Life Styles of Diabetic Patients in Rural Area, Northeastern part Region of Thailand

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Abstract

The purpose of this study was to describe the life styles of selected diabetes patients. The participants were categorized by controlled (n = 13) and uncontrolled blood glucose patients (n = 21) living in a rural area. Data was collected by in-depth interviews and observations related to patient's information, their families, and the community.

The study found that those patients with controlled blood glucose levels lived a healthier life style and had a normal blood glucose level. Eighty-seven percent had a proper diet. Eighty-six percent took medication as prescribed by their doctors and visited the doctors regularly. Eighty-three percent performed a regular exercise. Seventy-seven percent had a monthly blood glucose testing regularly and was supported from families. Nevertheless, only thirty-one percent took special care of their feet.

Furthermore, the study revealed that all uncontrolled blood glucose patients had a higher and irregular blood glucose level. Eighty-six percent did exercise irregularly. Seven-one percent did not have a proper diet. Thirty-nine percent had irregular routine checkups and monitoring of their blood glucose levels. Thirty-five percent was supported from families. Only twenty-four percent did not follow their prescribed drug treatments. No special feet care was found in this group.

In conclusion, controlled blood glucose patients had healthier life styles such as, low sugar diet, regular exercise, having medication regularly, routine blood glucose testing, and support from their families. However, special feet care had small number patients in both groups. The study suggests that health care providers should develop intervention to improve special feet care in both groups.

Keywords: diabetes, nursing care

Introduction

Diabetes is a complicated disease and global health concern. The prevalence of diabetes continues to grow with the number of people all over the world. It can affect many areas of the body. Type 2 Diabetes is typically recognized in adulthood, usually age over 45 years. Good Diabetes management requires many different treatments and strategies in order to be effective to controlled blood glucose in to the normal level (80-130 mg/dl) Diabetes patients can prevent health problems by keeping their blood glucose levels on the target. Blood glucose fluctuated all the time, depending on many factors. It is important for Diabetes patients to keep them from going too low or too high blood glucose level. If they are aware of things that can affect blood glucose, it's easier to keep it under control. The modern approaches or the keys successful management of diabetes primarily rely up on dietary and lifestyle management, often combined with regular blood glucose level monitoring.

A healthy diet is key controlling blood glucose levels and preventing diabetes complications. Healthy diet, is all about balance. Diabetes patients have to balance food, medication and exercise to keep blood glucose levels in an acceptable range. Regular self-monitoring of blood glucose levels gives diabetes patients handle on where their blood glucose levels are. Exercise is also an important way to manage diabetes. Exercise not only help people achieve beneficial weight loss, but also help them to lower their blood glucose and help their cells accept insulin more efficiently. For Diabetes patients, exercise can do more than help them lose weight. It can help keep blood glucose levels in range and can go a long way toward preventing the complications associated with diabetes. Currently, one goal for diabetes is to avoid or minimize chronic diabetes complications. Adequate control of diabetes leads to lower risk of complications associated with unmonitored diabetes including kidney failure, blindness, heart disease and limb amputation. In addition, a strong partnership or support among the patient, family and primary health care nurse is an essential in the successful management of diabetes

In 2010, a rural area of North- Eastern part, Thailand .There were 160 Diabetes patients who were registered for treatment in Diabetes Clinic. Among these patients, it was found that 13 of them considered as control blood glucose group (blood glucose 80-130 mg/dl more than 6 months) and 21 Diabetes patients considered as uncontrolled blood glucose group (blood glucose more than 180 mg/dl and more than 6 months) Therefore, it was very important to find out how do lifestyle of Diabetes patients in both groups and plan to improve their lifestyle according to control blood glucose level.

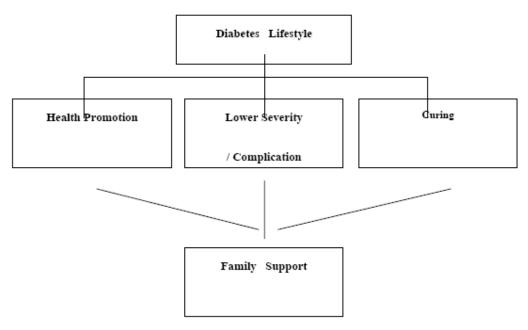
Purpose of the study

To described the Diabetes patient lifestyle among the controlled and uncontrolled blood glucose level groups.

Conceptual framework

Developed from the health promotion model of Pender, 1982. The Health Promotion model noted that each person has unique personal characteristics and experiences that affect subsequent actions for Health. The Conceptual framework also comes from ageing care and chronic disease care due to all of the Diabetes patients were ageing people who have chronic disease.

Conceptual Framework



Methodology

The descriptive research designs

Population

160 Diabetes patients who were diagnosed as the Diabetes Type 2 by the physician and received treatment in Diabetes clinic more than 5 years.

Sample

The studied groups were conducted with all 13 controlled blood glucose Diabetes patients which blood glucose between 80-130 mg/dl and maintain that level more than 6 months and all 21 uncontrolled blood glucose patients which their blood glucose more than 180 mg/dl more than 6 months.

Data collection and Analysis

Data was collected according to the interview guideline about the Diabetes patient information, families and community. Descriptive statistics and content analysis were used in this studied.

Results

1. Community and family context

This rural area located in the North- Eastern part of Thailand. It was far about 10 kilometers from town. The villagers lived their lives in the way of semi- urban and rural area. Most of the villagers are farmers and some of them lived their lives by working in town, other provinces or other countries. Almost of the families were extended families which have closed relationship to their family members and the neighbors. They exchanged Knowledge and experiences about self care and treatment of Diabetes with the neighbors.

2. Population Characteristics

Three- third of Diabetes patients in both groups were female. Age between 61-70 and

51-60, marriage status. Many of them received elementary school education and few were not attended school class, all of them had health insurance. All of controlled blood glucose group were attended community activities while 9.52 percent of uncontrolled blood glucose patients were not attended community activity.

Table 1. Percentage of Diabetes patients divided by population characteristics (N=30)

| Population characteristics | controlled % | uncontrolled % |
|---|---------------------------------|---------------------------------|
| year of ages | | |
| 40–50 51–60 61–70 More than 70 | 7.69 15.38 53.85 23.08 | 19.05 47.62 23.81 9.52 |
| sex male female | 23.08 76.92 | 28.57 7 1 .43 |
| Marriage status | | |
| marriage devoice | 69.23 30.77 | 90.48 9.52 |
| education level | | |
| Not attended school class Elementary school High school | 7.69 92.31 - | 14.29 80.95 4.76 |
| Health insurance | 100 | 100 |
| Attended community activities Attended None | 90.48 9.52 | 100 |

3. Family characteristics
The Diabetes patient families had family member 4-6 in both groups (mean 6 persons). Main family income came from their spouses, sons and daughters and from their own.

All of the families member attended community activities .Uncontrolled blood glucose Diabetes patients had Chronic diseases in families more than controlled group, such as Hypertension, Paralysis and Diabetes.

| Family characteristics | controlled % | uncontrolled % |
|---|------------------------------|-------------------------------|
| numbers of family members | | |
| 13 4-6 7-9 Mean = 6 | 7.69 84.62 7.69 | 14.29 66.67 19.05 |
| Family income Their own Spouse Son and daughter | 23.08 76.92 46.15 | 28.57 71.43 42.86 |
| Family member attended community activities | 100 | 100 |
| Chronic diseases in family Hypertension Paralysis diabetes none | 7.69 - - - 92.31 | 4.76 4.76 9.52 80.95 |

Table 2. Percentage of Diabetes patients divided by family characteristics
(N= 30)

4. Health Status

Both controlled and uncontrolled Diabetes patients have been sick the most 5-9 years. In controlled blood glucose group, none of them was admitted in hospital with hypoglycemia or hyperglycemia. All of them had normal blood glucose level and had ability to help themselves while uncontrolled blood glucose group had high blood glucose level in which 23.81 percent had very high blood glucose level (more than 250 mg/db), they had complications from Diabetes, such as numb, infected feet wound and Retinopathy. 14.29 percent required caregivers. Self evaluated about Diabetes knowledge, only 13.3 percent of uncontrolled blood glucose group had fair level and Eighty – seven percent need to improve their knowledge.

%

| Family characteristics | controlled % | uncontrolled |
|---|---------------------------|--------------------------------------|
| Year of being Diabetes 5-9 Greater or equal 10 | 61.54 38.46 | 76.19 23.80 |
| Admitted in hospital with hypoglycemia or Hyperglycemia admitted never | - 100 | 66.66 33·33 |
| last blood glucose level (mg/dl) less than 140 180-250 More than250 | 100 - - | - 76.19 23.81 |
| Community activities complication from diabetes numb infected wound at feet retinopathy kidney cardiovascular | 15.38 - - - | 65.22 17.39 4.35 - 30.43 |
| Ablity of self-care Self help Caregiver | 100 | 85.71 14.29 |
| Self evaluated about Diabetes knowledge | | |
| Fair Improve | 43·3 5 ⁶ ·7 | 13.3 86.7 |

Table 3. Percentage of Diabetes patients divided by Health status (N=30)

5. Diabetes lifestyle

5.1 Controlled blood glucose group.

Controlled blood glucose Diabetes patients lived a healthier life style and maintained normal blood glucose level. Health Promotion Behavior of Diabetes patients, all of them had ability to self care. Thirty-one percent took special care of their feet. Lower severity and complications, Eighty-seven percent had a proper diet. Eighty-three percent performed a regular exercise, Sixty-seven percent had enough sleep. For treatment, Eighty – five percent had appropriated drug prescribed treatments and seventy-seven percent had a routine blood glucose testing regularly. It was noted that Seventy-seven percent of these patients received strong support from their families.

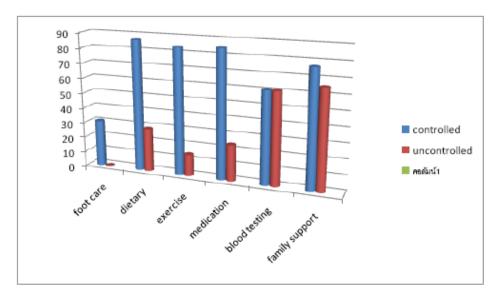
5.2 Uncontrolled blood glucose group

The study revealed that all uncontrolled blood glucose patients had a higher and irregular blood glucose level. Fourteen percent needed caregiver. Eighty-six percent did exercise irregularly. Seventy -one percent did not have a proper diet. Thirty-nine percent had irregular routine checkups and monitoring of their blood glucose levels. Thirty-five percent had less supported from families. Seventy-six percent did not follow their prescribed drug treatments. No special feet care was found in this group

To evaluate their lifestyle, 69 percent of controlled blood glucose group considered that they had healthy lifestyle and Seventy – six percent of uncontrolled blood glucose patients considered that they had inappropriate lifestyle due to the high level of blood glucose and uncontrolled.

Table4. Compared lifestyle of Diabetes patients in both groups (N= 30)

| lifestyle | controlled % | group | uncontrolled group % |
|---|-----------------|-------|-------------------------|
| Health promotion | | | |
| behavior | | | |
| Ability to self care | 100 | | - |
| Self care | - | | 14.29 |
| By care giver | 30.77 | | - |
| special feet care | | | |
| lower severity and | | | |
| complication - dietary | | | |
| Controlled | 86.6 | | 28.57 |
| Uncontrolled | 13.4 | | 71.43 |
| - exercise | | | |
| regular | 83.4 | | 14.29 |
| irregular | 16.6 | | 85.71 |
| sleep | | | |
| Enough | 66.67 | | 57.14 |
| Not enough | 33.33 | | 42.86 |
| Treatment | | | |
| take medication | | | |
| appropriated | 84.62 | | 23.81 |
| in appropriated | 15.38 | | 76.19 |
| routine blood glucose | | | 39.13 |
| testing | 76.92 | | 60.87 |
| regular | 23.08 | | 39.13 |
| irregular | ū | | 57.14 |
| Evaluated self care | 69.23 | | 23.81 |
| - Healthy lifestyle | 30.77 | | 76.19 |
| Inappropriate lifestyle | - | | 34.78 |
| family support | 76.92 | | 65.22 |
| good | 23.08 | | 34.78 |
| less | | | |



Compared lifestyle of controlled and uncontrolled Diabetes patient

The result of this study came out as expected and related to the other former researches that found Healthy Diabetes Lifestyle makes the Diabetes patient in good control of blood glucose level and family supported strengthen them through health problem and disease. On the other way, Inappropriate lifestyle makes Diabetes patient had trouble and more complications . From the study shown the interesting and helpful information of Diabetes patients and makes healthcare provider, Diabetes patient, family and people all around them understand and support them to the right way in order to control blood glucose level and live their lives with happiness.

Conclusion

From the studied it was found that many patients who had problem with Diabetes more than 5 years concern their diabetes restricted and prevented them from living a normal life and found it hard to controlled their blood glucose to the normal level even they had problem so many years. Those patients who had healthy lifestyle such as controlling diet, regular exercise, having medication regularly, routine blood glucose testing, and support from their families could control their blood glucose in to the normal level. Opposed to the uncontrolled blood glucose patients who had an Inappropriate life style and had little support from their families. Better self care and healthy life style are very essential for helping the Diabetic patients to reach the goal of keeping blood glucose levels within acceptable bounds which strong support from their families encourage them to cope with their disease, complications and arose them had healthier life style. Including healthcare provider can enhance patient empowerment to achieve feasible targets. There is a need to studies exploring

lifestyle about foot care, exercise interventions and studies exploring the effect of exercise and diet on quality of life, morbidity and mortality, with special focus on each complication.

Implication

- Healthcare providers can understand the Diabetes lifestyle and manage diabetes care system to improve their better lifestyle.
- Diabetes patients, families and community participate to improve their health behaviors.