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The Adult Individuals’ Experience with Type 2 Diabetes

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The Adult Individuals' Experience with Type 2 Diabetes

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Carroll College
This thesis for honors recognition has been approved for the Department of Nursing.

[Signatures and dates]
Dedication

This honors thesis is dedicated to Carmen Sloan. My mother and my friend, Carmen is the lighthouse that guides me in times of crisis, as well as times of success. Thanks mom, you are my research.
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Abstract

Type 2 diabetes mellitus (DM2) has become an epidemic in the United States and throughout the world. Within the United States, an estimated 20.8 million people have this deadly disease. DM2 is a fatal condition leading to hypertension, artherosclerosis, heart disease, renal failure and other deadly afflictions. The purpose of this study was to gain an understanding of the experience of adults living with DM2. The Phenomenological study’s design was utilized to interview and analyze 4 adults with DM2. Interviews were tape recorded, transcribed, and analyzed using the Giorgi’s method. The results of the data analysis reveled four themes common amongst the participants. The themes were (a) Changing lifestyle; but where is the motivation (b) Dieting and exercising; actually doing it (c) Education; that was years ago and (d) Getting the diagnosis; and waiting for the signs and symptoms. These themes reveal a deeper understanding of living with DM2. Generalizations of these findings are limited to the participants in this study.
Chapter I

The Adult Individuals’ Experience with Type Two Diabetes Mellitus

Affecting an astonishing 20.8 million people in America alone, DM2 mellitus (DM2) is a pandemic destroying individuals’ life-style throughout the world (National Diabetes Information Clearinghouse [NDIC], 2005). Although there is a growing concern within this nation about DM2, it does not mean individuals are able to fully understand and live with the disease. Although DM2 research is ongoing and rigorous little is known about individuals’ experience with it. To be able to improve individuals’ control over DM2, nurses must be able to empathize with those individuals living with the disease. Through research nurses will develop a clear understanding about the individual experiences of adults with DM2, so they can empathize with those individuals in their practice.

Prevalence

DM2 has a phenomenal prevalence in America. Of the estimated 20.8 million who have DM2, 14.6 have been diagnosed (NDIC, 2005). These numbers become even more frightening, because 9.6% of Americans over the age of 20 are afflicted with DM2. In 2005 there were 1.5 million new cases, and it was the 6th leading cause of death (NDIC).

Pathology

Chronic hyperglycemia is the main condition with DM2. The [Center for Disease Control] CDC (2003) explains it starts with insulin resistance, which is when the body’s cells do not properly use insulin. Cell resistance increases the body’s need for insulin,
while the pancreas slowly loses the capacity to produce insulin (CDC, 2003). Iwasa (2006) presented a map for the development of DM2. It progresses from “insulin resistance to hyperinsulinemia to pre-diabetes (impaired glucose tolerance) to beta-cell failure to type 2 diabetes” (Iwasa, 2006, p. 26). At the diagnosis of DM2, there is already a loss of 50-60% function of beta cells (Iwasa, 2006). According to Ignatavicius and Workman (2006), in the absence of insulin many complications arise from higher blood glucose levels. Signs of this in people with DM2 are polyuria (urination), polydipsia (thirst), and polyhagia (hunger).

**Risk Factors**

DM2 is preventable and controllable. This makes it important for nurses to know the large number of factors placing individuals at a higher risk for DM2. People at a higher risk of getting DM2 include those who are over 45 years old, overweight, of a non-Caucasian descent, a descendant of an individual with DM2, have high blood pressure and cholesterol, have had gestational diabetes, or are not active at least 3 times a week (National Diabetes Education Program, 2003). Although a number of these risk factors are not manageable, it is beneficial to control the risk factors that are manageable. Plus, this growing “burden could be prevented with early detection, improved delivery or care and better education about DM2 self-management” (CDC, 2006, ¶ 6).

**Nursing Role**

The role of a nurse in the care of individuals with DM2 is extended and complex. Hutchinson, MacKinnon, McIntosh, Cooke, and Jone’s (2001) research discusses what roles nurses have in the community for individuals with DM2. Some of these include “shifting roles, [and] changing community orientation with a move to community-based
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Nurses are more involved in every complex aspect of total care for individuals with DM2. According to Hjelm, Mufunda, Namoi, and Kemp (2003), DM2 should be treated through a holistic approach. The main focus should be to prevent any further deterioration of health for individuals. The role of the nurse includes initial education about hyper and hypoglycemia management, glucose self-monitoring, injection techniques, and above all dietary advice and weight control assistance (Hjelm et al, 2003). In order to educate about these important features in diabetic care, the nurse has to be conscious of the difficulties with achieving good DM2 control for some individuals (Kenealy et al., 2004).

Complications

The reason for the dire need for education among individuals battling DM2 is that this disease is known to lead to many healthcare problems, some of which are life threatening. These problems include heart disease, stroke, kidney disease, eye complications, diabetic neuropathy, nerve damage, foot complications, skin complications, gastroparese, and depression (American Diabetes Association [ADA], N.D.). When it comes to glycemic control, randomized clinical trials “have demonstrated that meticulous glycemic control reduces risk of microvascular and neurological complications of DM2” (Skyler, 2004, ¶ 1). Studies continue to research the affects of glycemic control on different body systems, influence of treatment, and differences between various interventions used. As research continues, the growing importance of this health crisis becomes a reality for healthcare professionals, including nurses.

Financial Implications
The financial implications for improved management of DM2 are apparent. With better maintenance of DM2 individuals would have less expenditure on healthcare visits, supplies, medications, insurance, and resources. According to Hogan, Dall, and Nikolov (2002), the average person with DM2 spends approximately $13,243 in healthcare expenditures a year, compared to people without DM2 who average only $2,560. While these numbers seem extreme, it is the estimated $132 billion spent on diabetes in America that has economists worried (Hogan et al., 2002). Being able to help individuals control their DM2 would improve their quality of life, along with reducing personal and national expenditure related to DM2 and its complications (Hogan et al., 2002). In one study, people with DM2 living in low income households were less likely to have good self-rated health (Gulliford, Mahabir, & Rocke, 2003). It becomes clear fiscal resources are a major factor in health maintenance for individuals with DM2.
Theoretical Framework

Orem’s Self-Care Deficit Nursing Theory focuses on optimizing individuals’ self-care through three systems; compensatory, partially compensatory, and educative support. The central concept of this theory is that individuals “function and maintain life, health and well-being by caring for themselves” (Orem, 1985, p. 34). In Orem’s theory health deviation self-care has a number of goals for individuals with DM2 such as the patient must be aware and attend to the effects and results of their pathology. They must be efficiently able to carry out therapeutic measure for the pathology. Individuals have to be able to modify their self-concept in order to accept their state of health and need for healthcare. Finally, they must be able to live with their pathologic condition’s affects and treatments, while making life-style changes promoting personal development (Orem, 1985).

Applying Orem’s self-care deficit theory in nursing practice requires critical thinking involving four cognitive operations. The first is diagnostic operations. This is when the nurse should establish a therapeutic relationship with the client. Second are prescriptive operations. Here the nurse reviews different assistance methods, consider conditioning factors, and identify an appropriate helping method. Next is a regulatory operation. Where the nurse creates, produces, and controls a regulatory system. Finally, in the operations portion, the nurse evaluates the effectiveness of the created regulatory system (Alligood & Mariner-Tomey, 1997). Orem’s nursing theory is the most systematic and proficient way to approach care for individuals experiencing DM2.
Chapter II

Review of Research

Individuals’ Perceptions of Illness

Every individual understands and perceives his or her diabetic illness differently, but after careful analysis these perceptions, understandings, and misunderstandings can be compiled into generalized categories or themes. These categories range from misunderstandings like “type 2 diabetes is not real diabetes” to the individual understanding of integrating the illness into one’s life (Holmstrom & Rosevist, 2005, p. 146). A problem that tends to rise when assessing the different perceptions of individuals is that researchers often will use different language to describe the themes found in their qualitative study. After an in-depth review of literature, all the different themes in each study can be further cataloged into four general categories. These categories include knowledge and understanding of diabetes; psychological reactions to diabetes; avoidances of diabetes; and coming to terms with diabetes.

Knowledge and understanding of diabetes. It is well understood among nurses and other healthcare professionals that the more knowledge provided to a client, the more likely the client is to feel like they have the ability to control and maintain a healthy lifestyle. Wichowski and Kubsch’s (1997) study showed the self-perceived health and wellness of a person with a chronic illness “has a significant bearing on the person’s compliance level” (p. 551). Unfortunately, many individuals with DM2 do not have the knowledge to promote positive self-perceptions about health and wellness.

The misunderstandings among individuals with DM2 appear to be concerned with the most basic concepts of DM2. It might be shocking for nurses to realize a majority of
the misunderstandings evolving in phenomenological qualitative research conducted revolves around basic pathophysiology, risk factors, glucose maintenance, and complications. In Holmstrom’s et al. (2005) saturated phenomenological study, the 18 participants had severe misunderstandings about the basic anatomy and physiology of the cause of DM2. This seems to be the cornerstone for the confusion amongst those with DM2. Many individuals knew diabetes was related to the pancreas, but they were unaware of what this gland does or how a disorder of this gland, like diabetes, effects cells throughout the body. When it comes to blood glucose monitoring, a majority of the individuals in the study did not know “why they performed this routine and what the benefits were. They did not experience it as a learning tool that could help them take charge of their illness and treatment” (Holmstrom et al., 2001, p.150). With misunderstandings of the elementary aspects of diabetes, it is understandable why individuals are non-compliant with their prescribed treatment regimen of oral medications and insulin therapy. It is important for nurses to recognize these misunderstandings are present and to identify ways to clarify the confusion amongst individuals with DM2 (Holmstrom et al., 2001).

In all the studies, this lack of knowledge appears to stem from an inadequate quantity and quality of information provided by healthcare professionals. The reality nurses must face is individuals with DM2 are not receiving enough information. In Gillibrand and Flynn’s (2001) ethnographic study many of the 15 participants “expressed dissatisfaction with the knowledge they possessed and also with the quality and quantity of information that had been given to them, which affected their illness management” (Gillibrand, 2001, ¶ 29). The participants felt their healthcare providers did not give them
enough information about their illness, so they would be able to make accurate self-management decisions. This study suggested individuals with diabetes want to feel empowered, in order to gain a balance between quality of life and good metabolic control over their diabetes (Gillibrand et al., 2001).

*Psychological reactions to diabetes.* The psychological reaction to DM2 revolves around a patient’s anxiety about alteration of habits and lifestyle changes, the disease’s influence on their identity, and the threat complications give the future. Gillibrand et al. (2001) reported individuals’ “feelings of shock, despair, and anxiety” (¶ 33) when realizing being diagnosed with DM2 will require significant changes in lifestyle. For the individuals, who had not had diabetes long, in Hornsten, Sandstrom, and Lundman’s (2004) study the requirements of these new habits made it impossible to live life as they had before. Often times patient’s feelings of blame, as well as having to cope with role changes in their new life situations, can have an influence on their identity (Hornsten et al., 2004). Gillibrand et al.’s (2001) study concluded diabetes has complex psychological effects on people with anxiety is a dominant theme found in most individuals. Individuals remained aware of threatening complications in the future, especially those which affect their feet and eyes (Holmstrom et al., 2005). All these complications weighing on a patient’s mind are sure to influence the psychological reaction of individuals with DM2.

Although the negative psychological reactions individuals experience in relation to their diabetes can have a lasting impact on individuals, some will experience a much more positive reaction to the diagnosis. In Gillibrand’s et al. (2001) study participants sometimes considered the diabetes their motivation to start a newer healthier life. For a
few individuals the diagnosis appeared to have positive consequences, resulting in health improvements (Gillibrand et al., 2001).

Avoidances of diabetes. For individuals with DM2 sometimes it is easier to avoid their disease, thus suppressing their fears of the implications being diagnosed with diabetes could have. Nurses need to understand and distinguish that for individuals there might be a difference “between the meaning of *getting the diagnosis* and the meaning of *getting diabetes*” (Hornsten et al., 2004, p. 180). The participants in Gillibrand’s et al. (2001) study expressed feelings of desiring not to know about the consequences of having DM2. Gillibrand et al. explained that some participants even recognized the avoidance of diabetes could be detrimental to their health and quality of life, but continued to refuse to contemplate the outcomes. Perhaps this avoidance of the illness is an attempt for individuals to “demonstrate to themselves and others that they are not ill or limited” (Wichowski et al., 1997, p. 549). Obviously not accepting the illness and attempting to improve health can be a detrimental coping mechanism used by individuals. Recognizing this avoidance as a coping mechanism is essential for nurses working with individuals with diabetes.

Coming to terms with diabetes. Once individuals have been diagnosed with DM2 it becomes essential that they come to terms with the illness and attempt to integrate it into their lives. Hornsten et al. (2004) explained that for individuals getting used to their new role is a gradual process. The study stated “trying to incorporate the disease into daily lives is a demanding task, which often takes time and also involves the family and other relatives” (Hornsten et al., 2004, p. 178). An effective way of managing DM2 for many individuals is to take control over their new situation (Hornsten et al., 2004). They
will accept the inevitable, then try to “organize their lives so that it interferes as little as possible not only to themselves, but also to their close others” (Gillibrand et al., 2001, ¶ 43). This process of acceptance is an essential realization for individuals to achieve in order to effectively and efficiently live with diabetes while managing their health.

Factors Influencing Individuals' Perception of Illness

Support. Socio-emotional support was a necessity for the health and well-being of individuals with DM2. Westaway, Seager, Rheeder, and Van Zyl’s (2005) cross-sectional, analytical study of 263 individuals who were black. The results encouraged the need for social-emotional support among individuals. Individuals who have less social support tend to have poorer health and well-being than those who receive more advanced social support. Westaway and researchers stated “involvement in close caring relationships appears to be very beneficial for health and well-being” (Westaway et al., 2005, p. 85). The study found that this socio-emotional support was more important to the client’s health than tangible support. The importance of socio-emotional support clearly influenced the health of individuals with DM2. Future research may provide a more comprehensive understanding of critical components of support that could allow for support systems to be fine-tuned for optimal diabetic care (Westaway et al., 2005).

Furthermore, social support can have a profound impact on the coping mechanisms affecting the psychological well-being of individuals with DM2. Karlsen, Idsoe, Hanestad, Murberg, and Bru’s (2004) empirical approach hypothesized and tested, through quantitative research. the relationship between support, coping, and well-being in 534 individuals with both types of diabetes. The study revealed that a supportive family is associated with positive problem-focused coping, and negatively associated with
negative emotion-focused coping. Emotion-focused coping was found to be associated with symptoms of anxiety and depression, while negatively associated with general well-being. Participants with non-supportive families had an increased amount of self-blame. Karlsen (2004) found, Support from healthcare professionals had a direct effect on general well-being only for the sample of DM2, and an indirect effect via emotion-focused coping and self-blame on all three sub scales on well-being for people with type 1 diabetes. (p. 65)

Yet the influence of professional support was only modest compared to that of familial support. A limitation of the study was the measurement scale failed to assess for the possible negative effects encounters with healthcare providers could produce. Nonetheless, the study does show that positive support can lead to problem-focused coping that helps individuals with DM2 more actively plan their diabetes regimen (Karlsen et al., 2004).

Financial status. One factor that affects individuals with DM2’s perception of their health and illness was the illness’s consumption of a client’s finances. A study conducted by Gulliford, Mahabir, and Rocke (2003) revealed that individuals with DM2 had lower self-rated health than individuals without DM2 increasing their reported expenditure on medical services. This expenditure included “doctor’s services, medicines and travel for healthcare” (Gulliford et al., 2003, p. 47-48). Jiang, Andrews, Stryer, and Friedman’s (2005) quantitative research showed the relationship between a client with DM2’s ethnicity and risk of readmission to a hospital. This was significantly moderated by the income of a patient’s area. For example “compared with Whites, Hispanics had a
significantly higher risk of readmission only among those from lower-income communities” (Jiang et al., 2005, p. 1564-1565). Socio-economic class had a significant influence on the perception of individuals with DM2. Successful prevention of DM2 would include a change in importance of social and economic factors’ determination of lifestyle for individuals (Eriksson, Lindstrom, & Tuomilehto, 2001).

**Co-morbidities.** A major factor that can change how individuals with DM2 perceive their illness is the existences of co-morbidities. The co-existence of diabetes and other chronic conditions will compromise the self-reported quality of life of individuals (Wee, 2005). Oka and Sanders (2005) found that an impaired quality of life reported by individuals with DM2 and peripheral arterial disease was often times the result of poor glucose control. The participants diagnosed with diabetes in the study experienced more physical limitations and experienced a profound reduction in their quality of life, compared to those not diagnosed with diabetes who have peripheral arterial disease (Oka & Sanders, 2005).

Besides having an effect on quality of life, co-morbidities can also influence the experience of power impacting a patient with DM2’s perception of health. In a semi-structured interview study done comparing blind individuals with DM2 and non-diabetic individuals who were blind, Leksell, Johansson, Wibell, and Wikblad (2001) showed fewer individuals with DM2 experience power than non-diabetic individuals. Although a limitation of this study was the small number of available blind participants with DM2, it still indicated participants had a lower satisfaction with physical health and experienced poorer standards of general health, including being unhappy, depressed, and nervous as compared to the matched control group. This feature indicated the burden of chronic
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Disease along with the taxing treatment can be detrimental to the well-being of blind subjects (Leksell et al., 2001).

Interestingly, co-morbidities can overshadow the risks of DM2 for some individuals with DM2. Inman and Kornegay's (2004) phenomenological study of male individuals with alcoholism and DM2 clarified that it can be difficult for individuals to cope with two disease processes. Dual diseases created obstacles that influence the quality of life for these individuals. The individuals in this study had minimal concern for the fact that their drinking directly affected their diabetes, which disturbed their body. They recognized the effects of blood sugar levels and drinking when considering their level of a hangover or withdrawal symptoms, but could not “perceive the consequences of eating and drinking choices detrimental to their health” (Inman et al., 2004, p. 70). For individuals in this study, it appeared that alcoholism seem to overshadow, and have no influence on their DM2. This type of misconception can have detrimental affects on individuals with DM2’s perception of their health and well-being (Inman et al., 2004).

Nursing Considerations

Although DM2 is a chronic condition, through lifestyle changes, health maintenance and glucose monitoring it be controlled for any number of years. Nurses often feel that “personal responsibility is a necessary component of diabetes management. Compliance with medical regimens is expected” (Hornsten et al., 2004, p. 180). For this to occur, individuals with DM2 need to know, understand, and be able to manage their diabetes, as well as do the same for their own goals and values (Holmstrom et al., 2005, p. 152). Through various nursing interventions, nurses were able to improve the compliance and health perceptions of individuals (Frich, 2003).
Specialized assessment. It is important for nurses to support the emotional adaptation to diabetes. Nurses need to empower individuals to view diabetes as a condition that can be managed and lived with. Nurses have to recognize there is a difference between getting diagnosed and integrating the disease into an individual’s lifestyle. There has to be a mutual agreement between nurses and patient “regarding goals, evaluation and strategies in diabetes management” (Hornsten, 2004, p. 180). Remembering that individuals with DM2 view the disease and management as a small component of their lives is essential for a quality assessment.

Education. Frich’s (2003) meta analysis of diabetic nursing care and interventions revealed that the affects of education improved outcomes in diabetic care. This review indicated nurses “play an important role in patient-oriented interventions, through patient education or facilitating adherence to treatment” (Frich, 2003, p. 142). Even further favorable effects occured if the nurse’s role is enhanced. Nurses can have a significant role in facilitating adherence to prescribed treatment. For patient with DM2 instructional interventions further enriched psychosocial and health outcomes (Frich, 2003). Nurses need to “direct the education intervention to patient own unique understanding of illness and treatment and tailoring patient education according to the specific understandings expressed” (Homstrom, 2005, p. 152).

Individually tailored. Each person with DM2 in an unique individual, recognizing this, nurses can develop interventions that are created in a case by case manor. Brief individually tailored interventions improved various aspects and perceptions of health for individuals with DM2 (Clark, Hampson, Avery, & Simpson’s, 2004). In this randomized control trial. The intervention group perceived themselves as having changed from
contemplation to action for physical activity and dietary fat reduction. Interestingly, these interventions were associated with decrease barriers to change, but did not necessarily increase self-efficacy. Unfortunately, the study did not describe the details of the interventions beyond the fact that they were detailed and individualized. Future research describing, in detail, the various aspects of the intervention are required to fully appreciate the importance of individually tailored interventions (Clark et al., 2004).

*Telephone follow up.* The intervention of following up with individuals once they have been discharged from a clinical setting via the telephone has improved individuals with DM2’s health maintenance. Wong, Mok, Chan, and Tsang’s (2005) randomized control study compared the blood glucose maintenance of a control group receiving hospital care until glycemic control was met and a study group, who was discharged and continued to have follow-up weekly or biweekly telephone conversations with a nurse. These telephone contacts with individuals were an affective intervention as long as the contact included emphasis on compliance with medical regimens, discussion about the importance of appropriate self-care, and reported problems, as well as following up with strategies for solutions. The individuals who received the calls from nurses had improved glycemic control and were more adherent to a regimen of blood glucose monitoring and exercise. The cost of these telephone calls were almost $400 less then the price of staying in the hospital. The problem presented here is under regular circumstances, just because a patient has ineffective glycemic control, they would not remain in the hospital, leading to the need for future nursing research to investigate the cost effectiveness of nursing follow-up care via the telephone. Yet this study is a good foundation to continue research of follow-up care for individuals with DM2 (Wong et al., 2005).
Chapter III

Methodology

With all the research developing ways to control DM2, it is common for individuals with the illness to continue struggling with understanding and applying the lifestyle changes required for adequate health maintenance. The lived experience of those people with DM2 merits attention by the medical community. By exploring these different and complex experiences of individuals with diabetes, nurses can develop an awareness of an individual’s personal views of his or her experience. This awareness will help nurses treat those with DM2 more holistically. Holistic care requires nurses to assess not just the presenting medical diagnosis of individuals, but also the psychological, emotional, spiritual, environmental, and lived experience of these individuals.

Design

Phenomenological research helps capture the lived experience of individuals providing a clearer understanding what a individual has to undergo for nurses. Many health issues nurses will encounter today benefit from the utilization of phenomenological studies. DM2 and its life long implications is a medical crisis that nurses have to face more and more each day.

Phenomenological method. According to Fain (1999), “phenomenology is a philosophy and research method that explores and describes everyday experiences as it appears to human consciousness in order to generate and enhance the understanding of what it means to be human” (p. 220). Phenomenology does not attempt to find “explanations of experiences of consciousness; rather it proceed[s] solely by way of description and analysis” (Stroker, 1987, p.14). Kant in the 18th century originated
phenomenology with the development of phenomenon or reality's appearance in the consciousness. Edmund Husserl, the father of phenomenology, developed his "philosophy's general effort to subject experience to fundamental, critical scrutiny: to take nothing for granted and to show the warranty for what we claim to know" (Natanson, 1973, p.63). Husserl aimed to discover the essential structure and relationship between "the lived experience and consciousness" (p. 222). To do this a researcher must bracket, which is when one suspends all of his or her precious beliefs, preconceived ideas, and knowledge to "determine what role history, inter-subjectivity and causation" has in the researcher's results (Natanson, 1973, p.71).

The phenomenological reduction involved requires both bracketing and intuiting, or the immersion in "the descriptions of the lived experience to acquire a comprehensive and accurate description" of the lived experience (Fain, 1999, p. 222). Phenomenological reduction is commonly used to explore ethics, sociology, psychology, religion, education, and nursing (Fain).

Prior to this study being completed phenomenological reduction occurred to accurately discover the lived experience of individuals with DM2. Bracketing has also occurred by the researcher. The study is based on the concept of intuiting. The researcher has immersed herself into the evidence, in order to find the meaning of the lived experience of the individuals in this study. To gain the full picture of the lived experience saturation of data should be achieved. Saturation is the "point when data collection is terminated because no new description and interpretations of the lived experience are coming from the study participants" (Fain, 1999, p. 220).
Avoiding bias. The goal of this research was to gain a clear understanding of a true lived experience. To accomplish this, biases were identified. Any preconceived assumptions were pre-assessed through bracketing. The researcher has conducted interviews with an open mind and did not lead the individuals in any one direction during the interview. The interviews were uninstructed asking only questions about “what is this experience like?” Participants were allowed to express their ideas and feelings about DM2 without fear of reprisal or judgment being passed. Some open-ended questions were utilized to encourage further and more comfortable interviews.

Procedure

Participants. The criteria to participate in this study was the person must be an adult over the age of 18 who has been diagnosed with DM2 for at least one year and speaks English. Volunteers were found via networking in Boise, ID and sending an email campus wide asking for volunteers at Carroll College in Helena, MT.

The interviews were conducted at a private and mutually agreed upon time and location. Interviews lasted between 20 minutes to an hour. The privacy of the participant was maintained at this location, as well as safety of the researcher and participant was ensured.

Ethical considerations. Confidentiality was strictly adhered to in this research. All participants’ feelings, comments, and experiences were analyzed with respected and are appreciated. Informed consent outlining the purpose of the study was given before the beginning of the interviews. No names are included in any interview material, transcripts, or notes. Instead participants are referred to in the order that the interview were
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conducted for the purpose of identification during analysis. The order is known only to the conductor of the research.

*Data collection.* The interviews were conducted using open-ended free flowing questions revolving around the statement “tell me about your experience with type two diabetes.” The participants were allowed to elaborate on any subject or halt the discussion if they did not feel comfortable. All interviews were recorded on an audiotape and later transcribed. The transcripts were stored when not in use in a safety deposit box. The researcher attempted to establish a trusting relationship in order to facilitate comfort and confidence in the research process.

*Data analysis.* “The essence of experience... is what is investigated in the phenomenological analysis of experience” (Husserl, 1997, 119). The phenomenological form of analysis used was Giorgi’s method, as outline by Fain (1999), which analyzes the data collected in the interviews and group the information into a few main themes about the lived experience. The method provides a framework for collecting and extracting significant data, clarifying, and grouping the meanings, and verifying the end result.

Giorgi’s’s Method (Fain, 1999, p. 230)

1. Read the entire disclosure of the lived experience straight through to obtain a sense of the whole.

2. Reread the disclosure to discover the essences of the lived experience under study. Look for each time a transition in meaning occurs. Abstract these meaning units or themes.

3. Examine meaning units for redundancies, clarification, or elaboration. Relate meaning units to each other and to a sense of the whole.
4. Reflect on the meaning units, and extrapolate the essence of the experience for each participant. Transform each meaning unit into the language of science when relevant.

5. Formulate a consistent description of the meaning structures of the lived experience for all participants.

Limitations. The limitations to this study were the small sample size, limited number of interviews, and all participants were selected from either Boise, ID or Helena, MT. Due to the limited number of participants saturation was not possible. Generalizations of these findings were limited to the participants in this study.
Chapter IV

Results

The purpose of this study is to gain an understanding of the experience of adults living with DM2. By exploring these different and complex experiences of individuals with diabetes, nurses can develop awareness about individual’s personal views of his or her experience. The interviews that were conducted asked each participant to “tell me about your experience with type two diabetes.” There were four major themes that emerged as a phenomenological analysis of the four interviews occurred: (a) Changing lifestyle; but where is the motivation (b) Dieting and exercising; actually doing it (c) Education; that was years ago and (d) Getting the diagnosis; and waiting for the signs and symptoms. All four of these themes became apparent in one way or another in the participants’ interviews.

Theme 1: Changing Lifestyle; But Where is the Motivation

Every one of the participants interviewed knew that to control the DM2 he/she would be required to make a major lifestyle adjustment. As one participant stated, “I know that if I take care of myself it is not going to be a big problem.” One client even explained the praise he received from his doctor about his knowledge of diabetic maintenance:

One thing that I heard from the doctor here was that I understand the disease. He said ‘you know all this stuff, you just have to do the lifestyle change.’ This is your relationship with your disease and you have to figure out what you can do in your life to live with this.
Another client reflected on what changes needed to be made “It’s not that big of a deal, if you change your eating habits and if you exercise and do what your doctor says you can keep it under control and if you did everything that you are supposed to you can get off the medicine.” Although this participant later goes on to state that he/she knows for themselves personally “it is time I did better and worked on my health a little bit.”

A major lack of motivation for almost all of the participants came from the fact that “you don’t hurt when it is affecting you.” Participant’s reported not having much pain or discomforting symptoms beyond the beginning stages of neuropathy. The neuropathy for them did not grasp their attention enough to motivate the change in lifestyles that those diagnosed with DM2 required. One participant toyed with the idea of diabetes not having a large enough “fear factor.”

I know sometimes the fear factor makes you do things differently. Diabetes is a weird disease where it doesn’t hurt... Maybe the disease hasn’t scared me enough to make me work harder, to make me pay attention... It does not scare me enough to the point of it killing me and maybe it should, because it could.

One simple lifestyle change that some participants with DM2 struggled with was monitoring their blood glucose. Almost all of them did not monitor as often or as consistently as their physicians encouraged. One participant explains their struggle. “I haven’t done a good enough job monitoring. You know, I test my blood when I feel bad, instead of testing it two or three times a day.” The participant told the story of a conversation he/she had with one of their co-workers who said, “I can tell when your blood sugar is not real good because you are a little bit testy.” The participant then stated:
So I do need to do a little bit better job for my job’s sake and for my health sake. But you know I never really worried about it killing me, and I guess maybe if I would, maybe if I would be a little bit more serious about it, that it would effect me more. I’ve been pretty lucky about it.

Theme 2: Dieting and Exercising; Actually Doing It

Each of the participants interviewed discussed some of the eating habits they have changed, although “it has not been this massive change” since receiving their diagnosis of DM2. Yet they all stated there are a number of factors that contributed to their inability to eat as healthy as their body truly required. One participant explained, “I’m trying to make better choices about what I do eat. But there are times when you don’t really have a choice and you end up somewhere and there is just burger and fries.”

All of the participants stated that they understood the importance of controlling their diet. They knew their DM2 is caused, at least in part, from “poor eating habits.” Some even stated they and those around them can tell when they have not eaten well. One rationalized: “I do think that my mood swings have a lot to do with my blood sugar. When I go off the dial or I am a little bit edgy usually my blood sugars… are not very good.”

Yet they all continued to struggle with their diets. Every one of the participants admitted they worry about their eating habits, but all have their “one vice.” Which in all reality, is the participant’s struggle in “developing the self control not to devour” what they know they should not be eating.

Exercise is also an area where knowing the importance of it does not necessarily result in action. One participant explained:
I am overweight. I go to the doctor; he tells me I have to lose weight. So consequently I don’t like to go to the doctor, cause you don’t like to hear that you have to lose weight. Which I know I have to do. I need to get more exercise.

Interestingly many of these participants had incredibly easy access to a work out facility, or live in communities where the opportunities to access physical activities were abundant. One participant who was employed by an athletic department explained:

I have the opportunity to work out... But I’m crazy for not getting out of here and going up there [to the fitness center] and just getting on the tred-mills and stair masters... In this position it is kind of hard to get away and do things... but there is ample opportunities for me to lift and work out, but I have got to do more aerobics stuff.

All of those interviewed knew they needed to do more physically. Their battle to exercise was explained well by one participant who states “I struggle to try and find an exercise that kind of worked into my schedule and one that I enjoy... I try tried to do some walking, tried to do some aerobics... and nothing really was clicking or working.”

Another participant explained “You develop a fair amount of excuses as to why you can’t exercise. And most of them were legitimate, but you know they drove choices.”

Theme 3: Education; that Was Years Ago

Every one of the individuals received education directly after the initial diagnosis. The education provided differed from participant to participant. Some received a majority of their education from their primary physician; others attended group diabetes classes where they “learned how diabetes works and how it affects your body.” While others had specialized, individualized, one on one sessions with a “Diabetes Educator.” Each
participants education varied, although all of the participants received information about “how to be healthier,” nutrition’s role in controlling their blood glucose, and were encouraged to “increase exercise.”

Initially after the classes or education, all of the participants felt like they had a lot of control over their diabetes. One stated, “I was religious for it for the 7, 8, years.” But this was difficult to continue as time progressed. Another participant explained, “We tried really hard in the beginning to eat regular balance meals and have regular habits. But that’s been six years ago.”

Today the only education participants received was from their primary physician. They all suggested they “don’t get enough from” their doctors. Every one of the participants felt like they would benefit from a refresher course. One participant stated “I would benefit from somebody sitting down and talking to me more.”

One of the participants had very specialized education provided when the participant met with a Diabetes Educator. At the same time this person was also getting information from a family physician. This became a very confusing battle for this particular participant. The participant explained:

I found that I was getting some different messages from my Diabetes Educator than I was from my family practitioner. She was encouraging, you know, ‘you need to get walking, you need to get started there. Get some regular physical activity.’ And my family doctor was more of the, ‘but you need to drop weight and walking isn’t going to get you to drop weight.’ And so it depended on who I had my last appointment with.
This participant continued to this day with the struggle between actual physical activity and weight loss activity, although he/she has lost about 60 pounds.

**Theme 4: Getting the Diagnosis; and Waiting for the Signs and Symptoms**

A recurrent theme amongst a number of the participants was that they knew being diagnosed was “inevitable.” Some participants were aware of diabetes due to a long standing family history of the disease. This was explained by one participant:

My grand mother had been diagnosed, so I grew up being aware of diabetes from an early age. And something else that I think was a reminder was that each of us sons developed type two diabetes when they turned forty.

For the participants with a family history, it was a matter of waiting for the signs and symptoms. Once these signs and symptoms began to occur they could then present at the doctors office and get a diagnosis of DM2.

Other participants felt as if they had a number of DM2’s signs and symptoms over a long period of time, but they just never were diagnosed with the disease. One participant explained that she had gestational diabetes, but was never diagnosed. “I had it for 25 years before I was diagnosed. And if I would have listened to the signs like blurred vision, dizziness, I would have known that I had some form of diabetes, but I didn’t.”

Even though the participants all had different situations that lead up to the initial diagnosis, every one of them felt like the diagnosis “wasn’t a big shock.” Often times individuals stated “I kind of knew it was inevitable.” One participant reflected:

When he [the physician] diagnosed me as having diabetes, I wasn’t really surprised, because I did have symptoms for twenty five years in fact. I guess I just
couldn’t listen to those symptoms, didn’t think anything was wrong with me. You know it is like you’re invincible.

The feeling of being “invincible” caused many of the participants to ignore signs and symptoms. It isn’t until later reflection that most of these participants realized their unawareness. As one participant explained, “Looking back I can tell how it started, but I would have never thought that was it, that it could have been diabetes.”

All of these results should be collaborated to improve the health care provided by nurses. Understanding individuals’ feelings about lifestyle change, diet and exercise, being diagnosed, and education helps to clarify the experience of individuals with DM2. These results are both an informative and an educational tool that should be utilized by nurses when he/she is attempting to understand their client’s experience with DM2.
Chapter V

Discussion

Prevention of a Diagnosis

The participants in this study had been diagnosed for at least three years, while some were well into their eighth year of living with DM2. Many of the participants knew about DM2 long before there were diagnosed, but did not take an active role to prevent the disease from occurring in their lives. There seemed to be an attitude of waiting to deal with the potential problem once it became an actual problem. None of the participants practiced prevention before their diagnosis despite their knowledge of their DM2 risk factors. In McDonald, Tilley, and Havstad’s (1999) study “persons with diabetes need to be helped to gain some awareness of the seriousness of the disease and its management and enough understanding and acceptance to participation in their own self-care” (p. 428-429). This awareness for individuals needs to begin long before they become diagnosed with DM2. Awareness and prevention would be increased with risk factor identification, education and modification. These risk factors included family history of DM2, a history of gestational diabetes, or a high risk life-style. Many participants had signs and symptoms that were related to pre-diabetes. If these signs and symptoms were identified, a mutually agreed upon plan for prevention may inhibit future complications.

Motivation and Acceptance Role in Compliance

A lack of a motivation appeared to be an issue for participants who knew they needed to make major lifestyle adjustments. DM2’s complications generally do not arise until years after being diagnosed, because of this the “changes in lifestyle, particularly in dietary and exercise habits, are necessary for the majority of patient’s with type-2
diabetes but are difficult to carry out” (Sander-Eriksson, 2000, p. 1393). In Sander-Eriksson’s 2000 study, “self-estimation of health shows that a majority of type-2 diabetes individuals think that their health is normal.” The participants in this study also thought their health was normal because none of the participants had complications thus far. DM2 does not usually cause pain although the micro-vascular damages will cause complications in the future. The participants in this study had no idea how poor their health indicators like Hemoglobin A1C might actually be.

Ignoring symptoms of DM2 and living a high risk lifestyle is a major challenge for nurses working with those with DM2. McDonald, Tilley, and Havstad’s (1999) study reported that “nurses believe that acceptance of the necessity for long-term disease management was the primary problem individuals encountered in the management of their diabetes” (p. 428). There are a number of ways to promote individuals’ acceptance of DM2. Nyhlin (1990) explained that we as nurses “must learn more about the human factors producing the motivation needed to adhere to complex and demanding medical regimens” (p. 801). By increasing the rate of early acceptance of the disease, individuals should become more compliant, which will promote better health outcomes (Nyhlin, 1990).

Self-Management Education

Every participant interviewed in this study had some kind of formal diabetes education when they were initially diagnosed- with DM2. The problem identified by participants was the lack on ongoing DM2 education. Visits to health care providers generally focused on general needs instead of DM2 education. One suggestion McDonald, Tilley, and Havstad’s (1999) made was “to improve educational resources for
individuals, family support groups, [through] continuous in-service education to ensure that individuals receive current and correct information” (p. 429). On-going education throughout an individual’s lifetime would improve an individual’s compliance years after there are first diagnosed.

Continual education will not only improve compliance in the years following diagnosis, it will also promote adjustments that are caused by the changes occurring in ones life due to age variations. The America Association of Diabetes Educators (AADE) position statement (2002) clarified this point by saying “most individuals will experience physical changes throughout the life cycle... Periodic assessments of physical conditions and illness should thus be included in the overall design of an individualized diabetes self-management education program” (p. 2).

For all of the participants in this study education must be consistent and individually tailored to fit the needs and wants of those with DM2 by professionals who are trained in DM2 education. According to the AADE (2005), “Diabetes Educators provided comprehensive care... [putting] the focus on the patient. By getting to know them as an individual they are able to help create a self management plan that meets their needs” (¶ 4-5). An increase in the number of Diabetes Educators will help promote the health of all those who battle DM2 by providing professionals who can staff programs specializing in on-going individually tailor DM2 education.

There are specific areas that need to be focused on when creating programs for individuals with DM2 that will help promote self-management. All of the participants in the study struggled to consistently incorporate diet and exercise into their lifestyle. To make improvements in this area, the individual must have education that explores their
“attitudes, beliefs, and experiences” with DM2, their “psychosocial status,” including financial and emotional resources, their “literacy and learning style” and “cultural issues” (AADE, 2005, p. 2-3). By assessing all of these areas, self-management education can be more individual, and promote the personal development of those who battle DM2. For a number of the participants in this study personally exploring their issues with diet, exercise, glucose monitoring, and other lifestyle adjustments would help them discover a self management plan that would be the best fit for them. Perhaps the individual time and attention provided by a diabetes educator would help them find the right exercise program, or diet that works well for them.

Another essential requirement of an education program for DM2 is it must include involvement of the individual’s goals. Every one of those interviewed expressed a different ultimate goal in their battle with the disease. By asking the individual what they hoped to gain through education and what their goals are, the educator acts as a facilitator in the creation of a self-management program. “Building the education program around self selected goals helps to maintain participants interest in the education program and provides necessary knowledge and skills for personal goal attainment” (AADE, 2005, p. 40). In order to encourage compliance the individual must feel like an active participant in their plan of care.

Implications for Future Nursing Research

This research opens the door to identify what interventions could address the issues discovered in the experience of those with DM2. The clarification provided in this research should be utilized in the future to address specific needs of individuals with DM2. This research has discovered a great need for individualized interventions for
people with DM2. Research that explores different examples of how interventions could be individualized would be incredibly beneficial in improving evidenced-based practice for nurses working with individuals who have DM2. Nurse researchers must consider all of the studies that have already been conducted about DM2 in order to develop innovative ways to improve the health maintenance of individuals with DM2.

Conclusion

Nurses have an essential role in providing holistic care and education to improve the quality of life for individuals with DM2. Nurses must consider the lived experience of those with DM2 to fully address prevention and treatment issues. The experience of individuals with DM2 explored in this study can be utilized for implementing individualized care and improving future health outcomes of those with DM2.
Appendix A

Informed Consent

Senior Thesis Research Project
Principle Investigator: Jessica Sloan, Carroll College Student RN

You are invited to volunteer for a thesis honors research study. The main purpose of this study is to explore the adult individuals experience with type two diabetes. Your participation in this study is completely voluntary and you may withdraw from it at any time. If there is any new information or a change in the study you will be informed immediately. If you decide to participate in this study there will be one interview where you will be asked to tell about your experience with type two diabetes. These interviews will be an opportunity to share your experiences with diabetes and the effects it has had upon your life. The interviews will occur at a mutually agreed upon time and location.

There are no risks involved in this study, though there may be discomfort associated with discussing emotional aspects of the illness.

You may benefit from this study by sharing experiences and knowledge felt to be important. Empowerment may be gained over the situation by sharing your lived experience.

There is no cost for participating in this study.

Your research records will be confidential. In all records you will be identified by a pseudonym. Your name will not be used or appear in any aspect of this study. Please feel free to ask questions at anytime during the interview process. If other questions occur to you later feel free to contact Jessica Sloan at (208) 484-2329 or by email at jsloan@carroll.edu.

The purpose and procedures of this study have been explained to me. I understand my rights to respectful treatment and confidentiality. The potential risks and benefits have been explained to me. I agree to participate in this thesis paper research study and understand that I can end my participation at any time.

Subject’s Signature: ____________________________ Date: ________________

NAME: (print) _____________________________________________

Investigator’s Signature: ____________________________ Date: ________________

NAME: (print) _____________________________________________
Appendix B

*Interview Guide*

What were your feels when you were 1st diagnosed with type two diabetes?

Do you feel the same about the diagnosis now?

What is your understanding of the pathophysiology of diabetes type 2?

Your personal history with diabetes type 2?

Your experience with your doctors visits.

How you control the diabetes type 2 i.e. medication management, diet, other changes?

Your understanding of why you have been diagnosed with diabetes type 2.

Any medical problems you know of that have resulted from the diabetes type two.

Has the diagnosis of diabetes type 2 affected your life beyond a medical standpoint?

What were your feels when you were 1st diagnosed with type two diabetes?

Do you feel the same about the diagnosis now?
Appendix C

Email to Staff

Dear Carroll College Faculty and Staff;

I am writing my senior thesis on the Adult Individual’s Experience with Type 2 Diabetes. I am looking for a couple more men and women would be willing to share their experiences in a confidential interview. If you or anyone you know would be interested in participating in this Carroll nursing research project, please feel free to contact me at (208)484-2329, or you are welcome email me back at jsloan@carroll.edu. Thank you for your consideration.

Jessica Sloan
Carroll College, Montana
Dept. of Nursing, Class of 07’
References


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