feel fear to talk with doctor (5.88)

#### **Perception of DM Cause**

DM patients perceive of DM causing were its from many factors, such as super natural, sin, wrong-doing under local cultural belief, genetics.

Most of DM patients perceive of DM causing were its from many factors, such as super natural (80.0 %), sin(63.8%), wrong-doing under local cultural belief(30.1%), genetics(19.4 %) and Eating habit (19.4%) consequently.

#### **Condition/Disease/Symptom for CAM Used**

Some of CAM users indicated that they have the health condition or symptoms then they made decision for CAM.

Most of them (73.3%) state that they have health condition or symptoms then they made decision for CAM use and (34.0%) were suffering from Piriformis syndrome and gluteal muscles pain(19.9%) and low back pain(15.2) consequently.

#### **The Reasons for CAM Used**

The Reasons for CAM Use, most of them were belief in its efficacy(62.4%) and also they did expect some benefits in relation to diabetes and health improvement from the usage (55.9%), easy access to medicinal plants (32.3%), lower cost(30.1%) and few of them dissatisfaction with healthcare providers.

#### **Modalities of CAM**

Most of them used supernatural healing (76.3%) and Herbs(62.9%),yoga (62.4%),

Meditation / mind body therapies(51.1%), and Folk remedies(49.5%) consequently.

#### **Patterns CAM Used**

The pattern of CAM utilization were CAM Combined with MD Prescription (same dose),not notify the physician (58.1%) CAM Combined with MD Prescription (same dose), and notify the physician(18.3%) and CAM Combined with MD Prescription (reduce dose) and notify the physician(9.7) in consequences

#### **Pattern of CAM Used with Conventional Medicine**

The pattern of CAM use with Conventional Medicine as in table 10 CAM Combine with Conventional Medicine (massage/Herbs/ Nutritional supplement / Meditation/prayer) 87.6 %and CAM only 5.9%

#### **Ingredients of Herbs**

Most of herbs ingredient were made from plants(78.7%) , plants with animal materials (20.1%)and animal materials only (1.2%)

#### **Result of CAM used**

Most of them state that they were improve(52.2%) and the rest were not.

After CAM using , users indicated that, some of them were improve but some were not.

#### **Adverse effect**

Most of users (64.4%) have no adverse effect from CAM used ,only few of them (8.1%) were have Adverse effect like knee pain, insomnia, sore trout or dizzy.

#### **Discussion**

This study was likelihood as other studies that T2DM were seeking of treatment through CAM approaches has become a strategy used by T2DM patients to improve their well-being.The true prevalence of CAM use among diabetic populations worldwide is uncertain, due to the inconsistencies in the definition of CAM,

research designs and methodologies used etc, as shown in Tables 1-4. Our literature review shows a high level of CAM use among people with diabetes attending conventional healthcare services in different countries and regions, similar to a review by Chang et al.<sup>6</sup>

According to Chang et al.<sup>6</sup>, the patterns of CAM use in T2DM mostly were Ayurveda, chiropractic care, prayer, deep-breathing exercises, diet-based therapies, energy healing therapy, folk medicine, guided imagery, massage, qi gong, Reiki, tai chi, yoga, natural products and herbs. Egede<sup>7</sup> found also that the 5 CAM therapies most commonly used by people with diabetes were lifestyle diets, spiritual healing, herbal remedies, massage therapy, and meditation training. Some used CAM singly or in combination. According to Jones et al.<sup>4</sup>, the outcomes of most studies reported statistically significant findings in improved glucose control as measured by hemoglobin A1C levels, weight loss, decreased body-fat content, increased body response to insulin, decreased triglyceride levels. Some studies used meditation, yoga, biofeedback, and other relaxation techniques and reported that these methods may reduce stress and have a variety of beneficial effects for patients with diabetes.

As the result to represent that mostly users did not disclose to healthcare professionals.

Then there may be concern about the quality and safety of CAMs used by people with Type 2 diabetes, especially as whom who were stop Prescriptive conventional medicines.

### Conclusion

This study showed that most T2DM patients prefer to use CAM as an alternative choice of self care; however, they did not inform their physician. The important points were, some

of them reduce the dose or stop taking the DM drug. From this result, the health care team should be concerned and should give the the patients more information about their health care which should integrate CAM within the care of diabetes mellitus. More than that, healthcare professionals should warning them of possible side effects of CAM use.

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