

UTILIZING THE THEORY OF PLANNED BEHAVIOR TO UNDERSTAND
PERCEPTIONS OF REGULAR MEDICAL CARE FOR DIABETES
(NIDDM) AMONG MIGRANT HISPANIC AGRICULTURAL
WORKERS IN WISCONSIN

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ABSTRACT

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This study utilized a psychological theory to understand perceptions of a specific population regarding health maintenance behavior for a chronic health condition. Preliminary surveys ($n = 22$) were conducted using a 20% convenience sample of migrant Hispanic agricultural workers and their family members with noninsulin dependent diabetes mellitus (NIDDM) in Wisconsin to elicit salient beliefs concerning use of regular professional medical care for noninsulin dependent diabetes. An Intent to Obtain Regular Medical Services for NIDDM Inventory was completed by 70% ($N = 68$) of the known population of Hispanic agricultural workers and their family members with NIDDM in Wisconsin to gather demographic, salient belief, attitude, social influence, and perceived behavioral control information regarding obtaining regular professional medical care for NIDDM. Instruments were designed according to the process developed by Ajzen and Fishbein (1980), and Ajzen (1986) applying the Theory of Planned Behavior methodology. Results revealed a moderately significant correlation ($r = .409$) between normative beliefs multiplied by motivation to comply and subjective norm. Also, a moderately significant correlation ($r = .499$) between control beliefs multiplied by perceived facilitation and perceived behavioral control. These relationships were significant at the .05 level. Regression analysis showed the relative influence of attitude, subjective norm, and perceived behavioral control on intention to obtain regular professional medical care for any individual in the population of migrant agricultural workers with NIDDM in Wisconsin. The beta weights were as follows and indicated the relative contribution of the variables in determining the intention: .238 (attitude) + .263 (subjective norm) + .131 (perceived behavioral control). Thus, subjective norm was the strongest contributor to intention to obtain regular medical care for NIDDM. The variance (R^2) was calculated at .145, indicating that the components of the Theory of Planned Behavior only accounted for 14.5% of the variance affecting intention to obtain regular medical care for NIDDM in the migrant Hispanic agricultural population in Wisconsin.

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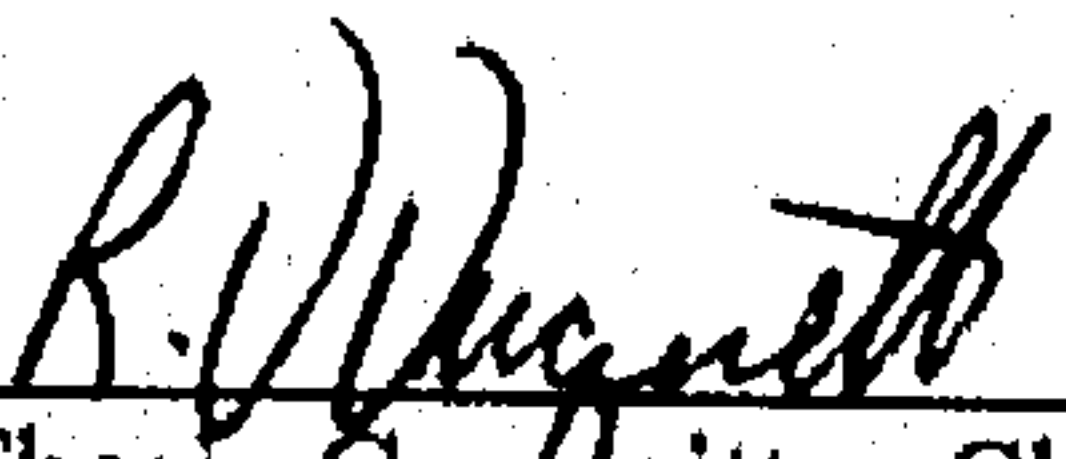
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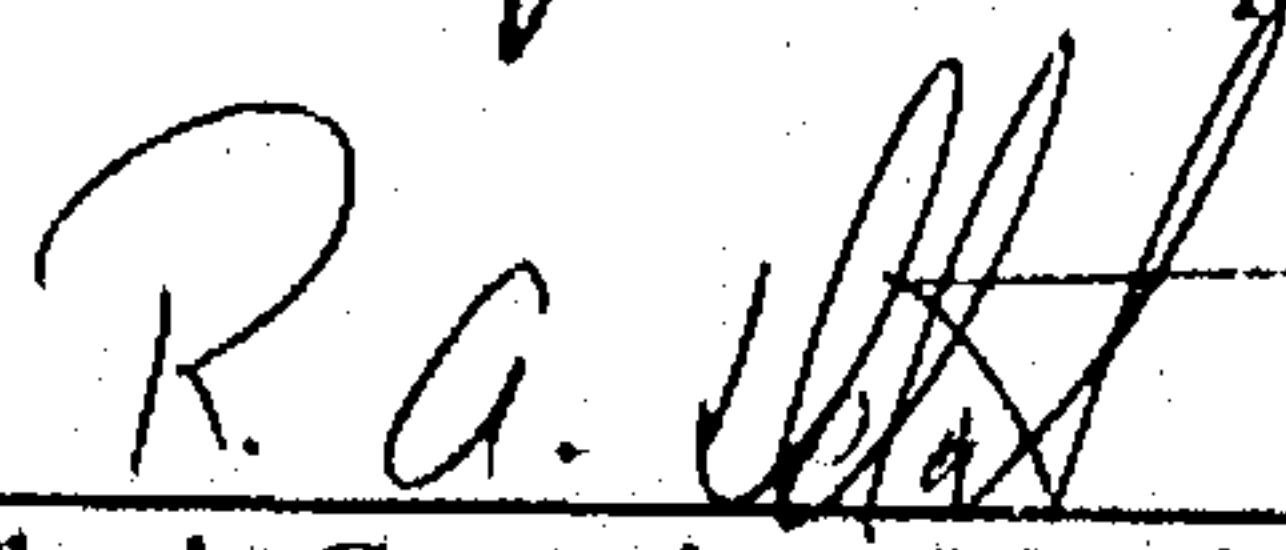
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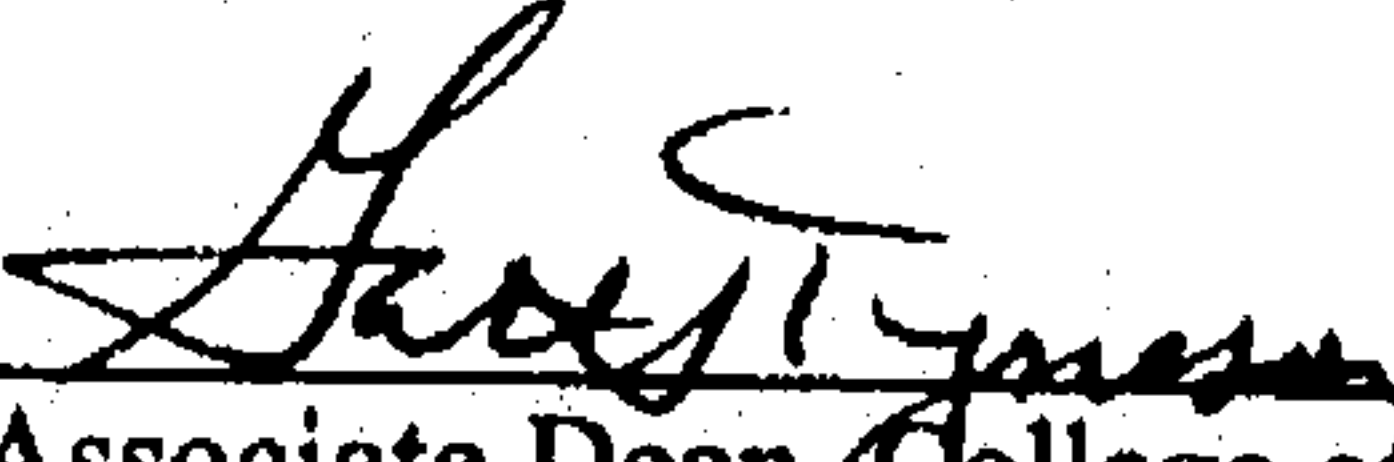
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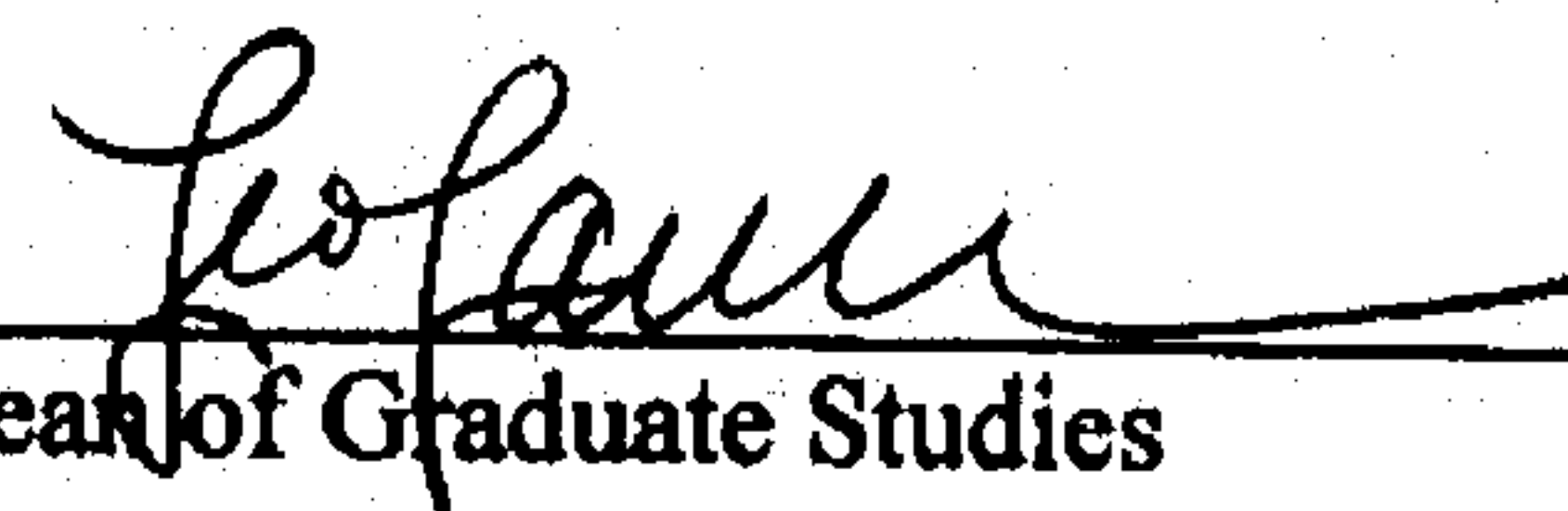
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CHAPTER I

INTRODUCTION

Background

Diabetes mellitus is the fourth leading cause of death by disease (Warshaw, 1996) and a leading cause of disability in the U.S. (Davidson, Seltzer, & Bressler, 1994). According to the American Public Health Association (Brownson, Remington, & Davis, 1993), diabetes is ranked seventh overall as the cause of death in the U.S. The National Diabetes Information Clearinghouse (1995) estimates that 16 million people, both diagnosed and undiagnosed, have the disease. Davidson et al. (1994) write that diabetes contributes to a variety of serious complications and is implicated in the progress of several other serious diseases such as heart disease, stroke, retinopathy (eye disease), nephropathy (kidney disease), and neuropathy (nerve disease).

Noninsulin dependent diabetes mellitus (NIDDM), also called Type II diabetes, is two to three times more prevalent in Hispanics than in the non-Hispanic White population (Flegal, et al., 1991). NIDDM is the type of diabetes most common within the Hispanic population, accounting for 95% of all Hispanic diabetic cases (Raymond & D'Eramo-Melkus, 1993). This study of diabetes in the Hispanic migrant agricultural community in Wisconsin will be exclusive to NIDDM, as it is the type of diabetes impacting most on this population.

The high incidence of diabetes and diabetes-related complications in the U.S. Hispanic population is of special concern for health professionals working with this ethnic group. Hispanics are at increased risk for many medical conditions, including NIDDM, HIV infection, alcoholism, cancer, and violent deaths (Council on Scientific Affairs, 1991). Rapid socioeconomic progress in the past few decades has improved life expectancy for Hispanic Americans, but lifestyle changes (decreased physical activity, changes in dietary habits, increased alcohol consumption, smoking, and obesity) have contributed to an increase in chronic diseases (Dowse & Zimmet, 1989). According to the same source, these lifestyle changes have contributed greatly to the current major causes of morbidity and mortality in the Hispanic population: NIDDM, coronary heart disease, and hypertension.

In this current study, the intention to obtain regular medical care or services for diabetes was examined among migrant Hispanic agricultural workers and members of their families with NIDDM in Wisconsin. Increasing awareness of the need for regular medical care for NIDDM and managing this chronic condition require an understanding of the beliefs and other psychosocial issues that may influence behavior both positively and negatively. Thus, any health promotion and management strategy should be culturally specific in approach and tailored to the specific conditions of the target population.

Mortality and morbidity rates for diabetes vary among ethnic groups and are higher for Hispanic, Native American, and Black populations than in the White, non-Hispanic population (Office of Disease Prevention and Health Promotion, 1990). Reasons for the higher prevalence of NIDDM in the Hispanic population are unclear.

Recent research indicates that genetic and environmental factors mediate the development of diabetes in Hispanic populations. Possible contributory factors include obesity and the distribution of body fat (Lipton & Fivecoate, 1995), age and longevity (Haddock & Torres de Conty, 1991), gender (Monterrosa, Haffner, Stern, & Haznda, 1995), admixture of Native American genes (Hanis, Hewett-Emmett, Bertin, & Schull, 1991), sedentary lifestyles (Harris, 1991), low socioeconomic status (Zarate, 1991), access barriers to health care (Skelly, Marshall, Haughey, Davis, & Dunford, 1995), dietary factors (Quatromoni et al., 1994), and lack of education about healthy behaviors and how to use the health care system (Engel, Shamoon, Basch, Zonzain, & Wylie-Rosett, 1995).

Compared to the White, non-Hispanic population, Hispanics are more likely to live in poverty, be employed in low benefit jobs, and have little education and virtually no health insurance (Crespo & Medinilla, 1995). These factors, as well as others, limit Hispanics' use of the health care system.

While genetic predisposition, as well as socioeconomic status are difficult factors for health professionals to address directly, better access to health care and education about healthy behaviors to prevent and manage diabetes mellitus can certainly be addressed aggressively. Brown and Hanis (1995) demonstrated the effectiveness of a community-based, culturally sensitive education and group-support intervention for Mexican Americans with NIDDM in a pilot study in a rural Texas-Mexico border community conducted during 1992 and 1993. The pilot project demonstrated the ability of the intervention team to provide the educational and support group sessions, the strong interest of the participants in learning self-management of their diabetes, the potential ability of the intervention to impact health outcomes of adults with diabetes, and the

acceptability of the culturally-relevant intervention to the Mexican American population in this Texas-American border community.

Hispanics are often thought of as homogeneous, and do have similarities, most notably language, which bind them as a group. But the term Hispanic is an extremely nonspecific term. Health professionals must realize that this population consists of differing national identities, cultural practices, and genetic backgrounds, in order to create more effective prevention and intervention strategies specific to the individuals or subgroups with whom they are working.

Hispanic population subgroups in the U.S. include those of Mexican descent (67%), Puerto Rican descent (15%), Cuban descent (2%), and other Hispanic descent, including Central American descent, South American descent, and other Caribbean descent (16%) (Latino Institute Research, 1993). In a written summary of the Hispanic Health and Nutrition Examination Survey (HHANES) conducted from 1976 to 1980 (National Coalition of Hispanic Health and Human Services Organization, 1989), Flegal, et al. (1991) reported the results of a national sample of U.S. residents that produced "estimates of the health and nutritional status of three major Hispanic subgroups" (p. 628). In another report summarizing a portion of the results of the Hispanic Health and Nutrition Examination Survey, Harris (1991) highlighted statistics comparing the prevalence of NIDDM among Hispanics, Blacks, and Whites aged 20-74 years. According to Harris (1991):

Age-standardized prevalence of diabetes (sum of diagnosed and undiagnosed cases) was 6.2% in Whites, 9.3% in Cubans, 10.2% in Blacks, 13% in Mexican Americans, and 13.4% in Puerto Ricans. Thus, compared to Whites, diabetes rates were 50-60% higher among Cubans and Blacks and 110-120% higher among Mexican Americans and Puerto Ricans. (1991, p. 639)

Mexican Americans, a subgroup of the Hispanic population, not only have a higher risk of diabetes, but also may develop a more severe form of the disease than the general population of the U.S. (Brown & Hanis, 1995). As a result of this higher incidence and propensity toward a more severe form of the disease, diabetes constitutes a significant health and economic problem for Mexican Americans afflicted with diabetes and for the communities in which they reside.

The Hispanic migrant farmworker population and their related health and economic issues are rarely studied, in part due to the difficulties of studying a transient group. However, research has shown that of the estimated 2.8 million Hispanic farmworkers in the U.S., 66% are either Mexican or Mexican American (Mines, Gabbard, & Boccia, 1991). Research also provides evidence that migrant agricultural workers in the U.S. face many hardships, including physically demanding labor, crowded and substandard housing conditions, and chronic poverty (Slesinger & Pfeffer, 1992).

Although information on the health status of migrant agricultural workers is fragmented and limited by methodological difficulties associated with studying a transient population, there is evidence that migrants and their families disproportionately suffer from a variety of acute problems such as intestinal parasites, dermatitis, respiratory conditions, pregnancy complications, and chronic conditions such as hypertension, diabetes, and physical disabilities (Rust, 1990). Diabetes incidence and mortality data

specific to the migrant population are not available and probably nonexistent. But as a group, migrant farmworkers experience a life span 30% shorter than the U.S. average (National Association of Community Health Centers, 1991). Furthermore, the average life expectancy for a migrant farm worker is 49 years as compared to the national life expectancy of 75 years (Health Resources and Service Administration, 1996).

The Bureau of Migrant Services (1995) estimates that 6,000 migrant workers and their families come to Wisconsin each year for temporary, seasonal employment of not more than 10 months in various agricultural and food processing industries. This group is significant to the economy of the state of Wisconsin, filling a need for seasonal labor in the agricultural dependent portions of the state. Numbers of migrants have increased steadily since 1987. With fewer local laborers applying for seasonal agricultural work, the growth trend may continue. In addition to an increase in numbers of migrants, the duration of stay is also lengthening (Elwood, 1993).

As a group, Wisconsin migrant farmworkers are socioeconomically disadvantaged, with low family incomes and limited educational attainment. A 1989 Wisconsin survey (Slesinger & Ofstead, 1990) found that the median migrant household annual income was \$7,330 and supported 5.2 persons per household.

In a survey investigating the health care status and needs of migrant agricultural workers in Wisconsin, Slesinger and Ofstead (1990) found 99% were Mexican or Mexican American. Based on ethnicity alone, Hispanic agricultural workers in Wisconsin have a high rate of NIDDM. This supposition is borne out by a review of medical record data compiled by Family Health/La Clínica de los Campesinos.

According to Elwood (1993), NIDDM accounted for more migrant clinic contacts in 1992 than any other health condition other than anemia.

Diabetes is a common and costly disease in Wisconsin, estimated to cost over \$1.8 billion annually, including direct medical costs and indirect costs of disability, work loss, and premature deaths (Wisconsin Diabetes Control Program, 1996). Yet these costs can be reduced by direct medical intervention (Ford & Remington, 1996). The technology and information exist to delay onset (Manson & Spelsberg, 1994), and reduce the incidence of complications of NIDDM (Diabetes Control and Complications Trial Research Group, 1993). Clearly, science must translate into regular practice to improve the quality of life of all who are susceptible to NIDDM and subsequently to reduce health care costs associated with uncontrolled NIDDM. Thus, it is important to understand why regular medical services may not be used by many migrant Hispanic farmworkers and their families who have NIDDM, paying particular attention to attitudes and intent to obtain regular medical care for NIDDM specific to this population.

Effective prevention and treatment of the chronic illness NIDDM requires a sensitivity to and recognition of unique cultural values (Raymond & D'Eramo-Melkus, 1993). Past research (Brown, 1990, 1988; Padgett, Mumford, Hynes, & Carter, 1988) has shown "that patient education and group support are cost effective approaches to improving metabolic control and other health outcomes of individuals with diabetes" (Brown & Hanis, 1995, p. 203). NIDDM is an illness that responds well to behavior modification related to lifestyle, such as weight reduction, diet modification, and exercise (Herman, 1991). However, according to Brown and Hanis, the interventions studied have largely been conducted with White, non-Hispanic, middle class individuals, and

culturally relevant approaches have been rarely investigated for minority groups. Improved diabetes management strategies and more culturally specific educational measures are needed for the Hispanic population as a whole, and the Mexican American migrant population in particular.

Patient education to support and provide information to individuals making significant changes in their lifestyle is not effective without frequent contact with the patient. The first step toward effective diabetes management is to understand the perceptions held regarding this disease and attitudes and intent to obtain regular medical care for NIDDM. If health professionals seek to understand why or why not the patient is willing or able to obtain regular medical attention, better screening and management programs can be constructed.

The Theory of Planned Behavior (Ajzen, 1985, 1988) was developed to further understand human social and psychological behavior. The Theory of Planned Behavior investigates the influence of attitude, subjective norm, and perceived behavioral control on intention to engage in a specific behavior. Actions (or change in behavior) are controlled or mediated by intentions, although not all actions are carried out. Determining the beliefs relevant to attitude, subjective norm, and perceived behavioral control, will identify critical areas the health professional and patient must address jointly to improve and maintain the health of Hispanic migrant agricultural workers in Wisconsin with NIDDM.

The Theory of Planned Behavior is an extension of the Theory of Reasoned Action adding the concept of perceived behavioral control to the original Fishbein and Ajzen model (Ajzen & Madden, 1986; Ajzen & Fishbein, 1980), used to describe

behaviors with total volitional control. Both the Theory of Reasoned Action and the Theory of Planned Behavior suggest that there is a causal link between attitudes and behavior that is mediated by the role of intentions, at least for behavior that is under volitional control. The Theory of Planned Behavior, in adding the concept of perceived behavioral control, allows for prediction and explanation of behaviors under circumstances where volitional control may not exist. The Theory of Planned Behavior therefore better suits research conducted among a population that does not appear to have total volitional control over many behaviors and life circumstances. In other words, obtaining regular medical services for NIDDM may require opportunities, resources, or skills which are currently lacking in the migrant Hispanic community in Wisconsin and elsewhere.

Purpose of the Study

The purpose of this study was to discover variables (including attitudes, subjective norm, and perceived behavioral control) affecting the act or behavior of obtaining regular professional medical services for NIDDM in the Hispanic migrant population of Wisconsin. This study used the Theory of Planned Behavior to examine the intention of migrant Hispanic agricultural workers and their families in Wisconsin to obtain regular medical services for NIDDM.

Statement of the Problem

The goal of this research was to develop a culturally appropriate strategy for management of NIDDM in the migrant Hispanic population of Wisconsin. In order to improve clinical counseling and education, health professionals must strive to understand migrant Hispanics' attitudes, influence of significant others, and perceived barriers which

affect obtaining regular medical care. Health care worker and patient communication based upon the salient beliefs addressed in a primary survey can be incorporated into initial and ongoing patient assessment, leading to a more realistic and improved diabetes management plan. During an initial patient assessment when a migrant is diagnosed with NIDDM, or initially presents himself or herself at a migrant clinic for follow-up care for NIDDM, an interview or assessment tool (based on the initial survey data) could be used to assess attitudes concerning intention to obtain regular medical attention for NIDDM.

Need for the Study

Migrants and their families disproportionally experience a variety of acute problems and chronic conditions such as diabetes, hypertension, and physical disabilities. In order to define and deal with the many problems migrants face, the National Advisory Council on Migrant Health has compiled six recommendations, which have been presented to the Secretary of Health (National Center for Farmworker Health, 1995). According to the report, these recommendations were based on hearings held throughout the U.S. which provided farm workers a place to voice their concerns, and on a continuing study of the conditions under which farmworkers work and live. More research and improved health access were two of the six recommendations. The report, "Losing Ground: The Condition of Farmworkers in America" (National Center for Farmworker Health, 1995) expressed concern that:

Accurate facts about the number of farmworkers and their families, their health problems, birth and death rates and other important information is not available. Without this information it is very difficult to implement changes or plan a budget that will be adequate. Research must be done to provide reliable information concerning farmworkers and their families.
(p. 2)

Research on the scope of the problem of NIDDM in the Hispanic migrant population is clearly needed. This researcher, in preparing a literature review, found almost no information on either the incidence or prevalence of NIDDM in the Hispanic migrant population. In addition, there exists no data on what, if any, demographic characteristics distinguish this group from the general population, and even perhaps, from the nonmigratory Hispanic, Mexican, and Mexican American populations in the U.S. with regard to the incidence and prevalence of NIDDM.

Not only is there a limited amount of completed research on the health and life conditions of Hispanic migrant farmworkers, but a lack of information on diabetes in the general Hispanic population exists as well, particularly in the area of attitudes and beliefs regarding NIDDM. The American Diabetes Association in a report on diabetes and Hispanics (1994) stated that a formal review of scholarly literature on this subject revealed "little work has been done regarding Hispanics' opinions about diabetes specifically (p. 2)." The report went into even more detail:

Like most information regarding the Hispanic population and its health care status, it is difficult to conclude from the available literature anything more substantial than broad-based patterns with respect to Hispanic attitudes about health care, and even more difficult to assess their attitudes regarding diabetes. (p.18)

Research assessing the role that social and cultural attitudes and related barriers play in accessing health care for chronic conditions such as NIDDM is badly needed.

Research on attitudes of Hispanic migrants with respect to NIDDM and ability to access care for the condition is needed to provide clues to the types of health education information needed by this group and the most appropriate format for delivering education on diabetes and on diabetes self-care. NIDDM is a difficult disease to manage

even when patients have regular support from medical professionals. Working as a diabetes educator in a migrant clinic, the researcher found it difficult to educate using existing protocol guidelines, as patients often did not obtain regular medical services. Was this due to the attitude of the Hispanic migrants with NIDDM toward this disease and health care, or was it due to other forces that were beyond their control, or perceived control? If so, how might the existing education on diabetes and self-care change to better suit the needs of this population?

A more thorough understanding of these issues through research exploring attitudes toward obtaining regular medical care for NIDDM will hopefully lead to the development and implementation of more appropriate programs, tools, and referral networks needed to make an improvement in the lives of Hispanic migrant farmworkers and their families affected by NIDDM. Thus, the primary benefit of this study will be in gaining an understanding of what factors influence obtaining regular care of NIDDM in the Hispanic migrant population in Wisconsin. The statistical data will be useful for health promotion planning for Hispanic migrant agricultural workers in Wisconsin.

Azjen's Theory of Planned Behavior examines the role of attitudinal and normative variables, as well as perceived behavioral control, in influencing intention, as intention is the direct antecedent of behavior. In identifying the beliefs relevant to attitude, subjective norm, and perceived behavioral control, insight might be provided about the motivational forces underlying obtaining regular medical care to incorporate that data into a more appropriate diabetic management plan or strategy. But motivational forces underlying obtaining regular care connotes power and autonomy over aspects of one's life. The Theory of Planned Behavior, by incorporating the component of

perceived behavioral control, directly addresses this issue. As health professionals strive to help motivate behavior change in ways that will improve health, they must never forget the need to work toward elimination of barriers that may not be within an individual's volitional control, or accept failure in effecting positive behavioral change.

Hypotheses

Using the Theory of Planned Behavior to explain intention to obtain regular medical care for NIDDM, the following null hypotheses were examined:

1. There is no significant relationship between behavioral beliefs multiplied by outcome evaluation and attitude toward the behavior.
2. There is no significant relationship between attitude toward the behavior and age at diagnosis.
3. There is no significant relationship between attitude toward the behavior and gender.
4. There is no significant relationship between attitude toward the behavior and age.
5. There is no significant relationship between attitude toward the behavior and years of education completed.
6. There is no significant relationship between normative beliefs multiplied by motivation to comply and subjective norm.
7. There is no significant relationship between subjective norm and age at diagnosis.
8. There is no significant relationship between subjective norm and gender.
9. There is no significant relationship between subjective norm and age.
10. There is no significant relationship between subjective norm and years of education completed.

11. There is no significant relationship between control beliefs multiplied by perceived facilitation and perceived behavioral control.
12. There is no significant relationship between perceived behavioral control and age at diagnosis.
13. There is no significant relationship between perceived behavioral control and gender.
14. There is no significant relationship between perceived behavioral control and age.
15. There is no significant relationship between perceived behavioral control and years of education completed.
16. There is no significant relationship between the intention to obtain regular medical care for NIDDM and the three determinant variables (attitude toward the behavior, subjective norm, and perceived behavioral control).
17. There is no significant relationship between the intention to obtain regular medical care for NIDDM and age at diagnosis.
18. There is no significant relationship between the intention to obtain regular medical care for NIDDM and gender.
19. There is no significant relationship between the intention to obtain regular medical care for NIDDM and age.
20. There is no significant relationship between the intention to obtain regular medical care for NIDDM and years of education completed.

Assumptions

This study had the following assumptions:

1. It was assumed that all subjects answered as honestly as possible to all survey questions.

2. It was assumed that all subjects understood the survey questions, and, therefore, answered as accurately as possible.

Delimitations

This study had the following delimitations:

1. This study was delimited to migrant agricultural workers and their family members who had registered in 1996 with Family Health/La Clinica de los Campesinos, Inc. (the only migrant clinic in Wisconsin), and were diagnosed with NIDDM per Family Health/La Clinica's protocol guidelines; other migrant agricultural workers and their family members currently working in Wisconsin, with diagnosed NIDDM, referred to the researcher by other fellow migrant workers in Wisconsin; and those migrant workers and their family members that detailed a previous diagnosis of NIDDM when the researcher visited migrant camps in Wisconsin and offered free blood glucose and blood pressure screening.
2. This study was time delimited. All data collection was performed in two months, from August 1, 1996 to October 1, 1996. Migrant farmwork is seasonal and temporal, and these two months represented peak level of employment, making it an optimal time to make contact with migrant farm workers.
3. While health promotion approaches for controlling and managing NIDDM could conceivably encompass a wide range of issues and activities, this study focused primarily on intention to obtain regular medical care for NIDDM. Encouraging and sustaining any long-term behavior involves many other complex and important components.

Limitations

This study had the following limitations:

1. The two surveys were voluntary. A small percentage of the randomly chosen sample for the first survey chose not to participate, as well as a small percentage of the second survey (nonrandom).
2. Due to the temporary nature of the work and perhaps due to privacy concerns, some subjects could not be found based on the given registration information.
3. Those patients currently obtaining medical care from the migrant health clinic or those planning on obtaining care may have chosen to respond in a certain manner because of a belief that care was contingent on particular answers or that there was a correct way to answer the questions.

Definition of Terms

The following terms were used in this study:

Attitude - "the degree to which the person has a favorable or unfavorable evaluation of the behavior in question" (Ajzen & Fishbein, 1980, p. 84).

Behavioral Beliefs - "beliefs about an object by associating it with various characteristics, qualities, and attributes. Automatically and simultaneously we acquire an attitude toward that object. More specifically, we learn to like (or have favorable attitudes towards) objects we believe have positive characteristics, and we acquire unfavorable attitudes toward objects we associate with negative characteristics. . . . In the course of a person's life, (sic.) his experiences lead to the formation of many different beliefs about various objects, actions, and events. These beliefs may be the result of direct observation, they

may be acquired indirectly by accepting information from outside sources, or they are self-generated through inference processes" (Ajzen & Fishbein, 1980, p. 62-63).

Beliefs - "salient information....that are considered to be the prevailing determinants of a person's intentions and actions" (Ajzen, 1991b, p. 189).

Control Beliefs - "a set of beliefs that ultimately determine intention and action according to the Theory of Planned Behavior that deals with the presence or absence of requisite resources and opportunities" (Ajzen, 1991b, p. 196).

Intentions - "capture the motivational factors that impact on a behavior; they are indications of how hard people are willing to try, of how much effort they are planning to exert, in order to perform the behavior" (Ajzen, 1991a, p. 413).

Motivation to Comply - "the degree to which an individual is inclined to agree with important others' opinion" (De Vries, Dijkstra, & Kuhlman, 1988, p. 273).

Nonsalient Beliefs - "beliefs which have to be dredged up from the recesses of the mind [and] are unlikely to have much effect on behavior" (East, 1990, p. 72); "people can hold a great many beliefs about any given behavior [nonsalient beliefs], but they can attend to only a relatively small amount at any given moment [salient beliefs]" (Ajzen, 1991b, p. 189).

Normative Beliefs - "the person's beliefs that specific individuals or groups think they should or should not perform the behavior" (Ajzen & Fishbein, 1980, p. 84).

Outcome Evaluations - "how a person evaluates/values the outcomes of their behavior" (East, 1993, p. 343).

Perceived Behavior Control - "the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles" (Ajzen, 1991a, p. 413).

Perceived Facilitation - "the power of a factor to assist the action" (East, 1993, p. 343).

Salient Beliefs - "The beliefs that come easily to mind" (East, 1990, p.72); "Salient beliefs are considered to be the prevailing determinants of a person's intentions and actions. Three kinds of salient beliefs are distinguished: behavioral beliefs . . . , normative beliefs . . . , and control beliefs" (Ajzen, 1991b, p. 189).

Subjective Norms - "the perceived social pressure to perform or not to perform the behavior" (Ajzen, 1991a, p. 413).

Theory of Planned Behavior - derived from the Theory of Reasoned Action; proposes that attitude, subjective norm, and perceived behavioral control are the determinants of intention, and that intention is the immediate antecedent of actual behavior. "At the most basic level of explanation, the theory postulates that behavior is a function of salient information, or beliefs, relevant to the behavior" (Ajzen, 1991a, p. 413).

Theory of Reasoned Action - "the theory is based on the assumption that human beings are usually quite rational and make systematic use of the information available to them. . . . A person's intention is a function of two basic determinants: (a) one personal in nature (attitude toward the behavior), (b) and the other reflecting social influence (subjective norm)" (Ajzen & Fishbein, 1980, p. 5-6).

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

The high incidence of diabetes and diabetes-related complications in the U.S. Hispanic population is of special concern for health professionals working with this heterogeneous ethnic group. NIDDM is an illness that responds well to behavior modification related to lifestyle, such as weight reduction, diet modification, and exercise (Herman, 1991). Prevention and management of this chronic illness, therefore, requires a good understanding of the beliefs and other psychosocial issues that may influence behavior both positively and negatively. This chapter presents a review of literature related to the role of beliefs and related psychosocial issues of Hispanics in the prevention and management of diabetes mellitus. This review begins with a broad focus on vital statistics related to the incidence of diabetes in the Hispanic population, a subsequent brief consideration of one theoretical model of behavior, and concludes with literature specifically related to Hispanic beliefs and related psychosocial issues regarding prevention and management of diabetes mellitus.

Vital Statistics

The importance of studying specialized issues regarding prevention and management of diabetes mellitus in the Hispanic population becomes obvious when one realizes the scope and significance of the problem. According to Latino Institute Research (1993), based on the 1990 U.S. Census Bureau Report, there are over 22 million

Hispanics living in the U.S. Furthermore, the U.S. Hispanic population increased by 53% in the decade between 1980 and 1990 (Latino Institute Research, 1993). Based on population size and growth rate, Hispanics are predicted to become the largest minority group in the U.S. by the year two thousand (Raymond & D'Eramo-Melkus, 1993). Projections indicate that 31 million Hispanics will reside in the U.S. by the year 2,000 (Brown & Hanis, 1995). Currently, of the more than 14 million persons with diabetes in the U.S., 1.3 million are Hispanic Americans aged 21 or older ("Role of and Folk Medicine in Hispanics' View of Diabetes," 1994).

Diabetes mellitus has been identified as a major cause of morbidity and mortality among Mexican Americans compared with non-Hispanic Whites (Flegal et al., 1991). Hispanics also, according to the same source, have a greater risk of diabetes and may develop a more severe form of the disease than the general population in the U.S. According to Brown and Hanis, "Hispanics tend to be younger at diagnosis, have higher fasting glucose levels, demonstrate decreased insulin sensitivity and increased insulin response, and experience a more severe form of end-stage renal disease" (1995, p. 203).

Further statistical data implicate the role of ethnicity, or genetic background, in the prevalence of diabetes mellitus among the subgroups of Hispanic Americans. The percentage of Native American admixture plays a role, and studies have been done to ascertain the ethnic origins of each major subgroup of Hispanics (Bougardis, Lillioja, & Bennett, 1991).

Theoretical Models of Behavior Modification

Diabetes poses many demands on individuals. To maintain a stable level of health, those with NIDDM must follow a health behavior regimen that includes taking

oral medications and/or insulin, following a meal plan, testing one's glucose levels regularly, and exercising. The ability of patients to follow what can be a difficult and complex regimen is crucial because compliance with therapeutic regimens may prevent or delay the onset of complications (Skelly et al., 1995).

Research has documented that patient education and group support are cost-effective approaches to improving metabolic control and other health outcomes of individuals with diabetes (Brown & Hanis, 1995). However, most are interventions that have focused on non-Hispanic, White, middle-class individuals. Culturally relevant approaches must be investigated for minority groups. Brown and Hanis (1995) examined the feasibility of using this approach in a Mexican American community in the Rio Grande Valley in Texas. The study concluded that as long as the education was culturally relevant, "statistically significant improvements in diabetes knowledge, fasting blood sugar levels, and glycosylated hemoglobin levels were attainable" (p. 203). These data can be used to speculate on the applicability of general theories of behavior modification to Hispanic populations in particular. Extrapolating from the Brown and Hanis (1995) study, general theories can be applied, as long as a culturally appropriate approach is incorporated into the overall theoretical framework.

Many theoretical models of behavior modification have been developed. The design of interventions that yield desired changes can be improved by understanding these theories of behavior change. After studying several theories one theory in particular seemed pertinent to studying beliefs and attitudes affecting diabetes management in the Hispanic population. This theory is the Theory of Planned Behavior.

Theory of Planned Behavior

Bandura (1982) stated, "The aim of a comprehensive theory is to provide a unifying conceptual framework that can encompass diverse modes of influence known to alter behavior" (p. 127). The Theory of Planned Behavior offers a model to predict, explain, and influence human behavior in applied settings using a relatively small number of concepts. The theory addresses behaviors, but does not look at a person's attitude towards objects, people, or institutions.

Ajzen's Theory of Planned Behavior (1985, 1991b) is an expanded model of the Theory of Reasoned Action (Ajzen & Fishbein, 1980). The Theory of Reasoned Action, a behavioral intention model, was adapted from the social behavioral model of the "Theory of Proportional Control" (Page & Cole, 1985). The Theory of Reasoned Action is composed of attitudinal, normative, and intention variables used to predict and understand behavior. One of the requirements in utilizing the Theory of Reasoned Action is that the behavior being considered is under volitional control. That is, the behavior must be completely under a person's control as to whether they decide to perform it or not. But behavior is not always volitional. Behavioral control can be looked at as a continuum, and most intended behaviors viewed as goals. Thus, the attainment of these goals is subject to some amount of uncertainty, and intentions are simply plans of action. To go beyond the limited scope of the Theory of Reasoned Action, Ajzen (1985) developed the Theory of Planned Behavior to also include the concept of behavioral control. Madden, Ellen, and Ajzen (1992) demonstrated that the prediction of intention and behavior is enhanced when perceived behavioral control is included.

Perceived behavioral control is compatible with and similar to Bandura's (1982) concept of self-efficacy. Self-efficacy is defined as the belief one holds about his or her ability to overcome obstacles and achieve goals. It is the belief that one can successfully execute a behavior necessary to produce a desired outcome. Perceived self-efficacy is one's judgment of their ability to perform the behavior (Rhoads, 1992). Empirical evidence supports this concept (Bandura, Adams, Hardy, & Howells, 1980). Ajzen contends that perceived behavioral control accounts for the influence of past behavior or habit (Lay & Burns, 1991). Attitude toward the behavior and subjective norm correlate most closely to internal and external locus of control, respectively (Bauman & Fisher, 1985). Attitude toward the behavior is personal in nature and subjective norm reflects social influence (Ajzen & Fishbein, 1980). In 1992 Ajzen and Driver stated that the

Theory of Planned Behavior:

postulates three conceptually independent determinants of intention. The first is the attitude toward the behavior and refers to the degree to which the person has a favorable or unfavorable evaluation of the behavior in question. The second predictor is a social factor termed subjective norm; it refers to the perceived social pressure to perform or not to perform the behavior. The third and novel antecedent of intention, which was not part of the Theory of Reasoned Action, is the degree of perceived behavioral control. This factor refers to the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles. (p. 208)

The Theory of Planned Behavior has been applied in many different health promotion intentions and behavior research. This theory has been addressed in studies dealing with exercise (Cardinal, 1991; Godin & Gionet, 1991; Kimiecik, 1992), leisure activities (Ajzen & Driver, 1992), condom use (Boldero, Moore, & Rosenthal, 1992; Boyd & Wandersman, 1991; Wilson, Zenda, McMaster, & Lavelle, 1992), weight loss

(Schifter & Ajzen, 1985), breast self-examination (Ronis & Kaiser, 1989), and cancer screening participation (DeVellis, Blalock, & Sandler, 1990). Ronis and Kaiser (1989) found that their study of self-breast examination in female college students strongly supported the statement, "beliefs about the consequence of an action lead to the development of an attitude toward the action which in turn leads to a decision about taking action" (p. 1081). Their research also strongly supported perceived behavioral control (perceived self-efficacy) as a direct cause of behavioral decisions. The disadvantage of the Theory of Planned Behavior is that there are no generic behavioral categories. Also, the target behavior is quite time frame specific. This characteristic also makes it a very powerful theory. Figure 1 illustrates how intention can be explained in terms of the Theory of Planned Behavior.

Hispanic Beliefs and Related Psychosocial Issues in the Prevention and Management of Diabetes Mellitus

Cultural factors are of critical importance to any health care worker attempting to implement a course of behavior modification. As beliefs strongly influence behavior, people sensitive to the patient's beliefs, values, and traditions are more likely to overcome barriers to prevention and intervention that may exist. Upon review of the literature on the subject of Hispanic beliefs and psychosocial issues in diabetes management, it became evident that this is a fairly recent area of research. Most of the literature began to appear in 1991, as a result of a symposium on Diabetes in Hispanic Americans published in Diabetes Care, Volume 14, Supplement 3. The published

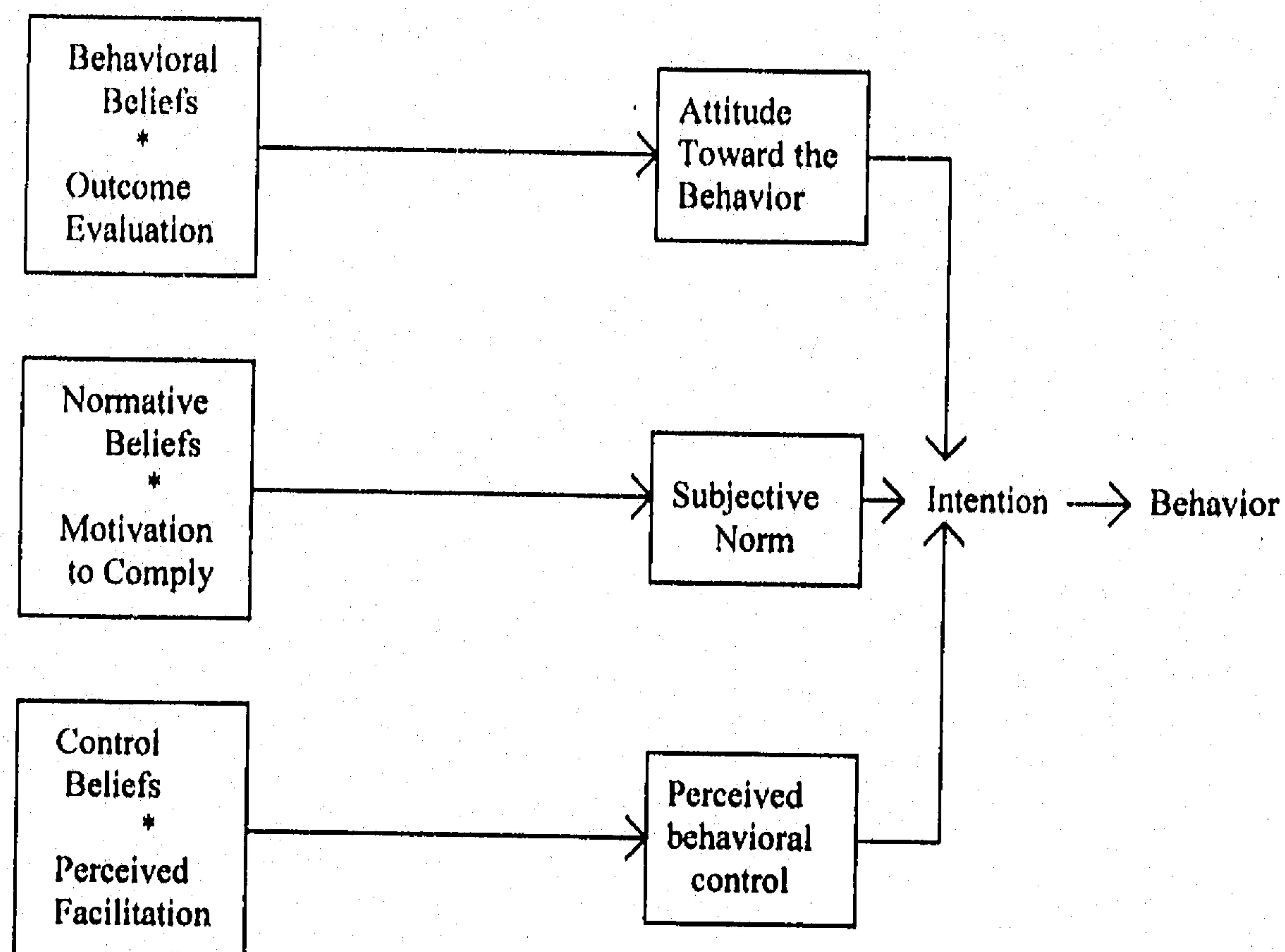


Figure 1. Theory of Planned Behavior (Ajzen, 1991a)

symposium resulted from a 1988 workshop cosponsored by the National Institute of Diabetes and Digestive and Kidney Diseases and the National Coalition of Hispanic Mental Health and Human Services. The workshop served as a forum to discuss and consider the implications of new data collected on a national basis from the Hispanic Health and Nutrition Examination Survey, which provided the first opportunity to compare and contrast the frequency of diabetes among different subgroups of the Hispanic population. The published symposium provoked a great deal of interest in

diabetes in the Hispanic population, and subsequently engendered more detailed research on how culture affects the management of diabetes mellitus.

The research on Hispanic beliefs and related psychosocial issues as they relate to prevention and management of NIDDM fell into several well-defined categories: view of illness, the influence of spiritual and religious factors, the influence of beliefs related to obesity, nutrition practices and health beliefs, the role of the family, and social impact for diabetes intervention strategies.

View of Illness

Engel, et al. (1995) found that Hispanic patients may view illness and being sick differently from non-Hispanics. For one thing, the importance of working and providing income may take precedence over taking care of the illness. Secondly, many chronic health diseases may be viewed as acute, and having a cure. In a recent study of Hispanic attitudes toward diabetes, the American Diabetes Association (1994) found that although there is no cure for diabetes, 35% of the population sampled believed there was a cure.

The Influence of Spiritual and Religious Factors

An understanding of the importance of religious and spiritual beliefs of Hispanic clients may help health professionals encourage their patients to take advantage of screening and educational services. A study of 104 Hispanic adults ("Role of Religion," 1995) found that 78% believed it was God's will that they had diabetes and 28% believed that diabetes was a punishment from God. Seventeen percent of respondents used herbs to treat their diabetes. The article further stresses the need to consider incorporating clergy members and folk medicine practitioners into the management plan. Another study of folk healing practices among Mexican American families (Krajewski-Jaime,

1991) shows that practitioners must demonstrate some knowledge of folk medicine before patients are willing to discuss their use of folk healing practices concurrent with traditional medical intervention.

The Influence of Beliefs Related to Obesity

Obesity, a significant risk factor for NIDDM, is also more common in the Hispanic population. Because the combined effects of obesity and NIDDM can lead to potentially serious complications, overweight patients with NIDDM must be treated aggressively. However, effective treatment requires a sensitivity to food patterns, ideal body size, and other values or beliefs that might influence compliance. Raymond and D'Eramo-Melkus (1993) suggest that Hispanics tend to purchase less healthful food than non-Hispanic Whites and are not aware of foods that are high in fat and cholesterol. In a study done by Stern, et al. (1991) a prevalent attitude found in Mexican Americans was that non-Hispanic White Americans are too concerned with weight loss. In fact, in this same study, Mexican Americans displayed skepticism concerning the desirability of weight loss and had a fatalistic attitude about obesity (Stern et al., 1991).

Nutrition Practices and Health Beliefs

Quatromoni et al. (1994) cites the following summary of focus group responses concerning nutrition-related practices and beliefs among Caribbean Latinos with diabetes:

Preventive nutrition behaviors were not valued.

Diabetic diets were considered restrictive and boring.

Preparing special foods for a diabetic individual was considered impractical.

Foods prepared outside of the home were rarely eaten.

Foods for a diabetic diet were too expensive.

Standard diet therapy for diabetes was unrelated to Latino culture and lifestyle.

The Role of the Family

Assessing the role of the extended family in health related decisions can provide valuable insights that can be used in medical consultations (Lebovitz, 1989). Female members of the family are the usual caregivers and have the most impact on what the family eats and how they take care of their health (U.S. Department of Health and Human Services, 1990).

Social Impact of Diabetes

Intervention strategies seem to work best when they are augmented by community and family/peer support systems. The Hispanic culture has a long tradition of banding together to address pressing social problems. One study (Freudenberg & Trinidad, 1992) in New York City showed that community organizations, with their established and ongoing relationships with their constituents, knowledge of relevant cultural values and channels of communication, and commitment to safeguard the well-being of their neighborhoods, were ideal and effective resources for AIDS prevention strategies. Another study of community-based, group-support intervention for Mexican Americans with NIDDM (Brown & Hanis, 1995) showed statistically significant improvements in diabetes knowledge, fasting blood sugar levels, and glycosylated hemoglobin levels. The study documented the feasibility and potential benefits of group-support intervention.

Summary

Cultural factors are of critical importance in the prevention and management of any disease, as they color information obtained by clients. In working with the heterogeneous Hispanic population, some knowledge of some social norms, beliefs,

traditions, and history is important to increase patient compliance with interventions designed to control or manage NIDDM. This knowledge will also strengthen diabetes prevention programs aimed at the Hispanic population. More research on this subject is needed to better understand the differing cultural issues among the subgroups of Hispanics in the U.S. Hispanics are far from homogeneous as an ethnic group, and although many similarities exist, so do vast differences. However, it is encouraging to note that research on this ethnic minority is increasing, and some generalized knowledge is better than none. Any health care worker attempting culturally sensitive management of Hispanics with NIDDM must be careful in overgeneralizing cultural issues presented in the literature on this subject, and must be aware of and allow for individual differences.

CHAPTER III

METHODS

Introduction

The purpose of this study was to gain a greater understanding of the intention to obtain regular medical attention by those diagnosed with NIDDM among the migrant Hispanic population in Wisconsin. This chapter details the methods used in this study. Subject selection, instrumentation, data collection procedures, and statistical treatment of the data are presented.

Subjects

The initial subject population used for this study included those migrant Hispanic agricultural workers and their families diagnosed with NIDDM who were also registered patients at Family Health/La Clinica de Los Campesinos (FH/LC) in Wild Rose, Wisconsin from January 1 to September 15, 1996. Subsequently, upon visitation of the migrant camps and in interviewing the aforementioned group of people, other migrant Hispanics (or family members) with NIDDM were referred to the researcher. If they had indeed been diagnosed with NIDDM (as verified by speaking directly with the person in question), and were working in agriculture in Wisconsin, these people were included in the study as subjects. Twenty-five percent of second inventory subjects were not obtaining care for NIDDM as patients of FH/LC, although many of that 25% had registered with FH/LC. Combining the numbers of known FH/LC patients with NIDDM and referred subjects with NIDDM, it was estimated that nearly 100 possible subjects

were thought to exist in Wisconsin during the 1996 migrant season. Sixty-eight of the total estimated population were sampled using the final inventory.

The subjects not interviewed at the time they visited FH/LC were asked for permission allowing the researcher to contact them at their place of residence (usually a migrant encampment). If the person agreed, the researcher attempted to locate the person and interviewed him or her at his or her place of residence. If the medical records indicated the subject had a phone number at home, or listed the place of employment, an attempt was made to reach the subject in advance. The study was then explained and the researcher asked permission to interview the subject at a convenient time and place. Several subjects were located through the efforts of the Clinic Health Aides, lay health educators associated with FH/LC, who lived in several different migrant camps.

Instrumentation

The research procedure involved two sequential surveys, per recommendation of the developers of the Theory of Planned Behavior (Ajzen, 1985; Ajzen & Fishbein, 1980; Ajzen & Madden, 1986). Both surveys were provided in either English or Spanish. The Spanish version of the first survey was checked and corrected by two bilingual professionals. The Spanish version of the second survey was checked and corrected by a five-member panel of bilingual professionals, including two native Spanish speakers. The two sequential surveys helped to break the research into two distinct phases, or time periods. For the sake of clarity, these will be referred to as Phase One: Eliciting Salient Beliefs, and Phase Two: Determinants of Intention.

Phase One: Eliciting Salient Beliefs

The first survey consisted of demographic information combined with open-ended questions designed to elicit the subjects' salient beliefs concerning obtaining regular medical care for NIDDM, including advantages and disadvantages. This interview was approximately 15 to 20 minutes in length and designed to elicit spontaneous reactions to survey questions. The purpose of the preliminary survey was to gather salient beliefs and reference information necessary for the development of the second instrument, and the second phase of the research.

During this first phase of data collection, 11 demographic and 9 open-ended questions were asked to 22 migrant Hispanics with NIDDM (see Appendix A). These questions elicited salient belief information regarding obtaining regular medical care for NIDDM. The preliminary survey questions were determined following the recommendations of the developers of the Theory of Planned Behavior (Ajzen & Fishbein, 1980; Ajzen & Madden, 1986). The survey items numbered 12 and 13 ("What do you believe are the advantages/disadvantages to obtaining regular medical care for diabetes in a clinic setting?") gathered information about the subjects' behavioral beliefs and outcome evaluation regarding obtaining regular medical care for NIDDM. The 14th question was a paraphrased form of the two preceding questions combined ("When you think about going regularly to the clinic for diabetes care, what other benefits or consequences come to mind?"). Questions 15 and 16 ("Are there any groups or individuals that would/would not want to obtain regular medical care for diabetes in a clinic setting? If so, who are they?") were asked in order to gain information regarding the subjects' normative beliefs or social influences regarding obtaining regular medical

services for NIDDM. Again, question 17 was a paraphrased form of questions 15 and 16. The Theory of Planned Behavior implies that in forming a subjective norm, and individual takes into account the normative expectations of various others in their environment. Normative beliefs are similar to subjective norms, except that they involve specific individuals or groups rather than a generalized important other. Questions 18 and 19 ("What do you believe are the factors that make it easier/more difficult to get regular clinical care for diabetes?") gathered information about the subjects' perceived behavioral control. The final open-ended question, number 20, was a paraphrased form of the 18th and 19th questions. The most frequently mentioned salient beliefs were incorporated into the inventory and are outlined in Chapter IV (see Table 6), where preliminary survey question responses and results are described in more detail. The responses from the preliminary survey were compiled and grouped according to similarity.

At the conclusion of the first phase of research, the preliminary responses to the first survey were compiled by August 27, 1996, in order to create the second survey, and begin the second phase of research. The Intent to Obtain Regular Medical Services for NIDDM Inventory was created August 28, 1996, concluding the first phase of research.

Phase Two: Determinants of Intention

A second survey, called the Intent to Obtain Regular Medical Services for NIDDM Inventory (see Appendix B), was created based on the most often cited responses to the open-ended questions in the first survey. The second inventory, approximately 45 minutes in length, was designed to gather demographic information, as well as information about attitudes, social influences, and perceived behavioral control

about obtaining regular medical care for NIDDM and intention to do so. Behavioral beliefs, outcome evaluation, normative beliefs, motivation to comply, control beliefs, perceived facilitation, and intention statements were structured as 7-point summated bipolar scales.

Data Collection Procedures

The research procedure again involved two phases for data collection. These procedures followed recommendations of Azjen (1985), the developer of the Theory of Planned Behavior and the procedures of the antecedent to that theory, the Theory of Reasoned Action (Azjen & Fishbein, 1980; Ajzen & Madden, 1986).

Phase One: Eliciting Salient Beliefs

The first phase, interviewing 22 migrants with NIDDM with the preliminary survey, took place in various locations in Wisconsin between August 8 and August 26, 1996. Subjects were asked to respond orally in English or Spanish (preference was requested) to a set of nine open-ended questions (see Appendix A), following a brief explanation of the study and upon giving oral (vocal) consent. Oral consent was given instead of written consent as the population had a low level of literacy and would be skeptical of written involvement if illegal. The purpose of the preliminary survey was to gather salient belief and reference information necessary for the development of the Intent to Obtain Regular Medical Services for NIDDM Inventory (see Appendix B). The responses from the preliminary survey were compiled and grouped according to similarity.

Phase Two: Determinants of Intention

The second phase of data collection began on August 29, 1996, and ended on October 1, 1996, and took place in various locations in Wisconsin (including FH/LC and many migrant camps). A 21-page, 71 item Intent to Obtain Regular Medical Services for NIDDM Inventory (see Appendix B) was used to conduct 45-minute oral interviews with 68 migrant Hispanic agricultural workers with NIDDM. Eighteen of the 68 interviewed had also been participants in the preliminary survey during Phase 1 of the research. The inventory gathered demographic information in addition to the 71 items.

The following steps were taken in the data collection process:

1. Permission for use of human subjects was obtained from the University of Wisconsin-La Crosse Institutional Review Board for the Protection of Human Subjects prior to all data collection.
2. Approval of data collection procedure was obtained from the Board of Directors of Family Health/La Clinica de los Campesinos prior to all data collection.
3. Researcher needed to obtain approval of hire by FH/LC from FH/LC's Executive Director to conduct research in a more professional manner, as well as to educate all study subjects after collection of data.
4. Examination of medical records of patients diagnosed with NIDDM registered for the 1996 season at FH/LC in Wild Rose, Wisconsin was done to create a patient list (and address and phone directory) of those diagnosed or managed for NIDDM from January 1 to September 15, 1996 (this was ongoing, as the principal investigator began this process in August).

5. Phase I began: 20-minute interviews consisting of open-ended questions were conducted to elicit the salient belief and reference information regarding obtaining regular medical care for NIDDM.
6. Implementation of phase II: 45-minute second survey created from the compiled results of the first survey, conducted to elicit more specific beliefs and attitudes regarding intention to obtain regular medical care for NIDDM.

Statistical Treatment of Data

Information gained from the second survey was analyzed based on the method developed by Ajzen and Fishbein (1980) and Ajzen (1985) for the hypotheses (numbers 1, 6, and 11) that looked at the relationship between variables in the Theory of Planned Behavior. As required of the theory, Pearson product moment correlations were computed between pairs of the measured variables. For these hypotheses, the independent variables were (behavioral beliefs x outcome evaluation), (normative beliefs x motivation to comply), and (control beliefs x perceived facilitation). These independent variables are the indirect measures of attitude, subjective norm, and perceived behavioral control. For these hypotheses, the dependent variables were the direct measures of attitude, subjective norm, and perceived behavioral control.

A regression analysis was also required to develop the intention prediction equation. Hypothesis number 16 examined the relationship between the intention to obtain regular medical care for NIDDM and the three determinant variables (attitude toward the behavior, subjective norm, and perceived behavioral control). The independent variables for this hypothesis were the direct measures of attitude, subjective

norm, and perceived behavioral control. The dependent variable was the direct measure of intention to obtain regular medical care for NIDDM.

This study also examined various possible relationships between demographic characteristics of the study population and some of the components of the Theory of Planned Behavior. Correlations were performed using Pearson product moment procedures for null hypotheses 2, 4, 5, 7, 9, 10, 12, 14, 15, 17, 19, and 20. Analysis of variance was performed for null hypotheses 3, 8, 13, and 18. The Pearson product moment correlations and the ANOVA were selected because the dependent variables were interval in nature and a normal distribution was assumed. The demographic variables age of diagnosis of NIDDM, age, gender, and years of education completed were examined. These demographic variables made up the independent variables for the correlations and analysis of variance. Attitude, subjective norm, perceived behavioral control, and intention to obtain regular medical care for NIDDM were the dependent variables.

CHAPTER IV

RESULTS AND DISCUSSION

Introduction

This chapter describes the results of this study. The chapter will include the following sections: Demographic Data of Subjects, Phases of the Research Process, Descriptive Statistics, and Results of the Null Hypotheses Analyses.

Demographic Data of Subjects

The subjects in this study were 68 Hispanic migrant agricultural workers or family members currently working (in August, September, and October, 1996) in Wisconsin, with diagnosed NIDDM. Twenty-three subjects identified themselves as White with Hispanic or Latino ethnicity, and 45 subjects identified themselves as of Mexican heritage (either Mexican or Mexican American). Thirty-eight women and 30 men completed the inventory.

Various demographic variables were studied. When the subjects were asked, "Do you currently get care for diabetes at a clinic?" 63 subjects (92.6%) answered in the affirmative, and 5 subjects (7.4%) answered no. Table 1 illustrates where (state and/or country) the professional medical care had recently (within the past year) been obtained.

The place of permanent residence was another demographic variable examined. Table 2 reveals the breakdown of subjects by permanent place of residence.

Table 1. Place(s) of professional medical care obtained by subjects

Place	<u>n</u>	Percent
FH/LC (Wisconsin) only	13	19.1
FH/LC (Wisconsin) and Mexico	5	7.4
FH/LC (Wisconsin) and Texas	29	42.6
FH/LC (Wisconsin) and other place in Wisconsin	1	1.5
FH/LC (Wisconsin) and other state in the U.S.	3	4.4
Other clinic in Mexico or the U.S. (but not FH/LC)	12	17.6
Not obtaining care	5	7.4

Table 2. Subjects' permanent place of residence

Residence	<u>n</u>	Percent
Texas	46	67.6
Mexico	8	11.8
Florida	1	1.5
Other	13	19.1

Two other related demographic variables studied were age of subjects at the time of the interview for this study (August, September, and October, 1996) and age of subjects at the time of diagnosis of NIDDM. Table 3 illustrates the breakdown of subjects by age level at the time of the interview and Table 4 illustrates the breakdown of subjects by age at the time of diagnosis of NIDDM.

Table 3. Age level of subjects at present time

Age level	<u>n</u>	Percent
below 30	1	1.5
30-39	8	11.8
40-49	17	25.0
50-59	21	30.9
60-69	16	23.5
70-79	5	7.3

Table 4. Age level of subjects at the time of diagnosis of NIDDM

Age level	<u>n</u>	Percent
below 30	6	8.8
30-39	20	29.4
40-49	20	29.4
50-59	17	25.0
60-69	5	7.4

Number of years of education was also a demographic variable collected in this study. Table 5 illustrates the breakdown of subjects by number of years of education.

Table 5. Years of education of subjects

Years of education	<u>n</u>	Percent
0	7	10.3
1-3	12	17.5
4-6	29	42.6
7-9	8	11.8
10-12	8	11.8
13-15	2	2.9
16-18	2	2.9

In summary, 68 subjects were interviewed. All subjects had been diagnosed with NIDDM, and were migrant agricultural workers or family members working in Wisconsin at the time of the study. All identified themselves as either Hispanic/Latino or of Mexican heritage. The majority ($\underline{n} = 38$) were women. Most (92.6%) agreed that they obtained some kind of professional medical care for diabetes, and half (50%) obtained care in either both Wisconsin and Texas, or both Wisconsin and Mexico. Seventy-five percent of the subjects obtained care from FH/LC in Wisconsin. Most (79.4%) of the subjects declared their permanent place of residence to be Texas (67.6%) or Mexico (11.8%). The average age for the study subjects was 52.5 years. The average age of diagnosis with NIDDM was 44.0 years. The average number of years of education was 6 years.

Phases of the Research Process

Phase One: Eliciting Salient Beliefs

The preliminary survey was completed by 22 migrant agricultural workers and family members from August 8 to August 26, 1996. Eighteen of the 22 surveyed were later surveyed in Phase Two. The sample of 22 was convenient, as the researcher collected the surveys from the first 22 migrants either arriving at FH/LC for medical care or for care of family members, or from migrants on the list of known migrants with NIDDM that lived within a 30 mile radius of FH/LC in Wild Rose, Wisconsin. Twenty-two subjects were surveyed, as 20% was seen as an appropriate sample, and the total population of migrant agricultural workers diagnosed with NIDDM working in Wisconsin was estimated to be about 100 in number.

The preliminary survey consisted of 9 open-ended questions regarding obtaining regular medical services for NIDDM (see Appendix A). Results from questions 12-14 were compiled into groupings of salient beliefs on attitude. Responses to questions 15-17 reflected the subjects' salient beliefs concerning whether particular referents think the respondent should or should not do the behavior (i.e., obtain regular medical services for NIDDM). Questions 18-20 addressed the issue of control and elicited salient beliefs specific to factors that influence the behavior. The most popular and frequent responses, grouped according to response similarity, are listed in Table 6. The specific salient beliefs for attitude, subjective norm, and perceived behavioral control were then formatted into specifically worded statements and placed on 7-point bipolar summated scales. These statements were created to elicit the indirect measure of attitude.

Table 6. Summary of preliminary survey question responses

Attitude	Subjective Norm	PBC*
Work more important than health	Other migrants or Mexicans/	Good support from
Get medicine	Texans	care organization
Get attention and good service	Family members	Too scared/stressed/
Get affordable care	Husband/wife	nervous
Prevent related health problems	Children	Lack of education of
Obtain information	Brother/sisters	need for care
Control diabetes	Health professionals	Economic barriers
Check health status	Health organizations	Appointment system/
Feel better/be healthier	Doctors	wait
Don't want to admit one has	Government/economic	Distance/transport
diabetes		Obtain medications
Stressful		Problem with medica-
		tion system
		Affordability/cost
		Locus of control
		Lifestyle
		unchangeable

*perceived behavioral control

subjective norm, and perceived behavioral control. Direct measures of the components attitude, subjective norm, perceived control, and intention were gained through generalized statements (i.e., most people who are important to me think vs. my husband/wife thinks). Along with questions on demographics, the 71 statements on a 7-point summated bipolar scales comprised the makeup of the Intent to Obtain Regular Medical Services for NIDDM Inventory.

Phase Two: Determinants of Intention

The Intent to Obtain Regular Medical Services for NIDDM Inventory (see Appendix B) was created utilizing the salient beliefs elicited through preliminary survey questions. This second phase involved interviewing (individually and as a group) as

many migrant Hispanics diagnosed with NIDDM in Wisconsin as could be traced and were found willing. This inventory was designed to gather demographic information, as well as more specific information about the beliefs, attitudes, social influences, and perceived behavioral control migrant Hispanics in Wisconsin feel they have regarding obtaining regular medical attention for NIDDM.

The initial subject population used for Phase Two included those migrant Hispanic agricultural workers and their families diagnosed with NIDDM registering at FH/LC in Wisconsin from January 1 to September 15, 1996. Other migrant Hispanics and their families were added to the list of known migrants or their family members diagnosed with NIDDM, if they had been diagnosed with NIDDM, and were living in Wisconsin.

The subjects not interviewed at the time when they visit either of the clinics were asked for their permission for the researcher to contact them at their place of residence (usually a migrant encampment). If the person agreed, the researcher attempted to locate the person and interview the subject at his or her place of residence.

Descriptive Statistics

The Intent to Obtain Regular Medical Services for NIDDM Inventory gathered information relative to the determinants of intention as proposed in the Theory of Planned Behavior. These variables were behavioral beliefs, outcome evaluation, normative beliefs, perceived facilitation, attitude, subjective norm, perceived behavioral control, and intention. Table 7 provides the descriptive statistics for the direct measure of each variable.

Table 7. Descriptive statistics for theory variables

Variable	<u>N</u>	Mean	SD
Behavioral beliefs	68	2.03	0.46
Outcome evaluation	68	2.45	0.53
Normative beliefs	68	1.63	0.52
Motivation to comply	68	1.78	0.88
Control beliefs	68	3.10	0.56
Perceived facilitation	68	3.09	0.84
Attitude	68	2.12	0.59
Subjective norm	68	1.26	0.73
Perceived behavioral control	68	3.53	1.46
Intention	68	1.42	0.63

Perceived behavioral control had the highest mean (3.53) and the highest standard deviation (1.46). Perceived facilitation had the second highest mean (3.09) with the second highest standard deviation (0.88). This suggests that the majority of this population believed that there are indeed many barriers that can and do prevent them from obtaining regular medical care for NIDDM. Although many do perceive a lack of control and ease in obtaining regular medical care for NIDDM, there is more variability in the responses to these two areas than any of the other theory variables. Perceived facilitation addresses factors that make obtaining regular medical care for NIDDM easier or more difficult. On this study's inventory those factors included: (a) good support

from health care organization, (b) feeling scared, stressed and/or nervous, (c) lack of education regarding need for regular care, (d) economic barriers, (e) difficulties with the appointment system and/or wait, (f) distance or transport problems, (g) obtaining medications, (h) problems with medication system, (I) affordability and/or cost, (j) locus of control, and (k) lifestyle unchangeable. Since some of the variables could be interpreted in a positive light (i.e., good support from health care organization, obtaining medications), the higher mean may in reality be even higher when those positive factors are eliminated.

Subjective norm showed the lowest mean (1.26), with a standard deviation of 0.73. This suggests the general belief that social pressure toward the behavior is extremely important in this population. Influential others really are influential. Normative beliefs also had one of the lower means (1.63), as well as one of the lower standard deviations (0.52). This suggests consistency regarding the influence and importance of the opinions and advice of the socially influential on performance of the target behavior (obtaining regular medical care for NIDDM).

Outcome evaluation had a middle-range mean (2.45), but one of the lowest standard deviations (0.53). This suggests consistency regarding the general belief that obtaining regular medical care for NIDDM has a somewhat positive outcome evaluation. Intention showed one of the very lowest means (1.42), and possesses a middle-range standard deviation (0.63), indicating that the majority of the subjects did intend to obtain regular medical services for NIDDM.

Results of the Null Hypotheses Analyses

The hypotheses in this study were based upon the concepts defined in the Theory of Planned Behavior. Relationships among the theory variables were examined using Pearson's product moment correlation, analysis of variance (ANOVA), and regression analysis. These tests were utilized because a normal distribution was assumed and the data were interval (although the data were actually ordinal level). Figure 2 illustrates the relationship among theory variables.

The Theory of Planned Behavior is used as a measurement tool to analyze possible correlations between the concepts of attitude, subjective norm, perceived behavioral control, and intention. After statistical analyses decisions were made regarding the null hypotheses. All hypotheses were tested at the .05 level of significance.

Hypothesis 1: There is no significant relationship between behavioral beliefs multiplied by outcome evaluation and attitude toward the behavior. Figure 2 illustrates the equation, and Table 8 presents the Pearson correlation coefficient between these variables (-0.15). Because the significance probability was 0.219, the null hypothesis was not rejected. These results can be found in Table 8.

Hypothesis 2: There is no significant relationship between attitude toward the behavior and age at diagnosis. A Pearson correlation between these variables showed a correlation coefficient of -.103. Because the significance probability was .404, the null hypothesis was not rejected (see Table 8).

Hypothesis 3: There is no significant relationship between attitude toward the behavior and gender. An ANOVA was conducted and the differences between attitude

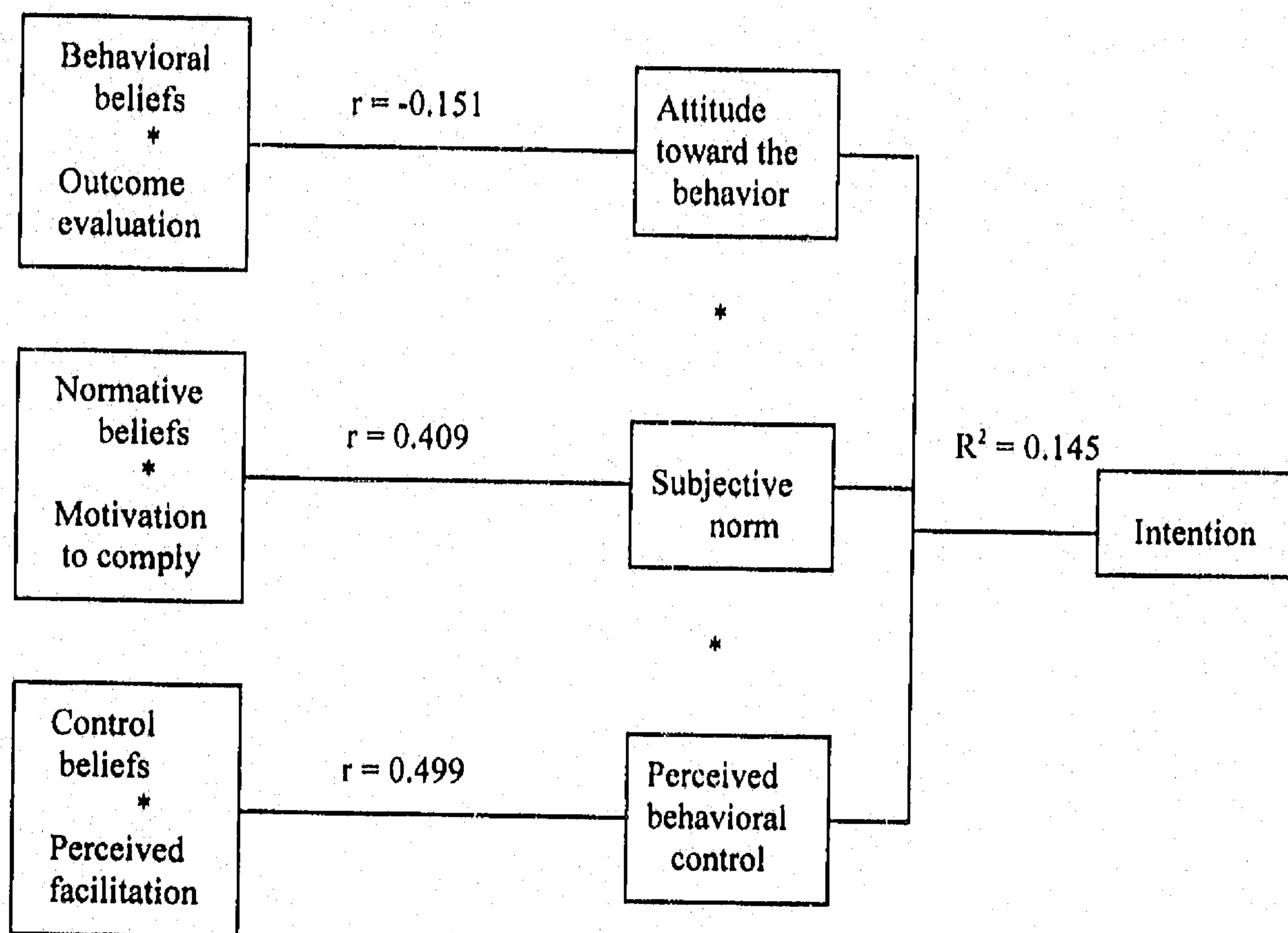


Figure 2. Relationship among theory variables
Note. The second two relationships were significant.

and gender was not significant ($p = .245$). The null hypothesis was not rejected. These values are recorded in Table 9.

Hypothesis 4: There is no significant relationship between attitude toward the behavior and age. A Pearson correlation between these variables showed a correlation coefficient of $-.202$. Because the significance probability was $.099$, the null hypothesis was not rejected (see Table 8).

Hypothesis 5: There is no significant relationship between attitude toward the behavior and years of education completed. A Pearson correlation between these

Table 8. Results of Pearson correlations among theory variables

Variables	<u>N</u>	Correlation Coefficient (r)	Prob > R
(BB * OE) & attitude	68	-0.151	0.219
(NB * MC) & subjective norm	68	0.409	0.001
(CB * PF) & perceived behavioral control	68	0.499	0.000
Attitude & age at diagnosis	68	-0.103	0.404
Attitude & age	68	-0.202	0.099
Attitude & years of education	68	0.178	0.146
Subjective norm and age at diagnosis	68	-0.060	0.629
Subjective norm and age	68	-0.057	0.644
Subjective norm and years of education	68	-0.084	0.498
Perceived behavioral control & age at diagnosis	68	-0.004	0.973
Perceived behavioral control & age	68	-0.052	0.677
Perceived behavioral control & years of education	68	0.107	0.387
Intention and age at diagnosis	68	0.085	0.489
Intention and age	68	0.034	0.783
Intention and years of education	68	0.002	0.987

Table 9. Analysis of variance for theory variables and gender

Variables	p-value
Gender	
Attitude	0.245
Subjective norm	0.984
Perceived behavioral control	0.606
Intention	0.635

variables showed a correlation coefficient of .178. Because the significance probability was .146, the null hypothesis was not rejected (see Table 8).

Hypothesis 6: There is no significant relationship between normative beliefs multiplied by motivation to comply and subjective norm. Figure 2 illustrates this equation. A Pearson correlation showed a correlation coefficient of .409. Because the significance probability was .001, the null hypothesis was rejected (see Table 8).

Hypothesis 7: There is no significant relationship between subjective norm and age at diagnosis. A Pearson correlation between these variables showed a correlation coefficient of -.060. Because the significance probability was .629, the null hypothesis was not rejected (see Table 8).

Hypothesis 8: There is no significant relationship between subjective norm and gender. An ANOVA was conducted and the differences between subjective norm and gender was not significant ($p = .984$). The null hypothesis was not rejected (see Table 9).

Hypothesis 9: There is no significant relationship between subjective norm and age. A Pearson correlation between these variables showed a correlation coefficient of $-.057$. Because the significance probability was $.644$, the null hypothesis was not rejected (see Table 8).

Hypothesis 10: There is no significant relationship between subjective norm and years of education completed. A Pearson correlation between these variables showed a correlation coefficient of $-.084$. Because the significance probability was $.498$, the null hypothesis was not rejected (see Table 8).

Hypothesis 11: There is no significant relationship between control beliefs multiplied by perceived facilitation and perceived behavioral control. Figure 2 illustrates this equation. A Pearson correlation showed a correlation coefficient of $.499$. Because the significance probability was $.000$, the null hypothesis was rejected (see Table 8).

Hypothesis 12: There is no significant relationship between perceived behavioral control and age at diagnosis. A Pearson correlation between these variables showed a correlation coefficient of $-.004$. Because the significance probability was $.973$, the null hypothesis was not rejected (see Table 8).

Hypothesis 13: There is no significant relationship between perceived behavioral control and gender. An ANOVA was conducted and the differences between perceived behavioral control and gender was not significant ($p = .606$). The null hypothesis was not rejected (see Table 9).

Hypothesis 14: There is no significant relationship between perceived behavioral control and age. A Pearson correlation between these variables showed a correlation

coefficient of $-.052$. Because the significance probability was $.677$, the null hypothesis was not rejected (see Table 8).

Hypothesis 15: There is no significant relationship between perceived behavioral control and years of education completed. A Pearson correlation between these variables showed a correlation coefficient of $.107$. Because the significance probability was $.387$, the null hypothesis was not rejected (see Table 8).

Hypothesis 16: There is no significant relationship between the intention to obtain regular medical care for NIDDM and the three determinant variables (attitude toward the behavior, subjective norm, and perceived behavioral control). A regression analysis was used to determine if a significant relationship existed. Because attitude, subjective norm, and perceived behavioral control, the three determinant variables, were not all significant at the $.05$ level, the null hypothesis was not rejected. The regression equation is: $\text{Intention} = .397 + .238 (\text{attitude}) + .263 (\text{subjective norm}) + .131 (\text{perceived behavioral control})$.

Hypothesis 17: There is no significant relationship between the intention to obtain regular medical care for NIDDM and the age at diagnosis. A Pearson correlation between these variables showed a correlation coefficient of $.085$. Because the significance probability was $.489$, the null hypothesis was not rejected (see Table 8).

Hypothesis 18: There is no significant relationship between the intention to obtain regular medical care for NIDDM and gender. An ANOVA was conducted and the differences between intention to obtain regular medical care for NIDDM and gender was not significant ($p = .635$). The null hypothesis was not rejected (see Table 9).

Hypothesis 19: There is no significant relationship between the intention to obtain regular medical care for NIDDM and age. A Pearson correlation between these variables showed a correlation coefficient of .034. Because the significance probability was .783, the null hypothesis was not rejected (see Table 8).

Hypothesis 20: There is no significant relationship between the intention to obtain regular medical care for NIDDM and years of education completed. A Pearson correlation between these variables showed a correlation coefficient of .002. Because the significance probability was .987, the null hypothesis was not rejected (see Table 8).

In summary, a statistically significant relationship was identified between two of the variables in the theory. The relationship between normative beliefs multiplied by motivation to comply and subjective norm was found to be significant, as was the relationship between control beliefs multiplied by perceived facilitation and perceived behavioral control. None of the other relationships between the variables studied were found to be significant.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study attempted to determine if the attitude, subjective norm, and perceived behavioral control of Hispanic migrant agricultural workers with NIDDM significantly impacted their intention to obtain regular medical care for NIDDM. This investigation also attempted to measure any relationships between the theory variables and subjects' age at diagnosis, gender, age, and number of years of education.

The final research sample consisted of 68 subjects meeting all study criteria, working in agricultural seasonal labor in Wisconsin from August 29 to October 1, 1996. Subjects participated in two different collection phases, a preliminary survey and a subsequent 71-item Intent to Obtain Regular Medical Services for NIDDM Inventory. The preliminary survey identified important salient beliefs regarding obtaining regular medical care for NIDDM, and the responses were used to construct the statements on the inventory. In addition, both the survey and the inventory gathered demographic details.

The analyses of 20 null hypotheses were completed using the following statistical procedures: Pearson product moment correlations, ANOVA, and a regression analysis. All hypotheses were tested at the .05 level of significance. The results of the study showed the following to be statistically significant:

1. There was a relationship ($r = .409$) between normative beliefs multiplied by motivation to comply and subjective norm. This relationship was significant at the .05 level ($p = .001$).
2. There was a relationship between control beliefs ($r = .499$) multiplied by perceived facilitation and perceived behavioral control. This relationship was significant at the .05 level ($p = .000$).

Conclusions

The results of the statistical analyses suggest that the attitudes, social influences, and perceived behavioral control of Hispanic migrant agricultural workers in Wisconsin with NIDDM are positively related to intention to obtain regular medical care for NIDDM. The descriptive statistics also were quite informative.

Perceived behavioral control had the highest mean (3.53) and the highest standard deviation (1.46). Perceived facilitation had the second highest mean (3.09) with the second highest standard deviation (0.88). This suggests that the majority of this population believed or perceived that there are indeed many barriers that can and do prevent one from obtaining regular medical care for NIDDM.

The descriptive statistics also suggest the general belief that social pressure toward the behavior is extremely important to this population. Also important to note is the consistency in results regarding the influence and importance of the opinions and advice of the socially influential on performance of the behavior (obtaining regular medical care for NIDDM). The results also suggest a consistency regarding the general belief that obtaining regular medical care for NIDDM has a somewhat positive outcome evaluation. Finally, intention showed one of the very lowest means (1.42), and possesses

a middle-range standard deviation (0.63), indicating with some consistency that the majority of the study subjects did intend to obtain regular medical services for NIDDM.

Utilizing the Theory of Planned Behavior as a tool for health education program planning was the ultimate goal of this study. This theory provided a means to understand more fully why or why not Hispanic migrants in Wisconsin with NIDDM obtain regular medical care for NIDDM. Understanding specific population beliefs could help to create more appropriate planning and interventions for health promotion.

Recommendations

The following recommendations for expanded health education research are suggested:

1. Perform validity and reliability testing on the Intent of Obtain Regular Medical Services for NIDDM Inventory.
2. This study should be conducted in other states with migrant Hispanic populations. Geographic location, size of the population, racial/ethnic composition, and accessibility of health care, as well as multiple other factors could influence results.
3. This study should be replicated using a random sample and a larger population, perhaps Hispanic migrant agricultural workers in five Midwestern states.
4. The Theory of Planned Behavior should be applied to more research with special populations (such as Hispanic migrant agricultural workers) to see if it is truly applicable to all populations, or might be more relevant to some populations.
5. Other behavioral theories should be tested on this population, as this theory accounted for only 14.5% of the variance affecting intention to obtain regular medical care for NIDDM in the migrant Hispanic population in Wisconsin.

Implications

More Research Is Needed on the Health Care of Migrant Agricultural Workers

The report, "Losing Ground: The Condition of Farmworkers in America," (National Center for Farmworker Health, 1995) gives the recommendations of the National Advisory Council on Migrant Health to the Secretary of Health. This study of NIDDM in the Hispanic migrant population in Wisconsin corroborates the need for two of the six recommendations outlined in that report: improved health access, and more research to ascertain facts about migrant farmworkers and their families. More research is needed to provide important information to guide changes in health care policy and plan national federally funded budgets for health, particularly the budget for funds allocated to migrant health centers (Public Health Service 329 funds).

The following are recommendations for expanded health education research on both NIDDM in the Hispanic population in general, and NIDDM in the migrant Hispanic population in particular:

1. More research is needed on NIDDM in the Hispanic population to assess social and cultural perceptions and attitudes concerning health and wellness behaviors.
2. More research is needed on NIDDM in the migrant Hispanic population to assess the scope of the problem (prevalence and incidence of NIDDM), and social and cultural perceptions and attitudes concerning health and wellness behaviors.

Recommendations to Health Care Institutions

Perception is reality. The perceived behavioral control component of this study showed that migrant Hispanics in Wisconsin with NIDDM regard obtaining regular medical services as fraught with barriers. Since perception amounts to reality in a very

practical sense, these barriers must be addressed by FH/LC in order for this population to obtain more needed regular medical care for NIDDM. The following are general recommendations for practical application of this study's findings for health care institutions providing care for migrant Hispanics with NIDDM in Wisconsin:

1. Address access to care more aggressively. This may be done in several ways:
 - (a) establish a registry of patients with NIDDM,
 - (b) during the period of time that outreach workers from FH/LC go out to camps to register migrants for FH/LC's programs, more education regarding the referral system must be disseminated.
 - (c) during the time of registration, screening for NIDDM could be accomplished, with appropriate referral for follow-up,
 - (d) establish an outreach approach (in-home services) to follow-up with patients with NIDDM on a monthly basis while residing in the state, and encourage self-management of NIDDM with glucometers to test blood glucose at home on a weekly basis, and
 - (e) establish a program for lending glucometers to patients with NIDDM and some subsidization of chemical strips, to decrease the need for more regular, time-intensive medical services.
2. Address aggressively all barriers found to be affecting perceived behavioral control in this population.
3. Address continuity of care issues. This means establishing networks of communication between FH/LC and Texas, Mexico, and Florida, as well as other states the population may migrate to after leaving Wisconsin. Although some

systems for doing this are in place (i.e., forwarding medical records to permanent place of residence, at the request of the patient), no formalized continuity of care plan currently exists.

4. As the subjective norm component of this study demonstrated that important others are very influential in respect to behavior in this population, target educational measures to entire family instead of only to the individual with NIDDM. Use the concept of a personal coach ("compadre") to help the individual accomplish self-care goals.

Proper care of the patient with NIDDM requires a team approach with participation of several experts such as doctors (including subspecialists in eye, kidney, and foot care, as well as neurology), nurses, health educators, diabetes educators, nutritionists, social workers, lab technicians, and other medical personnel. Without a sound, well-structured diabetes care program, it is difficult to achieve established standards for quality comprehensive care set by the American Diabetes Association for credentialed programs. Each health care provider working with this population must communicate well. This means bilingual providers or translation services are extremely important. Just as important is a good understanding of cultural issues surrounding health problems. Furthermore, the health care professional needs to establish specific goals tailored to each patient. Discussion of both social and economic barriers is essential. Open communication may point out areas of perceived lack of behavioral control. Then the health professional should address these areas by teaching problem-solving skills and advocating for the patient with other health and social service agencies.

Recommendations for Federal Government Involvement

Diabetes and its complications result in enormous medical expense, unemployment, and work absenteeism. At the same time it is rare to find preventive diabetes programs, even in populations at high risk. Even at federally funded migrant health centers prevention programs for chronic health problems are extremely rare. Priorities need to change. To prevent a future economic crisis driven by the cost of the complications of diabetes and other chronic health problems, the federal government needs to act. The federal government has jurisdiction over budgets allocated to migrant health centers, and it must act by allotting more funds to health promotion and prevention efforts, particularly to support those programs designed to prevent costly medical crises later on.

Other Recommended Nationwide Responses

Other national efforts must also begin. The American Diabetes Association's recent study (1994) on NIDDM and the Hispanic population quite clearly stated that currently there is no nationwide response to this problem. Their recommendation was as follows:

While the review of the literature revealed that many organizations, both public and private, have tackled the problem in very effective ways, these efforts generally have been limited to local programs....There has been no coordinated nationwide response to the problem. Clearly, it will take a consolidated, nationwide response to make significant inroads to the solution. Agencies must work in tandem with one another to develop the communication and health care delivery system most likely to succeed in reaching and treating Hispanics with diabetes. (p. 27)

An immediate effort must be made to begin diabetes education aimed at the Hispanic population. Health and education should be made the two most important

priorities for investment by our society. The challenge is to make the right investment decisions, particularly in light of the rising costs of health care. Health promotion and preventive medicine are cost-effective in the long run with diseases such as NIDDM. Resources should be allocated to programs for primary and secondary prevention, particularly in high-risk groups such as Hispanics and migrant agricultural workers. Secondary prevention programs also must be well structured and organized so that proper standards of care are followed to prevent progression of the disease.

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APPENDIX A
PRELIMINARY SURVEY QUESTIONS

Informed Consent Form (English)**MIGRANT DIABETES STUDY**
Informed Consent FormIntroduction:

My name is Liesl Spielmann and I am conducting a study of how migrant farmworkers and their families who come to Wisconsin view diabetes. I am a graduate student at the University of Wisconsin-La Crosse and an employee of Family Health/La Clinica. I am the health educator there. My purpose is to collect information on your beliefs and attitudes about diabetes and your ability to manage it as well as possible, in conjunction with the health care providers at the migrant health centers in Wisconsin and Minnesota. You were selected to participate because you have registered at one of the migrant health centers in Wisconsin and Minnesota, and you have been diagnosed with noninsulin dependent diabetes at some time during your life, according to your medical records. If you were not selected in this manner you have been identified by others or by yourself as having previously been diagnosed with noninsulin dependent diabetes. I will read the questions out loud and you are free to answer any way you wish. There is no right or wrong answer. There are no disguised or trick questions. If you don't understand the questions, please tell me and I'll try to make them clearer. The interview will take about 25 minutes. Your participation is entirely voluntary. If you decide not to answer any or all of the questions, it will not affect your care or the care of any of your family at the migrant health centers in any way. The information you provide will be kept confidential and will not be disclosed in identifiable form to anyone but the researchers conducting the study or as provided by law. You are being given a number in place of your name to identify this interview, that I will write on this paper where I write the information you give me, but your name will not be on it, nor do you need to sign any form. I will not ask any questions about legal status or documentation. There is no anticipated risk to you if you choose to participate, or if you choose to not participate. Collaborating researchers may be allowed access to the research records in order to accomplish objectives consistent with our basic research purpose. Your privacy and confidentiality will be preserved.

I will gladly answer any questions regarding the procedures of this study when all data collection has been completed.

Concerns about any aspect of this study may be referred to Liesl Spielmann at (608) 785-2039 and thesis advisor, R. Daniel Duquette, Ph.D., at (608) 785-8161 or the Executive Director of Family Health / La Clinica, Ms. Michelle Krauska, at (414) 622-4206.

I'd like to begin asking you some questions, if you understand all the information I have just read out loud to you. May I begin?

Informed Consent Form (Spanish)**ESTUDIO DE DIABETES**
Forma Para Dar Permiso Para Hacer El EstudioIntroduccion:

Mi nombre es Luisa Spielmann y estoy conduciendo un estudio de como es la diabetes para los migrantes que vienen a Wisconsin. Soy una estudiante en la Universidad de Wisconsin en La Crosse y tambien soy una empleada de Family Health/La Clinica de los Campesinos. Soy una educadora de diabetes. El proposito del estudio es obtener informacion sobre sus creencias y actitudes sobre la diabetes y su habilidad (con la ayuda de los trabajadores de salud de La Clinica) de mantener buena salud mientras que tenga esta enfermedad. Usted ha sido seleccionado porque se registro como miembro para recibir servicios en La Clinica, y porque usted tiene diabetes. Ahora voy a leer las preguntas y usted puede decidir a contestar como quiera. No hay respuestas buenas ni malas, incorrectas ni correctas. No hay preguntas tontas. Si usted no entiende las preguntas, por favor digame para aclararlas. La entrevista tomara 25 (veinticinco) minutos. Su participacion sera completamente voluntaria. Si usted decide no contestar, unas o ningunas de las preguntas, eso no afectara el tratamiento de usted o de nadie en su familia en Family Health / La Clinica. La informacion que usted me dara, sera confidencial y no sera expuesta o identificable en ninguna forma a nadie mas que a los personas conduciendo el estudio, como lo provee la ley. Su nombre no estara en este papel, sino un numero que tengo aqui escrito para que nadie se de cuenta de quien son estas respuestas. No voy a preguntar sobre su estado legal o documentacion. No hay riesgo si usted decida participar o no participar en este estudio. A los colaboradores de la investigacion se les podra permitir acceso a los records de la investigacion para obtener los objetivos lo cual consiste en el proposito basico de nuestra investigacion. Su privacidad y confidencialidad seran guardadas.

Cuando el estudio este completo, con mucho gusto contestare cualquier pregunta que usted tenga sobre este.

Si hay preguntas sobre cualquier aspecto de este estudio, las preguntas deben ser referidas a Liesl (Luisa) Spielmann, (608) 785-2039, o su profesor y supervisor, R. Daniel Duquette, Ph.D., (608) 785-8161, o a la directora de Family Health / La Clinica, Ms. Michelle Krauska, (414) 622-4206.

Me gustaria empezar preguntando unas preguntas si entiende bien todo lo que he leído a usted. Me permitira empezar? (Podemos comenzar?)

Preliminary Survey Questions
(Preguntas del Primer Estudio)

1. Are you or someone in your family a migrant working in agriculture in Wisconsin or Minnesota? ___ Yes ___ No
1. *Esta usted o alguien en su familia trabajando en agricultura en Wisconsin o Minnesota?*
2. Do you have diabetes? ___ Yes ___ No
2. *Tiene usted diabetes?*
3. What type of diabetes do you have? ___ NIDDM ___ IDDM
3. *Que tipo de diabetes tiene usted?*
4. How old were you when you were first told you had diabetes? _____
4. *Que edad tenia cuando le dijeron que tenia diabetes?*
5. Do you currently get care for diabetes at a clinic? ___ Yes ___ No
5. *Esta usted actualmente recibiendo servicios medicos para la diabetes en una clinica?*
6. If you answered "yes" to the above question, at which clinic do you receive care for diabetes? _____
6. *Si contesto que si a la pregunta anterior (de arriba), en cual clinica recibe usted servicios medicos para la diabetes ahora?*
7. Gender: ___ Female ___ Male
7. *Sexo* (Mujer) (Hombre)
8. Birthdate: _____
8. *Fecha de Nacimiento*
9. What place is your permanent place of residence?
Cual es su lugar de residencia permanente (o sea lugar de hogar)?
 1. Texas (Tejas)
 2. Mexico
 3. Florida
 4. Other (otro): _____
10. How many years of education do you have? _____
10. *Cuantos anos de educacion tiene usted?*

11. Select the one group you most identify yourself as a part of:

11. *Cual es su raza o nacionalidad?*

1. African-American (*Africano-Americano*)
2. White-Caucasian Bkgrnd (*Blanco*)
3. White-Hispanic Ethnic (*Blanco de origen Background/Latino Hispano/Latino*)
4. Native American (*Americano Nativo*)
5. Asian Ethnic Background (*De origen de las Islas del Pacifico/Asia*)
6. Other (*Otro*): _____

12. What do you believe are the advantages to obtaining regular medical care for diabetes in a clinic setting? (Please list.)

12. *Que cree usted son las ventajas o beneficios de recibir servicios medicos de la clinica para la diabetes?*

13. What do you believe are the disadvantages to obtaining regular medical care for diabetes in a clinic setting? (Please list.)

13. *Que cree usted son las desventajas de recibir servicios medicos de la clinica para la diabetes?*

14. When you think about going regularly to the clinic for diabetes care, what other benefits or consequences come to mind? (Please list.)

14. *Cuando piensa en ir a la clinica para recibir servicios medicos para la diabetes, que otros beneficios o consecuencias piensa usted?*

15. Are there any groups or individuals that would want to obtain regular medical care for diabetes in a clinic setting? If so, who are they? (Please list.)

15. *Hay otros grupos o personas que tal vez queran o deban recibir servicios medicos para la diabetes en una clinica? Quienes son?*

16. Are there any groups or individuals that would not want to obtain regular medical care for diabetes in a clinic setting? If so, who are they? (Please list.)

16. *Hay otros grupos o personas que no queran o deben recibir servicios medicos para la diabetes en una clinica? Quienes son?*

17. When you think of obtaining regular medical care for diabetes in a clinic setting, what other groups/individuals come to mind (Please list.)

17. *Cuando piensa en ir a la clinica para recibir servicios medicos para la diabetes, en cuales otros grupos o personas piensa usted? Quienes son?*

18. What do you believe are the factors that make it easier to get regular clinical care for diabetes? (Please list.)

18. *Que cree usted son los factores o cosas que facilitan recibir servicios medicos para la diabetes en la clinica?*

19. What do you believe are the factors that make it more difficult to get regular clinical care for diabetes? (Please list.)
19. *Que cree usted son los factores o cosas que hacen difícil recibir servicios médicos para la diabetes en la clínica?*
20. When you are thinking about getting regular medical care for diabetes in a clinic setting, what other factors/things come to mind? (Please list.)
20. *Cuando usted esta pensando en recibir servicios médicos para la diabetes en una clínica, que otras cosas estan pensando sobre, o que otras cosas estan en su mente?*

APPENDIX B

INTENT TO OBTAIN REGULAR MEDICAL SERVICES FOR NIDDM INVENTORY

Informed Consent Form (English)

Introduction:

My name is Liesl Spielmann and I am conducting a study of how migrant farmworkers and their families who come to Wisconsin view diabetes. I am a graduate student at the University of Wisconsin-La Crosse and an employee of Family Health/La Clinica. I am the health educator there. My purpose is to collect information on your beliefs and attitudes about diabetes and your ability to manage it as well as possible, in conjunction with the health care providers at the migrant health centers in Wisconsin and Minnesota. You were selected to participate because you have registered at one of the migrant health centers in Wisconsin and Minnesota, and you have been diagnosed with noninsulin dependent diabetes at some time during your life, according to your medical records. If you were not selected in this manner you have been identified by others or by yourself as having previously been diagnosed with noninsulin dependent diabetes. I will read the questions out loud and you are free to answer any way you wish. There is no right or wrong answer. There are no disguised or trick questions. If you don't understand the questions, please tell me and I'll try to make them clearer. The interview will take about 45 minutes. Your participation is entirely voluntary. If you decide not to answer any or all of the questions, it will not affect your care or the care of any of your family at the migrant health centers in any way. The information you provide will be kept confidential and will not be disclosed in identifiable form to anyone but the researchers conducting the study or as provided by law. You are being given a number in place of your name to identify this interview, that I will write on this paper where I write the information you give me, but your name will not be on it, nor do you need to sign any form. I will not ask any questions about legal status or documentation. There is no anticipated risk to you if you choose to participate, or if you choose to not participate. Collaborating researchers may be allowed access to the research records in order to accomplish objectives consistent with our basic research purpose. Your privacy and confidentiality will be preserved.

I will gladly answer any questions regarding the procedures of this study when all data collection has been completed.

Concerns about any aspect of this study may be referred to Liesl Spielmann at (608) 785-2039 and thesis advisor, R. Daniel Duquette, Ph.D., at (608) 785-8161 or the Executive Director of Family Health / La Clinica, Ms. Michelle Krauska, at (414) 622-4206.

I'd like to begin asking you some questions, if you understand all the information I have just read out loud to you. May I begin?

Informed Consent Form (Spanish)

Introduccion:

Mi nombre es Luisa Spielmann y estoy conduciendo un estudio de como es la diabetes para los migrantes que vienen a Wisconsin. Soy una estudiante en la Universidad de Wisconsin en La Crosse y tambien soy una empleada de Family Health/La Clinica de los Campesinos. Soy una educadora de diabetes. El proposito del estudio es obtener informacion sobre sus creencias y actitudes sobre la diabetes y su habilidad (con la ayuda de los trabajadores de salud de La Clinica) de mantener buena salud mientras que tenga esta enfermedad. Usted ha sido seleccionado porque se registro como miembro para recibir servicios en La Clinica, y porque usted tiene diabetes. Ahora voy a leer las preguntas y usted puede decidir a contestar como quiera. No hay respuestas buenas ni malas, incorrectas ni correctas. No hay preguntas tontas. Si usted no entiende las preguntas, por favor digame para aclararlas. La entrevista tomara 45 (cuarentaicinco) minutos. Su participacion sera completamente voluntaria. Si usted decide no contestar, unas o ningunas de las preguntas, eso no afectara el tratamiento de usted o de nadie en su familia en Family Health / La Clinica. La informacion que usted me dara, sera confidencial y no sera expuesta o identificable en ninguna forma a nadie mas que a los personas conduciendo el estudio, como lo provee la ley. Su nombre no estara en este papel, sino un numero que tengo aqui escrito para que nadie se de cuenta de quien son estas respuestas. No voy a preguntar sobre su estado legal o documentacion. No hay riesgo si usted decida participar o no participar en este estudio. A los colaboradores de la investigacion se les podra permitir acceso a los records de la investigacion para obtener los objetivos lo cual consiste en el proposito basico de nuestra investigacion. Su privacidad y confidencialidad seran guardadas.

Cuando el estudio este completo, con mucho gusto contestare cualquier pregunta que usted tenga sobre este.

Si hay preguntas sobre cualquier aspecto de este estudio, las preguntas deben ser referidas a Liesl (Luisa) Spielmann, (608) 785-2039, o su profesor y supervisor, R. Daniel Duquette, Ph.D., (608) 785-8161, o a la directora de Family Health / La Clinica, Ms. Michelle Krauska, (414) 622-4206.

Me gustaria empezar preguntando unas preguntas si entiende bien todo lo que he leído a usted. Me permitira empezar? (Podemos comenzar?)

Intent to Obtain Regular Medical Services for NIDDM Inventory

Preliminary Information

(Datos Preliminares)

1. Are you or someone in your family a migrant working in agriculture in Wisconsin or Minnesota? ☐ Yes ☐ No

1. *Esta usted o alguien en su familia trabajando en agricultura en Wisconsin o Minnesota?*

2. Do you have diabetes? ☐ Yes ☐ No

2. *Tiene usted diabetes?*

3. What type of diabetes do you have? ☐ NIDDM ☐ IDDM

3. *Que tipo de diabetes tiene usted?*

4. How old were you when you were first told you had diabetes? _____

4. *Que edad tenia cuando le dijeron que tenia diabetes?*

5. Do you currently get care for diabetes at a clinic? ☐ Yes ☐ No

5. *Esta usted actualmente recibiendo servicios medicos para la diabetes en una clinica?*

6. If you answered "yes" to the above question, at which clinic do you receive care for diabetes? _____

6. *Si contesto que si a la pregunta anterior (de arriba), en cual clinica recibe usted servicios medicos para la diabetes ahora?*

7. Gender: ☐ Female ☐ Male

7. *Sexo* ☐ (Mujer) ☐ (Hombre)

8. Birthdate: _____

8. *Fecha de Nacimiento*

9. What place is your permanent place of residence?

Cual es su lugar de residencia permanente (o sea lugar de hogar)?

1. Texas (Tejas)

2. Mexico

3. Florida

4. Other (otro): _____

10. How many years of education do you have? _____

10. *Cuantos anos de educacion tiene usted?*

11. Select the one group you most identify yourself as a part of:

11. *Cual es su raza o nacionalidad?*

1. African-American (*Africano-Americano*)
2. White-Caucasian Bkgrnd (*Blanco*)
3. White-Hispanic Ethnic (*Blanco de origen Background/Latino Hispano/Latino*)
4. Mexican Heritage (*Mejicano/Mejicana*)
5. Native American (*Americano Nativo*)
6. Asian Ethnic Background (*De origen de las Islas del Pacifico/Asia*)
7. Other (*Otro*): _____

INVENTORY

Directions: The researcher will read each statement to you. After she/he reads the statement, please select the word that the researcher says that best describes your thoughts regarding getting medical services for diabetes in a clinic for that particular statement.

Here is a sample statement:

Direcciones: El investigador/La investigadora va a leer una frase completa. Despues de leerla, usted debe seleccionar la palabra que mejor describa la verdad sobre sus opiniones o pensamientos sobre los servicios medicos que recibe para la diabetes en una clinica. Por ejemplo:

EXAMPLE**EXAMPLE*****EXAMPLE*****EXAMPLE***
EJEMPLO**EJEMPLO*****EJEMPLO*****EJEMPLO***

*The weather (which affects the harvesting season) will have an influence on whether I stay in Wisconsin past September 15th this year.

**El clima (que afectara el tiempo de cosecha) afectara si me quedo en Wisconsin hasta el 15 de septiembre este ano.*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
bastante		muy		un poco		ni		un poco		muy		bastante

NOTE: If you think it is slightly likely that the weather will have an influence on whether you stay in Wisconsin past September 15th, then you would select the phrase SLIGHTLY LIKELY, and the researcher will mark that spot on the answer sheet.

NOTICIA: Si usted piensa que es un poco seguro que el clima afectara si usted se queda en Wisconsin hasta el 15 de septiembre, debe seleccionar la frase UN POCO SEGURO, y la investigadora marcara el espacio que dice eso en el papel de respuestas.

Inventory Statements

(Las frases del Questionario)

1. Your work makes it more difficult for you to receive regular medical care for diabetes in a clinic...

1. Su trabajo le hace mas difícil recibir servicios medicos regularmente para la diabetes en una clinica.

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

2. Receiving medications or a prescription for medications for diabetes from a clinic on a regular basis is...

2. Recibir medicina o una receta para las medicinas para la diabetes de una clinica cada vez que viene es...

GOOD

BUENO

BAD

MALO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

3. Receiving regular medical services or attention for diabetes in a clinic is...

3. Recibir servicios medicos o atencion para la diabetes regularmente en una clinica es...

GOOD

BUENO

BAD

MALO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

4. Receiving regular medical services for diabetes in a clinic where the cost is affordable is...

4. Recibir servicios medicos regularmente para la diabetes en una clinica donde el costo no es demasiado (es aguantable o aceptable) es...

GOOD

BUENO

BAD

MALO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

5. Receiving regular medical services for diabetes in a clinic in order to prevent health problems that can result from the diabetes (such as heart disease and eye and kidney problems) is...

5. Recibir servicios medicos regularmente para la diabetes en una clinica para prevenir problemas que puedan ser un resultado de la diabetes (por ejemplo, alta presion o problemas con los ojos o rinones) es...

GOOD
BUENO

**BAD
MALO**

extremely	:	quite	:	slightly	:	neither	:	slightly	:	quite	:	extremely
<i>bastante</i>		<i>muy</i>		<i>un poco</i>		<i>ni</i>		<i>un poco</i>		<i>muy</i>		<i>bastante</i>

6. Receiving regular medical services for diabetes in a clinic in order to receive information about the disease is...

6. Recibir servicios medicos regularmente para la diabetes en una clinica para recibir informacion sobre la enfermedad es...

GOOD
BUENO

**BAD
MALO**

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
------------------------------	---------------------	----------------------------	----------------------	----------------------------	---------------------	------------------------------

7. Receiving regular medical services for diabetes in a clinic in order to control the diabetes is...

7. Recibir servicios médicos regularmente para la diabetes en una clínica para controlar la diabetes es...

GOOD
BUENO

BAD
MALO

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
------------------------------	---------------------	----------------------------	----------------------	----------------------------	---------------------	------------------------------

8. Receiving regular medical services for diabetes in a clinic to check if you are healthy or that something is wrong is...

8. Recibir servicios médicos en reguarmente para la diabetes en una clinica para verificar si usted esta en buena salud o que algo no esta bien con su salud es...

GOOD
BUENO

**BAD
MALO**

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
------------------------------	---------------------	----------------------------	----------------------	----------------------------	---------------------	------------------------------

9. Receiving regular medical services for diabetes in order to feel better and be healthier is...

9. Recibir servicios medicos regularmente para la diabetes en una clinica para sentirse mejor y estar mas sano es...

GOOD
BUENO

BAD
MALO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

10. The feeling you have about admitting that you really have this disease when receiving regular medical services for diabetes in a clinic is...

10. El sentimiento que usted tiene aceptando que realmente tiene diabetes cuando recibe servicios medicos regularmente para la diabetes en una clinica es...

ACCEPTABLE
ACEPTABLE

NOT ACCEPTABLE
NO ACEPTABLE

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

11. Receiving regular medical services for diabetes in a clinic makes you feel stressed, nervous, or afraid.

11. Recibir servicios medicos regularmente para la diabetes en una clinica lo hacen sentirse nervioso (le da nervios) o mortificado, o con miedo.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

12. You feel that work is more important than receiving regular medical services for diabetes in a clinic.

12. Usted se siente que trabajar es mas importante que recibir servicios medicos regularmente para la diabetes en una clinica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

13. Receiving regular medical services for diabetes in a clinic will provide a means of getting medication.

13. Recibir servicios médicos regularmente para la diabetes en una clínica le asegura que usted recibe la medicina.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely bastante	quite muy	slightly un poco	neither ni	slightly un poco	quite muy	extremely bastante

14. Receiving regular medical services for diabetes in a clinic will ensure that you are attended to for the disease.

14. Recibir servicios médicos regularmente para la diabetes en una clínica asegura que usted está bien atendido para la enfermedad.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely bastante	quite muy	slightly un poco	neither ni	slightly un poco	quite muy	extremely bastante

15. Receiving regular medical services for diabetes in a clinic will cost what you can afford.

15. Recibir servicios médicos regularmente para la diabetes en una clínica costará lo que usted pueda pagar.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely bastante	quite muy	slightly un poco	neither ni	slightly un poco	quite muy	extremely bastante

16. Receiving regular medical services for diabetes in a clinic will prevent health problems that can result from the diabetes (such as heart disease and eye and kidney problems).

16. Recibir servicios médicos regularmente para la diabetes en una clínica prevenirá problemas que puedan ser un resultado de la diabetes (por ejemplo, alta presión o problemas con los ojos o riñones).

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely bastante	quite muy	slightly un poco	neither ni	slightly un poco	quite muy	extremely bastante

17. Receiving regular medical services for diabetes in a clinic will provide you with information about the disease.

17. Recibir servicios medicos regularmente para la diabetes en una clinica asegura que usted reciba informacion sobre la enfermedad.

LIKELY

SEGURO

UNLIKELY

NO SEGURO

extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

18. Receiving regular medical services for diabetes in a clinic will provide a means of controlling the diabetes.

18. Recibir servicios medicos regularmente para la diabetes en una clinica ayudara en controlar la enfermedad.

LIKELY

SEGURO

UNLIKELY

NO SEGURO

extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

19. Receiving regular medical services for diabetes in a clinic will provide a way to know if you are healthy or that something is wrong.

19. Recibir servicios médicos regularmente para la diabetes en una clínica asegura que usted sepa si esta en buena salud o que algo no está bien con su salud

LIKELY

SEGURO

UNLIKELY

NO SEGURO

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
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20. Receiving regular medical services for diabetes in a clinic will provide a means to feel better and be healthier.

20. Recibir servicios medicos regularmente para la diabetes en una clinica asegura que usted se sienta mejor y este mas sano.

LIKELY

SEGURO

UNLIKELY

NO SEGURO

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
------------------------------	---------------------	----------------------------	----------------------	----------------------------	---------------------	------------------------------

21. When you receive regular medical services for diabetes in a clinic you feel afraid because then you have to admit you really have this disease.

21. Cuando recibe usted servicios medicos regularmente para la diabetes en una clinica, usted se sienta mortificado (o tiene temor) porque entonces tiene que aceptar que realmente tiene esta enfermedad.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

22. You feel stressed when receiving regular medical services for diabetes in a clinic.

22. Usted se siente nervioso (le da nervios) o mortificado cuando recibe usted servicios medicos regularmente para la diabetes en una clinica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

23. Other migrants or Mexicans/Texans think you should receive regular medical services for diabetes in a clinic.

23. Otros migrantes o mejicanos/tejanos piensen que usted debe recibir servicios medicos regularmente para la diabetes en una clinica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

24. Your family thinks you should receive regular medical services for diabetes in a clinic.

24. Su familia piense que usted debe recibir servicios medicos regularmente para la diabetes en una clinica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

25. Your husband/wife thinks you should receive regular medical services for diabetes in a clinic.

25. Su esposo piense que usted debe recibir servicios médicos regularmente para la diabetes en una clínica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

extremely quite slightly neither slightly quite extremely
bastante *muy* *un poco* *ni* *un poco* *muy* *bastante*

26. Your children think you should receive regular medical services for diabetes in a clinic.

26. Sus hijos piensan que usted debe recibir servicios medicos regularmente para la diabetes en una clinica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

27. Your brothers/sisters think you should receive regular medical services for diabetes in a clinic.

27. Sus hermanos piensan que usted debe recibir servicios médicos regularmente para la diabetes en una clínica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

extremely	:	quite	:	slightly	:	neither	:	slightly	:	quite	:	extremely
<i>bastante</i>		<i>muy</i>		<i>un poco</i>		<i>ni</i>		<i>un poco</i>		<i>muy</i>		<i>bastante</i>

28. Health professionals in general think you should receive regular medical services for diabetes in a clinic.

28. Los trabajadores de salud en general piensan que usted debe recibir servicios médicos regularmente para la diabetes en una clínica.

LIKELY SEGURO

UNLIKELY
NO SEGURO

extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

29. Health care organizations you use think you should receive regular medical services for diabetes in a clinic.

29. Las organizaciones de salud que usted utiliza piensan que usted debe recibir servicios médicos regularmente para la diabetes en una clínica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

30. Your doctor(s) thinks you should receive regular medical services for diabetes in a clinic.

30. Su(s) doctor(es) piense(n) que usted debe recibir servicios médicos regularmente para la diabetes en una clínica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

31. The government and economic system supporting health clinics for migrants think you should receive regular medical services for diabetes in a clinic.

31. El gobierno y la sistema económica que ayuda a las clínicas para migrantes piensan que usted debe recibir servicios médicos regularmente para la diabetes en una clínica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

32. Regarding receiving regular medical services for diabetes in a clinic, you want to do what other migrants or Mexicans/Texans think you should do.

32. Con respecto de recibir servicios médicos regularmente para la diabetes en una clínica, usted quiere hacer lo que los otros migrantes o mejicanos/tejanos piensan que usted debe hacer.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

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33. Regarding receiving regular medical services for diabetes in a clinic, you want to do what your family thinks you should do.

33. *Con respeto de recibir servicios médicos regularmente para la diabetes en una clínica, usted quiere hacer lo que su familia piense que usted debe hacer.*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

34. Regarding receiving regular medical services for diabetes in a clinic, you want to do what your husband/wife thinks you should do.

34. *Con respeto de recibir servicios médicos regularmente para la diabetes en una clínica, usted quiere hacer lo que su esposo piense que usted debe hacer.*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

35. Regarding receiving regular medical services for diabetes in a clinic, you want to do what your children think you should do.

35. *Con respeto de recibir servicios médicos regularmente para la diabetes en una clínica, usted quiere hacer lo que sus hijos piensen que usted debe hacer.*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

36. Regarding receiving regular medical services for diabetes in a clinic, you want to do what your brothers/sisters think you should do.

36. *Con respeto de recibir servicios médicos regularmente para la diabetes en una clínica, usted quiere hacer lo que sus hermanos piensen que usted debe hacer.*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

37. Regarding receiving regular medical services for diabetes in a clinic, you want to do what health professionals in general think you should do.

37. *Con respecto de recibir servicios medicos regularmente para la diabetes en una clinica, usted quiere hacer lo que los trabajadores de salud en general piensen que usted debe hacer.*

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

38. Regarding receiving regular medical services for diabetes in a clinic, you want to do what health organizations or the system of health you use thinks you should do.

38. *Con respecto de recibir servicios medicos regularmente para la diabetes en una clinica, usted quiere hacer lo que las organizaciones de salud piensen que usted debe hacer.*

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

39. Regarding receiving regular medical services for diabetes in a clinic, you want to do what your doctor(s) thinks you should do.

39. *Con respecto de recibir servicios medicos regularmente para la diabetes en una clinica, usted quiere hacer lo que su(s) doctor(es) piense(n) piensen que usted debe hacer.*

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

40. Regarding receiving regular medical services for diabetes in a clinic, you want to do what the government and economic system supporting health clinics for migrants think you should do.

40. *Con respecto de recibir servicios medicos regularmente para la diabetes en una clinica, usted quiere hacer lo que el gublerno y la sistema economica que ayudan a las clinicas para migrantes piensen que usted debe hacer.*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
<i>bastante</i>		<i>muy</i>		<i>un poco</i>		<i>ni</i>		<i>un poco</i>		<i>muy</i>		<i>bastante</i>

41. Does having good support (low cost, friendly service, good attention) from the clinic you go to for care for diabetes help you keep going to get care?

41. *Le ayuda a seguir usando los servicios para la diabetes cuando la clinica le de apoyo (como gastos bajos, servicio amable, y servicio en el cual se sienta usted bien atendido)?*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
<i>bastante</i>		<i>muy</i>		<i>un poco</i>		<i>ni</i>		<i>un poco</i>		<i>muy</i>		<i>bastante</i>

42. Will you be scared, stressed or nervous about going for regular medical care for diabetes in a clinic?

42. *Estara usted mortificado o nervioso, o con el temor porque tiene que usar servicios medicos regularmente para la diabetes en una clinica?*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
<i>bastante</i>		<i>muy</i>		<i>un poco</i>		<i>ni</i>		<i>un poco</i>		<i>muy</i>		<i>bastante</i>

43. Does knowing about the increased risk of diabetes in the migrant Hispanic population, the need for screening to know if one has diabetes, and knowing the advantages of receiving care on a regular basis for diabetes, make it more likely that you will get regular care?

43. Sabiendo que hay alto riesgo de la diabetes en la gente migrante e hispano, y que hay una necesidad de chequear si tenga usted la azucar, y sabiendo las ventajas de recibir servicios medicos regularmente para la diabetes en una clinica...Sabiendo todo de eso si va a motivarle llegar a una clinica en seguldo para servicios?

LIKELY

UNLIKELY

SEGURO

NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
bastante		muy		un poco		ni		un poco		muy		bastante

44. Having work as a priority makes it more difficult for you to get regular medical services for diabetes in a clinic?

44. Tener el trabajo como prioridad le hace mas dificil recibir servicios medicos regularmente para la diabetes en una clinica?

LIKELY

UNLIKELY

SEGURO

NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
bastante		muy		un poco		ni		un poco		muy		bastante

45. Being able to schedule/get an appointment when you need one is?

45. Recibir una cita o arreglando su horario cuando se necesita una cita es?

LIKELY

UNLIKELY

SEGURO

NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
bastante		muy		un poco		ni		un poco		muy		bastante

46. Could you get to the clinic for health care for diabetes without difficulty in terms of transportation or distance?

46. Llegara usted a la clinica para servicios medicos para la diabetes sin problemas con transportacion o problemas porque esta tan lejos?

LIKELY

UNLIKELY

SEGURO

NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
bastante		muy		un poco		ni		un poco		muy		bastante

47. Receiving medications for diabetes at the clinic makes it easier to get regular care?
 47. *Recibir medicinas para la diabetes de la clinica le hace mas facil recibir servicios medicos regularmente para la diabetes?*

LIKELY
 SEGURO

UNLIKELY
 NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
<i>bastante</i>		<i>muy</i>		<i>un poco</i>		<i>ni</i>		<i>un poco</i>		<i>muy</i>		<i>bastante</i>

48. Problems with the medication (i.e. getting it, taking it as directed) make it more difficult for you to get regular medical care for diabetes in a clinic?

48. *Problemas con la medicina (por ejemplo, consiguiendola o tomando como ha mandado el doctor) le hacen mas dificil recibir servicios medicos regularmente para la diabetes?*

LIKELY
 SEGURO

UNLIKELY
 NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
<i>bastante</i>		<i>muy</i>		<i>un poco</i>		<i>ni</i>		<i>un poco</i>		<i>muy</i>		<i>bastante</i>

49. Will it be affordable when you get regular medical care for diabetes in a clinic?

49. *Sera aguantable el costo cuando recibe servicios medicos regularmente para la diabetes en una clinica?*

LIKELY
 SEGURO

UNLIKELY
 NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
<i>bastante</i>		<i>muy</i>		<i>un poco</i>		<i>ni</i>		<i>un poco</i>		<i>muy</i>		<i>bastante</i>

50. Do you feel that you are not in charge of caring for the diabetes yourself, but it is more in the hands of God or your doctor(s) as to what happens?

50. *Usted se sienta que no esta usted encargado de cuidar a la diabetes usted mismo, pero mas es algo que esta en las manos de Dios o su(s) doctor(es) para decir que va a pasar?*

LIKELY
 SEGURO

UNLIKELY
 NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____	:	_____
extremely		quite		slightly		neither		slightly		quite		extremely
<i>bastante</i>		<i>muy</i>		<i>un poco</i>		<i>ni</i>		<i>un poco</i>		<i>muy</i>		<i>bastante</i>

51. The way your life is lived as a migrant makes it difficult for you to follow what the health care workers tell you to do to live as best you can with diabetes?

51. *Su estilo de vida como migrante le hace mas difícil para seguir lo que los doctores y las enfermeras dicen que usted debe hacer para vivir lo mejor que uno pueda con la diabetes?*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____		
extremely bastante		quite muy		slightly un poco		neither ni		slightly un poco		quite muy		extremely bastante

52. If you wanted to, you could easily get good support (low cost, friendly service, good attention) from the clinic you go to for care for diabetes?

52. *Si querria hacerlo, usted facilmente pudiera conseguir buen apoyo (por ejemplo, gastos bajos, servicio amable, y servicio en el cual se sienta usted bien atendido) de la clinica a donde va, para servicios para la diabetes?*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____		
extremely bastante		quite muy		slightly un poco		neither ni		slightly un poco		quite muy		extremely bastante

53. If you wanted to, you could easily lessen your feelings of being scared, stressed or nervous about going for regular medical care for diabetes in a clinic?

53. *Si querria hacerlo, usted facilmente pudiera reducir sus sentimientos de temor, mortificacion o nervios de recibir servicios medicos regularmente para la diabetes en una clinica?*

LIKELY
SEGURO

UNLIKELY
NO SEGURO

_____	:	_____	:	_____	:	_____	:	_____	:	_____		
extremely bastante		quite muy		slightly un poco		neither ni		slightly un poco		quite muy		extremely bastante

54. If you wanted to, you could easily get more knowledge about the increased risk of diabetes in the migrant Hispanic population, the need for screening to know if one has diabetes, and the advantages of receiving care on a regular basis for diabetes?

54. Si querría hacerlo, usted fácilmente pudiera conseguir mas información sobre el alto riesgo de la diabetes en la gente migrante e hispano, y la necesidad de chequear si tiene usted la azúcar, y sabiendo las ventajas de recibir servicios médicos regularmente para la diabetes en una clínica?

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

55. If you wanted to, you could easily make health more of a priority than work and come more regularly for health care for diabetes at a clinic?

Si querría hacerlo, usted fácilmente pudiera poner su salud primero, y el trabajo segundo para llegar mas regularmente para servicios para la diabetes en una clínica?

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

56. If you wanted to, you could easily make or get an appointment/arrange your schedule whenever you needed one for regular care of diabetes in a clinic?

56. Si querría hacerlo, usted fácilmente pudiera hacer una cita o arreglar su horario cuando se necesita una cita para recibir servicios regularmente para la diabetes en una clínica?

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

57. If you wanted to, you could easily get to the clinic for regular care for diabetes without transportation or distance being a problem?

57. Si querria hacerlo, usted facilmente pudiera llegar a la clinica para recibir servicios regularmente para la diabetes sin problemas de transportacion o de distancia?

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

58. If you wanted to, you could easily receive medications for the diabetes in a clinic?

58. Si querria hacerlo, usted facilmente pudiera recibir medicinas para la diabetes en una clinica?

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

59. If you wanted to, you could easily overcome problems with the medication (i.e., getting it, taking it as directed) that make it more difficult for you to get regular medical care for diabetes in a clinic?

59. Si querria hacerlo, usted facilmente pudiera evitar problemas con la medicina (por ejemplo, consiguiendolo, tomandola como le ha mandado el doctor) que hacen mas dificil recibir servicios medicos regularmente para la diabetes?

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

60. If you wanted to, you could easily get regular medical care for diabetes in a clinic at a cost you can afford?

60. Si querria hacerlo, usted facilmente pudiera conseguir servicios medicos regularmente para la diabetes por un costo aguantable?

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

61. If you wanted to, you could easily feel more in charge of caring for the diabetes yourself, and not so much like it was in the hands of God or your doctor(s) as to what happens?

61. Si querria hacerlo, usted facilmente pudiera sentir mas encargado de cuidar a la diabetes usted mismo, y sentir menos que es algo que esta en las manos de Dios o su(s) doctor(es) para decir lo que va a pasar?

LIKELY

SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

62. If you wanted to, you could easily change the way your life is lived as a migrant, so that you could follow what the health care workers tell you to do to care for the diabetes?

62. Si querria hacerlo, usted facilmente pudiera cambiar su estilo de vida como migrante, para seguir lo que los doctores y las enfermeras dicen que usted debe hacer para vivir mejor con la diabetes?

LIKELY

SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

63. Your getting regular medical care for diabetes in a clinic is...

63. Recibiendo usted servicios medicos regularmente en una clinica es...

LIKELY

SEGURO

UNLIKELY
NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

GOOD
BUENO

BAD
MALO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

CONVENIENT
CONVENIENTE

INCONVENIENT
NO CONVENIENTE

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

BENEFICIAL
BENEFICIAL

HARMFUL
DANOSO

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
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PLEASANT
AGRADABLE

UNPLEASANT
NO AGRADABLE

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
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WISE
SABIO

UNWISE
TONTO

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
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EASY
FACIL

DIFFICULT
DIFICIL

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
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64. Most people who are important to you think you should receive regular medical care for diabetes in a clinic.

64. La mayoría de las personas que son importantes a usted piensan que usted debe recibir servicios médicos regularmente para la diabetes en una clínica.

LIKELY
SEGURO

UNLIKELY
NO SEGURO

extremely <i>bastante</i>	quite <i>muy</i>	slightly <i>un poco</i>	neither <i>ni</i>	slightly <i>un poco</i>	quite <i>muy</i>	extremely <i>bastante</i>
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65. Regarding getting regular medical care for diabetes in a clinic, you want to do what most people who are important to you want you to do.

65. Con respecto de recibir servicios médicos regularmente para la diabetes en una clínica, usted quiere hacer lo que la mayoría de las personas que son importantes a usted piensen que debe usted hacer.

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

66. All things considered, how much control do you have over whether you do or do not receive regular medical care for diabetes in a clinic?

66. En general, cuanto control tiene usted sobre recibir o no recibir servicios médicos regularmente para la diabetes en una clínica?

COMPLETE CONTROL

CONTROL COMPLETO

VERY LITTLE CONTROL

MUY POCO CONTROL

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

67. For you to receive regular medical care for diabetes in a clinic is...

67. Para recibir servicios médicos regularmente para la diabetes en una clínica para usted es...

EASY

FACIL

DIFFICULT

DIFICIL

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

68. If you wanted to, you could easily receive regular medical care for diabetes in a clinic?

68. Si usted lo querría, pudiera usted fácilmente recibir servicios médicos regularmente para la diabetes en una clínica?

LIKELY

SEGURO

UNLIKELY

NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
bastante	muy	un poco	ni	un poco	muy	bastante

69. Do you intend to receive regular medical care for diabetes in a clinic this year?
 69. *Es su intento recibir servicios medicos regularmente para la diabetes en una clinica este ano?*

LIKELY
 SEGURO

UNLIKELY
 NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

70. Do you intend to make an appointment for medical care for the diabetes in advance?
 70. *Es su intento hacer una cita para servicios medico para la diabetes antes del dia en el cual quiere la cita?*

LIKELY
 SEGURO

UNLIKELY
 NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>

71. Do you intend to receive regular medical care for diabetes in a clinic in the future?
 71. *Es su intento recibir servicios medicos regularmente para la diabetes en una clinica en la futura?*

LIKELY
 SEGURO

UNLIKELY
 NO SEGURO

_____	_____	_____	_____	_____	_____	_____
extremely	quite	slightly	neither	slightly	quite	extremely
<i>bastante</i>	<i>muy</i>	<i>un poco</i>	<i>ni</i>	<i>un poco</i>	<i>muy</i>	<i>bastante</i>