

HEALTH BELIEFS AND HEALTH PRACTICES
OF OPTIMISTIC AND PESSIMISTIC DIABETICS

THESIS

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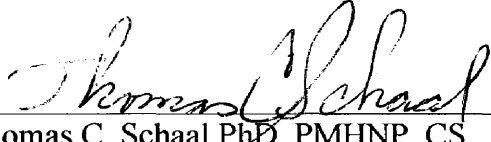
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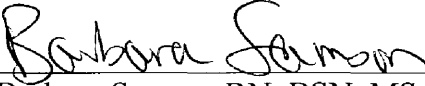
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A special thank you to Barb and Linda for your thoughtful feedback,
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encouraging and challenging me,
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I love you

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Abstract

Life orientation, or one's tendency toward optimism or pessimism, is a personality variable that has been shown to affect physical and psychological well-being. Effects of life orientation on a chronic disease such as diabetes is unknown, largely due to the lack of research evaluating the relationship between the two. The purpose of this study was to evaluate the health beliefs and health practices of optimistic and pessimistic diabetics. Results from personal interviews with three optimistic diabetics and three pessimistic diabetics show that the two groups are indistinguishable with regard to their health practices, but differ in their health beliefs. The implications of these findings are discussed as well as recommendations for future research to better understand the relationship between life orientation and chronic disease.

Chapter I

Introduction

Life orientation, or one's tendency toward optimistic or pessimistic thought, has gained interest for the role it plays in physical, mental, and emotional health. Much research has been devoted to the power of optimistic thinking to increase or maintain physical and psychological well-being. Optimism has been linked to favorable outcomes after surgery, more effective stress-management (Scheier & Carver, 1993), and surpassing expected survival rates (Maruta, Colligan, Malinchoc, & Offord, 2000). Optimism is even regarded by some to have a protective effect on health (O'Brien, VanEgeren, & Mumby, 1995). Pessimism has also been extensively studied for the role it plays in physical and emotional health. Recently pessimistic thought has been correlated with depression and poorer health outcomes (Seligman, 2000), increased usage of the health care system, and early death (Maruta et al., 2000). The recent findings about optimism and pessimism are compelling researchers to greater discovery of the relationship between life orientation and health.

Life orientation is a personality variable that reflects how life events are viewed and responded to. Researchers define optimism as the general expectation that good will happen (Scheier & Carver, 1993). Optimists tend to expect more positive outcomes than pessimists and this tendency remains constant across time (Schweitzer, Beck-Seyffer, & Schneider, 1999). Recent research has correlated optimism with beneficial health outcomes in times of adversity. For example, women with breast cancer who showed optimistic thinking lived longer than those who showed pessimistic thinking (Cerrato,

1998). Optimists also reached milestones faster than pessimists after heart surgery (Scheier & Carver, 1993). Researchers claim optimists usually display better physical and psychological health than pessimists (Schweitzer et al) (Marshall, Wortman, Kusulas, Hervig, & Vickers, 1992) (Stubblefield, 1995). Pessimism is correlated with other factors such as depression, anxiety, and maladaptive coping patterns that have been considered to have a negative impact on health (Hjelle, Belongia, & Nesser, 1996). Mounting evidence seems to support life orientation as an important factor in physical and emotional health.

One of the goals of the nursing profession is to find new ways to improve, maintain, and promote the health of all patients. It may be helpful to further explore how life orientation affects health in order to achieve that goal. One of the ways life orientation may affect a patient's health is through their health beliefs. The concept of health beliefs has been discussed since the 1960's when the Health Belief Model was published (Pender, 1996). The Health Belief model was used to help clinicians predict which patients may or may not participate in health-related behaviors. This model could be used to also explain preventive and compliance-related behaviors (Harris, Linn, Skyler, & Sandifer, 1987) The main concept of the model involves perceived susceptibility and severity of disease that combine to form a threat to health. This threat becomes a motivation for a patient to promote or maintain their health (Pender, 1996). Both health beliefs and perceived notions about disease play a role in their health and well-being. Little research exists about how life orientation and health beliefs co-exist within a patient to ultimately affect their health.

It is not known why some people take actions to avoid or prevent illness while others choose not to. Health practices are the actions a person takes or chooses not to take for their health. It is well known that practices such as smoking, eating a high-fat diet, or exercising have a significant impact on a person's health. The Health Belief Model theorizes that health beliefs have a direct effect on health practices. For example, if a person does not feel that they may be at risk for getting a disease, he or she may not take the necessary steps to prevent or avoid the disease. Very little research has been done to show how life orientation affects health practices.

The research of life orientation in relation to chronic disease is in its infancy. Very few studies have explored the effects of being optimistic or pessimistic while managing a chronic disease. Diabetes is a chronic disease shared by an estimated 16 million people in the United States, of which the majority have Type II, or adult-onset diabetes (Tierney, McPhee, & Papadakis, 2000). Diabetes and its complications are the third leading cause of death in the United States behind heart disease and cancer (Strauss, 1996). Diabetes is a largely a self-managed disease; patients are expected to monitor their own blood sugar, follow the diabetic diet, and perform preventive measures for themselves such as foot care and regular exercise. Non-adherence to the recommended guidelines for diabetics can have dire consequences such as nephritis, neuropathy, and retinopathy. Diabetes is risk factor for cardiovascular disease, which is the number one killer of American adults (Tierney et al., 2000). Diabetes is a chronic disease that has far-reaching effects on health. It is not known what role life orientation plays in living with a chronic disease.

Theoretical Framework

Nola Pender's Health Promotion Model will be used as a theoretical framework to guide this study. The Health Promotion Model was created as a framework for understanding the complex factors that influence health behavior (Tomey & Alligood, 1998). A main focus of the model is of the factors within a person that are affected by both internal and external forces to determine if participation in health promoting behaviors will occur. There are several concepts within the model, such as the patient's definition of health, importance of health, perceived control of health, perceived health status, perceived benefits of behaviors, and perceived barriers to health-promoting behaviors. For the purposes of this study, all of the above will be considered as one under the main concept of health beliefs.

In her model, Pender also identifies the concept of health behaviors. Health behaviors are health-related actions taken such as exercising or compliance with medical advice for an illness. The motivation for health behaviors is unique to the individual and has complex sources (Pender, 1996). For example, motivation may stem from a desire to promote well-being, from an avoidance-oriented approach to illness, or from a mixture of both. The desire to promote health and the desire to avoid illness are related to a person's perceived susceptibility to illness or disease. Health behaviors are also determined in part by the perceived barriers to the action, and the perceived benefit of the action. The Health Promotion Model does not include threat as a motivation for health promoting behaviors, and because of this can be applied to populations across the

lifespan. For the purposes of this study, health behaviors will be considered synonymous with health practices.

Definition of Terms

This section will define the main concepts for this research project.

*Life orientation: The tendency toward optimism or pessimism.

*Optimism: The tendency to expect more positive outcomes and less negative outcomes in life events. The benefits of optimistic thinking will be discussed in chapter two.

*Pessimism: The tendency to expect more negative outcomes and less positive outcomes in life events. The adverse effects of pessimistic thought will be discussed in chapter two.

*Health beliefs: The health-related beliefs held such as the importance of health, the individual's definition of health, perceived health status, perceived control of health, perceived susceptibility of disease, perceived benefits of health-related actions, and perceived barriers to action.

*Health practices: Health-related actions that a person takes or chooses not to take. For the purposes of this study, only health practices that relate to diabetes will be included.

In summary, growing evidence shows a personality trait such as life orientation (optimistic/pessimistic tendencies) seems to affect health. There is little research about the effects of optimism or pessimism in relation to diabetes management. There is also little research to connect the concepts of life orientation, health beliefs and health

practices while managing a chronic disease such as diabetes. In order to use the existing information about the benefits of being optimistic, we must have a better understanding of just how optimists and pessimists differ. Exploring the health beliefs and health practices of diabetics may help in gaining an understanding of how optimism and pessimism affect chronic disease. The purpose of this study is to explore health beliefs and health practices of optimistic and pessimistic diabetics.

Chapter II

Review of Literature

The review of literature will begin with a focus on the concepts of optimism and pessimism. Research that evaluates life orientation and effects on health will then be discussed. Literature that offers an alternative view of optimism and pessimism will be included as well as studies investigating the relationship between life orientation and diabetes.

Concepts of optimism and pessimism

The definition of optimism may be different for the layperson than for researchers. For example, the layperson may consider the notion of “every cloud has a silver lining”, as being optimistic. The research has defined optimism in different ways. Optimism is looking on the bright side of a problem, no matter how the problem impacts life (Bruckbauer & Ward, 1993). Scheier and Carver (1993) defined optimism as one’s belief that good things will happen in one’s life. This is different than hoping or wishing for good things, it is the expectation that good will happen. Scheier and Carver call this dispositional optimism which they report may or may not be different from situational optimism. Dispositional optimism is a generalized personality trait that should remain fairly constant. However, Scheier and Carver (1993) clarify that not all optimistic people are optimistic in all situations. For example, a person may be optimistic about graduating from college, but may be less optimistic about getting a big promotion at work.

Many research studies have adopted Scheier and Carver’s definition of dispositional optimism. However, other explanations of optimism have been offered.

Schweitzer, Beck-Seyffer, & Schneider (1999) proposed that optimism can be thought of as a way to process information, as a way of thinking about future events. The implication is that optimism is a cognitive function. In keeping with this theory, researchers find that normal cognitive processes favor the “encoding, storage, and recall” of positive information over negative information (O’Brien et al., 1995). Optimists can perceive information differently than pessimists; lending support to the phrase “it’s all in how you look at it”. Is it that optimists believe that good will come and so they are more open to perceiving it when it does? Helen Keller wrote about optimism: “Thus my optimism is grounded in two worlds, myself and what is about me. I demand that the world be good, and lo, it obeys. I proclaim the world good, and facts ‘range themselves to prove my proclamation overwhelmingly true” (O’Brien et al., 1995.)

Researchers have not agreed on whether optimism and pessimism are polar opposites or distinct, but related concepts. Scheier and Carver (1993) based their research on the former explanation rather than the latter. Other researchers have proposed that the optimism/pessimism relationship is a continuum (Strassle, McKee, & Plant 1999). Some researchers report that optimism and pessimism are not polar opposites, but distinct concepts that are correlated (Marshall et al., 1992). These researchers explain that a person can have different levels of optimism and pessimism coexisting within their personality. Another factor that may explain optimism and pessimism that can coexist within a person is the concept of time. For example, a person may be pessimistic about the near-future, but optimistic overall (Marshall et al., 1992).

There seems to be little agreement in the research about how to view optimism and its relationship with pessimism.

Research evaluating the effects of optimism and pessimism on health

Optimism is negatively correlated with depression, anxiety, anger, physical symptoms, and job burnout, and positively correlated with life satisfaction, lower incidences of mental disorders, and better physical and mental health (Strassle et al., 1999). Pessimism is related to neuroticism and negative affect (Marshall et al., 1992). Optimism is also related to ego strength (Scioli, Chamberlain, Samor, Lapointe, Campbell, & MacLeod, 1997), extroversion and positive affect (Robinson-Whelen, Kim, MacCallum, & Kiecolt-Glaser, 1997). According to Stubblefield (1995), optimists are more determined in their goal-directed behavior and are not as easily swayed by obstacles as pessimists.

Several health benefits of optimism have been studied; one study shows optimists to have lower ambulatory blood pressure readings (Raikkonen, Matthews, Flory, Owens, & Gump, 1999). Dispositional optimism was correlated with higher levels of cytotoxic T cells in the blood. This study found that situational optimism is associated with higher levels of T cells. The same study found results that situational optimism was a better predictor of immune changes than dispositional optimism (Segerstrom, Taylor, Kemeny, & Fahey, 1998). Other studies found that optimistic women were less likely to have post-partum depression. Optimists also fared better after heart surgery; they achieved recovery milestones faster, and were more likely to have resumed activities of normal living earlier than pessimists (Scheier & Carver, 1993). Optimism has been shown to be

correlated with success in alcohol treatment programs and with adjustment after surgery for breast cancer (Robinson-Whelan et al., 1997).

Life orientation may be a predictor of long-term survival, so say researchers at the Mayo Clinic. Their study investigated the link between optimism, pessimism, and long-term survival. The researchers defined life orientation as a cognitive personality variable, as a way people explain the causes of bad events in their lives. They also determined that three main concepts to life orientation exist; external vs. internal explanatory style, stability vs. instability, and globality vs. specificity. People with an internal explanatory style would tend to blame themselves when explaining negative life events, whereas in contrast an external explanatory style would cause one to look for an explanation other than self. Pessimists are more likely to view negative life events as stable in their life rather than transient. The globality concept is also a factor; pessimists are more likely to view a negative event as affecting their whole lives rather than specific aspects (Maruta et al., 2000).

Between 1962 and 1965, 839 patients at the Mayo Clinic took the Minnesota Multiphasic Personality Inventory (MMPI), a comprehensive psychological test. The Optimism-Pessimism scale (PSM) is a subset of 298 items within the MMPI and was developed to identify a pessimistic or optimistic outlook on life. A score of 39 or lower on the PSM classified one as an optimist, and a score of greater than 60 would classify one as a pessimist. Of the 839 patients included in the study, 124 were optimistic, 518 “mixed”, and 197 pessimistic. Researchers at The Mayo Clinic recently conducted a follow-up study of these patients 30 years after taking the MMPI to evaluate the current

“vital status” of each patient. Of the original sample, an 86% follow-up success rate was achieved. Five hundred twenty three people were located, 200 people had died, and 116 people could not be found (Maruta et al., 2000).

After data analysis several trends emerged, though the most significant finding was a positive correlation with pessimism and decreased survival. Higher scores on the PSM (denoting pessimism) was associated with higher than expected mortality even after adjusting for sex, age, and expected survival. Patients who scored in the mid-range area of the PSM had better than expected survival rates, and those scoring low (denoting optimism) showed survival rates that were significantly higher than expected (Maruta et al., 2000).

The researchers associated with this particular study infer that pessimism is a risk factor for early death. There was a demonstrated difference in survival rates between the optimists and pessimists, but does optimism prolong life, does pessimism shorten life, or both? The optimists in the study had better-than-expected survival rates. The researchers offer some theories to explain this: Optimists are less likely to develop depression and “learned helplessness.” Another possible explanation is that optimists may have a different view of health care and may be more compliant with medical advice (Maruta et al., 2000).

Life orientation and stress management

Many other health benefits have been found to associate with optimistic thinking, perhaps the most important is the way optimists manage stress. As is commonly known, stress is associated with health problems such as gastrointestinal disorders, respiratory

disorders, and cardiac disease just to name a few. Effective ways of managing stress may reduce a negative health outcome. Optimists seem to cope more effectively with stress, according to Scheier, Weintraub, and Carver (1986). Their explanation is simple: optimists are more likely to use strategies that are more effective in managing stress.

Social support while managing stress has been shown to be very beneficial to the individual. Optimists are more likely to seek out social support. They are also more likely to develop a plan for coping with a stressor which included an increased effort to reduce competing activities. In contrast, pessimists tended to focus on their feelings; they also tended to take on coping strategies that allow themselves to become distanced from the goal that the stressor is interfering with (Scheier et al., 1986). Although coping mechanisms are a major part of adjustment to a stressor, Chang (1998) found that optimism was a predictor of adjustment even after controlling for coping.

Coping mechanisms are important in managing stress, both everyday stress and a prolonged stressor. Chang (1998) used this definition of coping in his research: Coping is “the behavioral and cognitive efforts one uses to manage the internal and external demands of a stressful situation” In his research, he found a link between optimism and coping. Problem-focused coping is a mechanism of dealing with stress by attempting to remove the source of the stress. Emotion-focused coping is a mechanism whereby the individual decreases the amount of emotional distress experienced in relation to a stressor. Optimism is positively associated with problem-focused coping, especially when the situation is perceived as controllable. Optimists were more likely to accept a stressor when they perceive the situation as uncontrollable and were less likely to engage

in denial. Pessimists were more likely to engage in emotion-focused coping which includes wishful thinking, self-blame, and self-isolation as well as others (Scheier, et al 1986).

Alternative views of optimism and pessimism

Some researchers point out that optimism isn't always beneficial and pessimism isn't always detrimental to health. Stubblefield (1995) proposes that optimism is partly an illusion. Not that this is necessarily bad, she writes, because pessimism, despair, and depression all have in common the lack of self-deception, and focus on stark reality. She concedes that the danger of optimism is in an unexpected negative situation that may produce a decreased ability to cope. The optimist would then re-structure the event by denying control over the situation; this restructuring may contribute to passivity and may affect health. Stubblefield also proposes that optimism may diminish the perception of health risks and related decisions. Another study concluded that optimists underestimated their susceptibility to hypertension (O'Brien et al., 1995). Scheier and Carver (1993) acknowledged the possibility that optimists could sit and wait for good things to happen to them, but have seen no evidence of this in their research. Instead, they say, optimistic people tend to view outcomes as "partially contingent on their continued effort." Researchers Scheier and Carver (1993) acknowledge that pessimism may serve a protective function in the event of future failure. Defensive pessimism may motivate someone to prevent a failure from happening.

Life orientation, related concepts, and diabetes

The social learning theory spawned the concept of locus of control; it has since been used in research to predict health behaviors (Wooldridge, Wallston, Graber, Brown, & Davidson, 1992). According to research, optimists tend to have an internal locus of control (Scioli et al., 1997). To explain further, optimists believe that they have control over their life so-to-speak, that success is attributed to an internal source rather than a potentially random external source. By the same token, optimists see their own failure not as an extension of themselves, but as “situation-specific” (Stubblefield, 1995). Pessimists are more likely to attribute failure to an internal cause (Scheier & Carver, 1985).

The cornerstone of diabetes management is increasing patient adherence to treatment. Researchers claim that adherence is a complex concept that involves patient perceptions, attitudes, beliefs, and behaviors (Strauss, 1996). Locus of control has been studied as a predictor of health behaviors. Those patients with a tendency toward internal locus of control were more compliant with their treatment; they also had an increased perceived severity of their disease. Those with an internal locus of control also had greater faith in screening tests for disease. They also perceived greater benefit from treatment of their diabetes and were more likely to adhere to their treatment plan. Those with an external locus of control perceived their diabetes as less severe and perceived greater cost (financial, physical) and less benefit of treatment adherence (Wooldridge et al., 1992). Strauss (1996) suggests that those with a tendency toward external locus of

control may be unwilling or unable to cope with the intense self-regulatory behaviors in the diabetes treatment plan.

In conclusion, the literature review supports the benefits of optimistic thought and the negative health consequences with pessimistic thought. The literature also suggests that optimists may have a different view of health than pessimists. It is not known how optimists and pessimists differ, especially in relation to health beliefs and health practices. The literature supports that optimists manage prolonged stressors more effectively than pessimists. If chronic disease can be considered a prolonged stressor, it may be suggested that optimists manage the stress of diabetes differently than pessimists. Due to the fact that little research has been done in this area, the relationship that life orientation has to chronic disease is unknown. As advanced practice nurses strive to help patients improve their overall health, life orientation seems to be an important area to explore as possible means of achieving this goal. This study will seek the answers to the following questions:

1. What are the health beliefs of an optimistic diabetic?
2. What are the health practices of an optimistic diabetic?
3. What are the health beliefs of a pessimistic diabetic?
4. What are the health practices of a pessimistic diabetic?

Chapter III

Methodology

This chapter discusses the methodology used in this study. The research design is identified, the inclusion criteria and sampling process is described as well as the instruments used in data collection. This chapter also outlines the procedure followed for data collection.

Design

The purpose of this study was to explore the health beliefs and practices of optimistic and pessimistic diabetics. A mixed design was chosen; quantitative as well as qualitative aspects are used to carry out the study. This mixed design approach is gaining popularity in the nursing field (Polit & Hungler, 1999). The quantitative component of the study was a structured questionnaire called the LOT-R (Appendix A) which was given to patients to determine their life orientation (optimism/pessimism). This questionnaire will be discussed in a later section. The LOT-R questionnaires were scored and subjects were grouped according to their score. Subjects with the highest and lowest LOT-R scores were interviewed to gain information on health beliefs and health practices; this served as the qualitative piece. The data obtained in the personal interviews were then analyzed for patterns, similarities, and differences of the optimist and pessimist groups.

Sample

Optimistic and pessimistic diabetics comprised the population to be studied for this project. The diabetic population was chosen specifically because diabetes is a self-

managed disease, and the patient's wellness is directly related to health practices and beliefs. Due to time constraints, a convenience sample was used. This type of sampling is not ideal, however in qualitative studies it is often used (Polit & Hungler, 1999). The sample for this study was recruited from diabetic classes through a local hospital diabetes education program.

An appropriate sample for this project would be diabetics who are similar in several ways but differ in their life orientation (optimism vs. pessimism). Eligibility for inclusion required a diagnosis of diabetes (type II) for greater than one year prior to participation in the study. Subjects must have had the disease for a long enough period of time for the incorporation of disease management to become routine in their lives. Participants must have also been responsible for managing their own disease versus having a caregiver, i.e. checking their own blood sugar, monitoring their own diet, administering medicine, etc. Participants must not have been dependent on insulin. This stipulation was included in an effort to create increased similarity in the group of subjects. In order to be considered for inclusion in the study, participants must have been 18 years of age or older in order to be able to sign their own consent for participation.

After hearing the above criteria, subjects who believed they met all criteria and were willing to participate were given the LOT-R to determine their life orientation for inclusion in the study. Subjects were also given a questionnaire to collect demographic information (Appendix B) such as age, sex, type I/II diabetes, education level, and information about where they obtained their diabetes education in an attempt to examine any possible influences on the information obtained.

Instruments

Scheier and Carver developed a tool for measuring optimism called the Life Orientation Test or LOT (1985). The LOT is an eight-question tool with four items that are positively keyed denoting optimistic tendencies, and four negatively keyed items denoting pessimistic tendencies. Four filler items are included to disguise the actual purpose of the test and are not used when scoring the tool. The LOT is the most widely used tool to measure optimism in current research, (Hjelle, Belongia, & Nesser, 1996) and is considered by the creators to be a unidimensional measure of optimism. To explain further, Scheier and Carver feel that optimism and pessimism are polar opposites and the LOT measures optimism based on that concept. However, the creators did a factor analysis when they created the LOT which resulted in two separate factors that corresponded to the negative and positive items in the LOT. Scheier and Carver still concluded that it is best to treat the LOT as a unidimensional measure (Hjelle, et al. 1996).

In 1994, Scheier, Carver, & Bridges reevaluated the LOT due to some criticism surrounding the unidimensionality of the test. They revised the original LOT, removing two optimistic items and one negative item. One positive item was added to even out the number of optimistic and pessimistic items. The new scale was called the LOT-R. Scheier and Carver tested their new scale and found a new factor structure; it is now possible with the new scale to consider it a one or two factor measure of optimism. To explain further, with the new scale, it is possible to measure optimism and pessimism

separately. The creators suggest that the unidimensional approach still be taken for the sake of simplicity. Internal consistency for the LOT-R was measured with Cronbach's alpha, the result for the six items was .78 suggesting it is acceptable. Test-retest reliability is stable across time (Scheier, Carver, & Bridges, 1994).

The LOT-R is a ten-question tool with three positively worded items, three negatively worded items, and four filler items to disguise the actual purpose of the tool. Questions are answered using a five-point Likert scale with answers ranging from strongly disagree to strongly agree. Participants are asked to choose the response that best fits that question. The creators of the LOT-R suggest scoring it in the following way: the responses are numbered with "strongly disagree" given a score of 0, "disagree" given a score of 1, and so on. The negatively worded items (question numbers 3, 7, 9) are reverse-coded before scoring. The filler items are excluded when scoring the LOT-R. The range for possible scores is 0-24 with the higher the score, the higher the dispositional optimism. The same is true in the opposite for dispositional pessimism (Scheier, Carver, & Bridges, 1994).

Procedure

Subjects were recruited from an outpatient diabetes education program through a local hospital. The instructor of each class notified the students of the research project and of the researcher's plan to come at the conclusion of the class. The students were also given the opportunity to leave if they did not wish to participate before the researcher entered the classroom.

Upon entering the class the researcher then explained the study and requested volunteers to participate. Participants volunteered by either raising their hand or by coming to the front of the room. The volunteers were given the LOT-R and the demographic forms and were asked to complete each. Upon completion of the questionnaires each participant was asked if they would be willing to be interviewed; if they responded yes their phone number was then requested. All participants who completed the questionnaires were then given the explanatory letter (Appendix C) with the researcher's name and number and were told they may or may not be called for an interview.

A semi-structured interview was then scheduled with each of the final sample of six participants based on their LOT-R scores. The interviews took place either in the participants' home (4 out of 6) or in a neutral location such as a community center (2 out of 6). Participants were asked to sign a consent form (Appendix D) before the start of each interview. The personal interviews consisted of open-ended questions (Appendix E) to elicit information about the health beliefs and health practices of the subject. Each personal interview was tape-recorded for the purposed of future data analysis. At the conclusion of the interview subjects were thanked for their time and again assured that the information received is strictly confidential and will not be viewed by anyone not directly involved with the study. Each subject was offered a copy of the results of the study when it became available.

Chapter IV

Results

This chapter presents a compilation of demographic information collected on subjects, the LOT-R scores for all subjects, and a synopsis of information collected from the personal interviews. This chapter begins with an overview of the methods of data analysis for the information collected in the personal interviews.

Methods of data analysis

After the conclusion of data collection each personal interview was transcribed into text. This text was then analyzed using the Constant Comparative Method of Glaser and Strauss (1967). Following this method, the transcripts were examined and categories or themes emerged. According to Glaser and Strauss the noting of categories can be as simple as writing in the margins of the transcripts. The categories were supported by “incidents”, or specific statements or stories by the participants. The hallmark of the Constant Comparative Method of qualitative data analysis is the continual comparison of incidents applicable to each category. Glaser and Strauss concur that incident comparison can be based on memory. The Constant Comparison Method also encourages the researcher/analyst to stop coding when becoming flooded with thoughts and second guessing the relevance of incidents to specific categories. At this point, according to Glaser and Strauss, the researcher should put their thoughts down on paper for future analysis (1967). The Constant Comparative Method of qualitative data analysis was used to analyze the data gathered in the personal interviews for this study.

The paragraph was chosen as the unit of analysis for this study based on the rich, anecdotal type of information collected in the personal interviews.

Results of demographic information for entire sample

Seventeen people volunteered for participation in the study. Of those seventeen, one person did not fill out the LOT-R and two people did not fill it out completely and therefore had to be disqualified from participating. The remaining fourteen participants filled out the demographic and LOT-R questionnaires completely. The participants ranged in age from 40-80 years of age with an average of 67. The group of fourteen was comprised of nine females and five males, 13 Caucasians and one African-American. The participant's yearly income ranged from \$15,000 to \$70,000 with an average of \$37,500. Ten of the participants were married, 4 were single or widowed. Education level (in number of years) ranged from 12 to 17 with an average of 13.6 years. The fourteen participants must have been diabetic for greater than one year to be included in the study; the range of number of years with diabetes (in years) is 1-50. Seven of the fourteen were insulin-dependent, seven were non-insulin dependent.

Results of demographic information for final sample

Six of the fourteen people were chosen to be interviewed based on their LOT-R scores; three optimists and three pessimists. The final sample consisted of three optimists (two women and one man) and three pessimists (two women and one man). All six were married and were of Caucasian descent. The average yearly income for the final sample is \$41,000; the average yearly income of the optimists in the final sample is \$33,333 versus the pessimists average of \$50,000. The average level of education was

higher for the pessimists at 15.3 years than the optimist's average of 13.3 years. The average pessimist had been diabetic for 11.7 years while the average optimist had the disease for 23 years. There was one insulin-dependent person in the optimist group and two insulin dependent people in the pessimistic group.

Results of LOT-R questionnaires

Fourteen questionnaires were fully completed. The scores ranged from 10-18 with the average score being 14.1. The highest scores of 18, 17, and two scores of 16 were chosen for the optimistic group to be interviewed. The three lowest scores of 10, 11, 12 were chosen for the final sample. However two substitutions were made due to participant inavailability and participant declining to be interviewed. The scores of the final sample were then 10, 11, and 13 for the pessimistic group and 16, 16, and 18 for the optimistic group.

Interview Data

The following tables are a summary of the data collected in the personal interviews. A narrative summary of the interview data is presented for each participant and followed by the corresponding table. The categories/themes that emerged for each participant are listed with a breakdown of the pertinent supporting information. The categories were scored on a level of intensity from 1 (low intensity) to 5 (high intensity). The intensity scores were determined by the degree to which the category affected the life of the participant as perceived by the interviewer. A low level of intensity, a score of 1 or 2, was given if the category was either briefly mentioned, not deemed to be significant by the participant, had little impact on, or played a very small role in the life

of the participant. A higher intensity score, such as a 4 or 5, was given if the category was discussed in a large segment of the interview, if the participant deemed it important, or if the category seemed to have a large impact, or play a large role in the daily life of the participant. A score of 3 was given if the category seemed to play an “average” role or have an expected impact in the life of the participant.

Participant #15

Participant #15 had the highest LOT-R score; the interview took place at her home on a weekday afternoon. She seemed to be a happy person, she smiled and laughed often and joked with the interviewer about current events. She seemed relaxed and maintained good eye contact throughout the interview. In addition to her definition of health and the importance she places on it, other health beliefs emerged in the interview. She perceived 100% control over her health, she was aware of her barriers to improved health and she perceived great benefit to compliance with diabetic routine and other health practices. Her main motivating factors for health practices were prevention of complications from diabetes; she noticed a decreased state of health when her compliance with the diabetic routine is low.

Stress management played a large part in her life; she recently took a medical leave of absence from her job primarily due to self-reported stress-related effects on her health. At the time of the interview she had not returned back to work and currently reported her stress levels to be very low. She planned on managing stress in the future through career changes, exercise, and meditation. She showed insight when discussing her previously unsuccessful stress-management ways by evaluating her response to stress.

She acknowledged her ignorance with stress management and states she is interested in taking a class to learn more.

Table 1 Optimist

Participant #15 Intensity: 1-5

<p><u>Health:</u> No problems, enjoying life</p> <ul style="list-style-type: none"> •mixed messages about whether she views herself as healthy •healthy means not being held to a schedule •having a good outlook •places importance on health; "it's everything" <p>2 <u>Exercise:</u></p> <ul style="list-style-type: none"> •yoga •acknowledges need for more activity •walk, bike ride, housework, garden •high perceived benefits of exercising - (losing weight) •not able to run now due to obesity <p>4 <u>Stress management:</u></p> <ul style="list-style-type: none"> •yoga •meditation •taking medical leave •simplifying life •admits "getting emotional" with stress; considers taking a stress management class <p>3 <u>Motivation for health practices:</u></p> <ul style="list-style-type: none"> •avoiding diabetes complications •avoid high blood glucose readings <p><u>Social Support:</u></p> <p>4</p> <ul style="list-style-type: none"> •large family, they get along well •family lives nearby, active in each others lives •"teamwork" marriage <p><u>Stress:</u></p> <p>4</p> <ul style="list-style-type: none"> •Work •raising a child 	<p><u>Nutrition:</u></p> <p>3</p> <ul style="list-style-type: none"> •working on expanding her knowledge •aware of pitfalls •agrees that increasing compliance will reap more benefits <p><u>Locus of Control:</u></p> <p>4</p> <ul style="list-style-type: none"> •"100% control" over health •can't control stress <p><u>Health Practices:</u></p> <ul style="list-style-type: none"> •checks blood sugar BID/TID •denies smoking history •denies alcohol history <p><u>Miscellaneous:</u></p> <ul style="list-style-type: none"> •self admitted trouble with decision making •involved in pleasurable activities <ul style="list-style-type: none"> •gardening •exercise •would "love" to have medication discontinued <p><u>Commentary:</u></p> <ul style="list-style-type: none"> •good mood •welcoming •good eye contact •laughed often •relaxed body language.
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Participant #14

Participant #14 was the first person to be interviewed. The interview took place at the community center within the senior-citizen apartment complex in which she lived. She seemed quite nervous about the interview and glanced at the tape recorder often. She became tearful during the interview and asked that the recorder be turned off. When it was, she told me that she had a fight with her husband that morning and was still quite upset about it.

The concept of health was our starting point, but the interview quickly changed to her marriage and the stress in her life. The focus became the stress in her daily life primarily caused by her husband. She discussed at length her feelings of loneliness, loss, and lack of social support. She had a self-reported apathetic attitude about life and health at times which she acknowledged isn't beneficial to her health.

This participant seemed to perceive limited benefit from exercise, stating that she currently felt healthy. She was compliant with other health practices relating to diabetes; her motivation for that seemed to be desire to prevent complications from the disease. She seemed only partially aware of her barriers to improved health; she acknowledged her lack of stress-management skills and saw arthritis as a barrier to exercise. She seemed to have an internal locus of control, stating that she has close to 100% control over her health. She showed that she was pro-active in her diabetes management by taking herself off of some medication and she evaluated the effects. She seemed to perceive a great benefit from following diabetic regime. She admitted that her compliance with recommendations was good, but with room for improvement.

Table 2 Optimist

Participant #14 Intensity: 1-5

<p>Health: "getting through the day without any problems... not seeing the doctor so much"</p> <p style="margin-left: 40px;">*placed importance on health</p> <p style="margin-left: 40px;">*"generally speaking, I have good health"</p>	<p>3</p>	<p><u>Spirituality:</u></p> <p style="margin-left: 40px;">*attends church</p>
<p>2 <u>Exercise:</u></p> <p style="margin-left: 40px;">*denies regular exercise</p> <p style="margin-left: 40px;">*excuse- arthritis</p>	<p>3</p>	<p><u>Locus of Control:</u></p> <p style="margin-left: 40px;">*took herself off of some medication</p> <p style="margin-left: 40px;">*"if I don't take care of myself, who is going to?"</p> <p style="margin-left: 40px;">*"close to 100% control over health"</p> <p><u>Health Practices:</u></p> <p style="margin-left: 40px;">*checks blood sugar QD</p> <p style="margin-left: 40px;">*denies smoking history</p> <p style="margin-left: 40px;">*denies alcohol history</p>
<p>4 <u>Stress:</u></p> <p style="margin-left: 40px;">*husband with dementia</p>	<p>3</p>	<p><u>Chronic Health Problems:</u></p> <p style="margin-left: 40px;">*coronary bypass surgery</p> <p style="margin-left: 40px;">*arthritis</p>
<p>4 <u>Stress Management:</u></p> <p style="margin-left: 40px;">*poor coping skills "I don't know what to do"</p> <p style="margin-left: 40px;">*reports getting emotional with current stress</p> <p style="margin-left: 40px;">*inquires about a stress management class</p>	<p>3</p>	<p><u>Apathetic Attitude:</u></p> <p style="margin-left: 40px;">*"when you get my age, what is the use?"</p> <p style="margin-left: 40px;">*"If I am going to live, I am going to live. if I'm going to die, I'm going to die."</p> <p style="margin-left: 40px;">*"I get the 'what's the use' attitude, which isn't good for my health."</p> <p style="margin-left: 40px;">•</p>
<p>3 <u>Social Support:</u></p> <p style="margin-left: 40px;">*"no real friends"</p> <p style="margin-left: 40px;">*not close to near-by daughter</p> <p style="margin-left: 40px;">*good relationship with daughter in Colorado</p> <p style="margin-left: 40px;">*"I feel very alone"</p>	<p>3</p>	<p><u>Dependence Independence:</u></p> <p style="margin-left: 40px;">*relies on husband to drive</p> <p style="margin-left: 40px;">*she does all the bills</p> <p style="margin-left: 40px;">*they share housework</p>
<p>4 <u>Loss:</u></p> <p style="margin-left: 40px;">*most of friends have died</p> <p style="margin-left: 40px;">*loss of good health</p> <p style="margin-left: 40px;">*marital changes; loss of husband's health</p> <p style="margin-left: 40px;">*decrease in social activities</p>	<p>3</p>	<p><u>Commentary:</u></p> <p style="margin-left: 40px;">*good eye contact</p> <p style="margin-left: 40px;">*switched positions several times</p> <p style="margin-left: 40px;">*broke down during interview. requested the tape recorder to be turned off. Off tape she told me she had a fight with her husband and was quite upset about it. She was tearful at times</p> <p style="margin-left: 40px;">• Seemed nervous about tape recorder. she glanced at it several times.</p>
<p>2 <u>Diet:</u></p> <p style="margin-left: 40px;">*tries to comply with dietary recommendations</p> <p style="margin-left: 40px;">*admits that knowledge base needs to be increased</p>	<p>3</p>	<p><u>Commentary:</u></p> <p style="margin-left: 40px;">*good eye contact</p> <p style="margin-left: 40px;">*switched positions several times</p> <p style="margin-left: 40px;">*broke down during interview. requested the tape recorder to be turned off. Off tape she told me she had a fight with her husband and was quite upset about it. She was tearful at times</p> <p style="margin-left: 40px;">• Seemed nervous about tape recorder. she glanced at it several times.</p>

Participant #16

Participant #16 was interviewed in his home on a weekday afternoon. He seemed like a personable man, maintaining good eye contact and relaxed body language throughout the interview. He also seemed somewhat dominating; he controlled the interview process. He also projected an “in charge” demeanor in the stories that he chose to tell. The participant tended to focus primarily on the past. He would answer most of the interview questions with anecdotes from the past. He supplied the interviewer with many stories of his experiences in the war and his career. Only occasionally did he speak of his wife and family.

The participant projected a strong sense of internal locus of control in all aspects of his life. He placed great importance on health and did not see himself as healthy according to his own definition. Several times he spoke of the loss of mobility and ability to engage in activities associated with his arthritis and heart disease. This category was given a higher intensity level due to the impact on his life as perceived by the interviewer. The participant perceived great benefit (longer life) from compliance with diabetic regime, he also placed importance on regular exercise. He identified his motivations for health practices as a desire to avoid diabetic complications. He was aware of barriers to improved health and seemed insightful about ways to improve health.

The concept of loss factored large for him as well. He tended to glorify the past and his abilities then. When asked to speak about his life in the present he would only briefly comment. He also answered most questions about feelings or beliefs with short responses. He did seem to have a good level of social support.

Table 3 Optimist

Participant #16 Intensity 1-5

<p>3</p> <p>4</p> <p>3</p> <p>3</p> <p>4</p>	<p><u>Health:</u> Being "fit" enough to do whatever you want; not being held back</p> <ul style="list-style-type: none"> •does not see self as healthy •places importance on health <p><u>Exercise:</u></p> <ul style="list-style-type: none"> •uses treadmill and "two other machines" regularly •acknowledges need to lose weight •acknowledges benefits of losing weight <p><u>Chronic health problems:</u></p> <ul style="list-style-type: none"> •arthritis--two knee replacements •MI-had bypass •retinopathy •neuropathy <p><u>Motivation for health practices:</u></p> <ul style="list-style-type: none"> •avoiding diabetic complications •acquaintance died of diabetes, doesn't want to follow same path •"the sooner I can get to where I need to be, the longer I'll be alive" <p><u>Social Support:</u></p> <ul style="list-style-type: none"> •few friends-- ("I'm selective") but friends are close •large family, lives nearby, positive relationships •happy marriage <p><u>Loss:</u></p> <ul style="list-style-type: none"> •not able to be as active due to arthritis •makes him "feel like a cripple, I don't like it" •not able to fly a plane •diabetes has "restricted me"; loss of some freedom •Loss of purposeful time in life: spent much of interview discussing experiences in the service and of his career 	<p>3</p> <p>5</p> <p>1</p> <p>5</p>	<p><u>Nutrition:</u></p> <ul style="list-style-type: none"> •acknowledges dietary pitfalls •sees the benefits of following diet •"watching what you eat keeps you healthy" <p><u>Locus of Control:</u></p> <ul style="list-style-type: none"> •internal locus of control--evident in many of his anecdotes •health "is as good as I want it to be or as bad as I want it to be" •health "is all up to me" <p><u>Health Practices:</u></p> <ul style="list-style-type: none"> •checks blood sugar BID, keeps a log •hx of smoking, quit some time ago •hx of excessive ETOH, denies now <p><u>Stress:</u></p> <ul style="list-style-type: none"> •Stress levels have dropped off since retirement <p><u>Independence/Dependence:</u></p> <ul style="list-style-type: none"> •projects that soon he'll stop driving--very sad about it •many stories exhibiting his stubborn independence <p><u>Miscellaneous:</u></p> <ul style="list-style-type: none"> • many stories of being in the military: "I would do it again" •stubborn independence- evident in several stories <p><u>Commentary:</u></p> <ul style="list-style-type: none"> •welcoming •good eye contact •relaxed body language. •one word answers to personal questions when other answers were several paragraphs long •seemed to be focused on the past--he brought it up answering questions on completely different subjects
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Participant #5

Participant #5 was interviewed in a conference room before a diabetic support group meeting. She seemed a little nervous about the interview, but seemed to relax after reassurance about the nature of the questions. Overall, she seemed like a sad woman who saw no way out of her current situation. She became tearful a few times during the interview while discussing her health and her support systems. She did not view herself as healthy by her own definition, but placed some importance on good health.

There were several categories that emerged in the interview that seemed to factor largely into her life, complications from diabetes being one. She had developed a large leg ulcer that had been present for the past 9 years. The non-healing ulcer has significantly affected her mobility, she now required a motorized scooter to get around. She is not able to drive which requires her to be dependent on her husband for transportation. It became apparent that the loss of her independence is a source of sadness for her. She became tearful when discussing her marriage and the friction in the relationship. She did not seem to have support in other areas of her life; she is not close with her children and does not have any close friends. I thought it was significant that she blamed others for her situation and did not have any insight as to how she could change it herself.

Participant #5 seemed to have an external locus of control. She believed that she was powerless to enact any changes on her situation. She was compliant with her diabetic regimen to a degree; she did check her blood sugar 4 times per day. She reported that she did some upper extremity range of motion exercises at bedtime and

acknowledged the need for more. She was aware that her excess weight is hindering her and that portion control is her downfall. Following the recommended diet is difficult, she reported, due to the fact that she does not do the cooking. She seemed to perceive little benefit from increased dietary compliance and/or increased exercise. Instead she conveyed an apathetic attitude toward her health practices.

The last category that seemed to profoundly affect her life is the ability to control anxiety and emotions. This category was given an intensity level of 4 due to the large part it played in every aspect of her life. She did not have effective stress management skills. According to her, she could “sit there and fume” instead of doing something about a given situation. Overall, she seemed helpless, powerless, and sad.

Table 4 Pessimist

Participant #5 Intensity 1-5

Health: Absence of illness

- does not perceive self as healthy

Exercise:

- does 15-20 minutes of light arm exercises at bedtime
- acknowledges need for more

Disease complications:

- ulcer on leg for 9 years, not healing
- unable to walk, uses a cart to get around

Anxiety/emotions:

- “I get upset easily”
- “sometimes I sit there and fume”
- 4 •reports feeling frustrated because she can't do what she wants/needs to do
- reports feeling nervous

Dependence/Independence:

- 4 •feels “dependent” on her husband and is “annoyed” that she can't do anything about it.
- husband controls her daily activities outside the house because he does the driving
- she can't drive, clean, or cook.

Social Support:

- 3 •few friends, not close, rarely sees
- not close to children, family
- no other sources of support

Loss:

- 4 •health
- independence
- ability to engage in some pleasing activities
- social contacts
- decision-making power in marriage, daily life

3 Nutrition:

- food is a comfort
- acknowledges decreased ability to be compliant with diet
- perceives little benefit from dietary compliance

Health Practices:

- Checks blood sugar QID
- denies smoking history
- denies alcohol history

Locus of control:

- 4 •blames others; husband, doctors
- sees herself as helpless
- external locus of control: events happen to her, she has no control....”why me?”

Miscellaneous:

- blames husband for her dependence, lack of power in marriage/current health
- little insight offered
- no previous attempts to change her situation
- self-deprecating comments
- apathetic attitude
- helplessness

Commentary:

- expressed desire to have life back the way it used to be
- discussed lack of social support, patient became tearful
- good eye contact.
- interview had several distractions; took place before a diabetic support group meeting with several people present in general vicinity including her husband.

Participant #1

Participant #1 was interviewed in her home on a weekday afternoon. Before the start of the interview, she asked me to review the types of questions with her. After some reassurance, she seemed to relax and the interview began. She seemed to be a happy person who felt that enjoying life was important. She viewed herself as more healthy than not, and definitely healthier than her peers.

Participant # 1 took an active role in her health. She took it upon herself to get educated about diabetes. She exercised regularly and sought out other opportunities to improve her health such as joining a class at the YMCA. She perceived great benefits from her health practices, and it appeared her main motivation for these were to prevent diabetic complications. She had a small but adequate social support network. The concept of loss emerged; she is still dealing with the loss of her career and of close loved ones. Her locus of control was less clear. She attributed her good health to her family.

Table 5 Pessimist

Participant #1 Intensity 1-5

<p><u>Health:</u> happy person without illness; enjoying life</p> <ul style="list-style-type: none"> •sees self as basically healthy •doesn't like to talk about health too much because "it's too boring" <p><u>Exercise:</u></p> <p>3</p> <ul style="list-style-type: none"> •frequent, moderate intensity •pro-active, seeks out opportunities <ul style="list-style-type: none"> •joined the YMCA, elder classes •high perceived benefit from exercise <p><u>Nutrition:</u></p> <p>3</p> <ul style="list-style-type: none"> •took a class, very informed about recommendations •compliant •aware of pitfalls, tries to avoid them <p><u>Motivation for health behaviors:</u></p> <ul style="list-style-type: none"> •avoiding diabetes complications <ul style="list-style-type: none"> •has done her own research •avoid taking more medicine: "I would rather eat good food" <p>3</p> <p><u>Social Support:</u></p> <ul style="list-style-type: none"> •small family, but close •1 friend •"lonely when you get to be my age" •happy marriage <p><u>Loss:</u></p> <p>2</p> <ul style="list-style-type: none"> •was very close to parents, still coping with their death in 80's •purposeful teaching career 	<p><u>Locus of Control:</u></p> <ul style="list-style-type: none"> •attributes lifelong health to her family <ul style="list-style-type: none"> •nutritional style •work ethic <p><u>Health Practices:</u></p> <p>3</p> <ul style="list-style-type: none"> •checks blood sugar, keeps a record •keeps a record of her lab results, weight, etc. •denies smoking history •denies alcohol history <p><u>Miscellaneous:</u></p> <ul style="list-style-type: none"> •places importance on keeping active •high perceived benefit from her own research about diabetes and complying with recommendations •expressed dislike of medicines <p><u>Commentary:</u></p> <ul style="list-style-type: none"> •cheerful •welcoming •good eye contact •laughed often •fidgeted, glanced often at tape recorder
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Participant #3

Participant #3 was the final participant to be interviewed. The session was conducted at his home on a weekday afternoon. He appeared somewhat nervous, but maintained good eye contact throughout. The participant was a soft-spoken man and slightly hard of hearing. He took the time to make the interviewer feel welcome before the interview began. This participant viewed himself as healthier than his peers and thought he must be healthy if he can still get around and do the things he wants to do. He was compliant with his diabetes regimen and perceived some benefit from doing so. He reported that he exercised regularly and acknowledged that he could do more. The participant seemed to perceive diabetes as less severe than his peers. Although he acknowledged his dietary pitfalls, he did not seem to believe he would benefit any more from increased compliance.

Stress emerged as a category that seemed to largely affect his life. He reported high amounts of stress due to financial worries. He did have some insight about the affect that stress has on his health and perceived some benefit from appropriate management of stress. He also reported that he has some ineffective coping mechanisms for stress stating that he usually “stews” about something rather than taking action. He was optimistic about his worries, however. He did feel that everything would “turn out all-right in the end”. Overall, he seemed to have an average opinion of health and its importance.

The remainder of this chapter will analyze the data obtained from all six of the participants and then of the optimistic and pessimistic group.

Table 6 Pessimist

Participant # 3 Intensity 1-5

Health: Being “fit, normal” “do things right physically and mentally”

- Perceives self as healthier than peers
- places importance on health
- still able to function so his “health must be okay”

Chronic disease:

- 2
- had an MI, bypass operation
 - in cardiac rehab

Stress:

- 4
- “there always seems to be so much I have to do”
 - money issues, worries quite a bit
 - often feels anxiety “empty feeling in my stomach” and guilty for “letting the family down” (related to money issues)
 - worries about paperwork/finances after his death

Stress management:

- 3
- manages stress with distraction; “I’ll go rake some leaves”
 - “I’ll try and forget it”
 - sometimes will work at solving problem, for example will work on computer about money issues.

Motivation for health behaviors:

- 2
- avoiding diabetes complications
 - avoid becoming old and helpless
 - told a story of seeing elderly helpless woman, expressed empathy and sadness for her
 - doesn’t engage in more exercise because “I don’t like to walk alone” or he blames his busy schedule

Social Support:

- 3
- Large family, close in proximity, offer support
 - happy marriage
 - “lots” of friends

Nutrition:

- 1
- recognizes pitfalls
 - agrees that he needs to increase her compliance to reap more benefits

Locus of Control:

- 3
- “now I’m under control of my doctor”
 - attribute good health to external source/luck
 - low perceived severity of diabetes
 - blames self for bad events such as money issues

Health Practices:

- 1
- checks blood sugar QD, keeps a record
 - denies smoking history
 - denies alcohol history

Miscellaneous:

- doctors are for the sick
- expressed dislike of taking medicine
- active in several social committees

Commentary:

- soft-spoken, a little hard of hearing
- welcoming
- good eye contact
- possible early memory loss?
- seemed a little nervous about the interview, more relaxed after reassurance

Themes related to health beliefs

The interview questions were divided into two categories; those pertaining to health beliefs and those pertaining to health practices. In reviewing the participant's answers to the health belief questions several themes were identified. The participants generally defined health as the absence of disease or illness; some added that health means "enjoying life", being a "happy person", and "getting through the day without having any problems". When asked if by their own definition they view themselves as healthy many responded no and cited the presence of diabetes and/or other chronic diseases or problems as the reason. Three people seemed to view health as a continuum and themselves as more healthy than not, but with room for improved health. At least four participants seemed to view their health as partially contingent on their own effort and discussed ways to improve their health, while everyone mentioned that they could improve in at least one area of diabetes management.

All of the participants interviewed mentioned their dislike of frequent medical attention/intervention. Several discussed their belief that doctors are for the ill: "If I had good health, I wouldn't have to go to the doctor so many times", "I never went to the doctor before I got diabetes", "there are things you can do without the doctor" "I think people go to the doctor before they're really sick". Four of the participants also seemed to link taking daily medication with a decline in health: "I feel sick just because I have to take pills, I never had to do that before", "I was on three pills a day and I took myself off one...so that I only have to take two."

Four of the six participants also mentioned that “disposition” or “thinking good” is related to health. One participant mentioned she sees so many people with chronic health problems, but in her opinion “if they remain cheerful and active and don’t seem to complain...” that they may get more enjoyment out of life.

Health beliefs of the optimistic diabetics:

The optimists defined health as being “fit” enough to carry out desired activities, “getting through the day without any problems” and the ability to “enjoy life”. All placed great importance on health; “it’s everything”. By their own definitions of health only two perceived themselves as having good health. Two of the three optimistic participants discussed their desire to avoid or prevent complications from diabetes. The same two seemed to have a high perceived severity of diabetes and believed that the actions they were taking or should take will help prevent complications and prolong life. The other optimistic participant seemed to have a lower perceived severity of diabetes. She believes she is as healthy or healthier than her peers and therefore sees little benefit from regular exercise. She claims that the pain of arthritis also prevents her from exercising.

The optimists all believed they had “close to 100% control over health” while one participant believed he had total control, claiming that his health “is as good as I want it to be or as bad as I want it to be.” Upon further contemplation of her level of control over health, one participant came to the realization that “I can’t control stress”. All of the participants acknowledged that they could improve their health by taking action such as increased exercise or improving compliance with diet.

Health beliefs of the pessimistic diabetics:

The pessimistic diabetics defined health as the absence of illness, being “fit” and “normal”, and “enjoying life”. By their own definitions of health one participant saw herself as healthy, one did not, and the third felt that he was healthier than his peers and considered himself healthy as long as he was able to function. One participant viewed health as “very important” while another felt that “I don’t think it’s worth much, my way of doing things”. The third participant seemed to be satisfied with her level of health and expressed a desire to maintain it. Two of the three pessimistic diabetics mentioned their dislike of requiring medical attention; “ I never had to see the doctor before I got diabetes”. One participant felt that doctors are for the sick and seemed to feel less healthy because he saw his doctor so often.

Two of the three pessimistic participants discussed their main motivation for health behaviors is to prevent or avoid complications. These two mentioned seeing others who were “old and helpless” or ill with diabetic complications and expressed desire to avoid those outcomes. One participant researched diabetes herself (“I don’t think my doctor is as aware of diabetes as I am”) to learn how to avoid future problems. She had a high perceived severity of diabetes and believed she would benefit greatly from dietary compliance and exercise. The other two participants seemed to have a lower perceived severity of diabetes although both acknowledged some benefit from increasing dietary compliance and more exercise.

The pessimists as a group tended to have an external locus of control, “now I’m under the control of my doctor”, and attributed good health to external sources; “I thank my stars, I guess, that I really didn’t get sick [in his lifetime]”. One participant blamed himself for adverse events in his life while another participant made several self-depreciating comments that demonstrated her helpless feeling over her life situation.

Themes related to health practices

All of the participants saw some benefit to following the diabetes management protocol. Everyone checked their blood sugar at least once a day and at least two participants kept a daily record of the results. All of the participants took daily medication and several mentioned that taking medication is their first action of the day. A lack of or need for more exercise was mentioned by five out of the six participants even though some reported that they exercised regularly. Those who didn’t exercise on a regular basis remarked that it probably would improve their health but that obstacles such as arthritis/joint pain and unwillingness to take walks alone hindered efforts to increase activity. At least two of the participants mentioned that they stay active socially in an effort to maintain or improve health.

Nutrition seemed to play an important factor in the life of all of the participants. Everyone mentioned their perceived level of compliance and ways to improve. All of the participants were aware of dietary pitfalls such as portion control and method of preparing food. One participant mentioned that food is one of her only sources of pleasure and that she is aware that she eats purely out of boredom. This same participant also explained that she is not at fault for the food she eats because she doesn’t do the

cooking. Another participant made an opposite observation by commenting that he doesn't cook but the decisions of what to eat are completely his.

Motivation for health behaviors was another theme that surfaced in most of the interviews. Two participants related similar stories of encountering another diabetic whose situation seemed to be much worse than their own. Both of the participants came away from that encounter with new motivation to prevent a similar situation from occurring in their own lives. "Once when I was in a hospital, I saw an old lady in a wheel chair who had both legs cut off due to diabetes...the dietitian said you can't go on feeding her potato chips and cookies, etc. She had no idea about nutrition..." "There was a 92 year old woman there, she couldn't hardly do anything...she couldn't hear, she could hardly see. I felt sorry for her."

Health practices of optimistic diabetics

Two of the optimistic diabetics engaged in regular physical exercise (two or more times a week) and the other cited arthritis as the reason she does not exercise. The two participants who exercised agreed that more exercise would be beneficial. All of the optimistic diabetics acknowledged their dietary pitfalls and all agreed (with varying degree) to the benefit of increasing compliance; "watching what you eat keeps you healthy".

All checked their blood sugar at least daily and one participant kept a log. Two of the three denied a history of tobacco use or excessive alcohol, the other participant quit both tobacco and alcohol a "long time ago".

Health practices of pessimistic diabetics

All of the pessimistic diabetics reported some exercise on a regular basis. One woman belongs to the YMCA and walks four miles a day. Another participant goes to the cardiac rehab center twice a week and reports he does light work around the house such as raking leaves. The third participant reports that she does light arm exercises almost every night before bed.

All of the participants check their blood sugar at least daily and two keep their own health records. Everyone denied the use of tobacco or alcohol on a regular basis. The pessimistic diabetics acknowledged their pitfalls in improving dietary compliance and agreed that they all could improve their eating habits. One woman perceived little benefit from improving compliance.

Themes not directly relating to either health beliefs or health practices

Stress was mentioned by every participant at some point in the interview. Some discussed how they manage their stress, others offered no self-observations. One participant referred to his stress primarily in the past tense when discussing his career. He went on to clarify that since his retirement his stress levels have decreased. Another participant also mentioned her stressful career felt overwhelming and required her to take a medical leave due to “a breakdown”. She discussed her difficulty with decision-making and cited it as part of the problem.

Some of the participants mentioned that managing stress is important to maintaining or improving their health, and that stress can adversely affect health. The

others agreed when presented with the idea. One participant reported that stress levels have really increased in the last few months and she has no idea how to cope. Others were able to enumerate the ways they manage stress with methods such as participating in yoga, meditation, distraction, avoidance, or by tackling the problem directly. One participant reported that “stress is the one thing that I can’t control”.

Some of the participants were coping with what they deemed as a significant amount of stress. One participant discussed the increasing amounts of stress in her everyday life due to the mental decline of her husband. This participant relayed that she did not have the resources within her to cope with the situation. During her interview she became overcome with emotion and requested the tape recorder to be turned off. Later she went on to discuss that “life is stressful no matter what I do. Of course I don’t mention it to him, that he is the reason for it.” Another participant discussed his financial difficulties and how much it troubles him: “It’s kind of a burden to take care of...figuring out how much I’m going to need, where I’m going to get it...I get an aching in my stomach, kind of a sinking feeling I guess...that I’ve let the family down.” The origins of stress for one participant seemed to be multi-factorial; she discussed her declining health as a major source of stress along with her unhappy marriage.

A theme that resurfaced frequently was the concept of loss. Nearly all of the participants lamented the loss of something important to them such as good health, a fulfilling career, important family members, independence, or the ability to engage in enjoyed hobbies. The participants who discussed their loss of good health seemed to

hold other chronic health problems or complications of diabetes responsible rather than diabetes itself.

All of the participants discussed their perceived level of social support: “We don’t have a lot of friends...it is kind of lonely when you get to be my age”, “I don’t have any friends...all my friends are gone...that is one of my problems here, I feel very alone”, “They’re really good kids, (his children), we’re close. I don’t have any trouble meeting friends” , “We have a large extended family...I couldn’t ask for anything else more”.

Only two of the six seemed to be satisfied with their perceived level of social support from any source. One optimist and one pessimist seemed affected by their lack of social support. These two participants reported either unhappy or stressful marriages, lack of social activities, lack of friends, and lack of support from children and other family.

Both of these participants became tearful when discussing the subject. The other four participants reported much higher levels of social support.

Chapter V

Discussion

Life orientation is a personality variable that can profoundly affect physical and psychological well-being. Effects of life orientation on chronic disease are unknown, largely due to the lack of research evaluating the relationship between the two.

Optimism has been linked to more favorable health outcomes in times of adversity, more effective stress management, and increased survival. Pessimism has been linked to poorer health outcomes, psychological problems such as depression and anxiety, and even premature death. Studying these associations will provide more answers to help us fully understand the significance of life orientation on overall health.

The purpose of this study was to examine life orientation and health beliefs and health practices of people with a chronic disease. Pender's Health Promotion Model, the theoretical framework used for this study, was created to guide health care professionals in understanding the complex factors that influence health behaviors. The model maintains that internal and external forces combine to determine if participation in health-promoting behaviors will occur. For the purposes of this study, the term health behaviors is considered synonymous with health practices. The Health Promotion Model also considered the health beliefs of patients and the complex way in which they are made. According to the model, health beliefs includes the patient's definition of health, importance of health, perceived control of health, perceived health status, perceived benefits of behaviors, and perceived barriers to health-promoting behaviors (Tomey & Alligood, 1998).

Comparison of health beliefs between the optimists and pessimists

The health beliefs of the optimists as a group were similar. All defined health as the absence of problems and/or illness while enjoying life. All viewed health as a continuum and evaluated their own health status as generally good but with room for improvement. The optimists also placed great importance on health. The perceived barriers to improved health were recognized by each participant and all offered insight into how they could overcome the barriers. All of the optimists perceived benefit from following the diabetic treatment plan such as regularly monitoring blood sugar and following the diabetic diet. The motivation for participating in this health behavior for all of the optimists was the general desire to prevent diabetic complications. Each of the three optimists had a high perceived severity of their disease and therefore perceived benefit from adherence to the diabetic treatment plan. The optimists were not as similar in their view of other health-promotion practices such as regular exercise. Two out of the three reported regular exercise and acknowledged the need to increase their exercise efforts. The third participant cited arthritis as the reason she did not exercise. She stated that she was healthier than her peers and therefore did not see any added benefit to regular exercise.

A significant similarity within the optimist group was their clear opinions of their perceived control over their health. All felt that they had 100% control (or close to) over their health. Each participant cited examples in which they exerted their control and the outcome. However, the optimistic group was less similar in their perceived control over

other areas in their lives. Two of the participants admitted little control over the stress in their lives but both took the initiative in attempting to remedy this by inquiring about stress-management classes.

The pessimistic group were less similar in their health beliefs. Their definition of health was very similar to the optimistic group in that health meant the absence of illness, being “normal”, and enjoying life. The three perceived themselves at different levels along the health continuum. One pessimist believed that she was healthy, one did not, while the third felt that he was healthier than his peers and as long as he could function he must be healthy. The pessimists also placed variable importance on health. One participant perceived health as important while the other two placed some importance on health. One participant stated she didn’t like to talk about health because “it’s too boring”.

The pessimists as a group did not perceive their barriers to improved health as clearly as the optimists did. All three did mention their dietary pitfalls though only two offered some insight into how to improve dietary adherence. All three reported form of regular exercise. Two of the pessimists acknowledged they should do more exercise but seemed to see limited benefit from it. The other pessimist exercised regularly and had a high perceived benefit of it. All three were adherent to the recommended diabetic protocol such as monitoring blood sugars regularly and two of the three pessimists perceived great benefit from this adherence while the other perceived only some benefit. The same two pessimists acknowledged their motivation for their health practices as the

general desire to avoid diabetic complications, which is very similar to the optimistic group. The third pessimist offered no insight into her health practices.

All of the pessimists exhibited a general perceived external locus of control, opposite of the optimists. One of the participants exhibited the belief that she was powerless, that events happened to her and she had no control. Another participant attributed his good fortune to his “lucky stars”, while the third attributed her lifelong health to her family.

Comparison of health practices between the optimists and pessimists

The health practices of the three optimists in this study were found to be very similar to those of the three pessimists. All of the participants followed their recommended diabetic treatment protocol by checking their blood sugar at least once a day and two of the pessimists and one optimist even kept a log of their blood sugars to watch for trends. All of the participants denied smoking or excessive alcohol use. Two of the optimists and all of the pessimists reported getting some form of regular exercise. Two out of the three participants from each group reported engaging in regular, moderate-intensity exercise such as walking on a treadmill or bike-riding. One pessimist acknowledged her only form of exercise is upper extremity range-of-motion and strengthening movements. One optimist could not think of any form of regular exercise that she engaged in other than her daily activities. In summary, the two groups were indistinguishable in their amount of regular exercise and adherence to recommended diabetic protocol.

Interpretation of similarities and differences between the groups

The explanation for the main differences this study found in the health beliefs between the optimists and the pessimists can be taken from the literature review of the concept of life orientation. The literature states that life orientation is associated with other cognitive and personality variables such as locus of control. Researchers have claimed that optimists tend to have an internal locus of control (Scioli et al., 1997) and pessimists tend to have an external locus of control (Scheier & Carver, 1985). The findings from this study supported previous research concerning the relationship between life orientation and locus of control. The optimists in this study showed evidence of having an internal locus of control while the pessimists tended to attribute positive health outcomes to external sources, evidence of an external locus of control.

Research has found that those who have a tendency toward an internal locus of control (optimists) also had an increased perceived severity of their disease, were more likely to be compliant with treatment, and were more likely to perceive benefit from their efforts (Wooldridge et al., 1992). The optimists in this study perceived great benefit from adhering to the diabetic treatment plan. They also perceived increased benefit from efforts to lose weight and of compliance with the recommended diabetic diet. The pessimists as a group were not as similar in their health beliefs; they perceived variable benefit from their disease maintenance or health promotion efforts. The group also had a variable perceived severity of diabetes. According to research, those with a tendency toward external locus of control (pessimists) were more likely to perceive diabetes as less severe and less benefit from treatment adherence (Wooldridge et al., 1992). When

comparing the groups, the pessimists did seem to have a lower perceived severity of diabetes and perceived less benefit from disease-management efforts than the optimists. In summary, the differences in health beliefs between the optimists and pessimists may be attributed to their individual tendencies toward optimism and pessimism.

This study found similar health practices between the optimist and pessimist groups. This finding may be attributable to the effect of diabetes education on the participants. When diabetes is diagnosed, patients must undergo in-depth teaching about the disease and its management because of the self-managed nature of the disease. Diabetics are taught to monitor their disease by doing such things as checking their blood sugar. The research findings regarding the health practices of optimistic and pessimistic diabetics may reflect this teaching rather than the effects of life orientation.

Limitations

A qualitative study usually has a small sample size due to the amount of information obtained from each participant. This mixed-design study involved six participants, three in each group, with which to compare optimism and pessimism in diabetes. The small sample size limits the amount of comparison and analysis that can be achieved. Perhaps with a larger and more diverse group a greater amount of knowledge can be gained about how life orientation may affect health beliefs and health practices of those with a chronic disease.

A convenience sample was used for this research study which also may have been a limitation. The sample for this study consisted of a group of middle-aged to elderly people from the same geographic area with similar incomes and lifestyles. This overall

similarity of the sample may have contributed to the results of the analysis from the final sample of optimists and pessimists.

In qualitative research, the interviewer is the main instrument. The inexperience of the interviewer may have affected the quality of the results obtained. The interviewer gained more experience by conducting the interviews and therefore may have been more efficient at obtaining information of interest from the last few participants to be interviewed. When the interviewer is considered the research instrument, the instrument of course is not perfect. Therefore, the data obtained and the subsequent analysis are subject to interviewer bias.

Although the LOT-R has been used in a number of different research studies and shown to be reliable and valid, the LOT-R has not been studied specifically in the elderly so its effectiveness in measuring optimism/pessimism in this age group is unknown. The average age of the participants taking the LOT-R in this study was 67: It is difficult to assess whether the population studied understood the Likert scale contained within the LOT-R. The researcher who was administering the LOT-R did not answer any of the participant's questions regarding the instrument in an effort to avoid potentially affecting the outcome of the data. Therefore, it is possible that some of the elderly population taking the LOT-R did not fully understand the questionnaire.

The method of data gathering may have been flawed as well. The original inclusion criteria for the study stated that potential participants must not require insulin in order to be considered for participation. The researcher recruited potential subjects from a diabetes class by explaining the research and the inclusion criteria. It was

assumed by the researcher at the time that potential participants understood the inclusion criteria. The researcher then asked for volunteers by a show of hands and then the questionnaires were handed out. When the questionnaires were returned and analyzed, it was noticed that about half of potential participants did use insulin on a regular basis. However it was later determined that the insulin-dependent component of the inclusion criteria made no difference with regard to the research question, so the decision was made to include the insulin-dependent diabetics for potential participation in the study. In summary, the method for recruitment may have been flawed.

Implications

Research continues to support the positive effects that optimism and the negative impact that pessimism has on health outcomes. A concept such as life orientation may have a large impact on the focus of health care delivery in the future. While the relationship between life orientation and health beliefs and health practices is not understood, we do know that life orientation is emerging as an important factor to consider in determining our health care efforts. Health care professionals should use life orientation as a method to better understand their patients in an attempt to personalize their treatment efforts. Determining a patient's life orientation can also assist in determining the focus for health education. It is conceivable that an optimist would not respond to education and treatment the same way a pessimist would. If we can understand the relationship between life orientation and health beliefs and health practices, we can better focus our health care efforts.

There are many implications for current and future practice. Determining a patient's tendency toward optimism or pessimism can currently help health care professionals in creating a more effective strategy for treatment. In the future, life orientation may even be used as a screening tool for primary or secondary prevention as a means to identify those patients at potentially greater risk. However, the real potential of life orientation lies with the yet undetermined method of how to assist pessimists to capitalize on the health benefits that optimists seem to reap.

Recommendations

Life orientation is emerging as an important variable to consider in understanding the overall health and illness of patients. There are many aspects of life orientation that are not understood; such as the relationship between life orientation and health beliefs and health practices, or the effect of life orientation on chronic disease. Future research should be directed at gaining a better understanding of life orientation itself; why are some people optimists while others are pessimists? And more importantly, how can the negative effects of pessimism be lessened? Additional research studies evaluating the effects of life orientation on health are necessary before we as health care professionals can truly understand how to use life orientation to the advantage of our patients.

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LOT-R

For each question, please place an 'X' in one of the answer boxes.

Key:

SD = Strongly Disagree

D = Disagree

N = Neutral

A = Agree

SA = Strongly Agree

	Answer boxes				
	SD	D	N	A	SA
1 In uncertain times, I usually expect the best.	SD	D	N	A	SA
2 It's easy for me to relax	SD	D	N	A	SA
3 If something can go wrong for me, it will.	SD	D	N	A	SA
4 I'm always optimistic about my future.	SD	D	N	A	SA
5 I enjoy my friends a lot.	SD	D	N	A	SA
6 It's important for me to keep busy.	SD	D	N	A	SA
7 I hardly ever expect things to go my way.	SD	D	N	A	SA
8 I don't get upset too easily.	SD	D	N	A	SA
9 I rarely count on good things happening to me.	SD	D	N	A	SA
10 Overall, I expect more good things to happen to me than bad.	SD	D	N	A	SA

Appendix B
Demographic Questionnaire

1. Name _____
2. Age _____
3. Sex: (please check one): Male _____ Female _____
4. Race: African-American _____ White _____
Hispanic _____ Other _____
5. Your marital status:
Single _____ Married _____
Divorced _____ Widowed _____
6. Your household income per year (please check one):
10-20,000 _____ 20-40,000 _____
40-60,000 _____ 60-80,000 _____
greater than 80,000 _____
7. Level of education (please check one):
Some high school _____ Completed high school _____
Some college _____ Completed 2-year
degree _____
Completed 4-year degree _____ Some graduate courses _____
Completed graduate school _____ Completed doctorate _____
8. How long have you been diabetic? _____
9. Do you require insulin? Yes _____ No _____

Appendix C

Letter Given to Prospective Subjects Explaining the Research Project and its Purpose

Dear _____:

My name is Laura Sychta, and I am a graduate student at the University of Michigan-Flint pursuing a master's degree in nursing. I am conducting a research project about persons with Diabetes as part of my coursework. The goal of this research project is to learn more about Diabetes and how it affects patients lives. I am also interested in understanding more about how patients view their disease and what their everyday practices are in relation to Diabetes. I am looking for people such as yourself to participate in my research project.

To further explain, anyone who participates in this study would be asked to fill out two questionnaires. One questionnaire will be about demographic information such as age, sex, etc. The other questionnaire will ask questions about the participant's views about life. These two questionnaires will take approximately 15 minutes to complete. Once these questionnaires are filled out and returned to me, I will set up a personal interview with each selected participant at the participant's convenience. The interview will be informal and will last approximately 45 minutes to one hour. The interview will need to be tape recorded so that I may review the information for accuracy of interpretation. The information I will collect will be confidential and will not be shared with anyone who is not directly involved with this project. The interview tape will be destroyed immediately following the research project. No one is required to participate in any way, participation is voluntary. If you decide to participate, you may change your mind at any time without consequence.

If there are any questions or concerns, I can be contacted at (248) 814-9507. If you are interested in participating please call the above number.

Thank you for your consideration.

Sincerely,

Laura Sychta, R.N.
MSN Student
University of Michigan-Flint

Appendix D
Consent form to participate as a subject in a research study

I agree to participate in a nursing research study. I understand that my participation is entirely voluntary and that even after I agree, I may withdraw at any time without consequence. If I do not wish to participate, it will not affect my regular care as a patient in any way.

I understand that the purpose of this research is to gain a better understanding of diabetes and how it affects patient's lives. I will be asked to fill out two questionnaires and I may be contacted for a personal interview at a later date (within a few weeks). This interview will last approximately one hour and can take place at St. Joseph Mercy Hospital or at my home, whichever is more convenient for me. I understand that this interview will be tape-recorded for the purposes of reviewing the information. My answers will be confidential, and will not be shared with anyone who is not directly involved with the project. When the interview is finished, I can expect a follow-up phone call in 3-5 weeks for the purpose of validating interview interpretation. With the conclusion of the phone call I will have completed my expectations as a subject.

If this research is published in the future, any information about me will be coded to protect my identity.

I have read the above and have been given the opportunity to discuss it and ask questions. I have been informed that I may contact Laura Sychta at (248) 814-9507 or Thomas Schaal, PhD. at (810) 766-6858 to answer any questions that I may have during the research study. I also may contact the St. Joseph Mercy Oakland Office of Risk Management at (248) 858-3158 for any questions concerning my rights as a research subject. I agree to participate as a subject with the understanding that I may withdraw at any time.

Name (please print) _____

Signature _____ Date _____

Witness _____ Date _____

Witness Signature _____

Appendix E
Sample interview questions

Questions related to health beliefs:

1. What does “health” mean?
2. How important is your health?
3. What do you do for your health?
4. How do you view your health?
5. Can you think of anything you could do to improve your health?
6. Tell me what being diabetic means to you.
7. How has diabetes affected your life?
8. How much control do you think you have over your health?

Questions related to health practices:

1. Tell me about your daily routine
2. How often do you check your blood sugar?
3. Do you monitor your own health? How?
4. Do you exercise/smoke/drink?
5. Do you do anything regularly to improve/maintain your health?

Letters of Permission

THE UNIVERSITY OF MICHIGAN - FLINT

September 25, 2000

To: Thomas Schaal

From: Suzanne Selig, Chair, Human Subjects Committee



Re: Health Beliefs and Health Practices of Optimistic and Pessimistic Diabetics
(Approval #10/00)

This is to inform you that your proposal "Health Beliefs and Health Practices of Optimistic and Pessimistic Diabetes" has been approved by the Human Subjects Committee. Should you decide to make any changes in the use of human subjects which differ from the approved proposal, please advise this committee prior to making these changes.

Should you observe any negative change in the health or behavior of a human subject attributable to this research, you are required to suspend your project. If this happens, please inform the committee as soon as possible for our further review and decision as to the continuation/termination of your project.

This approval for your project is valid for a period of twelve months. If your project extends beyond this period (twelve months), please re-submit your proposal for reconsideration.

September 21, 2000

Laura Sychta, R.N.
953 Hidden Creek
Lake Orion, Michigan 48362

Dear Ms. Sychta:

At the September 11, 2000 Institutional Review Board/Research Committee meeting the Committee reviewed and approved the protocol entitled "Health Beliefs and Health Practices in Optimistic and Pessimistic Diabetics". Your protocol is approved for a period of one year. This project has been assigned SJMO # 00-9-1-Sychta.

Please be aware that you should report to the Committee concerning this project when you are completed with or when it is scheduled for renewal next year. You must also submit a summary of the study progress for a protocol renewal at least annually, or at the conclusion of the study if the study is concluded prior to the renewal date.

Should you wish to make any changes in your protocol, these changes must be approved by the Institutional Review Board/Research Committee prior to making any changes. In the case of revisions, the changes between new and the old protocol should be submitted in detail and the pertinent areas of the changes highlighted to facilitate review by the Research Office and Chair of the IRB/PRC. Should you develop abstracts, posters, or manuscripts involving the hospital, or using of the hospital's name in any way related to this work, please be aware that the IRB/RC policy is that such submissions must be conveyed to the Research Office for review at least one week prior to submission.

On behalf of the IRB/RC, I wish you success with this project.

Yours truly,



Robert Holmes, M.D.
Chair, the Institutional Review Board/Research Committee
on behalf on the IRB/RC

From: Ginger Placone <gingerp@andrew.cmu.edu>
To: sychta@netquest.com <sychta@netquest.com>
Date: Wednesday, June 21, 2000 10:17 AM
Subject: Research Permission for LOT-R

Below is the permission to use LOT-R in your research. Should you need anything further, please contact me. Thanks very much, Ginger Placone, Research Assistant

Carnegie Mellon University Department of Psychology
Carnegie Mellon University
Pittsburgh, Pennsylvania 15213-3890
Phone: (412) 268-3791
FAX: (412) 268-7810
Internet:

June 21, 2000

Ms. Laura Sychta
953 Hidden Creek
Lake Orion, MI 48362

Dear Ms. Sychta:

My permission to use the Life Orientation Test--Revised (LOT-R) for research purposes is hereby granted. You should also know that the copyright for the revised scale is officially held by the American Psychological Association, which publishes the Journal of Personality and Social Psychology, the journal in which the revised scale originally appeared. You might want to obtain permission from the publisher as well.

If you publish any research using the revised scale, I'd eventually like to receive a copy of the published work for my files. Thanks in advance for this courtesy.

Good luck with your project.

Sincerely,

Michael F. Scheier, Ph.D.
Professor of Psychology