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CHAPTER 5

Summary, main findings, conclusions, limitations and recommendations

5.1 INTRODUCTION

This chapter summarises the study and its main findings, outlines the limitations and makes recommendations according to the research findings.

5.2 SUMMARY

The objectives of the study were to:

- identify the patients' and family members' knowledge of diabetes mellitus and its treatment
- identify the views of patients and of their family members towards diabetes mellitus and its treatment

A quantitative descriptive survey design was used. The researcher used a questionnaire with both open and closed-ended questions to collect data from a convenient sample of 32 diabetic patients and 32 family members living with diabetic patients. The sample included adult diabetic patients who had had the disease for at least five years and longer and family members caring for diabetic patients from the Mopane district, utilising the Nkhensani Hospital and Giyani Health Centre. The data was collected over a period of six months.

Reliability was ensured by consistency in administering the questionnaires, the researcher being the only person who collected the data. Content validity was achieved by including a sufficient number of questions on the knowledge that patients and family members should have about diabetes mellitus, based on an extensive review of the relevant literature. The SPSS program was used to analyse the data. Data was codified, and statistically analysed in terms of percentages.

5.3 MAIN FINDINGS

5.3.1 Demographic data

The demographic data reveals that the majority of the subjects included in this study are adults who are literate and educated, receive an income and live near the available health services. They therefore have the ability and means to adhere to the diabetes mellitus treatment regimen.

5.3.2 Knowledge of patients and family members about diabetes mellitus

The majority of patients and family members cannot explain the term diabetes mellitus well and have the perception that this disease can be cured. There are still a few misconceptions that treatment of the disease can be done through withdrawal of sugar and that once the blood sugar is normal, the treatment can be discontinued (see 4.4.2.1, 4.4.2.2, 4.4.2.3 and 4.4.2.4). There is uncertainty about the real causes of diabetes mellitus especially among the patients and to a lesser extent among the family members (see 4.4.2.5). Many patients as well as family members in the study have never attended organised programmes for diabetic patients, that actually serve as support and source of information (see 4.4.2.6).

A high percentage of patients and family members are not aware of the warning signs of hypoglycaemia and will therefore not know how to behave pro-actively to prevent the patient falling into a hypoglycaemic coma (see 4.4.2.7).

The majority of the patients do not test their urine and don't visit the clinic for glucose monitoring (see 4.4.2.8 and 4.4.2.9) and yet the majority of subjects in this study are on treatment including tablets and insulin which necessitate proper control (see 4.4.2.10 and 4.4.2.11).

Half of the patients report a change in body functioning and the reasons given indicate that their diabetes is not well controlled (see 4.4.2.13). Almost half of the patients do not carry snacks with them, which is actually essential to prevent hypoglycaemia. This, together with the high percentage of patients and family members who do not know the signs of hypoglycaemia, is cause for concern (see 4.4.2.7 and 4.4.2.15). Almost half of the patients and family members have not been counselled on nutrition and therefore the correct diet for diabetic patients (see 4.4.2.16), and a considerable number of them are not knowledgeable about the role of salt in the diet of the diabetic (see 4.4.2.30).

The majority of subjects walk for exercise every day but there is a percentage who do not walk at all for exercise (see 4.4.2.22).

Diabetic patients experience sexual problems and give lack of libido and impotence as the major reasons. Both patients and family members indicated a great need for educational programmes on sexual problems (see 4.4.2.23, 4.4.2.24 and 4.4.2.25).

More than half of the patients examine their feet whereas the others don't, and the greater majority never visit the podiatrist (they should visit at least every six weeks) (see 4.4.2.26 and 4.4.2.27). The majority of the patients and family members do not know what types of shoes should be worn by diabetics and also do not know the reasons for wearing a specific type of shoe (see 4.4.2.28 and 4.4.2.29).

The majority of patients never visit an ophthalmologist whereas it is actually indicated by the literature that annual examination is essential (see 4.4.2.31).

A lack of money influences the control of diabetes negatively. It prevents diabetics from purchasing the correct types of food and visiting the clinic regularly (see 4.4.2.37 and 4.4.2.38).

The majority of patients in this study live within walking distance of the nearest clinic or hospital and whereas some walked to the health facility, others travelled by bus or car (see 4.4.2.42 and 4.4.2.43).

Subjects included in this study stay either with spouses, parents or other relatives, which indicates that they have a support system at home (see 4.4.2.44).

5.3.3 Views of patients and family members on diabetes mellitus

Regarding the views of diabetic patients and family members included in this study, the majority perceive diabetes as a curable disease (see 4.4.2.2). Although they view oral treatment as the best they could not provide reasons (see 4.4.2.12).

Patients appear not to believe that traditional healers can cure diabetes. The majority do not visit traditional healers but show a tendency rather to visit spiritual healers (see 4.4.2.17, 4.4.2.18 and 4.4.2.19). They do not regard diabetes as a punishment (see 4.4.2.39).

Patients see themselves as a burden to the family because of the need for care and the special diet they have to follow. However, the family members do not regard the patients as a burden (see 4.4.2.40 and 4.4.2.41).

Patients experience living with diabetes as stressful because of the medication they have to take, the inability to satisfy their partners' sexual needs and the special diet they have to follow. Although the family members do not regard the patients as a burden, they do regard living with diabetics as difficult because of the dietary restrictions and the need for money to attend the health clinic on a regular basis (see 4.4.2.36).

Both patients and family members experience lack of money as an interference with diabetes control because of problems of getting to the health services and purchasing the correct food (see 4.4.2.37 and 4.4.2.38).

Both the patients and family members acknowledge that patients should stay in their jobs because of the financial benefit which enables them to adhere to the treatment regimen (see 4.4.2.31 and 4.4.2.32).

Patients experience feelings of denial, hurt, shock and depression when first diagnosed with diabetes mellitus. Family members confirm this. Patients fear injury, blindness, divorce and death (see 4.4.2.34 and 4.4.2.35).

5.4 CONCLUSION

The findings of this study revealed that patients and family members lack adequate knowledge about diabetes mellitus. The majority of the patients and family members are not well informed about various aspects of diabetes mellitus and its treatment. Patients and their family members require adequate health education and information on the nature of diabetes mellitus. The control of diabetes includes blood and urine glucose monitoring, adherence to the prescribed diet, regular exercise, proper foot care and annual eye tests, to prevent the short and long term complications of diabetes. Diabetic patients need psychological support as a result of the negative emotions experienced when diagnosed with a chronic disease and family members need to be made aware that they actually provide the necessary support system to diabetic patients.

5.5 LIMITATIONS

Findings can only be generalised to diabetic patients in the Mopani district in the Limpopo Province who visit Nkhensani Hospital and Giyani Health Centre. This was the major limitation. During the course of the study, the following limitations were identified:

Only adult patients who have had diabetes mellitus for at least five (5) years were involved in the study.

- Only adult patients who were admitted to a general ward and those who visited Giyani Health Centre were involved in the study, yet diabetic patients are also found in outpatient departments and other units.
- The period of collecting data had to be extended to six months, the reason being that diabetic patients were not readily available.
- Under-reporting or over-reporting might have occurred as a result of the sensitive nature of some of the questions on sexuality.

5.6 RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made with reference to nursing practice, education and research.

5.6.1 Nursing practice

- Since a diabetic clinic has been established at Nkhensani Hospital, more experienced health personnel on diabetes mellitus should be employed to run the clinic effectively.
- Health professionals should give proper health education to patients and family members on diabetes mellitus and the required treatment regimen. It should be explained that diabetes is an incurable chronic disease which requires lifelong adherence to the treatment regimen to control the disease, thereby preventing short term and long term complications (Clever & Pallourious 1994:175). Explaining diabetes mellitus and its causes to the patients might help them to understand and accept their condition. It must be explained to patients that the aim of the treatment is to maintain a normal blood sugar level, and that once treatment is discontinued, complications may set in.
- Patients and family members must be informed about organised programmes for diabetics in their area and encouraged to participate in these on a regular basis. This could serve as a basis of support and information (Thompson 1995:1401, 1415).
- Patients and family members should be coached on the warning signs and symptoms of hypoglycaemia and hyperglycaemia and how to act pro-actively in such a situation to prevent hypo/hyperglycaemic coma.
- Glucose monitoring: health professionals should ensure that patients know how to test their urine and blood for glucose levels. It must be emphasised that blood glucose monitoring is preferable to urine glucose monitoring because it provides more accurate readings (see 2.5). They must explain the importance of regular visits to the clinic for glucose monitoring and keep a record of patient appointments.

- Diet: patients and family members should receive proper counselling on nutrition. Health professionals should explain why smaller meals should be taken more often and snacks should be taken in between meals. Patients must be advised on the essential food for diabetics as well as forbidden food. If available, health professionals should refer patients to a dietician.
- Psychological support: health professionals must be available to listen to patients' fears and uncertainties. Many of these fears can be alleviated by providing patients with more information on diabetes and the prevention of complications. Visits to spiritual healers can be encouraged but it must be emphasised that regular visits to the health clinic are essential. Patients must be observed for signs of depression and referred to a psychologist or psychiatric nurse if necessary (Bain 2001:3).
- Exercise: health professionals must inform patients and family members that daily exercise is essential as it increases the effect of insulin and therefore the uptake of glucose by the body cells. It helps with losing weight, strengthens the body and creates a feeling of well being and relaxation. Exercise can be in the form of walking, gardening, swimming, athletics, aerobics, playing soccer and doing housework (see 2.3.2).
- Sexual education: educational programmes on sexual problems should be organised at health clinics. Physicians as well as nurses can be involved in providing information to patients.
- Foot care: health professionals should give appropriate advice to patients on foot care. The wearing of comfortable leather shoes, proper cleaning of feet, daily inspection of feet for colour changes and cracks as well as 6 weekly visits to the podiatrist at the health clinic for proper foot and nail care must be emphasised and appointments must be made for patients (see 2.8.5).
- Eye care: the diabetic patient must be informed that a high blood sugar causes damage to the eyes resulting in poor vision which may eventually lead to blindness. Patients should be advised to visit an ophthalmologist annually for tests and even for a routine glaucoma evaluation every 2-5 years (see 2.5 and 2.8.2.1). Health professionals should make these appointments for patients to ensure better control.
- Family members of diabetics must be counselled by health professionals on the importance of supporting the patients psychologically because of the negative feelings experienced when diagnosed and having to live with an incurable disease (Bain 2003:3). Family members must also be made aware of the supportive role they play by supervising patients on their diet, the taking of medication and regular visits to the clinic for glucose monitoring (see 2.6.1).

5.6.2 Nursing education

- Health professionals who care for diabetic patients should be adequately trained in the management of diabetes mellitus.

- In-service education, workshops and seminars should be organised to keep health personnel updated on the newest developments in the treatment of diabetes.
- Health professionals should be granted the opportunity to attend conferences and encouraged to read the most recent available literature on diabetes mellitus and its treatment.

5.6.3 Nursing research

- Research on adolescent patients with diabetes mellitus should be done since more adolescents are being affected by diabetes.
- The government and educators should focus on diabetes mellitus and other chronic illnesses by doing research to identify the causes of the increased rate of complications.
- Qualitative research should be undertaken to explore the role of traditional medicine in the treatment of diabetes.
- A qualitative research study can be done to explore the psychological effects of diabetes mellitus on patients and family members.
- The side effects experienced by diabetic patients using diabetic treatment in the Limpopo and other provinces should be investigated.
- The knowledge and abilities of elderly diabetic patients on insulin about injecting themselves should be evaluated.