INTERVENTIONS IDENTIFIED AS USEFUL FOR THERAPISTS WORKING WITH FAMILIES MANAGING ADULT ONSET TYPE II DIABETES

A DISSERTATION

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

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BY

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To the Dean of the Graduate School:

I am submitting herewith a dissertation written by Patricia M. Allard entitled "Interventions Identified as Useful for Therapists Working with Families Managing Type II Adult Onset Diabetes." I have examined this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Family Therapy.

Linda Metcalf, Ph. D., Major Professor

We have read this dissertation and recommend its acceptance:

Department Chair

Accepted:

Dean of the Graduate School

DEDICATION

This work is dedicated to the collaborative relationship of medical and mental health providers devoted to enhancing the quality of life and wellness of people dealing with chronic illnesses such as diabetes and cardiovascular disease. Healthy families promote mind, body and spiritual wellness.

ACKNOWLEDGMENTS

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ABSTRACT

PATRICIA M. ALLARD

INTERVENTIONS IDENTIFIED AS USEFUL FOR THERAPISTS WORKING WITH FAMILIES MANAGING ADULT ONSET TYPE II DIABETES

MAY 2008

The purpose of this study was to identify interventions or themes that could be helpful for family therapists working with couples coping with self management of adult onset type II diabetes. This study explored the positive influence of spousal support on self management of adult onset type II diabetes. Family resources and relationships are seen as crucial factors that may influence the way that couples cope with chronic illness.

Qualitative research techniques were used in this study and the interview inquiry method was executed. The phenomenological research method was utilized in order to collect the rich meanings of their experiences from married participants diagnosed with adult onset type II diabetes. Purposive sampling was utilized and ten participants were interviewed in this research. The pilot study was processed and all the data were transcribed. The computer software, NVivo 7.0, was employed for extracting and clustering meanings and themes. All participants were enrolled in an outpatient diabetes management program. All interviews were performed at Presbyterian Hospital of Plano. A

peer review in data analysis by two other graduate students was utilized for triangulation in order to reach an agreeable level of validity.

Themes were placed into seven primary categories including: acceptance, family and spousal behaviors, communications, life style changes, strengths impacting the relationship, professional healthcare support and professional mental healthcare support. The ten participants had an average age of 53.6 years. Ages ranged from 30 to 69 years old. As shown in Table 1, three of the participants were male and seven were female. Seven of the participants were Caucasian, two were Hispanic, and one was Asian. Participants had been living with diabetes for an average of ten years (Mean = 9. 86), with a range of five months to 57 years. Similarly, participants had been managing their diabetes for an average of 10.5 years (Mean = 10.6), with a range of five months to 57 years.

Several themes crucial to family therapy interventions were elicited. A clear concept of helpful and supportive behaviors, communications and strengths were identified. Although positive spousal and family support does not erase the impact of challenging or detrimental behaviors and communications it is a start for family therapeutic interventions. A family in conflict may grow and heal significantly when practicing resilient and supportive life styles.

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CHAPTER I

INTRODUCTION

Diabetes is a global epidemic affecting individuals, their lifestyles and the lifestyles of close family members. The World Health Organization estimates 177 million people throughout the world are diagnosed with diabetes with a predicted total of 300 million by 2025 (Ponzo, Gucciardi, Weiland, Masi, Lee, & Grace, 2006). The current mortality rate for diabetes is four million per year and many of these deaths are due to complications such as cardiovascular or kidney disease. Delaying the onset of these complications can be accomplished by regulating tight glycemic control through lifestyle modifications. Lifestyle modifications such as diet and exercise are difficult to maintain. Spousal and family support is crucial to compliance. The potential for conflict in a relationship dealing with these changes is significant.

Diabetes impacts every system in the body. Think of pouring sugar water into the gas tank of a smoothly running machine. The outcome can be catastrophic to the life of the engine. The human body is affected in a similar manner. Circulation and organ functioning can be impaired. Healing is slowed. Vision can be altered over time. General energy and outlook on life is a challenge if diabetes is uncontrolled (Anderson, Funnell, Butler, Arnold, Fitzgerald, & Feste, 1995).

Diabetes is a disease that changes the way the body uses glucose for energy. People without diabetes have normal blood glucose levels. People, who don't have diabetes,

digest food in the stomach where it is changed into glucose. The glucose travels in the bloodstream to the body's cells. Insulin produced by the pancreas allows the glucose to enter the body's cells and give them energy (Heisler, Smith, Hayward, Krein, & Kerr, 2003).

People with diabetes have blood glucose levels that are too high. The pancreas does not make enough insulin, or the insulin it makes does not work well. Either way, without insulin the cells can't get the glucose they need. Instead, the glucose builds up in the bloodstream, so the cells starve while the glucose level in the blood rises. When the blood glucose level gets very high, the body gets rid of the glucose and calories through the urine. As a result, there are many signs of diabetes. Some symptoms are thirst, urinating more than usual, feeling very hungry, losing weight without trying, feeling more tired than usual, sores that heal slowly, dry, itchy skin, losing feeling in the feet, tingling in hands and feet, sexual dysfunction, and blurry eyesight (Norris, Engelgau, & Narayan, 2001).

Diabetes is a chronic disease. It does not go away, even with treatment, and involves lifestyle changes that are crucial to its management. It is also progressive, meaning that if left untreated, it can lead to difficult complications. The good news is that diabetes can be controlled. However, it must be carefully monitored to keep it in control. A treatment plan that works at first may need to be adjusted as time passes to keep the blood glucose in its target range, where it should be most of the time. Family support and a well

trained health care team work with people to decide the blood glucose target ranges that are right for them (Norris, Engelgau, & Narayan, 2001).

Diabetes causes problems in many parts of the body. The reason is that diabetes damages nerves and blood vessels, and these are found everywhere in the body. Diabetes complications fall into three general categories:

1. Nerve Damage (Neuropathy). Diabetic neuropathies are a family of nerve disorders that lead to numbness and sometimes pain and weakness in the hands, arms, feet and legs. Neuropathy can also cause problems in the digestive system, heart, and sex organs (American Diabetes Association. 2007).
2. Around 50 percent of people with diabetes have some degree of nerve damage, but not everyone experiences physical symptoms. Neuropathies are more common in people who have had diabetes for at least 25 years, who are overweight, have poor blood glucose control, and have high blood pressure. The most common type is peripheral neuropathy, which affects the arms and legs. This type of nerve damage causes numbness in the feet. This increases the chance of foot injuries, which, if left untreated, can lead to amputation (American Diabetes Association. 2007).
3. Damage to large blood vessels (called Macrovascular disease). High blood glucose causes hardening of the arteries (atherosclerosis), which can lead to a heart attack, stroke or poor circulation in the feet (American Diabetes Association. 2007).
4. Heart disease is the leading cause of diabetes-related death. Adults with diabetes have heart disease death rates about two to four times higher than adults without

diabetes. The risk of stroke is also two to four times greater for people with diabetes (American Diabetes Association. 2007).

5. Damage to small blood vessels such as capillaries (called Microvascular disease). High blood glucose also thickens capillary walls, makes blood stickier and can cause small blood vessels to 'leak'. Together, these effects reduce blood circulation to the skin, arms, legs, and feet. They can also change the circulation to the eyes and kidneys. Reduced capillary blood flow may cause some brown patches on the legs (American Diabetes Association. 2007).

With good blood glucose control, many of these complications can be lessened. The first priority should be to achieve HbA1c levels of seven percent or less. For every one percent reduction in HbA1c levels, the risk of heart attack drops by 14 percent, the risk of microvascular disease falls by 37 percent and the risk of peripheral vascular disease drops by 43 percent. Each additional one percent drop in HbA1c scores reduces the risk of complications even more (American Diabetes Association. 2007).

Type II diabetes once known as non-insulin dependent diabetes is a chronic condition that affects the way the body uses sugar (glucose). Type II diabetes results when the body is resistant to the effects of insulin, produces insulin but either it is not enough or the body can not use it properly. There are two reasons for this inability to use insulin.

1. The beta cells produce insulin, but not enough to lower blood sugar and meet the body's energy needs

2. In a condition called insulin resistance, the body's cells don't work properly are unable to let glucose inside.

Heisler, Smith, Hayward, Krein and Kerr (2003) attribute Type II diabetes for 90 to 95 percent of all diabetes cases, usually developing after the age of 40, which is why it is called adult-onset diabetes. Type II diabetes can develop at any age and is now being seen in children. For some people, type II may be controlled with a program of proper exercise, diet, and pills. By following a program closely, it's possible to keep blood sugars close to normal, to feel healthy and energetic, and to prevent or delay the complications associated with diabetes. Some people with type II require oral medications and/or doses of insulin to control their blood sugar.

The symptoms of type II diabetes are similar to those of type I. However, they usually develop much more slowly and may go unnoticed for months or years. Regular medical check-ups will help identify the condition and get the proper treatment to prevent serious complications. The most common symptoms of type II diabetes include extreme thirst, frequent need to urinate, increased hunger, sudden blurred vision, fatigue, wounds that do not heal, sugar in urine, a feeling of tingling in feet, itchy skin, and frequent vaginal and bladder infections (American Diabetes Association. 2007).

The exact cause of type II diabetes and what triggers it is still unknown, but with the rapid increase in the number of people diagnosed with this condition over the past few years, new research and theories are developing. Certainly genetics and family history play a major role; if one parent has it, there is an increased risk of a child developing

diabetes as well. Children of parents with type II diabetes should have their blood sugar levels checked during their annual physical exam.

Research indicates that lifestyle also plays a role. As people are becoming more sedentary, there has been a dramatic increase in the number of new cases of type II diabetes, especially in overweight and inactive children. There are several other risk factors. People usually develop type II diabetes after age 45, but in recent years the average age of onset has been lower. Type II is also starting to show up in children. Gestational diabetes increases a woman's chance of developing type II diabetes later in life by almost 40 percent. Race and ethnicity play a part in increased chances of developing type II diabetes, especially in African Americans, Hispanic/Latino Americans, Native Americans, and Asian Americans (Heisler et al. 2003).

Knowler, Barrett-Conner, Fowler, Hamman, Lachin, Walker & Nathan, of the Diabetes Prevention Program Research Group, (2002) conducted a large scale clinical study in collaboration with the National Institutes of Health which validated life styles changes have a positive correlation to improved self management of adult onset type II diabetes. Lifestyle changes in diet and exercise and losing a little weight can prevent or delay the onset of diabetes. Participants in the study exercised 150 minutes a week and lost seven percent of their body weight. Participants who made lifestyle changes reduced their risk of getting type II diabetes by 58 percent. Lifestyle change was effective for participants of all ages and all ethnic groups. Participants under regular medical care who

used a type II diabetes medication called Metformin reduced their risk of getting type II diabetes by 31 percent.

As with any family challenge diabetes disturbs the equilibrium of the system. If obesity is involved contributing to the diabetes diagnosis it will involve significant life style changes for the whole family to manage the disease. Nurses care for many individuals who are startled by their diagnosis. Initially they attend class and learn wonderful ways to manage glucose levels, weight and general health skills. While they are in a structured program improvement occurs. They even report feeling better than they have in years. So where is the challenge to continue this very important process (Schroder, & Schawarzer, 1989)?

The importance of spousal support and its impact on the quality of health outcomes is a crucial factor (Schroder, & Schawarzer, 1989). Stabilizing after stressful life events depends to a certain extent on how family members respond and provide support for one another. Diabetes self management is not entirely determined by physical attributes, medical treatment and personality characteristics of the patients themselves, but can also be influenced by characteristics of their relationship with loved ones. It has been demonstrated that positive family support may facilitate healthy life style changes (Fontana, Kerns, Rosenberg, & Colonese, 1989; King, Reis, Porter, & Norsen, 1993; Kulik & Mahler, 1989, 1993; Maes & Bruggemans, 1990; Maes, Leventhal, & de Ridder, 1996).

How do couples deal with the life changes of managing chronic illness? How does spousal support reinforce new health habits? What are the most helpful family interventions? What can a therapist do to help the family coping with a chronic illness? By gaining feedback from people living with adult onset type II diabetes the author expects to identify interventions or themes that might be helpful to families in therapy.

Statement of the Problem

Adult onset type II diabetes self management requires significant lifestyle changes such as diet, exercise, blood glucose monitoring, and emotional support. Many couples with existing conflict pre-diagnosis, struggle to deal with this chronic illness. Harris, Greco, Wysocki, & White, (2001), found family conflict to be an important indicator of compliance to lifestyle changes necessary to impact glycemic control of diabetes patients. Marital support can be significant in helping the spouses manage their diabetes successfully. Trief, Ploutz-Snyder, Britton, and Weinstock, (2004) found improved glycemic control over an extended period of time when the spouses were supportive of diabetes self management efforts. Common areas of conflict in couples managing adult onset type II diabetes involve meal planning, exercise, and meal preparation.

Cociami, & Bor, (1993), reported adjustment and coping with diabetes can be improved by psychological support. Treating family system challenges may increase independence and the ability to sustain mutually helpful relationships. Cultivating mechanisms to anticipate disruptive stressors of life and reduce the negative impact they may cause will add to the stability of physical outcomes. Family therapists contribute to

positive physical health outcomes by facilitating proactive planning of predictable life stressors and providing interventions for dealing with unanticipated life stressors (Schroder, & Schawarzer, 1989).

Statement of Purpose

The purpose of this study is to identify interventions or themes that will be helpful for family therapists working with couples coping with self management of adult onset type II diabetes. This study explored the positive influence of spousal support on self management of adult onset type II diabetes. Family resources and relationships are seen as crucial factors that may influence the way that couples cope with diabetes. The very same support system is called to change with the patient. Identifying and providing family therapists with ideas and interventions for approaching families coping with adult onset type II diabetes will be a helpful contribution to the patients and therapists.

Definitions of Terms

For the purpose of clarification, the following terms were used throughout the study.

1. Adult Onset Type II Diabetes – Type II diabetes is a long-term metabolic disorder where the body produces too little or resists insulin. Insulin is necessary for the body to be able to use sugar.
2. Diabetes Self Management – A process which utilizes, education, medications, exercise and nutrition to impact lifestyle changes that improve health and longevity through glycemic control.

3. Family Support – Physical and emotional guidance and feedback provided by a spouse and family members. This can be seen as positive or negative by the client.

Family Therapist – Mental health professionals trained in psychotherapy and family systems, and licensed to diagnose and treat mental and emotional disorders within the context of marriage, couples and family systems. They evaluate and treat mental and emotional disorders, other health and behavioral problems, and address a wide array of relationship issues within the context of the family system. Family Therapists take a holistic perspective to health care; they are concerned with the overall, long-term well-being of individuals and their families.

Family therapists may focus more on how patterns of interaction maintain the problem rather than trying to identify the cause, as this can be experienced as blaming by some families. It assumes that the family as a whole is larger than the sum of its parts. Family therapy may also be used to draw upon the strengths of a social network to help address a problem that may be completely externally caused rather than created or maintained by the family.

4. Family Therapy – also referred to as couple, marital and family systems therapy, is a branch of psychotherapy that works with families and couples in intimate relationships to nurture change and development. It tends to view these in terms of the systems of interaction between family members. It emphasizes family relationships as an important factor in psychological health. As such, family problems have been seen to arise as an emergent property of systemic interactions,

rather than to be blamed on individual members. Marriage and Family Therapists (MFTs) are the most specifically trained in this type of psychotherapy.

5. Gestational Diabetes – Pregnant women who have never had diabetes before but who have high blood glucose levels during pregnancy are said to have gestational diabetes. Gestational diabetes affects about 4% of all pregnant women - about 135,000 cases of gestational diabetes in the United States each year. Gestational diabetes starts when your body is not able to make and use all the insulin it needs for pregnancy. Without enough insulin, glucose cannot leave the blood and be changed to energy. Glucose builds up in the blood to high levels. This is called hyperglycemia.

6. Glycemic Control – defined as extent to which plasma glucose levels are maintained in an expected range. The American Diabetes Association (2007) recommends blood sugar goals for people with diabetes before meals should be between 90 mg/dL and 130 mg/dL and after meals (1 to 2 hours after eating) blood glucose should be less than 180 mg/dL.

7. HbA1c – a blood test which measures the A1c hemoglobin levels. The average blood sugar for the past two to three months should be less than seven percent. In non-diabetic persons, the formation, decomposition and destruction of HbA1c reach a steady state with about 3. 0% to 6. 5% of the hemoglobin being the A1c subtype. Most diabetic individuals have a higher average blood glucose level than non-diabetics, resulting in a higher HbA1c level. The actual HbA1c level can be

used as an indicator of the average recent blood glucose level. This in turn indicates the possible level of glucose damage to tissues, and thus of diabetic complications. Hb = hemoglobin, the compound in the red blood cells that transports oxygen. Hemoglobin occurs in several variants; the one which composes about 90% of the total is known as hemoglobin A. A1c is a specific subtype of hemoglobin A. Glucose binds slowly to hemoglobin A, forming the A1c subtype. The reverse reaction, or decomposition, proceeds relatively slowly, so any buildup persists for roughly 4 weeks. Because of the reverse reaction, the actual HbA1c level is strongly weighted toward the present. Some of the HbA1c is also removed when erythrocytes (red blood cells) are recycled after their normal lifetime of about 90-120 days. These factors combine so that the HbA1c level represents the average blood glucose level of approximately the past 4 weeks, strongly weighted toward the most recent 2 weeks. It is almost entirely insensitive to blood glucose levels more than 4 weeks previous.

8. Insulin – When we eat, our bodies break food down into organic compounds, one of which is glucose. The cells of our bodies use glucose as a source of energy for movement, growth, repair, and other functions. But before the cells can use glucose, it must move from the bloodstream into the individual cells. This process requires insulin. Insulin is produced by the beta cells in the islets of Langerhans in the pancreas. When glucose enters our blood, the pancreas should automatically produce the right amount of insulin to move glucose into our cells. People with

type 1 diabetes produce no insulin. People with type II diabetes do not always produce enough insulin.

9. Insulin Resistance – is the condition in which normal amounts of insulin are inadequate to produce a normal insulin response from fat, muscle and liver cells. Insulin resistance in fat cells results in hydrolysis of stored triglycerides, which elevates free fatty acids in the blood plasma. Insulin resistance in muscle reduces glucose uptake whereas insulin resistance in liver reduces glucose storage, with both effects serving to elevate blood glucose. High plasma levels of insulin and glucose due to insulin resistance often lead to metabolic syndrome and type II diabetes.

10. Macrovascular Disease – disease process which causes damage to larger vessels in the body such as arteries and some veins.

11. Medical Family Therapy – A form of psycho educational family therapy involving collaboration with physicians and other health care professionals in the treatment of persons or families with health problems.

12. Microvascular Disease – disease process which causes damage to smaller vessels in the body such as capillaries and some veins.

13. Neuropathy – nerve damage that causes numbness and pain primarily in hands, arms, feet and legs.

14. Therapeutic Interventions – A standard dictionary defines intervention as an influencing force or act that occurs in order to modify a given state of affairs. In the

context of behavioral health, an intervention may be any outside process that has the effect of modifying an individual's behavior, cognition, or emotional state. For example, a person experiencing stress symptoms may find a variety of interventions effective in bringing relief. Deep breathing, vigorous exercise, talking with a therapist or counselor, taking an anti-anxiety medication, or a combination of these activities are all interventions designed to modify the symptoms and potentially the causes of stress-related discomfort.

15. Systems theory – is an interdisciplinary field of science and the study of the nature of complex systems in nature, society, and science. More specifically, it is a framework by which one can analyze and/or describe any group of objects that work in concert to produce some result. This could be a single organism, any organization or society, or any electro-mechanical or informational artifact. Systems theory as a technical and general academic area of study predominantly refers to the science of systems that resulted from Bertalanffy's General System Theory (GST), among others, in initiating what became a project of systems research and practice. It was Margaret Mead and Gregory Bateson who developed interdisciplinary perspectives in systems theory (such as positive and negative feedback in the social sciences).

Delimitations

This study was delimited in the following ways:

1. All participants will be referred into the outpatient diabetes wellness center

program at Presbyterian Hospital of Plano.

2. All who were interviewed were diagnosed with adult onset type II diabetes.

3. All who were interviewed were voluntary participants of this study.

Qualifications

The participant qualified when they met all the criteria as follows:

1. The participant was interviewed not couples or families.

2. If the participant was diagnosed with adult onset type II diabetes.

3. The participant was married.

4. The participant's age was 18 years or older.

5. The participant was a volunteer.

6. The sample population was located in the Denton, Dallas or Collin counties.

Assumptions

The investigator assumes that

1. Strong positive spousal support correlates with increased health and longevity as evidenced by improved glycemic control.

2. The participants will be open, willing, and truthful with the researcher.

3. Involvement of the spouse in the diabetes self management process supports the whole family.

4. The participants will be willing to share their insights and experiences.

5. Family therapy interventions are helpful to support a marriage and family dealing with a challenging relationship and type II diabetes.

Research Questions

Specific research questions will be directed toward gaining data to give meaning to the impact of spousal support on improved self management of diabetes after a diagnosis of adult onset type II diabetes as shown in Table 1.

Table 1
Research Questions Connected to Interview Questions

Research Question	Interview Questions
1. How does spousal support influence how a patient deals with life style changes in regard to diabetes?	1. What has been your spouse's role in regard to the way that you deal with Adult Onset Type II Diabetes? 2. What has been your spouse's role in the way that you deal with life style changes you have had to make?
2. What therapeutic interventions assist family therapists who work with couples and families dealing with a family member with life changes of adult onset type II diabetes?	3. Have you ever been to a Family Therapist? 4. If so, what did you find helpful? 5. If you were to attend Family Therapy, after the diagnosis of Adult Onset Type II Diabetes, what would you hope to get help for?
3. What could family therapists learn from the patient and families managing the chronic illness of adult onset type II diabetes?	6. What have been the most helpful actions and support that your family has given you in dealing with adult onset type II diabetes?
4. What relationship strengths are helpful for a therapist when working with couples and families dealing with a family member with Adult Onset Type II Diabetes?	7. Describe your relationship prior to the diagnosis of Adult Onset Type II Diabetes. 8. Describe how your relationship has changed, if any, after the diagnosis of Adult Onset Type II Diabetes?
5. What conflicts arise in families where Adult onset Type II Diabetes occurs?	9. What challenges have you experienced personally and as a family since the diagnosis of Adult Onset Type II Diabetes? What Conflicts? 10. What personal strengths and actions have you found to be helpful to both you and your spouse since the diagnosis of Adult Onset Type II Diabetes?

Summary

This chapter discussed the introduction of the research topic, statement of the problem, statement of the purpose of the study, a definition of terms, delimitations, and assumptions. The research questions and interview questions were contrasted.

Many studies pointed out a fairly clear connection between some form of emotional or social support and eventual health outcomes in couples or families in which one partner was affected by some form of type II diabetes. Trief, Ploutz-Snyder, Britton, and Weinstock (2004) performed a quantitative, cross-sectional, prospective study on 78 insulin-dependent persons with diabetes and their spouses; the mean age of this study group was 47. 2 years. Two marital quality assessments and a self-care regimen survey were carried out. Two years later, 60 of the original study participants were contacted, and the same self-care regimen survey was administered. They found that dietary self-care, exercise, and following a physician's advice were strongly related to marital intimacy and adjustment. The two year follow-up assessment also showed that marital adjustment is a significant factor in positively adapting to life with diabetes. One major finding of this study showed that when the married couple functions as a team in relation to diabetes self management, there is a higher likelihood of better self-care and improved glycemic control.

A study by Fontana et al. (1989) examined indices of social support, stress, distress, and cardiac symptoms among 73 older patients following a significant cardiac event such as myocardial infarction or coronary artery bypass graft surgery. Results indicated that

social support and intimacy tend to reduce stress and distress, and that this reduction was related to reduced cardiac symptoms.

This study had significant implications for families dealing with chronic illness such as adult onset type II diabetes and other chronic illnesses. The intent was to define interventions or themes that will prove helpful for family therapists working with couples dealing with chronic illness particularly adult onset type II diabetes. Strengthening the family will enhance the quality of life for the patient and the system. This study may also support and promote the practice of medical family therapy.

CHAPTER II

REVIEW OF THE LITERATURE

Spousal Support and Chronic Illness

Family and spousal support involve the health outcomes for patients with type II diabetes. Type II diabetes in general impacts the whole family. Diabetes requires significant alteration in the family rituals and behaviors especially around food.

An early literature review by Doehrman (1977) suggested that stable marital status was associated with good prognosis for patients with chronic disease such as cardiovascular or diabetes. Another study a few years later by Dhooper (1983) examined the role of social support, family cohesion, and family adaptability in family adjustment to the crisis of a heart attack in one of the marital partners after a first myocardial infarction in a sample of 40 patients less than 60 years of age. Patient families were assessed at several points in time. Findings suggested that social integration in the family (active involvement with family, friends, and, religious or social organizations) was the most important coping resource, and that family cohesion also helped. These research studies, taken together, may illuminate the more general finding of Case, Moss, Case, McDermott, and Eberly (1992), who studied 1,234 patients who had suffered with chronic disease episodes for up to two years. They determined that living alone was an independent risk factor for subsequent episodes such as a heart attack or insulin reaction. They were not able to determine the reason that living alone posed such a risk.

A more recent study by MacMahon and Lip (2002) indicated that supportive networks and adaptive coping styles appear related to better physical health and quality of life among congestive heart failure patients. Researchers noted that depression is a fairly strong predictor of repeated admission. Young and Kahana (1994), in a study of 183 cardiac patient caregiver couples, identified the extent and nature of emotional support as one of the significant predictors of well-being and depression among elderly couples after a heart attack.

Two studies by Holohan et al. (1995, 1997) which demonstrated the vulnerability of both women and men to depressive symptoms following cardiac illness, showed that psychosocial factors played key mediating roles, with social support and adaptive coping strategies related to reduced levels of depression. Positive relationships were associated with better adjustment and more effective coping efforts. Since depression is a negative prognostic indicator of recovery among patients with this chronic disease.

Martire and Keefe (2006) found supportive responses to the symptoms, emotions, and assistance needs of an ill spouse are important for that individual's adjustment to chronic illness. The spouse's ability to accurately recognize an ill partners' symptom severity has a major impact on clinical outcomes. Martire et al showed the patient and spouse agreement level on severity of symptoms correlate to positive or negative physical and emotional health. Logically, couples with greater level of agreement had better health than those with an underrating of symptoms especially pain.

Support and Life Satisfaction

Newsom and Schulz (1996) examined the role of social support in mediating physical impairment and quality of life in a national sample of 4,734 older adults. They found that lower levels of social support were associated with increases in physical impairment and depressive symptoms, as well as decreases in life satisfaction.

Support and Health Outcomes

Kaplan and Toshima (1990) provide a broad overview of how relationship factors and social support affect health outcomes for a wide variety of chronic illnesses. Uchino, Cacioppo, & Kiecolt-Glaser (1996) did an extensive literature review of 81 studies, examining possible relationships between social support and physiological process, focusing specifically on cardiovascular, endocrine (diabetes), and immune systems. Their study noted the potentially significant health consequences of compromised physiological systems especially for older adults, and concluded that social support may be an important factor moderating such physiological processes. Their review suggests familial ties are an important source of social support in couples or families dealing with chronic illness.

Spitzer et al. (1992) studied blood pressure among 131 subjects, with measurements taken every 20 minutes over a 12-hour period, correlating obtained blood pressures with the subjects' social situations. Blood pressure levels were lowest among subjects who were with family members; researchers concluded that this may be one factor that accounts for the observed lower rate of morbidity and mortality among married patients.

Lack of Support

Berkman et al. (1992), in a prospective study of 194 elderly men and women (all age 65 or older) who suffered myocardial infarction, concluded that lack of emotional support significantly correlated with a 6-month mortality after controlling for age, gender, co-morbidity, and cardiovascular disease severity. Seventy-six patients died within six months of their heart attacks, the two following characteristics were associated with the increased mortality risks of age and social support. First, patients age 75 and older had nearly twice the risk of death as those ages 65 to 74; and second, patients with no one to rely on for emotional support also had twice the risk of death as those who had two or more sources of support. According to these researchers, "emotional support appeared to be the most powerful and consistent predictor of survival after myocardial infarction" (p. 1007).

A related finding is reported by Bucher (1994) who conducted an extensive literature review with strict inclusion criteria regarding social support and prognosis among patients who were followed to determine outcomes after they had suffered a first heart attack. The nine longitudinal cohort studies reviewed, which involved 10,454 patients, strongly suggested that lack of social support is a significant independent risk factor for cardiac mortality, especially among male patients. Social support was clearly associated with survival.

Marital Relationship Quality and Health Outcomes

A few articles focused quite generally on associations between marital relationships and health outcomes. Quinn (1999), in a brief review of various studies

related to family relationships and cardiovascular health, concluded that family relationships may be more important than other social support relationships for maintaining cardiovascular health, recovering from cardiac events, and preventing heart disease. Rankin-Esquer, Deeter and Taylor (2000) provided a helpful survey of the variety of associations between cardiovascular disease and couples that have been examined in significant research. Another general but unique contribution among literature was a conceptual, explicitly systemic, contextual oriented article by Revenson (1994) which discusses a variety of issues related to social support and marital coping among couples in which one partner had a chronic illness. The author highlighted the reciprocal dynamics of interactions within couples facing chronic illness, as well as the interdependence of couples within various systems and contexts. Revenson also focuses not only on both partners and their individual roles, but also on how chronic illness impacts the marital relationship itself. The importance of taking gender issues into account in understanding couples in the context of chronic illness is also articulated. While not focusing on any particular chronic disease, the author succeeds in providing a helpful, conceptual framework, by sketching outlines for future directions in research.

Many more articles focused much more specifically on the quality of the marital relationship as a very critical factor in health outcomes. Wickrama et al. (1997), in a study examined the relationship between marital quality and physical illness among men and women in lengthy marriages, found that changes in marital quality had a significant association with changes in physical illness for both husbands and wives. Burman and

Margolin (1992) examined possible relationships between three marital variables (marital status, marital adjustment, and marital interaction) and health problems. They reviewed more than 40 studies examining interaction effects of health on couples or marriages, and vice versa. They concluded that marital variables do affect health, although probably indirectly. Being married seems to have positive effects on mortality, while not being married seems to put persons at greater risk for developing illness. The marital quality of spouse care givers was overall lower than that of patients, especially patients with chronic illness. Because of these findings, the authors considered it valuable to include spouses in treatment regimens. They concluded that health problems affect marital relationships in various ways, although research has not identified consistent patterns.

Kriegsman et al. (1994) concluded from an extensive review of literature that both physical and psychological health of family members of elderly persons suffering from chronic disease was negatively affected. They identified the quality of the marital relationship and the amount of available social support as the most critical factors affecting family members' health. In families where a member suffered with a chronic disease, they conclude that recurrence and outcome may be positively affected by lifestyle changes, and that encouragement by a spouse or other family caregiver may increase the likelihood of such changes.

Groth et al. (2000) cite growing evidence that both the lack of an intimate relationship and troubled relationships are associated with health problems. They focus on the endocrine system and immune system responses to stress, as well as blood pressure and

heart rate, and present evidence of a close relationship between psychophysiological reactivity in couples and relationship quality or interaction behavior. Their study showed relationship distress can have negative health consequences over the short term, especially for women.

In a cross-sectional study of 56 couples in which the male partner had suffered an uncomplicated myocardial infarction approximately six months earlier, Coyne and Smith (1991) found that both marital relationship quality and adequacy of contact with medical personnel were inversely related to wives' psychological distress, even when controlled for other significant variables such as patient age, functional disability, and family income. They found that these associations are significant, that wives of myocardial infarction patients are as psychologically distressed as their husbands and that how patients and spouses deal with each other is critical. In another study of 56 couples in which the husband had suffered an initial coronary event reported by Hegelson (1993a), relationship factors were determined to affect the well being of both patient and spouse.

A study of 189 congestive heart failure patients (139 men and 50 women), and their spouses, Coyne et al. (2001) found that a composite measure of marital quality predicted 4-year survival rates (52. 5% for male patients; 68% for females) as well as the patient's New York Heart Association class did (a known predictor of patient mortality), both at $p < 0.001$. Survival prediction appeared stronger for female than male patients. Female-patient couples had higher scores on composite marital quality than did male-patient couples. Marital quality was unrelated to disease severity in the full sample,

but lower marital quality was associated with more severe congestive heart failure among female patients (seven of the eight female patients with the poorest marital quality died within two years of the initial assessment). Patients with relatively severe heart problems and poorer marriages were clearly at high risk, whereas patients with milder heart conditions in good marriages had the lowest risk. This study showed that the quality of a patient's marital relationships may be crucial to the patient's survival with chronic illness. Good marriages apparently influence survival about as much as having less severe disease, and women's survival rates are particularly affected.

A recent study by Rohrbaugh et al. (2002) focused on psychological distress reported by 177 chronic disease patients and their spouses, considering both role (patient/spouse) and gender factors. Secondary research questions focused on marital quality and how disease severity correlates with distress, and whether marital quality variations explain gender differences in distress. These researchers found a strong negative correlation between marital satisfaction and distress, plus a strong association between patient and spousal reports of marital quality. Female patients reported the highest levels of distress, and their male spouses the lowest level. Female patient couples reported higher marital quality than male patient couples, and affirmed more often that their relationship improved in the course of coping with congestive heart failure. The authors concluded that a contextual, systemic perspective better explained their findings than an individual focus.

The following studies demonstrate some of the complexity of the relationship between the quality of relationships and health outcomes. Coyne, Ellard, and Smith (1990),

in reviewing the Michigan Family Heart Study, provided a possible explanation of why women frequently suffered greater negative effects, whether patients or spouses. Their study showed that when male patients returned home, their female spouses cared for them; yet when women were the patients, they resumed caretaking responsibilities for their husbands when they went home from the hospital after a heart attack.

The Michigan Family Heart Study also showed how critically important the marital relationship and spouses are to the patient's adjustment following a heart attack. One particular factor of interest identified was spousal over protectiveness, which tended to undermine patient self-efficacy, and increase their psychological distress. Over protectiveness may be an expression of the spouse's effort to deal with her/his personal distress, since the risk of psychological distress for spouses is at least as great as the risk to patients. Interdependence is of central importance in marital relationships affected by chronic illness such as diabetes, and both partners' needs must be addressed effectively. One intervention which tended to reduce over protectiveness on the part of the spouse was having wives try rehabilitation exercise (e. g., the treadmill) themselves, which resulted in awareness of how well their husbands were able to endure significant physical stress.

In a related study, Fiske, Coyne, and Smith (1991) analyzed the over protectiveness construct as two separate constructs: protectiveness and hostility. They found that only hostility had negative effects, and that the two constructs are not necessarily related. In another study focused on similar issues (Suls et al., 1997), a prospective study of protective buffering coping behavior among 43 male chronic disease patients and their wives,

researchers concluded that failing to share worries and fears freely had negative consequences for both physical and psychological health. Greater marital satisfaction correlated with decreased levels of protective buffering.

Relationship Factors and Health Outcomes

While researchers and reviewers were almost universally reluctant to commit to a particular theoretical explanation of causation, many suggested possible linkages between relationship factors and health outcomes. Causal suggestions are grouped here according to whether they are more direct or indirect linkages. Direct causal suggestions tend to emphasize physiological responses to stress, described in slightly different ways. These included direct mediation through biological pathways involving neurohormonal and stress responses (Berkman et al., 1992; Case et al., 1992), increased levels of stress that may lead to suppression of immune functioning (Bucher, 1994; Burman & Margolin, 1992); a direct physiologic pathway by which marital interaction impacts neuroendocrine or other regulatory systems (Coyne et al., 2001); and a stress response in couples that has strong endocrine (diabetes), cardiovascular, and immunological impacts (Groth et al., 2000). Indirect causal linkages included indirect mediation through differential access to care, delayed treatment, or variations in treatment adherence (Berkman et al., 1992), lack of availability of prompt medical assistance (Case et al., 1992), social or marital support facilitating or eliciting diet/exercise changes or smoking cessation, thus affecting survival (Burman & Margolin, 1992; Coyne et al., 2001) and a combination of treatment-seeking

behavior, treatment adherence, intimate social support, and stress-buffering (Rankin-Esquer et al., 2000).

Effects of Chronic Disease on Relationships

The systemic perspective recognizes that there is a dynamic interplay between relationships and health. While this review of relevant literature has focused mainly on cardiovascular outcomes stemming from relationship quality, there are also interactions in the reverse direction. Diabetes and other chronic illnesses demand adjustments by patients and family members. Family roles and responsibilities often have to be reorganized. Such changes cause stress to spouses or other family members, and those stresses can affect the family emotional climate as well as patient adherence to treatment regimens. Some of these effects (e. g., depressive symptoms) have been previously identified. Additional research that identified impacts of cardiovascular disease on relationships is summarized here.

An early review by Doehrman (1977) concluded that emotional distress related to chronic illness such as diabetes or cardiovascular disease impacts family relationships, often in the form of conflict over diet, medication, and physical activity. Bohachick and Anton (1990) carried out a study of psychosocial adjustment and distress among 90 patients with severe cardiomyopathy patients and their spouses, looking at relationship and adjustment issues for patients and spouses. Both patients and spouses reported appreciable psychological distress, impairment in both social and sexual activity, and increased health care problems. Spouses reported greater psychological distress than did patients. Another study by Hegelson (1993b) examined the impact of chronic illness on family

roles/responsibilities and social support among 96 patients (77 male, 19 female). The most significant finding was that, although there were temporary beneficial effects early in the process, it was always maladaptive for spouses to assume roles and responsibilities formerly handled by patients, with relationship quality and social support levels being negatively affected.

Summary

Various researchers suggested interventions that they believed would be helpful to couples and families in which one member had a form of a chronic disease. The most common interventions suggested were designed to improve couple or family functioning. At the most basic level this involved insuring open and adequate communication and understanding. Burman and Margolin (1992) suggest it is important to include spouses in treatment regimens. Coyne, Ellard, and Smith (1990) advise giving both patients and spouses adequate information, realistic expectations, and well-defined tasks. Kriegsman et al. (1994) encourage physicians to provide information to patients and family members about the importance of lifestyle changes for reducing the risk of chronic illness episodes such as insulin reaction or cardiac event recurrence. Bohachick and Anton (1990) recommended providing information and emotional support for both partners. Suls et al. (1997) believe wellness rehabilitation programs should incorporate interventions designed to encourage partners to openly share their concerns with each other.

Other intervention suggestions focus more directly on relationship skills and coping strategies, such as helping patients learn how to reduce conflict with loved ones,

and educating patients and spouses to improve adaptive coping skills (Holohan et al., 1997). Uchino et al. (1996) concluded that interventions to strengthen family support and close emotional bonds are important. The value of identifying, strengthening, and mobilizing family social support networks in families dealing with a chronic illness crisis was noted by both Bucher (1994) and Dhooper (1983). Rankin-Esquer et al. (2000) advocate working to enhance couple functioning, and describe an intervention they designed to meet this need called the Relationship Support Program. This adaptation of cognitive behavioral marital therapy is designed to help couples cope with stress stemming from a chronic illness event. Finally, MacMahon and Lip (2002) suggested that routinely incorporating reliable psychosocial evaluations of patients with a chronic disease diagnosis could result in improved physical health and a reduced number of repeat admissions.

CHAPTER III

METHODOLOGY

Research Method/Theoretical Orientation

Creswell (1998) had suggested that qualitative research is an investigation process of understanding through qualitative inquiry method (interview) to explore human experience. The phenomenological research method was utilized in this study in order to collect data regarding the significance of spousal support and the correlation to health and healing in adult onset type II diabetes.

This chapter discusses (a) research design, (b) instrumentation, (c) participants, (d) procedure, (e) pilot study, and (f) protection of human participants. Purposive sampling was utilized in this research. Participant interviews were digitally audio recorded and transcribed for data analysis. Peer review in data analysis by two other experienced family therapists were utilized for triangulation in order to reach an agreeable level of validity.

Research Design

Qualitative research techniques were utilized in this study because such methodology explores people's experiences in depth (Patton, 1980) and the researcher desires to understand the experiences of those family members who must deal with a family member with adult onset diabetes II. Other reasons for choosing qualitative

research methods are the nature of the research questions, the need of exploring the topic, the researcher as an active learner and the researcher's engagement in the research (Creswell, 1998, page 17). A phenomenological study was used in this qualitative research because the researcher intended to understand the field of perception of participants, learning about their experiences and how they live (Creswell, 1998, page 31).

The purpose of this study was to identify interventions or themes that will be helpful for family therapists working with couples coping with self management of adult onset type II diabetes. This study explored the positive influence of spousal support on self management adult onset type II diabetes. Family resources and relationships were seen as crucial factors that may influence the way that couples cope with chronic illness.

Instrumentation

Interview questions and the researcher were the instruments. Five research questions were developed to explore what the researcher hypothesizes. For each research question, interview questions were created.

The Researcher as Person

Creswell (1998) suggested that the researcher was a device of data collection that analyzed data inductively and concretely identified the participants' meaning. Rubin and Rubin (2005) also indicated that the researcher's philosophies impact how she collects the data. This means that the researcher's value and background could influence the research results in a different form. Creswell (1998) suggested the best way to deal with this issue was to clarify it and store it aside.

The researcher is on the Board of Directors of Mosaic Family Services, a member of the Collin County Council on Family Violence, a past volunteer at Seay Behavioral Health Center, Galaxy Counseling Center, and the Because I Love You Parent Support Group.

The researcher has worked in settings that included an inpatient adolescent center, a not-for-profit agency as well as her private practice for the last nine years. As a licensed marriage and family therapist and registered nurse with over thirty years of experience in the hospital in-patient setting, an understanding of the power of relationships and their impact on health and healing has developed over time. The researcher has a passion to explore family relationships and their connection to mind, body, and spiritual health. The researcher has developed a personal mission "to promote and enhance mind, body and spirit health. " She accomplished this by applying her education, experience and humor.

Family systems and medical family therapy are also of great interest to the researcher. She presented topics at local and national conferences on the impact of family relationships on cardiovascular health and healing (AAMFT, October 2004), minimizing stress and managing life, raising responsible children in an affluent society (to the Mental Health Network, March 2007). She has also published articles in professional journals on topics such as nursing research dashboards: tool for managing nursing research programs, *Nurse Leader* (October 2006) and malnutrition and the critically ill elderly patient, *Critical Care Nursing Clinics of North America* (December 2004).

The researcher is also a wife, mother and grandmother raising two small grandchildren. She was raised in an Italian American home with great emphasis placed on

the importance of family. Her family background influenced interest in care giving as a nurse and family therapist. Healthcare has changed dramatically in the past thirty years. In the 1970's patients were nurtured physically, emotionally and spiritually with nightly conversations and backrubs. This promoted the human connection via relationship building and therapeutic touch. The intimacy of this process was important to the feeling of well being, trust building in care givers and the healing process. The researcher desired the human connect that changed in nursing and found that through becoming a family therapist. Pursuing the support and nurturing of the family in the healing process is the researcher's way of promoting some of the healing relationship for patients dealing with chronic illness and giving back to the nursing profession while promoting the concept of medical family therapy.

Participants

Ten participants were interviewed in this research. The researcher utilized available participants at Presbyterian Hospital of Plano Diabetes Wellness Program.

The participants lived in the Denton, Dallas, and Collin counties, Texas. The participants were qualified when they meet all the criteria as follows:

1. If the patient has been diagnosed with adult onset type II diabetes.
2. The participant is married.
3. The participant's age is 18 years or older.
4. The participant is a volunteer.
5. The sample population is located in the Denton, Dallas or Collin counties.

Procedures

Participants were offered an explanation of the study and the choice to participate. The interview questions were asked at the first session when the patient receives orientation to the program. Program required demographic and intake information was also completed at that time. A pilot study of the instrument was performed. Two masters prepared licensed marriage and family therapists and the researcher reviewed the interview questions responses. If these two therapists and the researcher agree that 95 percent of the instrument did not need to be changed, and the parts which needed to be changed were not be a major challenge to the research design, then the researcher kept the pilot study data.

Interview Protocol

"Thank you for your time and willingness to participate in this study. As we discussed, the purpose of this research was to explore the experiences you have in managing adult onset type II diabetes. Do you have any questions so far?"

"Let's go through the consent form and see if you have any question before we start the interview. "

"Do you have any questions about the consent form? After you sign the form, I will give you a copy for your files. "

"The questions I am going to ask you are relating to your experience in living or dealing with adult onset type II diabetes. The interview will be documented on paper and/or electronically entered into a data base. There is no need for you to use your name

during the interview. The name you mention will not be coded and transferred to the transcript or any other record. Do you have any questions before we begin?"

"Ok. Anytime during the interview, you can stop the interview or take a break when you feel you need it. "

Pilot Study

A pilot study described as a 'stretching exercise" according to Janesick (2003). Prospective qualitative researchers should practice their instrument for both the researcher and the interviewee. The researcher received feedback from their practice and the interviewee and then refines the instrument based on that feedback.

The researcher used the first two participants to process the pilot study. The researcher asked the first two participants about the interview questions, consent forms and anything he/she felt was hard to understand or ambiguous to them. Two masters prepared licensed marriage and family therapists and the researcher reviewed the pilot study individually. The two licensed marriage and family therapists and the researcher must agree that there was no major part of interview content that needed to be changed or modified. The first two participants' responses can be included if there is no major part of the interview that needed to be modified.

The data was collected and transcribed. According to Creswell (1998), the researcher extracted the significant statement from each description and formulated it into meanings. The computer software, NVivo, was used for extracting and clustering the meaning and the themes at TWU qualitative research lab.

Protection of Human Participants

The research was performed only after the approval of an expedited review by the Institutional Review Board (IRB) of Presbyterian Hospital of Dallas (the approval body for Presbyterian Hospital of Plano research) and an exempt review of the Presbyterian Hospital of Dallas approved research by Texas Woman's University Institutional Review Board.

Confidentiality was processed throughout the entire study. Participant's names were not present at any time in public. Names were replaced by participant codes at the beginning of the study. Only the researcher and the research advisor had access to the participant's contact information. The entire document was secured in a room and locked in a file cabinet. The informed consent (Appendix C) was given to the participant along with a referral list (Appendix D).

The participant was reminded that he/she had the right to withdraw from the research at any time without any penalty. The participant was informed that he/she could stop the interview or take a break any time they want or need.

Summary

This chapter discussed the qualitative research process in this study and the phenomenological approach that were employed. The research questions and interview questions were also addressed. The data collecting and analyzing process were explored. The recruitment of participant and human rights were highlighted. Moreover, the researcher's belief was clarified in this chapter.

CHAPTER IV

RESULTS

This study explored the influence of spousal support on self management of adult onset type II diabetes. Family resources and relationships are seen as crucial factors that may influence the way that couples cope with chronic illness. The very same support system is called to change with the patient. Identifying and providing family therapists with ideas and interventions for approaching families coping with adult onset type II diabetes will be a helpful contribution to the patients and therapists.

The purpose of this study was to identify interventions or themes that would be helpful to family therapists working with families managing life changes after the diagnosis of adult onset type II diabetes. In this study the researcher interviewed ten participants. All participants were diagnosed with adult onset type II diabetes. The researcher utilized interviews as a method of penetrating family systems beyond the apparent meanings. Abbott (1992) emphasized the significance of the therapeutic relationship when using case numbers less than 20. The researcher's therapeutic connection with the participants enhanced and validated the delicate and in-depth inquiry necessary in research settings. Theme identification and concept formation through the use of interviews and analysis clarified the nature of some specific relationship challenges and

strengths. The researcher scrutinized the dynamic qualities of the family system. Theme identification occurred clearly from each participant.

The themes were elicited from the participant's responses, impressions and experiences in self management of adult onset type II diabetes and marriage and family support. The interviews were audio taped, transcribed, and analyzed by the researcher and two additional graduate students. The computer software NVivo version 7.0 was used to validate the manual review of the data. After analyzing the transcription, the themes of the ten interviews emerged. The rationale of this chapter is to report the results of this study. This chapter comprises (a) data analysis, (b) themes, and (c) summary.

Data Analysis

The researcher listened to each audio taped interview and compared them with the transcriptions assuring they were accurate. The transcribed interviews were then read three times by the researcher and two graduate students for general content and theme identification. The computer software program, NVivo version 7.0, was utilized to store, code, retrieve and analyze the ten transcriptions. Each response was numbered for easy location and retrieval of the data. The original ten transcriptions were numbered. Every question of each transcription was also numbered. After being numbered, the original transcription data was loaded into the NVivo program. In the NVivo program, in each interview transcription, each question was marked by "headings" function for coding the responses' locations. By doing this, it made the tracking of data more accessible in the ten transcriptions.

The researcher utilized the function "node" in NVivo to group similar phrases together in order to form a theme. After the data was ready to upload into the NVivo program, the researcher read the transcription three times. Each time after reading it, the research used the "node" function to record each meaning, idea, thought and feeling. After extracting all of the transcriptions into nodes, the researcher organized the similar meanings, ideas, thoughts and feelings together, which emerged as themes. The themes were organized into (a) acceptance of the life changes, (b) family and spousal behaviors, (c) communications, (d) life style changes, (e) strengths impacting the relationship, (f) professional healthcare support and (g) professional mental healthcare support. These themes were further subdivided as supportive or challenging. Categorization into supportive and challenging subdivisions occurred as the responses from participants were clearly identified as helpful or supportive to managing type II diabetes or not helpful and challenging to the pursuit of living with type II diabetes.

Demographic Characteristics

The ten participants had an average age of 53.6 years. Ages ranged from 30 to 69 years old. As shown in Table 2, three of the participants were male and seven were female. Seven of the participants were Caucasian, two were Hispanic, and one was Asian. The ten participants included educational levels of two master's degrees, two bachelor's degrees, two associate's degrees, and three with a high school education. One participant listed an education level as "other". All ten of the participants were married.

Table 2

Demographic Characteristics of Interviewed Participants with Type II Diabetes (N = 10)

Variable	n
Age	
30-39	1
40-49	3
50-59	3
60-69	3
Gender	
Male	3
Female	7
Race	
Asian	1
African American	0
Caucasian	7
Hispanic	2
Education Level	
High School	3
Associates Degree	2
Bachelor Degree	2
Master's Degree	2
Other	1

Participants had been living with diabetes for an average of ten years (Mean = 9. 86), with a range of five months to 57 years. Similarly, participants had been managing their diabetes for an average of 10. 5 years (Mean = 10. 6), with a range of five months to 57 years. As shown in Table 3, eight of the individuals had been living with and managing their diabetes for less than 8 years, while two of the participants had been living with and managing Adult Onset Type II diabetes for more than 15 years. All ten participants reported that they did not see any type of mental health professional for their personal management of Adult Onset Type II Diabetes. The majority of participants reported that their husband (n = 5) and their family (n = 3) was their support system. One individual listed their physician as their support system and another listed their lifestyle as their support system. Most participants reported seeing their family practice physician (n = 7) for medical management of their Adult Onset Type II Diabetes. One individual reported seeing an internal medicine physician and another reported seeing an endocrinologist.

Themes

In this chapter, the researcher organized the identified themes into several categories. The themes were (a) acceptance of the life changes, (b) family and spousal behaviors, and (c) communications. These themes were further subdivided as helpful or challenging. Additional common themes specific to life style changes, conflicts and strengths impacting the relationship, professional healthcare support and professional mental healthcare support were identified.

Table 3

Diabetes Characteristics Related to Disease Management and Support Systems (N = 10)

Variable	n
How long have you been living with Adult Onset Type II Diabetes	
0-2 year	4
3-5 years	2
6-8 years	2
9-11 years	0
12-14 years	0
15 or more years	2
How long have you been managing Adult Onset Type II Diabetes	
0-2 year	4
3-5 years	2
6-8 years	2
9-11 years	0
12-14 years	0
15 or more years	2
What is your support System?	
Physician	1
Husband	5
Wife	0
Family	3
Friends	0
Medication	0
Life style	1
What kind of physician do you see for medical management of Adult Onset Type II Diabetes?	
Family Practice	7
Internal Medicine	2
Endocrinologist	1

Acceptance

The diagnosis of diabetes is a serious and overwhelming reality. According to the interviews, a gradual acceptance of the permanence of the disease occurs over time. A struggle between the past freedom of life style and the new found restrictions of a diabetes food plan were reported by all participants. This dramatic life style change was reported to have the most overwhelming influence on the person, spouse and family. Adult onset type II diabetes is described as 'evil' and 'nebulous' by some of those interviewed. Many participants reported a cyclical process of compliance and rebellious non compliance.

". . . acceptance of the lifelong nature of this disease. That was depressing at first and isolating because I was changing my eating habits and the rest of the world around me was not" (9 – 77. 1).

"I guess the hardest thing is realizing that this is something that goes on forever and ever" (7 – 80. 1).

"I mean it's changing your lifestyle and you do just have to think about it three or four times a day, for every meal" (5 - 31. 1).

"I still haven't reached a point where I've fully accepted that I have diabetes" (4 - 42. 1).

"I think you go through those stages, kind of like grief. First, you're doing this and then you don't care. . . " (7 – 48. 1).

"I will do whatever it takes to make it better" (5 – 43. 1).

"It's constant and it's always there, and I've noticed that it's a little bit cyclical for me (5 – 31. 1).

". . . just treat it like you would treat having a cold. It's just "I have a cold" and I'm not going to try to spread it around, and I'm just going to try to do things to make my "cold" better, or in this case, my diabetes" (4 – 30. 1).

". . . know some people think it's a death sentence, and it's not. You follow the rules; you'll live well with your diabetes, contrary to some diseases" (10 – 77. 1).

"What I accept is that my pancreas doesn't produce enough insulin to reduce my sugar levels in a fast way and so I don't look at that as diabetes. I look at that as my pancreas isn't working right, so I've got to do things to help it" (4 – 42. 1).

"Yes, it can be frustrating, but I guess I do understand it from my nursing education and it's a lot different, and I've been around lots of people with diabetes. . . " (10 – 109. 1).

". . . diabetes is a nebulous thing" (4 - 46. 1).

"Once you have it, you have it. It never goes away" (7 – 48. 1).

". . . the ongoing nature of managing it. It's relentless" (9 – 101. 1).
". . . very comprehensive disease, an evil disease I think. . . . " (9 – 101. 1).

The acceptance process is a unique journey for each person. The diagnosis of Adult Onset Type II Diabetes is a death of the life style and choices participants once knew. This leads to a personal grieving process. Acceptance and good health is the ultimate goal. Many participants struggled with this change for several years. Some have not accepted the permanence of the diagnosis and continue to avoid basic health choices such as eating or regular blood glucose monitoring. One participant had an interesting perception on the disease process. He treated diabetes as a cold or a malfunctioning pancreas which diminished the fear and overwhelming nature of the life style changes for him and his family.

Supportive Family and Spousal Behaviors

According to the interviews, attentive and participative spouses and family behaviors are the most helpful. Sharing in meals, exercise and medication routines are perceived as helpful behaviors. Encouragement and positive reinforcement is described as the most motivating in the self management of adult onset type II diabetes.

The partnership of family members was identified as supportive and beneficial by most participants. One spouse was delighted to have his wife diagnosed with diabetes. Not because he wanted her to be ill but because he was no longer alone in his health and life style changes. This particular couple increased walks and communication time by coordinating a health plan that they share. The participant reported a noted increase in relationship satisfaction even though she had not completely accepted her new diagnosis of adult onset type II diabetes.

"Actually, probably that he participates more. . . "(9 - 25. 2).

"Generally, supporting my exercise program and participating in it. A lot of times, he exercises with me" (9 - 25. 2).

". . . he generally will exercise with me" (9 – 33. 2).

"He is more alert and more supportive" (6 - 23. 2).

"He is the cook in the family, so he encourages me to eat vegetables" (6 - 13. 2).

"He is very willing to eat well if I produce the food, and make it easy for him. . . " (9 - 29. 2).

"He probably keeps me honest. . . " (7 - 21. 2).

"His attitude is if it's good for me, it's good for him. . . "(5 - 11. 2).

Individual participant perceptions influenced if family support was seen as positive or negative. The participants who reported appreciating family members watching and reminding them of medications or food saw those actions as loving. Other participants saw similar actions by family members as interference or nagging. Exploring how the messages were delivered revealed differences in the way questions were asked by family members.

"I guess watching me and keeping an eye on me. Making sure that I'm doing what I'm supposed to do, and they are really good at that! They are good" (10 - 85. 2).

"I think because we've started walking, we spend more time talking. It takes a good 30-40 minutes to walk 2 miles and we talk about our day the whole time we're on our walk. So, that's been really good" (7 - 40. 2).

"I've got a lot of support. It's been in my family" (7 - 86. 2).

"I've got all the help I need right now" (2 - 86. 2).

"It gives you a good time to talk when we walk. His role has been to participate in that piece of it" (7 - 25. 2).

"It was also sort of a neutral zone, where you knew you had time set aside to talk about things that were difficult to talk about" (7 - 69. 2).

". . . my daughter and son-in-law, if I say I'm coming over, they try to make an effort to have things that they know I can eat" (5 – 71. 2).

"My entire family has it, so it's something where we can talk about medications. . . " (7 - 56. 2).

". . . my friend. When I was diagnosed with this, I talked to her about it" (4 - 82. 2).

". . . my wife helps with portion control. She cooks in a very healthy way" (4 - 58. 2).

"Our relationship has always been a strong relationship and we are very close for many years, 15 years" (4 - 37. 2).
". . . reminds me all the time to take my pills. . . " (4 - 13. 2).

"She does everything she can to help me be healthy" (8 - 21. 2).

". . . the real willingness to eat what is right and to exercise with me" (9 - 93. 2).

"Very good, very open relationship. We get along well and really I don't think its changed much since, other than being more aware of what I'm doing as far as day-to-day care of myself" (9 - 17. 2).

Another important factor to the participants was having someone they could talk to about their disease. Family and friends who listened and understood were described as supportive. If the support person had an interest or knowledge in the diagnosis it was deemed helpful but not essential. The primary need was collaboration and respectful inquiry.

Challenging Family and Spousal Behaviors

According to the interviews, a lack of understanding or participation in daily activities leads to frustration or discouragement. Constant reminders and questioning compliance of the family member is perceived as nagging or negative. When the spouse chooses to digress from the necessary life style changes it tends to undermine progress.

" . . . checking the blood sugar, and it's been hard getting into a routine with that, but now I'm in a routine with it. I usually check it in the morning before I take my pills. It's just a five-second thing and it's easy to check. My family is always checking on that and sometimes it is frustrating" (10 - 45. 3).

". . . do not have family nearby. My husband tries to understand what I am going through. He needs to learn more. He did not attend diabetes class with me" (6 - 77. 3).

"He didn't go to classes with me and he never understood the whole meal planning thing. . . " (7 - 21. 3).

"He eats everything and I think he's so lucky. Maybe I'll eat just a little piece, but I'm always afraid of my blood sugar, so I watch it really closely" (3 - 21. 3).

"I just need to exercise more. That would be my challenge" (3 – 37. 3).

"My husband is the world's best cookie maker, and it's hard when he makes a big batch of cookies for me not to get into one or two, but I have to try and limit myself. Like last week, he made two pies and a batch of cookies and I can't have all that" (3 - 70. 3).

". . . nagging me to go to the doctor" (1 - 31. 3).

". . . nagging me to take the medicine. . . " (1 - 31. 3).

"Right now he doesn't really know about the foods and stuff because he is overwhelmed" (6 - 19. 3).

"Sometimes it's hard because he eats what he wants to eat and I look at him, wanting what he is eating, but I know I can't eat it" (6 - 41. 3).

As mentioned earlier, perceptions of negative or challenging support is very individual. It appeared the occurrences seen as challenging were generally when a participant's competence and autonomy were in question. A lack of perceived interest in the life style changes was very discouraging to participants. Spouses who chose to eat sweets or foods that are not allowed by the diabetic participant were seen as extremely undermining and insensitive.

Supportive Communications

According to the interviews, supportive communications consist of positive reinforcement and partnership. Spouses who express insight and appreciation for the

disease process are perceived as loving and supportive. The communication of concern and reminders with respect and trust elicit a response of appreciation and hope.

"Completely supportive. . . " (5 - 7. 4).

". . . concerned" (1 - 31. 4).

"For him, it was an awakening that I can get sick, too. What would he do if something happened to me?" (7 - 36. 4).

"He is concerned for my health, but it's also good for him to see that he's not the only one who has age-related issues that start to happen" (7 - 36. 4).

". . . he is thrilled because he wants me to be healthier" (2 - 45. 4).

"I don't think we've had any conflicts. . . " (7 - 56. 4).

". . . my husband is very supportive. He always asks me if I need to take some food because he sees I just took my medication" (3 - 17. 4).

". . . my husband looking out for what I eat and checking on if I'm taking my medications. I like it" (3 - 69. 4).

"No conflicts before and pretty much the same now. Simple people" (3 - 41. 4).

". . . positive reinforcement, so that helps. . . " (4 - 82. 4).

". . . share recipes, and other things you can exchange ideas. . . " (5 - 68. 4).

"My sister is an inspiration for me, kind of a negative inspiration! I don't want to have that happen to me, so I'm going to be good because I know I don't want to get to that point. She is also a good resource" (7 - 86. 4).

"She just makes sure that I get to my doctor appointments on time and everything is scheduled and I keep on my diet when she is around me and that I take my medications"(8 - 9. 4).

Family members willing to share ideas and healthy choices are perceived as positive. Sharing resources and classes or food ideas is a comforting communication.

When the connection and conflict is at a minimal respectful inquiry is accepted and appreciated.

Challenging Communications

According to the interviews, challenging communications include family members who nag, deny the special life style needs or treat the diabetic as incompetent. Constant questioning and eating carbohydrates or sweets in front of the diabetic spouse was described as unhelpful. Calling attention to the life style restrictions around food were reported as a challenging communication.

"And, now my kids will give me a small piece of birthday cake or candy. But, when they are passing it out, like at my grandson's birthday party, and they says "oops, that's not yours," it really bothers me" (10 - 105. 5).

". . . checking the blood sugar, and it's been hard getting into a routine with that, but now I'm in a routine with it. I usually check it in the morning before I take my pills. It's just a five-second thing and it's easy to check. My family is always checking on that and sometimes it is frustrating" (10 - 45. 5).

". . . he doesn't understand. . . " (7 - 21. 5).

"He's always nagging me to eat vegetables" (2 - 37. 5).

"My husband sometimes would say "oh, don't you eat that" while he is eating cake and whatever. I'm the one who can't eat anything. Maybe I'll have a little sliver and he will say "oh my gosh, you're eating that with your blood sugar" (3 - 45. 5).

". . . no conflicts. Just a big difference in the rituals of eating" (6 - 37. 5).

"The rest of my family kind of denies that I have it" (9- 93. 5).
"They say "Mom" and they watch what I am eating when we go out to eat or if I'm eating around them. They say "Are you supposed to be eating that?" (10- 9. 5).

Challenging communications gleaned feedback related to questioned competence, diminished autonomy and reverse in the parent child role. These perceptions were experienced by participants and negative and defeating. Compliance was impacted and open communication shut down. One participant felt like she needed to hide her sweet intake from her children because she would be criticized. Respecting the ability of the participant to make healthy choices even if they falter was a recommended solution.

Life Style Changes Leading to Potential Challenges

According to the interviews, the primary life style change that led to conflict was diet. Carbohydrate counting restricts many foods that are involved in family rituals. Some families choose to support the diabetic with specially prepared foods and healthy choices. Weight management and exercise also alter family routines. Monitoring and managing healthy blood pressure, blood sugar and hemoglobin A1C are additional responsibilities that can reduce the complications.

". . . controlling my blood pressure" (1 - 64. 6).

". . . don't eat fatty foods" (1 - 39. 6).

". . . keep away from desserts" (1 - 39. 6).

". . . eat salads, keep away from desserts, and so on" (1 - 39. 6).

". . . exercise" (1 - 39. 6).

". . . exercised last night, when I checked my blood sugar this morning, it was 165" (4 - 62. 6).

"He'll have to participate and see what I eat" (6 - 7. 6).

"I don't think I have any problem, except maybe being compliant with the glucose monitoring" (3 - 61. 6).

"I get my hemoglobin A1C done every three months" (2 - 65. 6).

"I have my little cheats now and then, but not too many of them" (2 - 49. 6).
"I lost about 30 something pounds, stayed off carbs, and exercised" (4 - 46. 6).

"I miss the pancakes" (10 - 101. 6).

"I remind myself not to eat" (10 - 49. 6).

"I've learned to just eat in small amounts and in moderation" (3 - 25. 6).

"Just trying to get into a routine of taking my medications, which dictates when you can and can't eat, and just getting me on a schedule" (8 - 33. 6).

". . . my lifestyle changes that happened didn't directly affect my spouse" (4 - 14. 6).

"Oh, the diet. It's a challenge because you're always hungry" (2 - 49. 6).

"She makes sure we have good food in the house" (8 - 21. 6).

". . . teamwork right there about what I eat" (6 - 7. 6).

"Trying to maintain a pretty consistent weight and regimen" (8 - 33. 6).

Balancing healthy life style choices with acceptance issues related to the diagnosis of adult onset type II diabetes is a challenge. Focusing on food on a constant basis was described as depressing for some participants. A need for established routines which then become habits was mentioned as a positive. The most successful and satisfied participants expressed support and team work by family members in their life style changes to include food, exercise, medication and blood glucose regulation.

Implied Conflicts Impacting the Relationship

According to the interviews, struggling with drastic changes in eating and understanding the time sensitivity of meals is an implied source of relationship conflict. Another potential source of challenge is the lack of sharing an interest or understanding of adult onset type II diabetes. The lack of support and implied conflicts delay the acceptance process. Fears are accentuated by the existence of conflict in the relationship.

". . . Then you get into feeling that you can't do this the rest of your life" (1 - 43. 7).

". . . biggest problems, trying to lose weight. . . "(1 - 43. 7).

" . . . checking the blood sugar, and it's been hard getting into a routine with that, but now I'm in a routine with it. I usually check it in the morning before I take my pills. It's just a five-second thing and it's easy to check. My family is always checking on that and sometimes it is frustrating"(10 - 45. 7).

"Conflicts only initially when I would get low blood sugar and I would get very bitchy, and he didn't understand it at that point"(9 - 49. 7).

". . . conflict. To keep blood sugar as it should be" (2 - 65. 7).

"Eating of food" (10 - 37. 7).

". . . he never understood things like what is a starch. . . " (7 - 21. 7).

"I don't know so much that there is conflict other than struggling a little bit with wanting to have certain things that I can't have now, and having to use controlled portions. For me, it was a pretty drastic change in the way that I eat" (8 - 29. 7).

"In the beginning, he was scared and wondered what was going on when the blood sugar would go down, so it was scary to him" (6 - 11. 7).

"It's hard living with diabetes because you always want that cookie. . . " (2 - 70. 7).

". . . lot at one time and he was scared. . . " (6 - 19. 7).

"My pet peeve is checking my blood sugar, so that's why I'm afraid to eat" (3 - 45. 7).
"Sometimes I feel like I won't even try if my husband doesn't care" (6 - 73. 7).

". . . then you get into feeling that you can't do this the rest of your life" (7 - 48. 7).

". . . then you just be bad and eat anything you want for a while" (7 - 48. 7).
"There is a big change in our day to day life" (6 - 53. 7).

" . . . they are quite focused on what I eat when they are with me"(10 - 33. 7).

The fear of not being able to maintain life style changes for the rest of ones life is common among participants without strong support. There is a cycle of compliance and noncompliance which occurs naturally until acceptance of the disease process is accomplished. Conflict in the marital relationship or family system can lead to a delay in disease acceptance and healthy life style compliance. Support from groups outside the family can in some cases supplement the reassurance and resource support necessary for success.

Implied Strengths Impacting the Relationship

According to the interviews, strengths such as consistency and routine were helpful. Families, who eat, exercise and work on weight loss together report positive experiences in disease management and relationship satisfaction. Positive outcomes were reported by spouses who increased shared activities and respectful communications. Improvements in health outcomes for both spouses were benefits of collaborating for health.

"Beginning an exercise program really has been one of the big pluses that has been good for him and for me..." (7 - 68. 8).

"Eating the same foods I eat" (5 - 11. 8).

"Family watch over me. . . " (1 - 93. 8).

"From my husband, learning about the disease with me, so that it's not something that I'm trying to figure out. This been the most helpful" (9 - 93. 8).
"He eats whatever I put on his plate. He's lost 15 lbs. along with me" (7 - 28. 8).

"He has always been the one who has had things like high cholesterol, high blood pressure. I've always been healthy and never had any health issues. I had a little high blood pressure, but it was never like his where it could not be controlled" (7 - 32. 8).

"He just makes sure I'm doing what I'm supposed to be doing" (7 - 17. 8).

". . . he just wants to make sure that I take my medications" (3 - 13. 8).

"I get up in the morning, do my blood sugar, take a shower, etc. I'm very regimented, so that's been easy to fit into that kind of lifestyle" (7 - 64. 8).

"I talk to family" (1 - 85. 8).

". . . if family and close friends are supportive, it's really nice" (5 - 79. 8).

"Just having self-control" (3 - 45. 8).

". . . just keeping within the constraints of the diet. It's a pretty dramatic change in what you can and can't have" (8 - 25. 8).

"Learning about new ways to eat, about carbohydrates, about what I need to eat, learning that when I say I need to eat, it means now, not in an hour" (9 - 25. 8).

"Managing holidays and still staying healthy. There are the ups and downs of diabetes. Sometimes I'm in better control than at other times" (9 - 45. 8).

"Now we come home and we walk and then come home and eat dinner. It takes up a lot of time and the night goes by really quick, but it's been good" (7 - 68. 8).

"Personal strengths are a goal to be healthy and live long, with both my legs, and able to see, and not on dialysis, without a heart attack. So, I think that has been a motivating thing for me. I use the medical knowledge that I have to apply it to myself, which is a little

different than telling other people to do it. I'm not sure what else. My faith, may be an example" (9 - 57. 8).

"Really just planning meals and making meals that my wife knows I enjoy but the way I can still have them. She kind of keeps me so I'm not craving things, and really just following what I'm doing and having good ideas about what we can do and still have a good meal here and there, and not really missing it, for lack of a better word" (8- 49. 8). "She takes care of me. . . " (1 - 48. 8).

"So, in some ways I think he's been more concerned about my health instead of always focusing on why he is always the one who has something" (7 - 36. 8).

"Then you know where you started. . . " (4 - 94. 8).

"There are not really any conflicts because he is so supportive and he eats the same food I do. . . "(4 - 35. 8).

Dividing responsibilities for healthy life style for the whole family was described as very helpful. For example, one spouse made sure she stocked the refrigerator with healthy foods and modified receipts to assure tasty pleasing meals were provided for the whole family. This allowed the participant to develop habits that helped him stay healthy without feeling deprived. To him this support was significant and instrumental in his ability to stay healthy. To him, his wife's support was an implied gesture of love.

Professional Healthcare Support

According to the interviews, trust in a physician was described as a source of support. Responses and feedback from physicians was seen as more helpful than similar feedback from a spouse. A sense of accountability motivated healthy choices and behaviors.

"Dr. R is very strict. . . " (2- 65. 9).
"I can talk to her and she is strict, she handles me pretty well" (2- 82. 9).

"I just had to tell him that I don't check my blood sugar often so I don't know, but I will make a point of it now and that is my goal. I'll just be strong" (3- 75. 9).

"I just have Dr. R" (2- 78. 9).

"I just went to the doctor and my hemoglobin A1C was 6. 9, and he was unhappy about that" (3 - 75. 9).

"I've had to make sure I'm disciplined and go to an eye doctor once a year and have my eyes checked, and I go to a podiatrist to have him check my feet once a year" (10 - 49. 9).

One participant felt her physician was the main support in her health. She liked the firm yet kind approach and acknowledged her husband or children could not impact her in the same way. Other participants wanted to lose weight or get the hemoglobin A1C levels more appropriate before they saw the physician fearing negative feedback. Interestingly, the nurse participants did not want to disappoint their physician and were motivated to make better life style choices as a result.

Professional Mental Health Care Support

According to the interviews, being able to talk to an expert was seen as beneficial. Therapeutic assistance in moving toward acceptance of the life long impact of adult onset type II diabetes was described as a reason to see a family therapist. Family therapy could promote relationship strengthening and guidance in supportive communications and behaviors. None of the participants had seen a family therapist for the diagnosis of adult onset type II diabetes. Many participants had seen family therapists for other issues in their life. Those who had seen a therapist would be willing to see one again if issues arose.

"Being able to talk about all your problems and everything, and get it out on the table and have somebody say well, this and this, and then you look at it differently"(10 - 69. 10).

". . . get help because of things they encounter in their lives" (4 - 74. 10).

"I do suffer from some depression and so I find that when I exercise, it helps that, too" (5 - 47. 10).

"I guess if I were depressed about having diabetes, I would hope to get help" (10 - 73. 10).

"I think to understand what I am going through and they try to help me and deal with me" (6 - 69. 10).

". . . if someone were struggling in a similar way with diabetes to how I struggled with the diagnosis of cancer, it impacts people significantly. Being outside themselves and looking for that positive focus may be a very good" (5 - 66. 10).

". . . it becomes discouraging to think about the rest of your life watching everything you eat" (7 - 48. 10).

"Maybe understanding how to deal with the scope of it. Really, the people I've talked to are my regular family doctor and I went to some classes for diabetics, which pretty much answered some questions that I had" (8 - 45. 10).

". . . talking and support" (6 - 61. 10).

"The ability to talk through issues with an objective listener, who can ask questions and give us feedback that we would never have thought of" (9 - 65. 10).

". . . the biggest problem for me and if I have any issues with it, it's why can't I fix it myself? If I'm losing weight and watching my diet, why can't I fix it? Why can't it go away and I'd be fine again" (7 - 80. 10).

". . . therapist, I told her I would do anything she asked because I was really desperate at that point. I was really falling apart, and so I said I would do anything she asked me, except write in a journal. And so, every time I left there, I had homework. She taught me deep breathing exercises and relaxation exercises, which I still use a lot when I go to bed at night. I have found that extremely helpful because anxiety and depression are so closely related and mine was a lot of anxiety probably even more so than depression. So, that was really helpful and then having this little homework was good. I was going to her once a week and she would give me these little homework things to do"(7- 62. 10).

Family therapists have an important role to play in medical family therapy. One participant had extensive therapy during a diagnosis of cancer and her recovery period. She was very positive about the results and tools she learned which helped her then deal with the diagnosis of diabetes. She was insightful and positive. She attributes her present ability to cope to the family therapy she received in the past.

The collaboration between healthcare and family therapy research contributes to the holistic approach of mind and body health. The family therapist's role is evident in the interview responses from the participants. The systems approach and training of family therapists allow couples struggling with relationship conflicts related to type II diabetes to obtain support and growth which impact a shift to healthier relationships and bodies.

A family is connected by the impact of life style illnesses such as type II diabetes. Family therapy in most cases will be a significant part of any treatment approach to this diagnosis. Type II diabetes magnifies the existing strengths and challenges in the family system. Issues that families may deal with in a normal developmental process can be convoluted and exaggerated into severe problem focuses. The illness and its treatment affect families in ways that are not immediately recognized. Changes may involve different roles and patterns in communication. Acceptance, grief and losses are key areas of concern.

Identification of themes and proposed interventions for family therapists working with couples managing type II diabetes will prove helpful in this work. The participants were gracious and honest related to supportive and challenging responses and behaviors. This knowledge can be woven into the family therapy session to highlight areas of strength and weaknesses leading to improved relationships and physical health.

Summary

In this chapter, the researcher discussed the data analyzing process such as the coding system and the process of emerging themes. Additionally, the themes were placed into seven primary categories including: a) acceptance, b) family and spousal behaviors, c) communications, d) life style changes, e) strengths impacting the relationship, f) professional healthcare support and g) professional mental healthcare support. The research findings are listed below and further discussed in Chapter V.

Identified Theme of Acceptance of Life Changes

1. Adult onset type II diabetes is a chronic disease.
2. Realizing that life will always be different is sometimes overwhelming.
3. Choosing to live a healthy life with diabetes is a process which occurs overtime.

Identified Theme of Supportive Family and Spousal Behaviors

4. Collaboration and partnership are crucial.
5. Shared activities such as healthy cooking and exercise are perceived as very helpful.

6. Respect the spouse's autonomy and willingness to be compliant with life changes.

Identified Theme of Supportive Family Communications

7. Positive reinforcement is motivating.
8. Being present to talk or listen is supportive.
9. Respectful inquiry is appreciated.

Identified Theme of Adjustment to Life Style Changes

10. Shared habits increase compliance.
11. Including healthy eating choices for all family members reduces isolation and increases support.
12. Willingness to adjust or expand family rituals and behaviors surrounding food and drink is beneficial.

Identified Theme of Implied Strengths Impacting the Relationship

13. Interested spouses and families lead to a stronger commitment to life style changes.
14. Encouragement and acceptance of changes in family routines promotes health and healing.
15. Insight and participation by spouses impacts relationship satisfaction.

Identified Theme of Professional Health Care Support

16. Physician's opinions are respected above family.

17. Active involvement by physicians in support of life styles changes supplements family support.

Identified Theme of Professional Mental Health Care Support

18. Speaking with a therapist is seen as helpful.

19. A support system such as colleagues, spouse, family members or personal belief is important.

20. The therapist influence positive family communications.

21. Adult onset type II diabetes is a staggering disease. Having support to guide growth towards acceptance is crucial.

These identified themes and assumptions make it possible to create helpful interventions and approaches for family therapy. Type II diabetes was described by participants as a life change or nodal point which must result in acceptance for consistent improvement and health. The important of family support was clear.

CHAPTER V

INTERVENTIONS IDENTIFIED AS USEFUL FOR THERAPISTS WORKING WITH FAMILIES MANAGING ADULT ONSET TYPE II DIABETES

The purpose of this study was to identify interventions or themes helpful for family therapists working with couples coping with self management of adult onset type II diabetes. This study explored the positive and challenging influence of spousal and family support on self management of adult onset type II diabetes. Family resources and relationships were seen as crucial factors that influenced the way families coped. The support system was called to change with the patient. Identifying and providing family therapists with ideas and interventions for approaching families coping with adult onset type II diabetes was the ultimate goal of this research.

Qualitative research techniques were used in this study and the interview inquiry method was used. The phenomenological research method was utilized in order to collect the rich meanings of their experiences from married participants diagnosed with adult onset type II diabetes. Convenience sampling was utilized and ten participants were interviewed in this research. The pilot study was processed and all the data were transcribed. The computer software, NVivo 7.0, was employed for extracting and clustering meanings and themes. All participants were enrolled in an outpatient diabetes management program. All interviews were performed at a hospital in North Texas. A peer

review in data analysis by two other graduate students was utilized for triangulation in order to reach an agreeable level of authenticity.

Findings

Several themes crucial to family therapy interventions were elicited. A clear concept of helpful and supportive behaviors, communications and strengths were identified. Although positive spousal and family support does not erase the impact of challenging or detrimental behaviors and communications it is a start for family therapeutic interventions. A family in conflict may grow and heal significantly when practicing resilient and supportive life styles. Interventions identified as useful for family therapists working with families managing adult onset type II diabetes are shown in Table 4.

Table 4

Family Therapy Interventions, Themes, and Assumptions Identified from Interviewed Participants with Type II Diabetes

Family Therapy Interventions	Therapeutic Theme	Assumptions
1. What has been your spouse's role in regard to the way that you deal with Adult Onset Type II Diabetes?	Supportive Family and Spousal Behaviors	Collaboration and partnership are crucial Shared activities such as healthy cooking and exercise are perceived as very significant. Respect the spouse's autonomy and willingness to be compliant with life changes
2. What has been your spouse's role in the way that you deal with life style changes you have had to make?	Acceptance of the Life Changes	Adult onset type II diabetes is a chronic disease. Realizing that life will always be different is sometimes overwhelming. Choosing to live a healthy life with diabetes is a process which occurs overtime.
3. Describe your relationship prior to the diagnosis of Adult Onset Type II Diabetes.	Professional Mental Healthcare Support	A support system such as colleagues, spouse, family members or personal belief is important. Speaking with a therapist is seen as helpful.
4. Describe how your relationship has changed, if any, after the diagnosis of Adult Onset Type II Diabetes?		The therapist influence positive family communications.
5. What challenges have you experienced personally and as a family since the diagnosis of Adult Onset Type II Diabetes? What Conflicts?	Professional Healthcare Support	Adult onset type II diabetes is a staggering disease. Having support to guide growth towards acceptance is crucial Physicians opinions are respected above family Active involvement by physicians in support of life styles changes supplements family support.
6. What personal strengths and actions have you found to be helpful to both you and your spouse since the diagnosis of Adult Onset Type II Diabetes?	Supportive Family Communications	Positive reinforcement is motivating. Being present to talk or listen is supportive. Respectful inquiry is appreciated.
	Strengths Impacting the Relationship	Interested spouses and families lead to a stronger commitment to life style changes. Encouragement and acceptance of changes in family routines promotes health and healing. Insight and participation by spouses impacts relationship satisfaction
10. What have been the most helpful actions and support that your family has given you in dealing with adult onset type II diabetes?	Adjustment to Life Style Changes	Shared habits increase compliance. Including healthy eating choices for all family members reduces isolation and increases support. Willingness to adjust or expand family rituals surrounding food and drink is beneficial.

Discussion

Identified Theme of Acceptance of the Life Changes

Adult onset type II diabetes is a chronic disease. For the vast majority of these individuals, their family members are the primary support. Whether the member is an adult with a chronic disease or a mother, father or grand parent with diabetes, it is the family, is involved in the wellbeing of family.

A spouse's chronic illness influences the lives of everyone in the family. Roles and routines change. Sometimes it seems as if the medical professionals that care for the chronically ill family member become part of the family. The life style changes must be negotiated. Family members' relationships may be challenged or grow closer. Their lives may take on new meaning. They may find rewards they had not expected on their journey from diagnosis to acceptance. Adult onset type II diabetes is a family experience, one that is shared by all. Moving toward acceptance is a great accomplishment for the patient and the family.

Acceptance occurred over time for all of the participants. Many had waves of success and struggles. Some had family members who mentored or inspired management of life changes. The family members also showed a broad range of acceptance and support.

Supportive Family and Spousal Behaviors and Strengths

Supportive relationship behaviors were identified as participative and collaborative. Exercise, food and healthy routines were shared. Communication related to the diabetic's

health regime was verbalized in a positive and respectful manner. Attentive, insightful and interested behaviors were described by participants as comforting and nurturing.

In the literature on diabetes in couples, research has focused predominantly on relationship status, relationship quality, and specific relationship behaviors. Relationship status refers to marital status. Relationship quality addresses the extent to which spouses are satisfied with their relationship. Specific relationship behaviors such as critical remarks, hostile interactions, and attachment responses were addressed. (Kiecolt-Glaser & Newton, 2001; Schmaling & Sher, 2000).

Participant interviews revealed an emphasis on positive behaviors and continued healthy choices and life style commitment. Research data describing negative behaviors from spouses identified a struggle with meals, exercise and blood glucose monitoring.

The Impact of Supportive Relationships on Adult Onset Type II Diabetes

Research has demonstrated that being married is protective against chronic health conditions such as diabetes and heart disease. Married couples tend to have lower mortality rates than unmarried couples, (Berkman & Syme, 1976) and higher survival rates once a disease such as diabetes is diagnosed (Goodwill, Hunt, Key, & Samet, 1987; Gordon & Rosenthal, 1995). Married people in general tend to show greater compliance to medical treatment plans (Goodwin et al, 1987), and separated or divorced participants experience lower immune function than their married counterparts (Kiecolt-Glaser et al., 1988). The question is whether having a spouse is protective in all situations. Couples in

conflict may adversely influence health by restricting the spouse's ability to seek support outside the relationship (Coyne & DeLongis, 1986).

The Impact of Challenging Relationships on Adult Onset Type II Diabetes

Relationship satisfaction and chronic illness were noted as important. Marital satisfaction has been shown to predict survival following congestive heart failure (Coyne et al., 2001). Low levels of marital satisfaction have also been linked with an increase in disease symptoms and negative health outcomes such as poor lab values (Greene & Griffin, 1998; Marcenes & Sheiham, 1996). Kiecolt-Glaser et al. (1987, 1988, 1993, 1997) found marital dissatisfaction was associated with reduced immune system function, leading to physical illness, disease, and decreased health.

Coyne and Bolger (1990) suggested the negative effects of distressed relationships outweigh the positive effects of supportive relationships. The occurrence of major depression was found to be about three times higher in unmarried individuals than in happily married individuals. Marital dissatisfaction increased the depressions levels about 25 percent more frequently in individuals experiencing marital dissatisfaction. Although this study examined depression, it may indeed have relevance for physical illness.

The manner in which spouses interact has also been linked to chronic illness and disease. Hostile interactions and contemptuous facial expressions, for example, have been associated with a number of health problems (Ewart, Burnett, & Taylor, 1983; Gottman, 1994; Levenson & Gottman, 1985). Critical remarks by spouses or family are known to adversely affect disease activity and the ability to cope with chronic illness (Manne, 1999;

Zautra et al., 1998), and have been linked to declines in the endocrine and immune systems function (Kiecolt-Glaser et al., 1993, 1997; Malarkey, Kiecolt-Glaser, Pearl, & Glaser, 1994). A recent review of health in families indicated that conflict and criticism are among the highest risk factors for a variety of health outcomes (Weihs, Fisher, & Baird, 2002).

Identified Theme of Supportive Family Communications and Strengths

Wysocki, T., Harris, M., Buckloh, L., Mertlich, D., Lochrie, A., Mauras, N., et al. (2006), found family communication and conflict resolution were critical to effective management of diabetes. Previous research has shown that Behavioral Family Systems Therapy (BFST) improved parent-adolescent relationships but not treatment adherence or glycemic control.

American Diabetes Association interventions that improve outcomes of adult onset type II diabetes have been developed based on social learning and self-regulation theories. Diabetes management skills are learned and behaviors of the patient and family need to become self-directed. Positive communication promotes motivation and self-efficacy of diabetes management. The communication environment in the family, workplace, and health care system can support or impede autonomy and successful life style change compliance. Attentive and respectful concern by family members in the monitoring of changes in disease state, symptoms, emotions, and functioning improves adaptation to adult onset type II diabetes. Interventions developed on the basis of these concepts have been shown to improve medical, emotional, and functional outcomes, particularly when

families and patients work together toward shared goals (Greene & Griffin, 1998; Marcenes & Sheiham, 1996).

Professional Health Care Support

There is an evolving collaborative relationship between family therapy and healthcare providers such as physicians. Many of the participants considered their physician a strong support and partner in their health. Family systemic theory and practice as well as a circular model of mind and body interaction have proven successful for many individuals with adult onset type II diabetes. Often the physician's opinions are respected above family. Active involvement by physicians in support of life styles changes supplements family support (Cooper, Brown, Vu, Palenchar, Gonzales, Ford, & Powe 2000).

Professional Mental Health Care Support

There are several ways that chronic illness can influence family life. Daily routines may change because the limitations of adult onset type II diabetes and the demands of treatment may require that family members are more available and flexible. Family members may experience strong emotions, such as guilt, anger, sadness, fear, anxiety and depression. These are normal reactions to stress. It is useful to talk about these emotions with other family members or friends (Kiecolt-Glaser et al. (1987, 1988, 1993, 1997).

It appears that Family therapy could be valuable for the whole family when diabetes occurs (Burman, et. al 1992). During sessions, the therapist can help the family discuss how they are dealing with the illness, make decisions together, and learn how to utilize their own internal strengths and resources to address problems.

Resilience, a positive attitude, commitment to health and compliance to life style changes were seen as the primary strengths in this research. Some family members may be experiencing symptoms of depression or anxiety that need to be addressed through individual assessment, appropriate medication, and individual therapy in conjunction with family therapy. Building upon family and individual strengths will be a useful intervention for family therapists.

Participant interviews revealed that speaking with a therapist was seen as helpful. A support system such as colleagues, spouse, family members or personal belief was also identified as beneficial. Therapeutic influence upon family communications and growth towards acceptance is crucial.

Limitations

Limitations of this study were related to a small sample size and a high concentration of nurses. The nurses were interviewed in their place of work which could have influenced answers. The nurses were very willing to discuss health related topics and not personal or family conflict issues. Although the interviews occurred in an outpatient setting off the nursing units it could have felt less confidential than an off site therapy office environment. Also, all the participants knew the researcher from the work

environment. This may have led to a reduced willingness to discuss relationship issues or conflict in depth. All nurses were very willing to discuss the disease process.

Participants were all enrolled in an outpatient diabetes program at a North Texas hospital. The research questions could have been created with more specific language which probed conflict or the family relationship issues in more depth. For example, "tell me about a time when you and your spouse successfully resolved conflict in your relationship". This might have gleaned more specific information related to family relationship conflict prior to the diagnosis of adult onset type II diabetes.

Future Research

Medical family therapy research and collaboration between health care providers and mental health providers will prove most beneficial for all patients suffering from acute and chronic illness. Many nursing theories such as Jean Watson's theory of human caring are very much in alignment with family therapy models. The essence of family occurs at moment of the interaction between the client and the therapist. This "caring moment" involves the humanity of the therapist and potentiates health and healing.

Medical family therapy offers a systemic, approach to therapy with patients and families experiencing a chronic illness, trauma, or disability. Its theoretical foundation and clinical expertise is based upon the field of family therapy. Medical family therapists address issues from a relational and systemic perspective through the incorporation of a mind, body, and spirit approach. A research focus to widen the knowledge base in healthcare to include biomedical, psychosocial, and family data in the collaborative

education, treatment, research, and theoretical understanding of medical and mental health issues is a future goal. Gaining an understanding of the theoretical and philosophical strengths of medical family therapy through the use of the mind, body, spirit, systemic, and medical frameworks will be an excellent starting point.

Conducting research studies which allow further insight into the biopsychosocial-spiritual model and collaborative practice styles on diagnoses of chronic illness and preventive health or wellness are other areas of needed research. Establishing a professional identity for family therapy in conjunction with medical health care professionals to increase collaboration and awareness will prove beneficial to the practice of family therapy and conventional medicine.

Summary

The findings of this study reinforced the important and physiological advantages of strong, positive family support and involvement in the management of adult onset type II diabetes. Supportive behaviors, communications and strengths were identified and could be converted to useful therapeutic techniques for family therapists working with couples and families dealing with diabetes and many other chronic illnesses.

Challenging or harmful behaviors and communications were described and presented for identification by family therapists as areas of intervention in the family system. The support of healthcare and mental health providers are well defined as an additional support structure to the health and healing process. Participants agreed family therapy is a useful treatment modality. Increased collaboration with health care providers

and commitment to supporting vital, collaborative and positive families is beneficial to the exceptional goal of mind, body and spiritual healing.

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APPENDIX A

Interview Protocol and Prompts

INTERVIEW PROTOCOL AND PROMPTS

Participant's Code: _____ Date of Interview: _____

"Thank you for your time and willingness to participate in this study. As we discussed, the purpose of this research is to explore the experiences you have in managing adult onset type II diabetes. Do you have any questions so far?"

"Let us go through the consent form and see if you have any question before we start the interview. "

"Do you have any questions about the consent form? After you sign the form, I will give you a copy for your files. "

"The questions I am going to ask you are relating to your experience in living or managing your adult onset type II diabetes. The interview will be documented on paper and/or electronically entered into a data base. There is no need for you to use your name during the interview. The name you mention will not be coded and transferred to the transcript or any other record. Do you have any questions before we begin?"

"Ok. Anytime during the interview, you can stop the interview or take a break when you feel you need it. "

Interview Questions:

Research Question	Interview Questions
1. How does spousal support or lack of spousal support make a difference in regard to how a patient deals with life style changes?	1. What has been your spouse's role in regard to the way that you deal with Adult Onset Type II Diabetes? 2. What has been your spouse's role in the way that you deal with life style changes you have had to make?
2. What relationship strengths would be helpful for a therapist to identify when working with couples and families dealing with a family member with Adult Onset Type II Diabetes? 3. What conflicts arise in families where Adult onset Type II Diabetes occurs	3. Describe your relationship prior to the diagnosis of Adult Onset Type II Diabetes. 4. Describe how your relationship has changed, if any, after the diagnosis of Adult Onset Type II Diabetes? 5. What challenges have you experienced personally and as a family since the diagnosis of Adult Onset Type II Diabetes? What Conflicts? 6. What personal strengths and actions have you found to be helpful to both you and your spouse since the diagnosis of Adult Onset Type II Diabetes?
4. What therapeutic interventions can be identified to assist family therapists who work with couples and families dealing with a family member with life changes of adult onset type II diabetes?	7. Have you ever been to a Family Therapist? 8. If so, what did you find helpful? 9. If you were to attend Family Therapy, after the diagnosis of Adult Onset Type II Diabetes, what would you hope to get help for?
5. What could family therapists learn from the patient and families managing the chronic illness of adult onset type II diabetes?	10. What have been the most helpful actions and support that your family has given you in dealing with adult onset type II diabetes?

Prompts:

The prompts below are for facilitating participants' depth of their experience.

Can you give me more detail?

Could you explain more?

Could you tell me more?

Hm… um hm, etc.

How was that for you?

Nod.

Silence

Smile.

So, you are saying….

Then…

What do you mean?

What does that mean to you?

What else?

What was that like?

APPENDIX B

Demographic Information

DEMOGRAPHIC INFORMATION

DATE OF INTERVIEW: _____ PARTICIPANT CODE: _____

AGE: _____ FEMALE: _____ MALE: _____

RACE/ETHNICITY:

Asian _____ African American _____ Caucasian _____

Hispanic _____ Native American _____ Other _____

RELATIONSHIP STATUS:

Married _____Single_____ Divorced_____ Other _____

EDUCATION LEVEL:

High School_____ Associates Degree_____ Bachelor's Degree _____

Master's Degree _____ Doctoral Degree_____ Other _____

Major in: _____

MEDICAL/HEALTH CARE EXPERIENCE:

How long have you been living with adult onset type II diabetes? _____

How long have you been managing adult onset type II diabetes? _____

What is your support system for managing your adult onset type II diabetes?

_____

What kind of physician do you see for your medical management of adult onset type II diabetes?

Family Practice_____ Internal Medicine_____ Endocrinologist_____

Other_____

What kind of mental health professional do you see for your personal management of adult onset type II diabetes?

Family Therapist_____ Professional Counselor_____ Psychologist_____

Psychiatrist_____ Clergy_____

Other_____

APPENDIX C

Consent to Participate

TEXAS WOMAN'S UNIVERSITY
CONSENT TO PARTICIPATE

Title: Interventions Identified as Useful for Therapist Working with Families Managing Adult Onset Type II Diabetes

Investigator: Patricia Allard.....(XXX) XXX-XXXX

Investigator: Linda Metcalf, Ph.D..... (940) 898-2687

Explanation and Purpose of the Research

You are being asked to participate in a research study conducted by Patricia Allard, a doctoral candidate at Texas Woman's University in Denton, Texas. The purpose of this study is to identify interventions or themes that will be helpful for family therapists working with couples coping with self management of adult onset type II diabetes. This study will explore the positive influence of spousal support on self management adult onset type II diabetes. Family resources and relationships are seen as crucial factors that may influence the way that couples cope with chronic illness. You will be asked questions about your marital relationship and self management of your diabetes.

Research Procedures

For this study, the investigator will conduct face-to-face interviews with participants self managing adult onset type II diabetes. This interview is anticipated to last between one and one–and-a-half hours. You will be audiotaped during this face-to-face interview. The purpose of the audio taping is to provide a transcription of the information discussed during the interview and to assure the accuracy of the reporting of that information. The researcher may take written notes during the interview for research

purposes only. You will be asked to complete a form providing information about your spouse and your family. It is expected that this form will take about 5 minutes to complete. Your maximum total time commitment in this study is estimated to be no more than three hours.

Potential Risks and Measures to Minimize Risks

Loss of Confidentiality: A potential risk related to your participation in this study is the release of confidential information. Measures will be taken to reduce these risks. Interviews will take place at a private location agreed upon by you and the investigator. A numeric code will be used instead of your name on the demographic form, audiotape, interview notes, and transcription of the audiotape. Signed consent forms will be stored separately from audiotapes, transcripts, interview notes, and demographic forms. Only the investigator, her advisor, and transcriber will have access to the interview tapes and transcripts. The only persons with access to the demographic information provided by participants will be the researcher and her research advisor.

Consent forms, audiotapes, transcriptions, demographic forms, and research notes will be stored in a locked file cabinet or closet in the investigator's home. The transcriber will be provided with a locking container for the storage of audiotapes, interview transcripts, and computer disks. Within a year of the completion of this study, audiotapes will be destroyed by cutting the tapes into small pieces, transcription diskettes will be erased and/or destroyed, and hard copies of transcriptions will be shredded.

It is anticipated that the results of this study will be published in the investigator's dissertation and possibly in other research publications. No names or other identifying information will be included in any publication.

Confidentiality will be protected to the extent that is allowed by law. Confidentiality is not protected in situations such as but not limited to those involving child neglect or abuse, disclosure of intent to harm oneself, or disclosure of intent to harm someone else.

Fatigue: A potential risk related to your participation in this study is fatigue during the interview. To avoid fatigue, you may take a break (or breaks) during the interview as needed.

Emotional Discomfort: You may find it uncomfortable to answer some questions asked during the interview. If you experience emotional discomfort related to the interview questions, you are invited to discuss this with the researcher. Also, you may take breaks, choose not to answer any questions that make you feel uncomfortable and/or stop the interview at any time. Any cost acquired as a result of your participation in this study will be your responsibility.

Loss of Time: The interview is estimated to last between one hour and one-and-a-half hours. The maximum time commitment anticipated from participants is three hours. This includes time spent scheduling an appointment, rescheduling if needed, discussing the research study with the investigator, reading and signing the consent to

participate form, completing the demographic form, participating in the interview, and discussing any questions.

You will choose a day and time for the interview that is convenient for you. You may stop the interview at any time due to time constraints or for any other reason.

Coercion: A potential risk of this project is that you may feel coerced to participate in this project. There is no penalty for choosing not to participate. Your participation or lack of participation in this project will not affect, positively or negatively, any services that you receive or that any member of your family receives. If you choose to participate, you may choose to answer a question and/or stop the interview at any time.

Participation and Benefits

Your involvement in this research study is completely voluntary, and you may discontinue your participation in the study at any time without penalty.

Direct benefits of this study will be limited to the following:

- A brief summary of the results of this study will be mailed to you upon the completion of this study.

The researcher will try to prevent any problem that could happen because of this research. You should let the researcher know at once if there is a problem and they will help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

Questions Regarding the Study

You will be given a copy of this signed and dated consent form to keep. If you have any questions about the research study you should ask the researchers; their phone numbers are at the top of this form. If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the Texas Woman's University Office of Research and Sponsored Programs at (940) 898-3378 or via email at IRB@twu.edu.

Please indicate your consent to be included in this study by signing and dating this form in the space indicated below.

_____ _____

Signature of Participant Date

APPENDIX D

Referral List

REFERRAL LIST

This is a therapy referral list for persons participating in the study of families managing adult onset type II diabetes.

Denton, Texas

Counseling and Family Development Center
Texas Woman's University
Human Development Building
Room 114
Denton, TX 76204
(940) 898-2600

Plano, Texas

Fletcher and Associates Psychological Services
2301 Ohio Drive, Suite 135
Plano, TX 75093
Phone: (972) 612-1188
Fax: (972) 612-8040
Sharon@fletcherphd. com

Garland, Texas

Galaxy Counseling Center
1025 S Jupiter Rd
Garland, TX 75042
(972) 272-4429