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Depression and diabetes comorbidity: Psychotherapy treatment preferences among a predominantly Mexican sample of primary care patients with diabetes.

Maria José Herrera
University of Nebraska-Lincoln, herreramariajose@gmail.com

DEPRESSION AND DIABETES COMORBIDITY: PSYCHOTHERAPY TREATMENT PREFERENCES AMONG A PREDOMINANTLY MEXICAN SAMPLE OF PRIMARY CARE PATIENTS WITH DIABETES

María José Herrera

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María José Herrera, Ph.D.

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Adviser: Dennis E. McChargue

Depression and diabetes are highly comorbid problems yet their conjoint treatment, particularly the use of evidence based psychological treatments among diabetics, warrants further research. Specifically, little is known about the treatment of depression among diabetic Latinos, one of the fastest growing populations with comorbid depression and diabetes. Because of this scarce research among Latino diabetics, the present study aims to test whether educating Latino diabetics about treatment options for depression would differentiate their choice of one treatment over the other. Secondary aims were to investigate the degree to which cultural, depression, and diabetic factors differentiated treatment choice. Thirty two participants were provided with brief treatment rationale scripts on three empirically supportive treatments for major depression (e.g., cognitive therapy, behavioral activation, interpersonal therapy). After rationales were presented, participants were asked to choose their preferred treatment to treat depression. Results showed that participants preferred all treatments over cognitive therapy and that cultural variables were related to treatment rationale selection.

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Dedication

This study is dedicated to the many diabetic Latino men and women of Nebraska.

Este studio esta dedicado a las mujeres y hombres con diabetis de Nebraska.

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A. INTRODUCTION

Depression among individuals with chronic health problems disproportionately contributes to diminished health status (Sherbourne, Wells, Meredith, Jackson, & Camp, 1996; Satin, Linden, Phillips, 2009), noncompliance with medical treatment (DiMatteo, Lepper, Croghan, 2000) and overutilization of urgent healthcare (Dickens et al., 2012). Due to the deleterious effects of depression on health status, conjoint treatment for depression and the medical condition has been considered the best practice available. Meta-analytic data are consistent with such recommendations. Data show moderate effect sizes on depression alleviation among those with co-occurring medical conditions (van Straten, Geraedts, Verdonck-de Leeuw, Andersson & Cuijpers, 2010). Moreover, such effects appear specific to cognitive behavior treatment and interpersonal therapy compared with supportive therapy.

Despite the aforementioned treatment evidence to support the notion that conjoint depression treatment among those with chronic medical disorders is beneficial, less is known about how depression treatment may effect co-occurring depression among those with diabetes mellitus. Although systematic reviews and meta-analytic research clearly show that depression among diabetics is associated with a 1.5 fold increased risk of mortality across all causes of death (van Dooren, Nefs, Schram, Verhey, Denollet & Pouwer, 2013) and depression and diabetes have a reciprocal relationship with both increasing the incident of each other (Rotella & Mannucci, 2013 a, b), very few studies examine depression treatment effects among diabetics. Among the few studies to examine depression treatment for patients with diabetes mellitus, preliminary data show that depression severity improves with psychological and pharmacological treatment

(Baumeister, Hutter & Bengel, 2012; van der Felz-Cornelis et al., 2010) and glycemic control improves moderately (Baumeister et al., 2012).

Yet to be explored is the influence of depression treatment on adherence to diabetic treatment regimens, diabetes complications and quality of life. For example, disease specific factors such as variability of diabetes complications show that those with greater complications experience more relief of depression (Piette, Valenstein, Himle, Duffy, Torres, Vogel et al., 2011). In addition, it remains unclear whether the added demand associated with psychological treatments of depression, negatively impacts diabetes management regimens (Lustman, Griffith, Freedland, Kissel, & Clouse, 1998). Lastly, research has yet to explicate the degree to which individual difference factors, such as culture, account for treatment outcome variance. For instance, little is known about comorbid depression and diabetes among Latinos; despite depression rates as high as 40.5% among Latino populations (Mier, Bocanegra-Alonso, Zhan, Wang, Stoltz, et al., 2008).

To our knowledge, research has also yet to examine the use of empirically supportive treatments (e.g., CBT, IPT) for depression among Latinos with comorbid depression and diabetes. At best, research shows that Latinos are more accepting of psychological treatment for depression compared to medications (Cooper, Gonzales, Gallo, Meredith, Rubenstein et al., 2003), but it is unknown whether any particular form of psychotherapy is more effective and/or preferable among Latinos. Because of this very scarce research among Latino diabetics, the present study aims to test the basic assumption that increased knowledge about depression treatment would differentiate which treatments are more desired by Latinos compared with other treatments.

Understanding how treatment knowledge influences treatment preferences is an important first step in explaining differential treatment effects that create health disparities among minority populations. It also may assist in understanding how culture may impact treatment (dis)/engagement. To justify the study's overarching aim, the current study first provides an overview the depression-diabetes literature in the general population and among Latinos, followed by reviews of empirically supported treatments for depression (including among Latinos), literature on depression treatment among diabetics (including among Latinos), evidence-based models and patient characteristics, and summary of Latino cultural values. Lastly, the study hypotheses are formulated.

Overview of depression, diabetes, and depression-diabetes comorbidity

Depression. Major depressive disorder (MDD) is characterized by the presence of 1) depressed mood and/or 2) lack of interest/pleasure in activities, nearly every day for a period of at least two week or more, along with the presence of additional typifying symptoms. These symptoms include: 3) significant weight loss/gain; increased/decreased appetitive; 4) hypersomnia/insomnia; 5) psychomotor agitation/retardation; 6) fatigue or loss of energy; 7) feelings of worthlessness/guilt; 8) difficulty with concentration; 9) presence of suicidal ideation (American Psychiatric Association [*DSM-IV-TR*], 2000). MDD is one of the most common mental health disorders found in both the general community and in primary care. Among adults in the United States, 12-month prevalence of MDD is estimated as 6.7% (Kassler, Chiu, Demier, & Walters, 2005). In primary care settings, the prevalence of depression is higher, ranging from 8.4-10% (deSa & Price, 2007; Spitzer, Williams, Kroenke, Linzer, deGruy, Hahn, et al., 1994).

As mentioned earlier, depression is associated with an increased risk for morbidity and mortality (Ramasubbu & Patten, 2003; Wuslin, Vailant, & Wells, 1999), loss of work productivity (Stewart, Ricci, Hahn, & Morganstein, 2003) and increased health care utilization costs (Crown, Finkelstein, Berndt, Ling, Poret, Rush et al., 2002). Approximately 29% of adults with medical conditions suffer from mental disorders and 68% of adults with mental disorders suffer from medical complications (Goodell, Druss, & Walker, 2011). The incidence of depressive symptoms in primary care is much higher, with one in five patients reporting depressive symptoms (Stafford, Ausiello, Misra, & Saglam, 2000). Depression is particularly salient in health care settings as it co-occurs with other diseases/conditions, particularly chronic diseases that require ongoing management and lifestyle adjustments. As such, individuals with chronic medical conditions, such as diabetes mellitus, are at most risk for developing depression (Chapman, 2005).

Diabetes. Diabetes is a chronic medical condition that contributes to an array of health complications such as heart disease, stroke, hypertension, and kidney disease/failure, and eye and neuropathy problems. According to the American Diabetes Association (ADA; 2011), 18.8 million people have diabetes, 7.0 million have undiagnosed diabetes, and 80 million have pre-diabetes in the United States (U.S.). In 2007, the cost of diabetes in the U.S. was estimated at $174 billion (ADA, 2011). Diabetes affects the body's metabolism, causing an overproduction or lack of production of insulin. When insulin-producing cells fail to work properly, glucose remains at elevated levels within the bloodstream (aka hyperglycemia).

Diabetes mellitus is classified as type I, type II, or gestational. Type I diabetes occurs when the immune system reduces insulin production within the pancreas (National Diabetes Information Clearinghouse, 2008). Type II diabetes is a metabolic disorder that is characterized by high blood glucose in the context of insulin resistance and relative insulin deficiency (Kumar et al., 2005). Type II diabetes is far more common than type I diabetes, with about 90-95% of cases being type II diabetes (National Diabetes Information Clearinghouse, 2008). Risk factors associated with type II diabetes include age, obesity, inactivity, family history of diabetes, and ethnicity (National Diabetes Information Clearinghouse, 2008). Symptoms of type II diabetes include frequent urination, excessive thirst, extreme hunger, unusual weight loss, extreme fatigue and irritability, frequent infections, blurred vision, slow healing cuts/bruises, tingling in hands/feet and recurrent skin/gum/bladder infections (ADA, 2011). The third type of diabetes is gestational diabetes, which occurs during pregnancy in about 3-8% of women. In this type of diabetes, pregnancy hormones block insulin's function, resulting in an increase of glucose in the blood.

Comorbidity. Major depression often co-occurs among individuals with diabetes compared with non-diabetic adults in the community (Fisher, Skaff, Mullan, Arean, Glasgow, Masharani, 2008). Having depression increases the chance of developing type II diabetes by 60% and having type II diabetes is associated with a 15% risk of depression (Mezuk, Eaton, Albercht, et al., 2008). Their comorbidity increases the risk for functional disability and mortality (Egede, 2004; Katon et al., 2005) as well as increases health care costs (Egede, Nieter, & Zheng, 2005). Some data report mortality rate among medical inpatients with comorbid diabetes and depression to be 47%

compared with 14% in patients without diabetes or depression, 23% in patients with diabetes only, and 22% in patients with depression only (Bot, Pouwer, Zuidersma, van Melle, & de Jonge, 2012). Comorbid depression and diabetes also increases morbidity risk via decreased adherence to diet recommendations and medication regime (Ciechanowski, Katon, & Russo, 2000), poor self-care and overall disease management (Lee et al., 2009). Depressive episodes are correlated with diabetes complications (Hellman, 2008), which substantially increase disease burden and costs. Diabetic patients experience about 4.8 episodes over the course of 5 years (Lustman, Griffith, Freedland, & Clouse, 1997) and patients with more severe diabetes complications experience more severe depressive episodes (Lustman, et al., 1997). Health care costs for a depressed diabetic are 65% higher compared to that of a diabetic without depression (Kalsekar, Madhayan, Amonkar, Scott, Douglas, Makela, 2006).

Although diabetes and depression has been described as bidirectional (Pan, Lucas, Sun, van Dam, Franco et al., 2010) as the presence of one illness/condition may exacerbate or delay recovery of the other (Benton, Staab, & Evans, 2007), the mechanism behind their joint comorbidity is unclear. It is posited that neuroendocrine changes in the hypothalamic-pituitary-adrenal (HPA) axis and sympathetic nervous system may contribute to their comorbidity (Champaneri, Wand, Malhotra, Casagrande, and Golden, 2010). Biological factors, like arterial hypertension and obesity (Tsirogianni, Kouniakis, Baltatzi, Lavrentiadis, and Alevizos, 2010), may contribute to the depression-diabetes comorbidity as well. It has also been posited that depression causes behavioral and physiological changes that may lead to diabetes. For instance, depression decreases the likelihood of engaging in healthy behaviors (e.g., healthy eating, attending medical

appointments, and medication compliance) and causes immune dysregulation, which may lead to endocrine changes (Kiecolt-Glaser, & Glaser, 2002).

Latinos: Depression, Diabetes, and Comorbidity. Latinos are one of the fastest growing ethnic minority groups in the United States. By 2050, the Latino population in the U.S is estimated to triple (U.S Census Bureau, 2008). The term *Latino* is used to define a heterogeneous group of people living in the U.S. Consistent with prior research, the current dissertation proposal uses *Latino* as an umbrella term that reflects a large variability (e.g., geographic origin, immigrant/U.S born) among Latin-based groups.

Latinos, like other ethnic minorities, are vulnerable to experiencing a mental disorder (U.S Department of Health and Human Services, 2001):

> Ethnic and racial minorities in the United States face a social and economic environment of inequality that includes greater exposure to racism, discrimination, violence, and poverty. Living in poverty has the most measurable effect on the rates of mental illness. People in the lowest strata of income, education, and occupation are about two to three times more likely than those in the highest strata to have a mental disorder.

Specifi e that Latinos may be more affected by depr · depression compared to 3.1% of European-Americans (Center for Disease Control and Prevention, 2010; Minsky et al., 2003). Depression in the Latino community is the leading cause of disability in adjusted life years (McKenna, Michaud, Murray, Marks, 2005). Variability in depression rates also exists within Latinos. Differences in depression rates have been found across various Latino groups and across level of acculturation. For instance, Puerto Ricans have higher rates of depression compared to Mexicans (Alegria, Mulvaney-Day, Torres, Polo, Cao, and Canino, 2007). In addition, Latinos who are U.S. born report higher rates of

depression compared with those born outside of the U.S. (Breslau et al., 2008). Furthermore, gender and age differences exist. Older Latinos report higher levels of depression compared with young Latinos. Women also report more severe depression compared with men (Liang, Quinones, Bennett, and Ye, 2011). Differences in depression expression have also been found with U.S born Mexicans being more likely to express somatic and negative affect symptoms compared with those born in Mexico (Golding, Aneshensel, Hough, 1991).

National estimates indicate that 50% of Latinos born in the last five years will develop type II diabetes at one period in their life (Joslin Diabetes Center, 2008). Latinos have a greater lifetime prevalence of diabetes, even after controlling for socioeconomic factors and compared to European-Americans with and without a psychiatric illness (Cabassa, Blanco, Lopez-Castroman, Lin, Lui, Lewis-Fernandez, 2011). In Nebraska, the prevalence of diabetes among Latinos is twice as high as that of European-Americans (Nebraska Department of Health and Human Services, 2010). In regards to treatment/management, Latinos have more difficulty accessing health care information (Sarkar, Karter, Liu, Adler, Nguyen, Lopez et al., 2011) and are less likely to receive adjunct diabetes care (Yehoah-Korang et al., 2011). Latinos are also less likely to engage in diabetes self-management (Harris et al., 1999) and consume healthy foods (Ortero-Sabogal et al., 1995). Regardless of language use, Spanish and English speaking Latinos are less likely to receive hemoglobin checks and engage in glucose testing as compared with European-Americans (Choi, Lee & Rush, 2011).

In sum, Latino status alone is an independent factor to depression among diabetics (Molife, 2011). Epidemiological data indicate that among primary care Latinos with

diabetes 78% endorse some level of depression, with 33% reporting moderate–severe depression. The prevalence of depression has been shown to be approximately 40.5% among Mexicans with diabetes (Mier, Bocanegra-Alonso, Zhan, Wang, Stoltz, et al., 2008). Latinos with comorbid depression and diabetes face a greater risk for cardiovascular illness, functional disability, and mortality, compared to non-Hispanic whites (Lanting, Joung, Mackenbach, Lamberts, Boostma, 2005). Diabetic Latinos also report that depression disrupts diabetes self-care, medication adherence and activity scheduling (Cabassa, Hansen, Palinkas, & Ell, 2008). Moreover, moderate to severe depression among diabetic Latinos is associated with poor glycemic control (Gross, Olfson, Gameroff, Carasquillo, Shea, Feder, et al., 2005). Latinos with comorbid depression and diabetes are also more likely to report somatic symptoms compared to Latinos with a chronic illness or depression alone (Chong, Reinschmidt, & Moreno, 2010). It is clear that treating depression among this highly vulnerable subgroup of depressed diabetic Latinos could significantly improve diabetes management and substantially reduce mortality rates. As such, the next section will review the evidence on depression treatment as well as their efficacy with Latino populations.

Review of Empirically Supported Treatments for Depression

Empirically Supported Treatments, according to the Task Force on Psychological Procedures, are therapies that "(a) have been shown to be the treatment must have been shown to be superior to a pill or psychological placebo or be equivalent to an already established treatment, (b) a treatment manual must have been used in the studies, and (c) the characteristics of the client sample must have been clearly delineated" (Sanderson, 2003). With respect to major depressive disorder, interpersonal therapy (IPT), cognitive

therapy (CT), and behavioral therapy (BT) are considered efficacious (Hollon & Ponniah, 2010).

Aaron Beck first introduced cognitive therapy (CT) in the 1970's. CT is based on the premise that identifying and changing cognitions (distortions, irrational ideas, and automatic thoughts) ameliorates depressive symptoms. The purpose of CT is to "correct" a person's way of thinking to act "more realistically and adaptively about his psychological problems and thus reduce symptoms" via specific techniques (pg. 3; Beck, Rush, Shaw, & Emery, 1979). The role of the therapist in CT is to first assist the client to identify the distorted automatic thoughts via monitoring and psycho-education of thinking errors. The therapist then collaborates with the client to challenge these thoughts via cognitive restructuring techniques. An example of a cognitive technique is disputing automatic thoughts by examining the evidence in support or that disproves the automatic thoughts. Although CT focuses mainly on thoughts, it also addresses the relationship between thoughts, affect, and behaviors. For instance, in cases where a client may be severely depressed, Beck and colleagues suggest that it may be necessary to focus on engaging the client in activities to manage depression prior to beginning work on cognitions: "the behavioral methods can be regarded as a series of small experiments designed to test the validity of the patients hypotheses or ideas about himself" (pg. 118). Although behavior can be addressed in CT, additional therapies where the primary focus is function and behaviors have also been made available and have shown to be comparably effective in the treating depression.

Behavioral therapies refer to those therapies that focus on changing unwanted behaviors and increasing positive behaviors. Peter Lewinsohn and colleagues

(Lewinsohn, 1974; Lewinsohn & Graf, 1973) introduced behavior therapy principles in the mid 1970s. Contemporary manual-based treatments that derive from Lewinsohn's behavioral theory of depression include Behavioral Activation (BA; Martell et al., 2001) and Behavioral Activation Treatment for Depression (BATD; Lejuez, Hopko, & Hopko, 2001, 2002). Both BA and BATD similarly involve teaching clients to create and meet behavioral goals. Detailed information about these approaches is beyond the scope of this work and can be found in Hopko et al. (2003).

For the purposes of this study, behavioral therapy (BT) will include the aforementioned contemporary behavior activation therapies. Behavioral activation is defined as "a therapeutic process that emphasizes structured attempts at engendering increases in overt behaviors that are likely to bring the patient into contact with reinforcing environmental contingencies and produce corresponding improvements in thoughts, mood, and overall quality of life" (Hopko et al., 2003). The main components include activity monitoring, scheduling, mastery/pleasure rating, and graded tasks assignments (Hopko et al., 2003).

Behavioral therapies and cognitive therapies share some common features. One of the key distinctions is that behavioral therapies do not primarily select activities for hypothesis testing as in the case of CT (Martell et al., 2010). Activities are also not completed for the sake of completing them. Activities are viewed as a purposeful values-based manner. Another distinction is that BT does not view cognition as a proximal cause of overt behavior (Hopko et al., 2003). In *Behavioral Activation for Depression*, Martell, Dimidjian, and Herman-Dunn (2010), describe other of the similarities and differences between cognitive and behavioral techniques (pg. 12):

> Behavioral techniques in CT always serve the ultimate goal of changing how people think since belief change is considered to be essential for lasting improvement in behavioral or emotional problems. In contrast, this is a distinct

Although BT and CT are distinct therapies, they can also function together, as in the case of Cognitive Behavioral Therapy (CBT) where components of each therapy are integrated.

In addition to the aforementioned psychotherapy treatments for depression, Interpersonal Therapy for Depression (IPT) is another alterative, which was introduced by Myrna Weissman and colleagues in the 1980s. IPT is as effective as CT and BT among individuals with less severe depression and more effective in reducing depressive scores following treatment among patients with more severe depression (Elkin et al., 1989). IPT is also time-limited and present focus. Much like the overlap between CT and BT, IPT has other commonalities with these therapies. Weissman and colleagues describe the following (2000, pg. 12):

> Like CBT, IPT is concerned with patients distorted thinking about themselves and others…the goal is to change the relationship pattern rather than associated depressive cognitions… unlike CBT, IPT makes no attempt to

While the three approaches share some features, they each interpret cognitions and behaviors in distinct ways. Specific to IPT, it is based on attachment, interpersonal, and social theory (Stuart, Robertson, & O'Hara, 2006). The primary focus is on interpersonal relationships. Interpersonal relationships are important because "there is a relationship between the onset and recurrence of a depressive episode and the patient's social and interpersonal relationships" (Weissman, 2006). IPT identifies four problem areas: grief, interpersonal disputes, role transitions, and interpersonal deficits/sensitivity.

Latinos. In regards to treatments for depression among Latinos, research in this area is limited. Several factors contribute to the paucity of research in this area, including a lack of recruitment and retention for Latinos in clinical trials, stigma to participating in a trial, and failure from researchers to oversample or even include Latinos in trials (Norcoss, Beutler & Levant, 2006). As will be described below, the few existing studies have focused on CBT and IPT (Podawiltz & Culpepper, 2010).

For example, Miranda and colleagues (2006) examined the effectiveness of CBT in a sample of low-income ethnic minority women with 50% of the sample Latina. Results show that over 50% of the sample in the CBT group reported significant improvement in their depressive symptoms at 12 months post treatment. Aguilera. Garza, & Muñoz (2010) also describe the use of a CBT group manual, Healthy Management of Reality (HMOR; Muñoz, 1996) among Spanish-speakers with depression in primary care. HMOR consists of four modules (thoughts, activities, people, health) covered over 16 weeks. Thirty-six percent of the sample was diabetic. Results showed improvements in symptoms across time. Muñoz and colleagues also examined the use of individual CBT in primary care patients with 24% Latino. Compared to the no

intervention group, depressive symptoms reduced significantly at post treatment, six and twelve-month follow-up for the CBT group.

To our knowledge, only one study exists comparing alternative empirically treatments for depression with adult Latinos (Comas-Diaz, 1981). In this study, a small sample of Puerto Rican women was randomized to either a BA group, CBT group or wait-list control group. No differences were found pre to post treatment in the wait list control group. Participants in the BA and CBT groups showed significant decreases in depressive symptoms from severe to mild. Symptoms also rebounded toward baseline levels at the five-week follow-up for only the CBT group, while participants in the BA group maintained their improved symptomatology.

Although Comas-Diaz (1981) showed that BA and CBT comparably treated depression, retention rates and weekly scores for each participant were not reported in the study. It is difficult to discern whether variability existed within each group. In addition, the unique contributions of CT were unclear, given the behavioral overlap of BA within the CBT treatment. To date, no study has examined the direct effect of CT on depression among Latinos.

In recent years, behavioral treatments, such as Behavioral Activation (BA), have been applied with Latino populations (Kanter, Dieguez-Hurtado, Rusch, & Santiago-Rivera, 2008; Santiago-Rivera, Kanter, Benson, Derose, Illes, & Reyes, 2008). Kanter and colleagues (2008) describe the use of BA within a case presentation of a 25 year-old limited English Latina. Results showed that depressive symptoms decreased significantly over the course of 12 weeks. BA has also been used with English and Spanish speaking Latinas in primary care (Kanter, Santiago-Rivera, Rusch, Busch, & West, 2010). In this

study, 12 participants received BA treatment for 12 weeks. Results showed significant reductions in depression pre to post treatment. Despite the promising findings, the utility of BA among Latinos remains a question given poor retention rates. For instance, one third of the participants completed 5 or fewer of the 12 sessions, one third of participants terminated early, and for one participant depressive symptoms maintained severe even after ten weeks of treatment. As such, over 2/3rds of the sample did not complete treatment.

The evidence for interpersonal therapy (IPT) for the treatment of depression among Latinos is much more limited than for CBT and BA. Researchers postulate that IPT may be especially useful with Latinos given the value on interpersonal and family connectedness that characterizes Latino cultures. As such, Markowitz and colleagues (2008) suggest that IPT may be uniquely designed to address cultural features associated with Spanish-speaking Latinos. For example, topics associated with the centrality of family unit, issues related to migration, acculturation challenges and gender roles conflict fit the IPT approach.

Treatment outcome research partially supports Markowitz's assumption that IPT would effectively alleviate depression among Latinos. For instance, Spinelli and Endicott (2003) showed that IPT remitted depression among a sample of pregnant women which consisted of 62% Latinas. In addition, IPT has been shown to be superior to treatment as usual in reducing depressive symptoms in a sample of predominatly low-income Latina adolescents (Mufson, Dorta, Wickramaratne, Nomura, Olfson, & Weissman (2004).

In sum, CBT, BA and IPT all show significant reductions in depressive symptoms among Latino populations. Although these approaches appear comparable, it remains

unclear which depression treatment would be most suitable for Latino diabetics that suffer from depression. For example, there are concerns about adherence with BA treatments. In addition, the impact of cognitive components on depressive symptoms among Latinos remains unclear. Furthermore, the majority of studies using CBT with Latinos primarily focus on women and very few treatment studies include primary care populations and/or are specific to diabetic populations. Lastly, IPT does not appear more superior to CBT and such claims have been unsubstantiated thus far. For example, studies show that both CBT and IPT significantly reduce depressive symptoms among Puerto Rican adolescents as compared with a wait list control (Rossello & Bernal, 1999).

It is also important to note that treatment effectiveness is not equivalent to treatment preference. Although Latino's show improvement in depression using the three psychotherapies for depression, it remains unclear whether Latino's prefer one treatment to the other. Moreover, research has yet to explicate the degree to which Latino's understand the differences in treatment approaches in order to make an informed decision. Such an informed decision is highly important when placing depression treatment options within the context of diabetes management, as will be discussed in the next section. These unanswered questions are also important as it relates to treatment engagement and treatment retention among a population that traditionally have lower access and retention rates to mental health services as compared with the general population (Barona & Santos de Barona, 2003).

Review of Depression Treatments Among Diabetics

Treating depression among diabetics has favorable outcomes, including enhanced diabetes self-efficacy and increased self-care behavior (van derVen, Lubach, Hogenelst,

Tromp-Wever, et al., 2005), which results in lower rates of disability, morbidity, and mortality. Among the general population, cognitive-behavioral therapy (CBT) had been described as a preferable treatment among diabetics (Lustman et al., 1998). Despite this assumption, treating depression among diabetic patients is still considered an emerging area (Markowtiz et al., 2011) and a gold standard for treatment for diabetics with depression has yet to be established (Petrak & Herpetz, 2009).

For example, research findings do not always show improvements in depression. CBT (compared to TAU) did not decrease depressive symptoms among diabetics with neuropathic pain (Otis et al., 2013). As such, CBT may be helpful to some, but not all diabetics. Piette and colleagues (2011) also found that a telephone CBT intervention among diabetics with depression varied as a function of clinical complexity. Individuals with more diabetes complications did not show as great of a reduction in depression than those with few complications (Piette, Valenstein, Himle, Duffy, Torres, Vogel et al., 2011). Furthermore, Lustman and colleagues note that diabetics already face many behavioral demands (Lustman, Griffith, Freedland, Kissel, & Clouse, 1998), indicating that CBT may not be as generalizable to the diabetic-depressed patient as to the general mental health patient given disease specific barriers. The overall consensus is that further research on effective treatments is needed (Elliott, 2012; Lee, Chapa, Kao, Jones, Kapustin, Smith et al., 2009).

Latinos. As discussed earlier, empirically supported treatments for depression have been applied to Latino populations (Muñoz & Miranda, 1986; Organista, Muñoz & González, 1996; Podawitz & Culpepper, 2010; Aguilera & Muñoz, 2010; Kuneman, 2010). However, literature on treating depression among diabetics is limited as the

majority of studies does not include primary care populations nor are they specific to diabetic populations. In addition, studies that include Latino diabetics do not utilize empirical-based treatments for depression.

At best, a randomized controlled trial comparing BA with CBT showed that depressive symptoms initially decreased from severe to mild for both groups among Puerto Rican women (Comas-Diaz, 1981). However, depressive symptoms at 5 weeks post-treatment rebounded to baseline levels for only the CBT group. Within the diabetes type II diabetes self-management literature, only one study was designed to improve emotional wellbeing specific to Latino (Concha, Kravitz, Chin, Kelley, Chavez, & Johnson, 2009). Results showed improvement in symptoms.

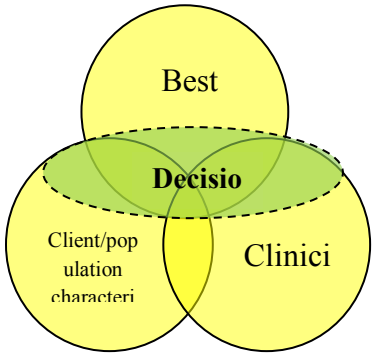
Patient characteristics and the Evidence Based Model

Evidence Based Practices in Psychology (see Figure 1) refers to the "the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences" (American Psychological Association, 2005). Best available research refers to the empirical evidence (e.g., empirically supported therapies). Clinical expertise refers to clinicians' competencies, including their ability to establish rapport, and their ability to deliver empirically supported therapies within the context of patient's characteristics and preference. Patient characteristics refer to characteristics unique to the patient (e.g., ethnicity, language, socio-economic status, values, needs, and preferences).

Among the evidence based practice model components, patient preferences have been least researched (Spring, 2007). Despite the paucity of research, it is clearly an important area given that "a central goal of evidence based practices (EBP) is to

maximize patient choice among effective alternative interventions" (APA, 2005). Understanding patient preferences is also important because it can increase interest and improve adherence. Increasing interest in mental health care among minorities has been described as an important step toward eliminating disparities (Miranda, McGuire, Williams, & Wang, 2008).

Figure 1. Elements of EBP (Council for Training in Evidence-Based Behavioral Practice, 2011).



In respect to treatment preferences among Latinos, research shows that Latinos are more accepting (Cooper, Gonzales, Gallo, Meredith, Rubenstein et al., 2003) of psychological treatment compared to medications, as may hold beliefs that antidepressants are addictive (Cooper et al., 2003; Givens et al., 2007). Within group differences among Latinos also exist with Spanish-speaking Latinos having a lower preference for antidepressant use compared to English-speaking Latinos (Fernandez & Garcia, 2011). Research also shows that Latinos prefer individual therapy to group

treatment (Dwight-Johnson, Lagomasino, Aisenberg, & Hay, 2004), but no literature exists on preferences to specific psychotherapies (e.g, CBT, BA, IPT).

Latino cultural values

In addition to preferences, another important area within the patient characteristics sphere of the EBPs is patient's values. While heterogeneity exists within Latinos, there are certain values (e.g., familism) and cultural factors that may be important to consider within the clinic-decision making process. The term *Latino* describes a large and heterogeneous group of people with cultural commonality. In the following section, four culturally specific of factors are reviewed. Some are viewed as protective while others reflect factors that may have a negative impact on the depression-diabetes link among Latinos.

Familism is a core Latino value identified in the literature (Zinn, 1982). It refers to family unity and the values that Latinos place in family. Members of Latino cultures have been described as being more collectivistic than Anglo Americans (Markus & Kitayama, 1991), valuing family and social interpersonal connectedness. The findings on the impact of familism are mixed –studies report a positive association with psychological functioning while others do not (Steidel & Contreras, 2003). For example, Cabassa and colleagues suggest that familism may play a critical role in causing and maintain depression among Latinos via "threats to the family unit/familism through divorce, abuse, infidelity, isolation, and loss of supportive relationships due to immigration among others" (Cabassa, Lester, Zayas, 2007).

Among the diabetes literature, familist traditions have been shown to have positive and negative outcomes on diabetes management (Weiler & Crist, 2009).

Research shows that family was a primary motivator for seeking disease management for Latinos with diabetes. However, family and social gatherings were also described as the biggest challenge to management. As such, it remains unclear how familism may influence diabetes management among depressed diabetic Latinos.

Gender Roles. Among the Latino culture, concepts of *machismo* and *marianismo* have represent traditional gender roles (Santiago-Rivera et al., 2005) and the ways for which Latinos develop a sense of identity (Miranda, Bilot, Peluso, Berman, & Meek, 2006). The term *machismo* is used to depict the stereotypical Latino male role. It is based on the idea that males are privileged and superior to women, and that men are expected to be responsible for the financial welfare of the family. *Marianismo*, in contrast, is the term specific to women. Arrendondo (2002) summarizes ten (stereotypical) commandments of *marianismo* including: " 1) do not forget a woman's place; 2) do not forsake tradition; 3) do not be single, self-supporting, or independent minded; 4) do not put your needs first; 5) do not forget that sex is for making babies, not pleasure; 6) do not wish more in life than being a housewife; 7) do not be unhappy with your man, no matter what he does to you; 8) do not ask for help; 9) do not discuss personal problems outside the home; 10) do not change." The notion of marianismo translates to behavior that is self-sacrificing and that family needs come before one's own needs. As such, women who display more behaviors consistent with value of marianismo are those who adhere to more traditional gender roles.

While acceptance of gender roles among Latinos is facilitated by marianismo/machismo ideals, literature suggests that not all families adhere to these roles and that gender role reversal does occur. For instance, Raffaelli and Ottani (2004)

discuss the impact of cultural transition on the encouragement of gender role reversal. One such factor is acculturation, which is defined as a process of "culture learning and behavioral adaptation to a new culture" (Padilla, 1980). Vazquez-Nutall et al. (1987) found that first generation (and thus less acculturated) women held more conservative and traditional values regarding gender roles as compared with second and third generation Latinos as well as higher educated Latinas compared with less educated Latinas. Individual differences in gender role adhesion may be linked to distinct health related outcomes.

Research findings on marianismo and health outcomes are mixed. Some argue that adherence to gender roles contribute to negative psychological outcomes (Casas, Wagenheim, Banchero, & Mendoza-Romero, 1995). For instance, a woman who follows more traditional roles might be less likely to discuss sex practices, or require consent from her husband to seek HIV testing (U.S. Department of Health and Human Services, 2002) or engage in perceived self-indulging physical activity (D'Alonzo, 2012). The effect of maintaining traditional gender roles may also extend to health care utilization. Focus groups with Latinas [the majority from Mexico (Garces, Scarinci, & Harrison, 2006)] showed that they tended to procrastinate in seeking out health care because a) they feared of being embarrassed about being physically examined by a male doctor and b) they tended to address their family's health needs before their own. These perceived barriers are consistent with the *marianismo*.

Further evidence of maternal *marianismo*'s influence on depression comes from a cross-sectional study of Mexican-American and Caucasian female students (Caceres-Dalmau, 2004). Latino women showed that higher levels of perceived maternal

marianismo were related to higher self-reported somatic symptoms of depression as compared with Caucasian students. Community samples of women also show similar patterns. For example, Orlandini (2000) found that higher levels of *marianismo* were related to higher depressive symptoms.

Despite data showing the negative impact of *marianismo* on health and psychological outcomes, other research suggests that *marianismo* may serve as a protective factor (McGlade, Saha, & Dahlstrom, 2004). While Wood and Price (1997) found that women high in *marianismo* were at less risk of chronic medical conditions, the majority of findings demonstrate a deleterious effect of marianismo (e.g., gender role adhesion) for Latinas.

Despite the growing body of literature on marianismo, little research exists on the effects of gender roles on psychotherapy treatment. It remains unclear whether adherence to gender values may influence treatment preference for depression among depression prone diabetic Latinos. Questions also remain about the degree to which certain treatments may accommodate familial priorities of a Latina diabetic, for instance those who adhere to more traditional gender roles.

Fatalism refers to the perception of little power over one's course (Caban & Walker, 2006). Fatalism is another prominent Latino cultural belief (Abraido-Lanza, Viladrich, Florez, Cespedes, Aguirre, De La Cruz, 2007). In the health literature among Latinos, fatalism has been associated with negative health beliefs (Parra, Doran, Ivy, Aranda, & Hernandez, 2001), including beliefs about illness such as diabetes (Schwab, Meyer, & Merrell, 1994). However, the association between fatalism and diabetes self-management is unclear (Caban & Walker, 2006). In a qualitative study with English and

Spanish speaking Latino men with diabetes, participants identified fatalism as a barrier to treatment adherence (Rustveld, Pavlik, Jibaja-Weiss, Kline, Gossey et al., 2009). Much less has been reported on fatalism and depression, and the available literature may be specific to Mexican-Americans, for which fatalism may serve as a protective factor against psychiatric illness (Alegria, Canino, Shrout, Woo, Duan, Vila, et al., 2008). Elsewhere, fatalism has also been described as a potential barrier to depression care (Kouyoumdjan, Zamboanga, & Hansen, 2003).

B. RESEARCH AIMS AND HYPOTHESES

AIM 1: Research associated with depression treatment efficacy among Latinos shows that CT, BA and IPT are all relatively effective at treatment depression among Latinos. It remains unclear the degree to which Latinos prefer one treatment to another following brief psycho-education about the treatments. Moreover, research has yet to explore treatment preference among Latinos with diabetes. Preference may differ potentially because of a) the added demand of depression treatment with their diabetes management, b) perceived incompatibility with diabetes management and/or c) perceived incompatibility with cultural values. Given such factors, we hypothesize that treatment preference difference would be primarily seen between IPT vs. both CT and BA. The extent to which Markowitz and colleagues (2008) assumptions about the unique themes relevant to using IPT with Spanish speaking Latinos, including that family unit is central to many clients, may influence preference as well as the demand and self-focused approach of CT and BA, it is hypothesized that IPT would be preferred over the other available treatments.

AIM 2: The second research aim examines whether cultural values variables differ by treatment preference selection. Given research that suggests that Latino's are more focused on family activities, treatments that incorporate family-based objectives may be more preferential than individually focused treatments. It is hypothesized that IPT would be preferred over CT and BT among those high in cultural factors (e.g., *marianismo*).

AIM 3: The third research aim addresses the relationship between diabetes related variables (e.g., diabetes fatalism, diabetes illness perception) and treatment preference. It is hypothesized that those who perceive that they have more control over their illness (e.g., low diabetes fatalism) and are better able to understand the importance of diabetes management (e.g., high diabetes illness perception) may prefer a treatment to compliments diabetes management over the other. We expected that BA would be more preferential after controlling for other factors such as cultural value.

AIM 4: The forth study aim is to elucidate the impact of psychological variables (e.g., depression severity, history of depression, distress "ataque de nervios") on treatment preference. It remains unclear whether elevated symptomatology enhances the motivation for certain treatment over others. In addition, research has yet to test the degree to which potential influences on treatment rationale preferences among Latino diabetics are different among individuals with a personal history of mood dysregulation. That said, it remains unclear whether those with greater symptoms would focus on symptom alleviate over other factors, such as family involvement. Thus, we tentatively expected that CT or BA would be more preferential after controlling for other individual difference factors (e.g., diabetes-specific factors, cultural factors).

C. METHODOLOGY

Participants

Participants were recruited from a federally qualified health center that serves medically underserved populations in a Plain state. In 2009, this agency saw 9,200 individual patients and had over 37,000 patient visits. According to agency records, one third of the patients seen yearly were identified as being Latino. Participants were considered eligible for the study if they meet the following criteria: 1) self-identified as Latino/Hispanic, 2) were diabetic (based on self-report and confirmed with a diagnosis on their medical chart), and 3) were of adult age (19 years or older).

The study sample consisted of 32 self-identified Latino diabetics. The majority of participants were women (72%). The interviews were conducted in Spanish language (97%) and the majority of patients requested questionnaires to be read to them rather than them completing it on their own (88%). The majority of participants were married (68%) and 71% of the sample had less than a high school level education. Thirty-four percent of participants were unemployed and over half (56%) of the sample reported an annual income level between $0-5,000. In addition, 65.6% of the sample reported having children who lived at home.

Most of the sample was not born within the United States [Mexico (84.4%), Guatemala (3.1%), and Colombia (3.1%)]. The majority of participants reported living most of their lives in their country of origin (68.8%) versus the United States. The average years living in the United States was 18 years (SD=10.4; range = 4-43 years). Sixty-two percent of the sample was monolingual for Spanish and 28.1% spoke mostly Spanish with some knowledge of English.

Related to their diabetic status, the average age diagnosed with diabetes was 36 years (SD=10.3; range = 13-59). Participants reported living an average of 9.1 years with a diagnosis of diabetes (SD=7.2). Over 90% of participants reported having a family member with diabetes. In regards to their diabetes self-care, the majority of patients reported that they managed their diabetes with insulin only (31.3 %), followed by oral diabetes medication (e.g. Metformin) in combination with insulin (28.1%), diet and exercise (21.9%) and medication only (15.6%). The sample did not endorse severe diabetes complications. The majority of participants denied having diabetes-related amputations (78%), diabetes related retinopathy (100%), and diabetes related neuropathic pain (84.4%). The average self-reported glucose level was 146.5 (SD= 66.9; range = 84-380), although 12.5% did not know their last glucose level. According to the American Diabetes Association (2012) glucose levels (random blood sugar testing) ranges from "normal" 70-140, "pre-diabetes" 140-200, and "diabetes" above 200. Approximately half of participants had controlled levels of insulin that was categorized as normal (53.1%), followed by pre-diabetes (18.8%) and diabetes categories (9.4%). The average body mass index (BMI) score was 34.5 (SD=10; range =22-63). About 12.5% of participants were considered "normal," 28.1% "overweight," 9.4% "moderately obese," 21.9% "severely obese," and 15.6% "very severely obese." Refer to Table 1 for additional demographic variables.

Measures

Patient Health Questionnaire (PHQ-9). The PHQ-9 from the Primary Care Evaluation of Mental Disorders (PRIME-MD; Spitzer, Kroenke, & Williams, 1999) screens for nine major depression symptoms and yields a total depression severity score.

The PHQ-9 likert format ranges from 0= not at all to 3= nearly every day. The PHQ-9 has been widely used in medical settings, including among low-income Latinos with diabetes (Gross, Olfson, Gameroff, Carasquillo, Shea, Feder, et al., 2005). To measure internal consistency of questionnaire items, Cronbach's alpha was utilized. George and Mallery (2003) provide the following hueristics for alpha cutoffs: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, .6– Questionable, _ > .5 – Poor, and < .5 – Unacceptable" (p. 231). The Cronbach's alpha for the Patient Health Questionnaire it was .832 "good." Results from the PHQ-9 were be used to differentiate between individuals who meet current criteria for clinical major depression, as well as to obtain a total severity score. See Appendix H for the PHQ-9 in English and Spanish. Total PHQ-9 average score was 34 (SD=10.4; range =0-25). Around 44% of participants endorsed mild depressive symptoms followed by those endorsing moderate symptoms (12.5%), moderately severe symptoms (12.5%) and severe symptoms (3.1%). Twenty-eight point one percent reported no symptoms. Based on the PHQ-9 items endorsed, only 4 (12.5%) met criteria for major depression.

Histories of MDD and distress "ataque de nervios." In addition to the PHQ-9, patients were asked two questions to assess for lifetime incidence of depression. Two single-item measures have been shown to indicate a potential past major depression (McChargue & Cook, 2007). The first question targets depressed mood "*have you ever been down or depressed most of the day nearly every day for 2 weeks or more?*" The second question targets anhedonia "*have you ever lost interest or pleasure in things you typically enjoy most of the day nearly every day for 2 weeks or more?*" The majority of participants (71.9%) responded "yes" to the mood item, less than half answered "yes" to

the anhedonia item (46.9%) and 22% of participants answered yes to both questions. Participants were also asked about the cultural bound syndrome "*ataque de nervios*" and it was added because it is associated with psychological distress, including recurrent major depression among Latinos (Liebowitz et al., 1994). The direct translation is 'attack of nerves' or a 'nervous breakdown,' with 21.9% endorsing at least one episode in their lives.

Treatment Rationale Scripts. Three treatment scripts that briefly described each treatment modality were created. Scripts included a visual representation of each therapy. Please refer to Appendix J for a copy of scripts and Appendix K-M for visual aids. Treatment rational scripts were one paragraph long and were created with language consistent with each therapy. Visual aids were included in addition to the scripts as using visual aids has been found to be important in providing health education among Mexican women immigrant (Hunter, 2005).

Treatment Credibility. The Credibility and Expectancies Questionnaire (Borkovec & Nau, 1972) was used to measure treatment credibility. Questionnaire items were: 1) "*at this point, how logical does the therapy offered to you seem*?" 2) "*at this point, how successfully do you think this treatment will be in reducing your symptoms*" 3) "*how confident would you be in recommending this treatment to a friend who experiences similar problems?*" and 4) "*by the end of the therapy period, how much improvement in your symptoms do you think will occur*?" Questions were answered on a 10-point format ranging from 1= not at all to 10 = very.

Treatment Rationale Preferences. Participants were asked to select the treatment they most likely preferred and answer additional questions regarding preferences to

therapy setting and therapist characteristics. Participants could select any of one of the three therapies, all three, or none. Participants were not forced to select one of the treatment modalities to diminish confounds such as selection bias by forcing participants to select an option. See Appendix E for a copy of treatment rationale preference questions.

Mexican-American Cultural Values Scales for Adults (Knight, Gonzales, Saenz, Bonds, Germán, Deardorff, et al., 2009) was utilized to examine cultural values, specifically familism and gender role adherence. For women, gender role adherence in the MVS was used to represent marianismo gender ideals code of behavior for Latinas (Stevens, 1973). The MVS was selected over distinct measures of familism/ marianismo/machismo because it includes several values of interests and is more time efficient than administering distinct measures for each cultural value. Minimizing the number of measures was also considered given this was a low-literacy population. Given that the vast majority of Latino patients at the primary care facility are Mexican-American/Mexican, it was identified as an appropriate measure to use with this population. Participants were asked how much they believed in each statement, using a 5-point response format (*1=not at all, 2=a little, 3= somewhat, 4=very much, 5=completely*). The entire questionnaire includes 50 items, however, for the purposes of this study only 21 questions from the following four actors were used: familism support, familism referent, family obligations, and gender roles. Example questions from the familism support subscale include*:* "*it is always important to be united as a family*" and "*parents should teach their children that the family always comes first*." Examples from the familism referent subscale include: "*when it comes to important decisions, the family*

should ask for advice from close relatives" and "*a person should always think about their family when making important decisions*." Example items from the traditional gender roles subscale include: "*it is important for the man to have more power in the family than the woman*" and "*mothers are the main people responsible for raising children*." Example items from the family obligations subscale include "children should be taught that it is their duty to care for their parents when their parents get old" and "if a relative is having a hard time financially, one should help them out if possible." See Appendix F for a copy of the Mexican-American Cultural Values Scales in Spanish and English.

The mean Mexican-American Cultural Values scale was 86.1 (SD = 9.3; range = 61-101), while the mean for the subscales were as follow: family support, 28.2 (SD = 2.5; range = 22-30), family referent, 21.9 (SD = 2.9; range = 16-25), family obligations, 22.8 (SD = 2.9; range = 13-25), traditional gender roles, 13.5 (SD = 5.1; 5-22). Participants were differentiated between high and low adherence to Mexican values based on a mean split score of 88.5. The Cronbach's alpha for the Mexican Values Scale was .821 "good."

Diabetes Fatalism Scale (DFS). Diabetes fatalism was operationalized with the Diabetes Fatalism Scale (Egede & Ellis, 2009). The DFS is a 12-item questionnaire rated on a 6 point likert scale, ranging from 1= strongly agree to 6= strongly disagree. Example items include: "*I feel down when I think about my diabetes*" and "*I believe that diabetes is controllable*." Given that the scale has not been translated into Spanish language, it was translated by the researcher and then translated back into English by a Spanish-language interpreter/translator employed at the primary care facility. See Appendix I for a copy of the DFS in Spanish and English. The average Diabetes

Fatalism Scale score was 49.1 (SD = 8.1; range = 25-63), while the mean for the emotional distress subscale was 15.7 (SD = 5.9; range = 5-25), religious and spirituality coping was 18 (SD = 5; range 4-24), and perceived self-efficacy was 15.4 (SD = 2.7; range = 9-18). Participants were differentiated between high and low fatalism based on a mean split score of 50. Those scoring in "high fatalism" endorsed less perceived control over their diabetes. Cronbach's alpha for the Diabetes Fatalism Scale it was .800 "good."

Brief Illness Perception Questionnaire. The Brief Illness Perception Questionnaire (Broadbent, Petrie, Main & Weinman, 2006) was used to examine diabetes illness perception. The Brief IPQ includes 8 items rated on a 0-10 response scale. Items include "*how much do you think your treatment can help your diabetes,*" "*how concerned are you about your diabetes,*" "*how much does your diabetes affect you emotionally.*" Given that the IPQ has not been translated into Spanish language, it was translated by the researcher and then translated back into English by a Spanish-language interpreter/translator employed at PHC. See Appendix G. for a copy of the measure in Spanish and English. The mean brief IPQ score for the sample was 56.1 (SD=13.5; range =27-75). Participants were differentiated between high and low diabetes illness perception based on a mean split score of 59. Those scoring "high illness perception" endorsed greater understanding and perception of diabetes. Cronbach's alpha for the Brief Illness Perception scale was .662 "questionable."

Procedures

Recruitment. Recommended suggestions for recruitment of ethnic minorities in health programs (Lee, McGinnis, Sallis, Castro, Chen & Hickmann, 2008) was considered for the present study. All recruitment material was provided in Spanish and

English language. Participants were recruited via passive methods such as flyers (see Appendix A for a sample of the recruitment flyers) placed in waiting rooms and exam room bulletin boards, as well as making announcements in a diabetes health education class. Participants who contacted the researcher by phone were screened and those found eligible were scheduled for an individual interview. Additional steps were taken to ensure adequate recruitment and retention, given the low recruitment rates for Spanish-speaking samples (Miranda, Azocar, Organista, Muñoz, and Lieberman 1996). These strategies included providing services in both languages, having a bilingual/bicultural interviewer, conducting reminder phone calls the day before their appointment, and having flexible hours (8am-7pm), including in the evenings, for scheduling sessions. Of the participants who expressed interest in participating, three were not eligible, as they did not have a diagnosis of diabetes.

All responses to questionnaires and consent forms were secured in a locked filling cabinet in Burnett Hall at the University of Nebraska-Lincoln. To ensure confidentiality of all materials, data were identified using unique study identification numbers. Data were entered into a password-protected computerized database. The flash-drive with the corresponding database was securely locked in a filing cabinet along with paper consent forms. The data for the proposed project was collected specifically for this project and was only handled by the researcher.

Interview Session. Informed consent and a release of Private Health Information were thoroughly explained at the scheduled session, and read to those participants with limited reading proficiency. See Appendix B for a copy of informed consent form in Spanish and English languages and Appendix C for a copy of Private Health Information

release. Those who provided informed consent to complete the study and to be audio recorded, completed the session, which ranged from 45 minutes to 2 hours (one participant had to be seen on two different occasions for a total of 2 hours). Limits of confidentiality were also discussed with all participants based on the American Psychological Association's ethical principles of psychologists and code of conduct. Participants were informed that confidentiality would be breached when client disclosed: 1) intent to self-harm or harm to others, 2) suspected child abuse, 3) suspected abuse of a dependent adult/elder. None of the participants were found to be in imminent danger.

After all self-report measures were completed; participants were read (ordered randomly assigned) each therapy description while at the same time shown the visual representation of the therapy. Responses to treatment credibility and preference were audio recorded. Responses were only recorded to those participants who authorized recording. See section O for a transcription of responses. While data analysis was not performed on qualitative responses (as this was outside the scope of the study), responses were used in some instances as an adjunct to supplement quantitative responses. Lastly, participants were compensated with $5 for their time. Three participants refused compensation because they felt that interview was beneficial to improving their knowledge about diabetes and depression.

D. RESULTS

Preliminary quantitative data analysis

Data were analyzed using the Statistical Package for Social Sciences (SPSS) v.21. Recommended procedures were used to clean data before analysis (Tabachnick & Fidell, 2001), including checking for any errors, out of range and duplicate values. Reverse

coding was only performed on one scale, Diabetes Fatalism Scale, for items 6-12 [(1=6), (2=5), (3=4), (4=3), (5=2), (6=1)]. Univariate statistics were calculated on all demographic and self-report measures. See Tables 1-5 for total sample and treatment selection group univariate statistics.

Pearson's correlation was used to examine the relationship among MVS total score, PHQ-9 total score, BIP total score and DFS total score. There were no significant intercorrelations. Refer to Table 2 for a correlation matrix. The relationship among subscales of the MVS and total score, as well as DFS subscales and total scores were also examined. Significant correlations for the MVS total and its subscales (referant subscale, family support, and family obligations) were found at $p < .001$. The traditional gender subscale was correlated with total MVS scale at $p < .001$ but not with any of the other subscales. For the Diabetes Fatalism Scale, all subscales were correlated with each other and the total score, with the exception of subscale 2 (religious and spirituality) with subscale 1 (emotional distress) and subscale 3 (self-efficacy) with DFS total. Refer to Tables 3-4 for a summary. Lastly, Pearson's correlations were used to examine the relationship between measures (MVS, DFS, BIP, PHQ-9) and demographic/health variables (age, years in the U.S., years diagnosed with diabetes, glucose level, body mass index, age first diagnosed with diabetes). Refer to Table 5 for a summary.

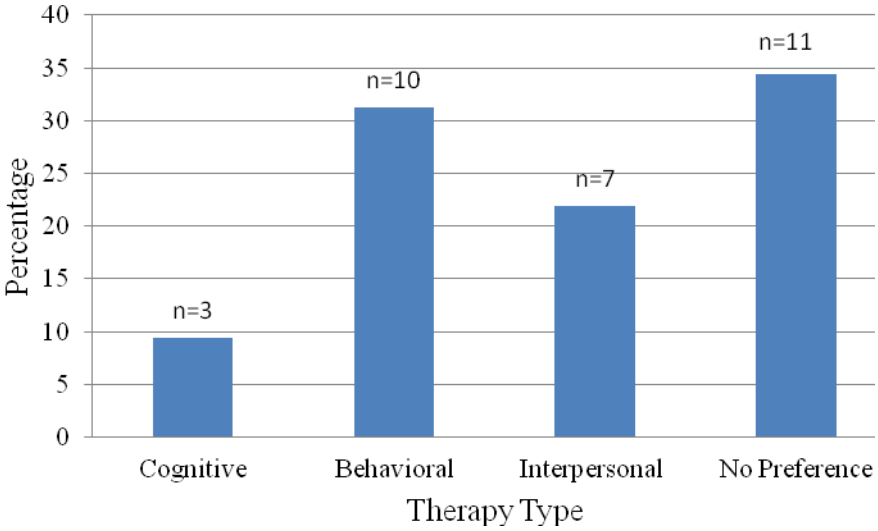
Primary quantitative data analysis

AIM 1: A treatment rationale preference difference would be primarily seen between IPT vs. both CT and BA. The extent to which Markowitz and colleagues (2008) assumptions about the unique themes relevant to using IPT with Spanish speaking Latinos, including that family unit is central to many clients, may influence treatment

rationale preference as well as the demand and self-focused approach of CT and BA, it was hypothesized that IPT would be preferred over the other available treatments.

A chi-square test for goodness-of-fit was used and indicated that a significant difference existed in the proportion of participants who selected one therapy over the other, $\chi^2(3, N = 32) = 11.75$, $p = .019$. The majority of participants did not have a preference and selected all three (34%, n=11) while 31.3% (n=10) selected behavioral, 21.9% (n=7) interpersonal, 9.4% cognitive (n=3) and 3.1% (n=1) selected none. Contrary to the hypothesis, IPT was not preferred over BA or CT. A chi-square test for independence was also used to analyze findings comparing just the CT, BA, IPT (and not the "no preference" group); result were not significant $\chi^2(3, N= 32) = 3.70$, $p = .157$. Preference to treatment was also examined across men and women separately, but found to be non-significant. However, the finding for women was closer to significant a [$\chi^2(3, N= 32) = 4.65$, $p = .199$] than men [$\chi^2(3, N= 32) = 1.00$, $p = .801$]. The pattern of the main findings applied to women but not men where women were more likely to prefer BA to IPT and CT, but men preferred all three about the same. Lastly, treatment management (i.e., insulin, oral medications, diet and exercise) and preference to treatment modality was also explored, but found to be non-significant [$\chi^2(3, N = 32) = 5.00$, $p = .172$).

Figure 2. Preference to psychotherapy rationale



AIM 2: IPT would be preferred over CT and BT among those high in cultural factor adherence (e.g., *Mexican Values Scale).* Results showed that no relationship (although close to significant) was found between those high and low adherence to Mexican values scale, $\chi^2(3) = 6.809$, $p = .078$. A trend was observed among those who selected IPT, as they tended to be higher in Mexican Values (High MVS).

When we examined the Mexican Values Scale total and subscales as a continuous variable, a relationship was found between adherence and treatment selection. Specifically, MVS total [F (3, 27) = 11.070, $p = .000$], familism support subscale [F (3, 27) = 11.52, $p = .000$], and traditional gender roles [F (3, 27) = 5.377, $p = .005$] were related to treatment selection. Those who selected the cognitive treatment reported lower (and therefore less adherence) to MVS total, familism support and traditional gender roles. Mean for MVS total for each group are summarized in Table 1, and were as followed: cognitive ($M = 66.67$, $SD = 7.37$), behavioral ($M = 92.30$, $SD = 6.29$), interpersonal ($M = 87.43$, $SD = 6.65$), and all three ($M = 85.43$, $SD = 7.17$). Mean for

MVS family referent subscale for each group was as follow: cognitive (*M* = 17.67, *SD* = 2.89), behavioral (*M* = 22.30, *SD* = 2.62), interpersonal (*M* = 22.00, *SD* = 2.51), and all three (*M* = 22.73, *SD* = 2.94). Mean for MVS gender roles subscale for each group was as follow: cognitive (*M* = 6.67, *SD* = 1.53), behavioral (*M* = 16.6, *SD* = 4.43), interpersonal (*M* = 13.71, *SD* = 3.30), and all three (*M* = 11.73, *SD* = 4.52).

Figure 3. Preference to psychotherapy modality by Mexican Values Scale adherence

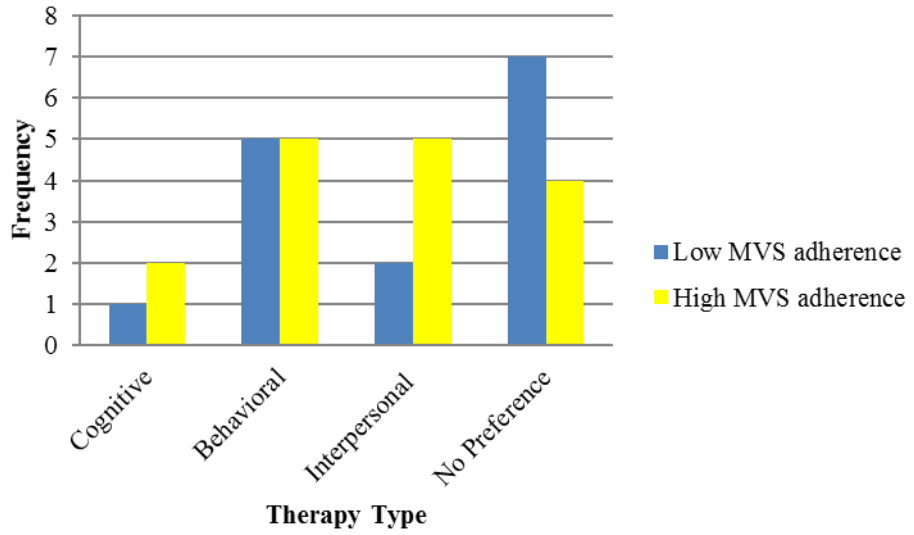


Figure 4. MVS total mean by psychotherapy preference

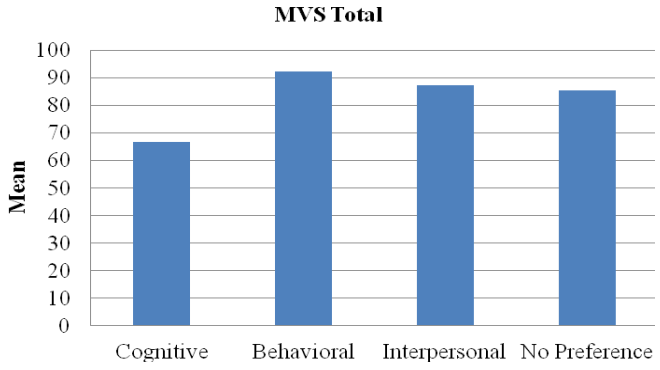


Figure 5. MVS familism mean by psychotherapy preference

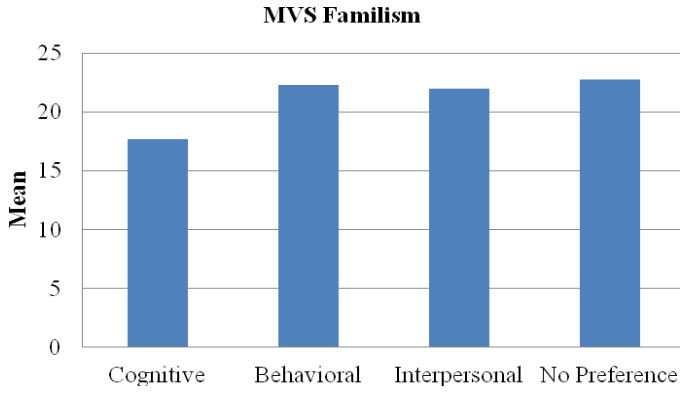
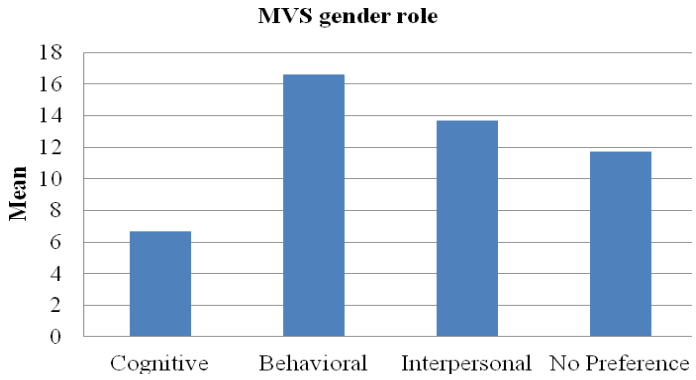


Figure 6. MVS gender role mean by psychotherapy preference



AIM 3: The third research aim examined the relationship between diabetes related variables (e.g., diabetes fatalism, diabetes illness perception) and treatment preference. It was hypothesized that those who perceived greater control over their illness (e.g., low diabetes fatalism) and understood the importance of diabetes management (e.g., high diabetes illness perception) would prefer a treatment to compliment diabetes management. It was hypothesized that BA treatment rationale may be more preferred among those with low fatalism and high illness perception. Results showed that neither

diabetes illness perception, $\chi^2(3) = 2.808$, $p = .422$, nor diabetes fatalism, $\chi^2(3) = 2.407$, $p = .492$ was related to treatment selection.

Figure 7. Preference to psychotherapy modality by Diabetes Fatalism

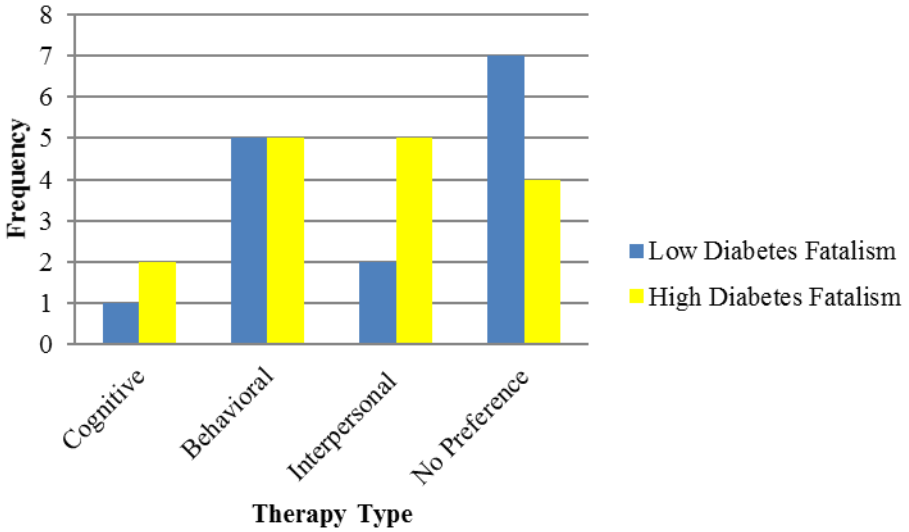
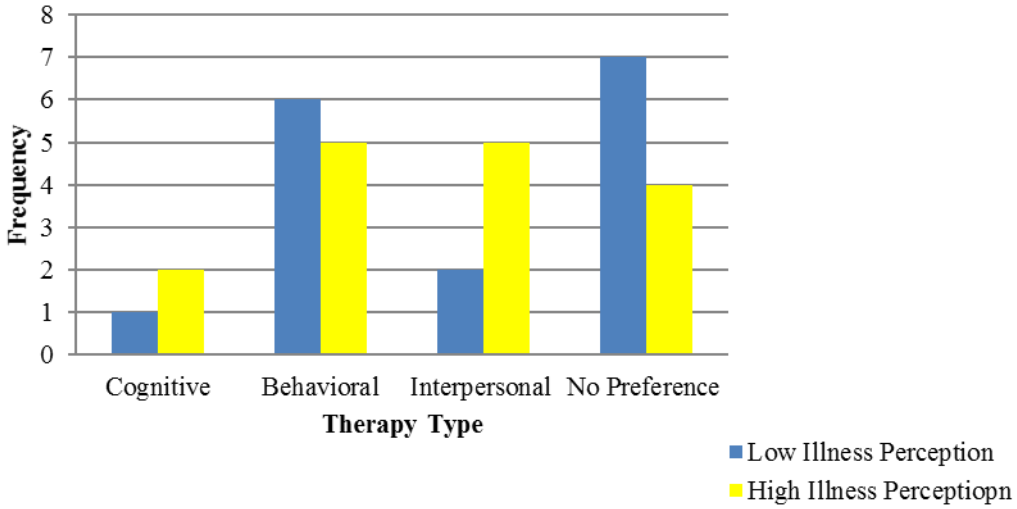


Figure 8. Preference to psychotherapy modality by Illness Perception



Diabetes as a continuous variable (total and subscales) was also examined in relationship to treatment selection. Results showed that neither total diabetes illness perception nor total diabetes fatalism was related to treatment selection [F (3, 27) =

.807, p = .501] and [F (3, 27) = .499, p = .686], respectively. No significant relationship was found between treatment selection and the Diabetes Fatalism subscales, including emotional distress [F (3, 27) = .499, p = .686], religious and spirituality coping [F (3, 27) = .870, p = .468], and perceived self-efficacy [F (3, 27) = .576, p = .635]. Although not significant, those who selected Behavioral Therapy tended to have more perceived control of their diabetes (lower mean DFS total).

Figure 9. Mean DFS total by psychotherapy preference

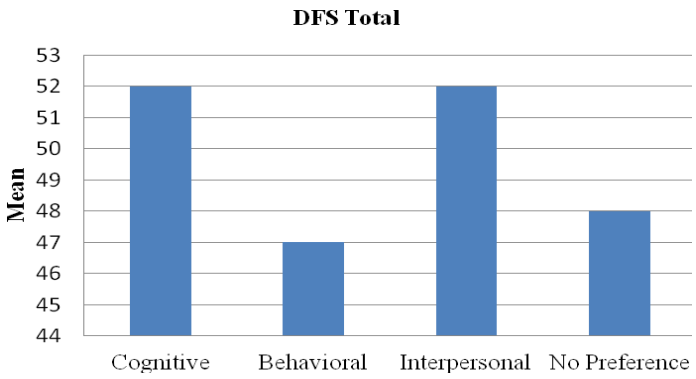


Figure 10. Mean DFS Religious and Spirituality Coping subscale by psychotherapy preference

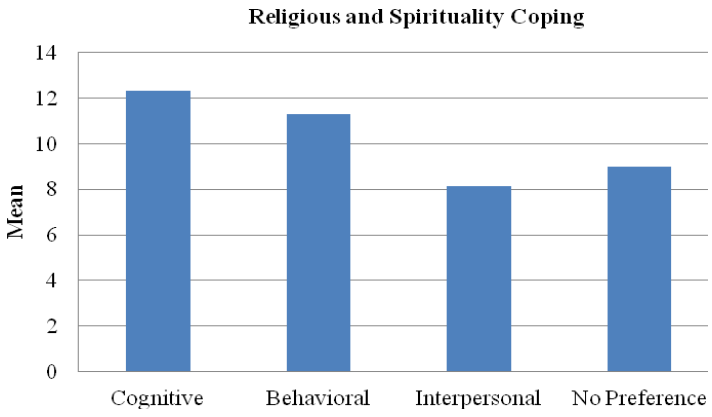


Figure 11. Mean DFS Perceived Self-Efficacy subscale by psychotherapy preference

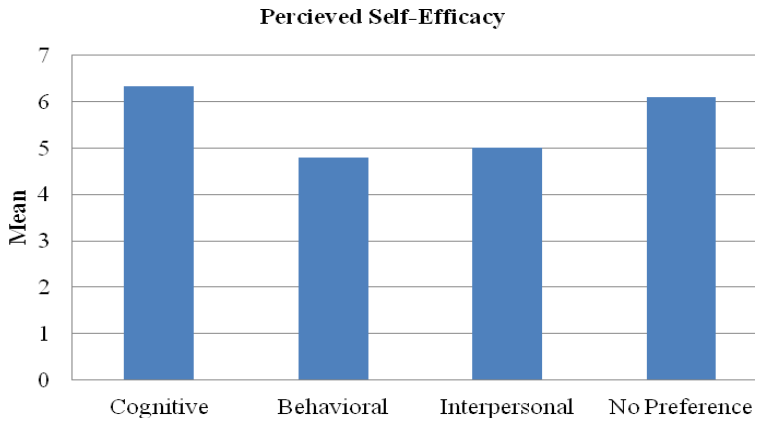
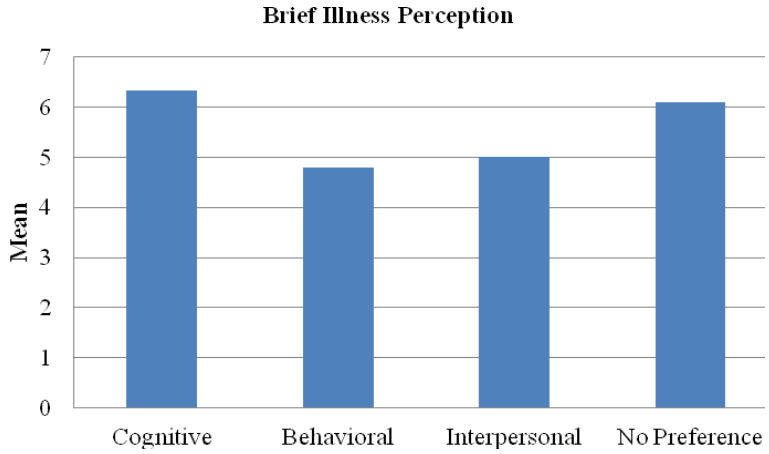


Figure 12. Mean DFS Brief Illness Perception subscale by psychotherapy preference

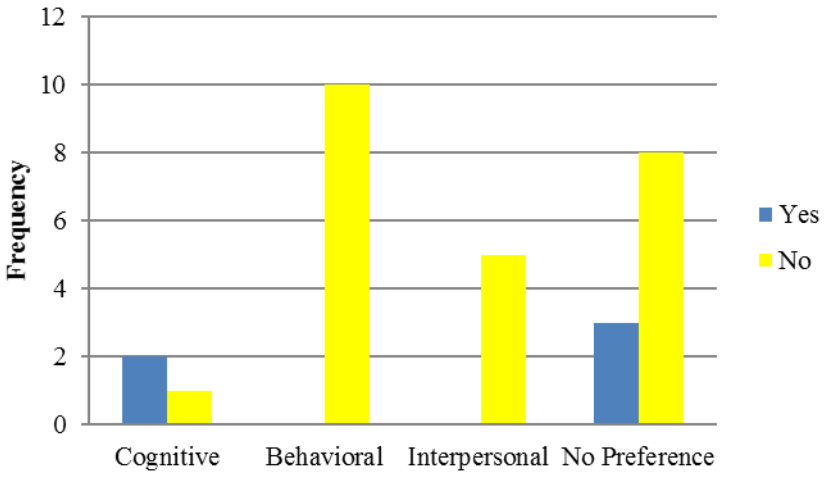


AIM 4: The fourth study aim examined the impact of psychological variables (e.g., depression severity, history of depression, history of distress "ataque de nervios") on treatment preference. It remains unclear whether increase symptomatology increases the motivation for certain treatment over others. In addition, research has yet to test the degree to which potential influences on treatment rationale preferences among Latino diabetics are different among individuals with a personal history of mood dys-regulation.

It remains unclear whether those with more symptoms would focus on symptom alleviation over other factors, such as family involvement.

A one-way Analysis of Variances (ANOVA) was used to examine the PHQ-9 score difference among the three therapy groups. PHQ-9 total score was the dependent variable while treatment modality was the independent variable (cognitive, behavioral, interpersonal, all three). Given that one person selected "none," they were excluded from the analysis since post hoc tests are not performed if one group has fewer than two cases. Results showed that depression severity score did not differ by treatment preference [F (3, 27) = 44.02, p = .302]. No pattern of relationship were observed between self-report lifetime depressed mood [χ^2(3, 32) = 1.828, p = .609] , anhedonia [χ^2(3, 32) = 3.605, p = .307], vulnerability to depression [χ^2(3, 32) = 3.771, p = .287], or even past history of depression treatment, [χ^2(3, 32) = 2.822 = .420)]. There was a close to significant effect on history of distress "ataque de nervios" [χ^2(3, 32) = 6.534 = p = .088].

Figure 13. Preference to treatment by distress "ataque de nervios" lifetime history



E. CONCLUSION AND LIMITATIONS

Conclusion

Results revealed that variability in depression treatment selection did exist among a low-income, low-education, group of predominantly Mexican diabetics from a primary care clinic. The majority of participants preferred all three (34.4%) or a behavioral approach (31.3%) compared to interpersonal (21.9%) and cognitive (9.4%). The finding that behavioral therapy was selected over cognitive or interpersonal approach was also a surprise given that some literature suggest a behavioral approach may be more daunting (and therefore less appealing) for diabetics given the many behavioral demands from having diabetes (e.g., glucose checking, exercise, change in diet, etc). It is possible that having some experience with behavior change through diabetes self-management, participants may have more easily related or identified with a behavioral approach.

To our surprise, participants were less likely to select interpersonal therapy compared to all three or a behavioral approach. We initially hypothesized that interpersonal therapy might have been more culturally appealing as interpersonal aspects of depression are more constant with collectivists cultures (Rossello & Bernal, 1999), and provided that harmony of interpersonal relationships is a value among Latinos (especially among low-acculturated groups; Balcazar, Castro, & Krull, 1995). However, we found that participants who adhered more to cultural values, interpersonal therapy was as likely to be selected as behavioral therapy and that those who adhered less to cultural values tended to select cognitive therapy. Exploratory analyses revealed no effects of gender or type of diabetes treatment management (i.e., insulin, oral medications, diet and exercise) on treatment selection rationale.

Cognitive therapy was less likely to be selected over other approaches, however, this finding should be interpreted with caution as only three participants selected the cognitive approach. It is possible that the cognitive therapy rationale was less preferred given it is more individually oriented (e.g., introspectively self-focused through evaluation of self-automatic thoughts) and less focused on the interaction with the environment or others. It is not clear if there may also have been an effect of education/low-literacy, or if participants had more difficulty understanding the cognitive therapy description compared to the other two descriptions. It is possible that the concept of "challenging one's own cognitions" to influence mood may have been too abstract for the low-literacy population. To our knowledge, the adaptation of treatments to low-literacy populations, specifically those that include a cognitive component like CBT, are lacking. One adaptation of CBT for pain management with low-literacy rural populations exists that reduced the cognitive demand of CBT (Kuhajda, Thorn, Gaskins, Day, & Cabbil, 2011).

When considering depression, diabetes, and cultural values, differences in cultural value adherence (operationalized by the Mexican Values Scale) was related to selection of treatment, but not diabetes illness perception or diabetes fatalism. Those who selected the cognitive treatment reported lower (and therefore less adherence) to MVS total, familism support and traditional gender roles. Among those who selected IPT, they tended to report greater adherence to MVS total score, proving evidence that among a low acculturated sample, a therapy that emphasizes interpersonal relationships may be more appealing.

An unexpected finding from the study was that a large number of participants selected all three approaches and had no preference. This may have occurred because a) differences between each therapy were not distinct enough, b) description of each therapy was not clear enough for the literacy level, or c) possible effects of provider-patient interaction style found among some Latinos (e.g., middle aged and older Latino women), where "doctor knows best" and patients exert little choice over medical treatment (Weitzman, Chang, & Reynoso, 2004). Future studies may want to include a follow-up question such as "I would let my doctor decide" to tease apart the possible effect of provider-patient interaction.

Limitations and Challenges to Data Collection

One of the major limitations and challenge with data collection was related to wording of measures. We were only able to collect data on a fraction of the sample for the Credibility and Expectancies Questionnaire (Borkovec & Nau, 1972) because of language and wording issues. Throughout data collection, it was noted that participants continued to have difficulty with these items. In response to this challenge to data collection, participants were asked if they understood the word "therapy." About 10 participants indicated that they did not know what the word "therapy" meant. As such, although not included in the original script, participants were provided with a brief description of the meaning of the word "therapy." Please refer to Appendix N for a copy of the modified measure. Participants also expressed that they did not understand what the word "culture" meant and for over half of participants, they displayed some difficulty with the various likert scales. As such, each scale had to be thoroughly explained to participants. Given the concerns with the Credibility and Expectancies Questionnaire,

responses were not analyzed. An example of this limitation came from a male participant who expressed; *"There are some words that are new to me and it takes a while to understand what you're trying to say. Someone who is an adult and doesn't have the capacity, the mind is not very open to modern words. Medicine uses more sophisticated words."* As such, future studies should utilize low-literacy guidelines and adapt the scripts to a lower level of education. Furthermore, having a focus group to inquire about the complexity of language used in scripts and whether or not participants understood each type of therapy may have improved understandability of the scripts among this population.

Additionally, there were concerns with the measurement validity of scales given the paucity of usage with Mexican populations. Of all the self-report measures, only the Patient Health Questionnaire and Mexican Values Questionnaire (and not the Diabetes Fatalism Scale, or Brief Illness Perception) have been translated and normed on Latinos. The internal consistently for all scales were considered "good" with the exception of the Brief Illness Perception scale whose validity was "questionable."

Despite the Diabetes Fatalism not being normed on Latinos, the internal consistency coefficient (i.e., Cronbach's alpha of the measure) with this sample (.800) was consistent with that found in the normed sample of White and Black diabetics (alpha = .804; Edge & Ellis, 2010). Total and subscale means among the present population did differ compared to that of the normed sample. Total mean on the normed sample was (M = 36.7, SD = 5.9) while the mean of the current sample was (M = 49.1, SD = 8.1) indicating that the present sample of low-acculturated Mexicans tended to endorse less control (more fatalistic) about their diabetes compared to a sample of White and African

Americans with diabetes. Participants in the current study scored lower on the emotional distress [(*M* = 15.7, *SD* = 5.9) vs. (*M* = 17.0, *SD* = 3.5)] and perceived self-efficacy [(*M* = 5.6, *SD* = 2.7) vs. (*M* = 8.6, *SD* = 1.9)] subscales, and higher on the religious and spirituality coping subscale [(*M* = 10, *SD* = 5) vs. (*M* = 11.1, *SD* = 3.0)]. For the Brief Illness Perception scale, the alpha for the current sample was .662 and the normed sample ranged from .55-.70, using an older sample of outpatients from the United Kingdom with a variety of illness including diabetes, and a sample of undergraduates from Texas (Broadbent, Petrie, Main, & Weinman, 2006). The total score on the Brief Illness Perception Questionnaire was higher among the current sample (*M* = 56.1, *SD* = 13.5) compared to the normed sample (*M* = 52.4, *SD* = 20.9). For the Patient Health Questionnaire, the means of the current sample on the PHQ-9 was 7.3 (*SD* = 5.9) while on the normed sample of Latinos (without diabetes) it was reported as 6.3 (*SD* = 2.8) among those with minimal to mild depression and 17 (SD=4.4) among those with moderate to severe depression (Gross et al., 2004). For the Mexican Values Scales, internal consistency for the overall scale in this study was .82 while in the literature it is reported as .87 for women and .84 for men in the normed sample of healthy Mexicans born in and outside the United States, both Spanish and English speakers (Knight et al., 2010).

Another limitation of the study was the small sample size, which raises questions about the findings of the cognitive group given the small sample size. Post hoc power analysis demonstrates that for a moderate effect size (r=.30), a sample of 33 yields a power of 40%. In order to have an 80% power, with a moderate effect, a sample of 82 would have been needed. An additional limitation is that this study only included three

therapy modalities yet future studies may examine the response to other approaches. For instance, a mindfulness-based approach (like Acceptance and Commitment Therapy) could include family/interpersonal and behavioral components within the values based section of treatment, making it potentially desirable for Latinos. Although the evidence of this third-wave therapy is less documented with Latinos, ACT was initially created to use with medical patients and therefore may be a good approach to use with diabetic patients with depression (Gregg, Callaghan, Hayes, Glenn-Lawson, 2007). Another limitation is that comorbid health problems were not controlled for. As such, it would be interesting to see if the pattern of preference would be similar across other health problems and severity of diabetes given this was a relatively healthy sample. Lastly, another limitation is that one experimenter conducted all of the data collection. This experimenter had significant interactions with participants and was not blind to the hypothesis, which could influence outcome.

Despite the aforementioned limitations, findings from the current study may be used to inform clinical decision-making and encourage client-centered treatment. When working with this population, it is recommended that a therapist take the time to learn how much the patient understands the concept of therapy. Do not assume that the patient understands what being in therapy means or that they are familiar with the term "therapy." Knowing that variability to treatment exits, it is recommended that the therapist have a dialogue about the various approaches to therapy. Encouraging the patient to express their preference may take some time, as for many Latinos (low acculturated), a doctor may be viewed as an authority figure and patients may expect for

the provider to pick a treatment or want to show respect by going along with what the provider chooses.

In addition to the applied clinical implications, findings from the present study may guide future clinical outcome research. Findings from the present study suggest that one approach does not fit all, and to some extent, diabetics prefer a behavioral and interpersonal approach. Therapies that focus on introspective thoughts may be less favorable, and those patients who prefer a cognitive therapy rationale may be less likely to adhere to traditional cultural values. However, the latter finding warrants further research, as the proportion of participants in the cognitive group was relatively small. Lastly, this study adds to the very limited literature on psychotherapy treatment among Latinos with comorbid depression-diabetes. As a bilingual study aimed to reach an ignored group in psychological clinical research, this study is important in that it is a first step towards bringing awareness of the characteristics and needs of this population within the treatment literature.

Although the present study had various limitations, it is important to recognize that this is a preliminary step in learning more about depression psychotherapy clinical interests of Latinos with diabetes as well as learn how to better include low-literacy Latinos into clinical research. Understanding treatment knowledge and preferences, as well as barriers to conducting research with the target population, are important steps to begin addressing health disparities in treatment and research among Latinos with diabetes.

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Table 1.

Demographic characteristics by total and subgroups

DEMOGRAPHICS		Total	CT	BT	IPT	No Pref
		N=32	n=3	n=10	n=7	n=11
Age		46 (11.2)	44(16)	44 (10)	42 (11)	48 (11)
Gender						
	Female	24(72%)	2(66.7%)	7(70%)	5(71%)	9(81.9%)
Pregnant	Yes	4(17%)	-	2(20%)	2(28.6%)	-
Language of interview	Spanish	31 (97%)	3(100%)	10(100%)	7(100%)	9(90%)
Questions read to participant	Yes	28 (88%)	2(66.7%)	9(90%)	6(85.7%)	10(90.9%)
Marital Status						
	Single	8(25%)	2(66.7%)	2(20%)	2(28.8%)	2(18.2%)
	Married/partnered	22(68%)	1(33.3%)	8(80%)	5(71.4%)	8(72.7%)
	Divorced	1 (3.1%)	-	-	-	1(9.1%)
	Separated	-	-	-	-	-
Highest education completed						
	Never attended school	1(3.1%)	-	-	-	1(9.1%)
	Some grade school	5(15.6%)	1(33.3%)	2(20%)	1(14.3%)	1(18.2%)
	Completed grade school	9(28.1%)	-	3(30%)	3(42.9%)	3(27.3%)
	Some high school	8(25%)	-	2(20%)	1(14.3%)	4(36.4%)
	Completed high school	3(9.4%)	-	2(20%)	-	1(9.1%)
	Some college	2(6.3%)	1(33.3%)	1(10%)	-	-
	Completed college	4(12.5%)	1(33.3%)	-	2(28.6%)	1(9.1%)
Employment						
	Full time	9(28%)	2(66.7%)	3(30%)	1(14.3%)	2(18.2%)
	Part time	3(9.4%)	-	1(10%)	1(14.3%)	1(9.1%)
	Unemployed	11(34%)	-	4(40%)	2(28.6%)	5(45.5%)
	Housewife	8(25%)	1(33.3%)	2(20%)	3(42.9%)	2(18.2%)
	Retired	1(3.1%)	-	-	-	1(9.1%)
Income level						
	0-$5,000	18(56.3%)	1(33.3%)	5(%)	5(71.4%)	7(63.6%)
	$5,001 – $10,000	6(18.8%)	-	4(%)	2(28.6%)	-
	$10,001 – $15,000	3 (9.4%)	1(33.3%)	1(%)	-	1(9.5%)
	$15,001 – $20,000	1 (3.1%)	-	-	-	1(9.5%)
	$20,001 – $25,000	3 (9.4%)	1(33.3%)	-	-	1(9.5%)
	$25, 001 – $30,000	1 (3.1%)	-	-	-	1(9.5%)
Do children live at home?						
	Yes	21 (65.6%)	1(33.3%)	7(70%)	4(57.1%)	9(81.8%)
Country of birth						
	Mexico	27 (84.4%)	1(33.3%)	9(90%)	7(100%)	10(90.9%)
	Guatemala	1 (3.1%)	-	1(10%)	-	-
	Colombia	1(3.1%)	1(33.3%)	-	-	-
	United States	2 (6.3%)	1(33.3%)	-	-	1(9/1%)
Lived most of life	Country of origin	22 (68.8%)	-	-	-	-

	United Stated	10 (31%)	-	-	-	-
Years living in the U.S.		18 (10.4)	24 (10.1)	16(9.5)	14 (8.2)	18 (10.2)
Languages spoken and read						
	Only Spanish	20 (62.5%)	1(%)	8(80%)	4(57.1%)	7(63.6%)
	Spanish better than English	9 (28.1%)	1(%)	2(20%)	3(42.9%)	3(27.3%)
	Both equally	2 (6.3%)	1(%)	-	-	1(9.1%)
	English better than Spanish	1 (3.1%)	-	-	-	-

Table 2.

Health related characteristics by total and subgroups

HEALTH RELATED QUESTIONS		Total	CT	BT	IPT	No Pref
		N=32	n=3	n=10	n=7	n=11
Cigarette use						
	No	30 (93.8%)	3(100%)	10(100%)	7(100%)	10(90.9%)
Age diagnosed with diabetes		36 (10.3)	35(16.8)	38(9.1)	31(12)	36 (8.7)
Years living with diabetes		9.1 (7.2)	9(9.6)	5.6(4.8)	9.5(5.8)	12(8.9)
Family members with diabetes						
	Husband/wife/partner	3 (9.4%)	-	2(20%)	-	1(9.1%)
	Children	4 (12.5%)	-	1(10%)	-	3(27.3%)
	Brother/sister	18 (56.3%)	1(33.3%)	5(50%)	6(85.7%)	5(45.5%)
	Parents/grandparents	4 (12.5%)	1(33.3%)	1(10%)	1(14.3%)	1(9.1%)
	No one	3 (9.4%)	1(33.3%)	1(10%)	-	1(9.1%)
Medications for diabetes						
	No medications, managing my diabetes through diet and exercise	8(21.9%)	1(33.3%)	2(20%)	2(28.6%)	2(18.2%)
	Pills only	5(15.6%)	-	2(20%)	-	3(27.3%)
	Insulin only	10 (31.3%)	1(33.3%)	2(20%)	4(57.1%)	3(27.3%)
	Both pills and insulin	9 (28.1%)	1(33.3%)	3(30%)	1(14.3%)	3(27.3%)
Retinopathy due to diabetes						
	No	25 (78%)	2(66.7%)	9(90%)	4(57.1%)	9(81.8%)
Amputations due to diabetes						
	No	32 (100%)	3(100%)	10(100%)	7(100%)	11(100%)
Neuropathic pain due to diabetes						
	No	27 (84.4%)	2(66.7%)	9(90%)	5(71.4%)	10(90.1%)
Self-reported glucose level		146.5(66.9)	148(16.9)	120.8(42.1)	161(100)	142.8(32.6)
Glucose level						
	I don't know	4 (12.5%)	1(%)	-	-	3(27.3%)
	Below 70	0 (0%)	-	-	-	-
	70-120	12 (37.5%)	-	8(80%)	3(42.9%)	1(9.1%)
	120-180	12 (37.5%)	2(%)	1(10%)	3(42.9%)	6(54.5%)
	180 and above	4 (12.5%)	-	1(102%)	1(14.3%)	1(9.1%)
Body Mass Index		34.5 (10.0)				
	Normal	4 (12.5%)	1(33.3%)	2(20%)	1(14.3%)	-
	Overweight	9 (28.1%)	-	3(30%)	3(42.9%)	2(18.2%)
	Moderately obese	3 (9.4%)	-	2(20%)	1(14.3%)	-
	Severely obese	7 (21.9%)	-	2(20%)	-	5(45.5%)
	Very severely obese	5 (15.6%)	1(33.3%)	1(10%)	-	3(27.3%)

Table 3.

Mood related characteristics by total and subgroups

MOOD RELATED QUESTIONS		Total	CT	BT	IPT	No Pref
		N=32	n=3	n=10	n=7	n=11
Have you *ever* been down or depressed most of the day nearly every day for 2 weeks or more?						
	Yes	23(71.9%)	3(100%)	6(60%)	5(71.4%)	8(72.7%)
Have you *ever* lost interest or pleasure in things you typically enjoy most of the day nearly every day for 2 weeks or more?						
	Yes	15 (46.9%)	3(100%)	4(40%)	3(42.9%)	5(45.5%)
Have you ever received treatment for depression?						
	Yes	9 (28.1%)	2(66.7%)	3(70%)	1(14.3%)	3(27.3%)
Have you ever experienced an "ataque de nervios"?						
	Yes	7(21.9%)	2(66.7%)	-	2(28.6%)	3(27.3%)
Total PHQ-9 score		7.3 (5.6)	12(9.5)	6.6 (2.1)	5.7 (2.2)	3.9(1.1)
MDD based on PHQ-9	Yes	4 (12.5%)	2(66.7%)	1(10%)	1(14.33%)	-
PHQ-9 Severity Index						
	None	9 (28.1%)	1(33.3%)	2(20%)	3(42.9%)	3(27.3%)
	Mild	14 (43.8%)	(%)	5(50%)	1(14.3%)	7(63.6%)
	Moderate	4 (12.5%)	(%)	2(20%)	1(14.3%)	1(9.1%)
	Moderately Severe	4 (12.5%)	1(33.3%)	1(10%)	2(28.6%)	-
	Severe	1 (3.1%)	1(33.3%)	-	-	-

Table 4.

Self-report measures by total and subgroups

MEASURES	Total	CT	BT	IPT	No Pref
	N=32	n=3	n=10	n=7	n=11
Mexican Values Scale					
Total Score	86.3 (9.5)	66.6(7.3)	92(6.3)	87.4(6.6)	85.5(7.17)
Familism support subscale	28.2(25)	23.3(2.3)	29.4(.96)	28.4(1.7)	28.7(1.7)
Family referent subscale	21.9(2.9)	17.6(2.8)	22.3(2.6)	22(2.5)	22.7(2.9)
Family obligations subscale	22.8(2.9)	19(1.0)	24(1.3)	23.3(1.5)	22.4(2.9)
Traditional Gender roles	13.5(5.1)	6.6(1.5)	16.6(4.4)	13.7(3.3)	11.7(4.5)
Diabetes Fatalism Scale					
Total Score	49.1(8.1)	52(10)	47.8(11.8)	52(4.2)	48.4(5.3)
Subscale 1: emotional distress	15.7(5.9)	21.6(3.1)	14.9(6.7)	16(4.1)	14.5(6.3)
Subscale 2: religious and spirituality coping	10.0 (5.0)	12.3(7.5)	11.3(6.8)	8.1(3.4)	9(3.3)
Subscale 3: perceived self-efficacy	5.6 (2.7)	6.3(4.9)	4.8(2.3)	5(1.7)	6(2.8)
Brief Illness Perception					
Total Score	56.1 (13.5)	66.6(7.3)	53.8(14.3)	55.7(14.7)	55.2(13.8)

Table 5.

Treatment related questions by total and subgroups

TREATMENT PREFERENCE QUESTIONS		Total	CT	BT	IPT	No Pref
		N=32	n=3	n=10	n=7	n=11
Therapy preference						
	Cognitive	3(9.4%)				
	Behavioral	10 (31.3%)				
	Interpersonal	7 (21.9%)				
	No preference	11 (34.4%)				
	None	1 (3.1%)				
Treatment preference						
	Therapy alone	16 (50%)	2(66.7%)	3(30%)	5(71.4%)	6(54.5%)
	Medications	8 (25%)	-	5(50%)	1(14.3%)	1(9.1%)
	Both	8 (25%)	1(33.3%)	2(20%)	1(14.3%)	4(36.4%)
	None	0 (0%)	-	-	-	-
Barriers to attending weekly therapy						
	None	2 (6.3%)	-	2(20%)	-	-
	Cost of therapy (yes)	24 (75%)	2(66.7%)	4(40%)	6(85.7%)	11(100%)
	Transportation (yes)	12 (37.5%)	1(33.3%)	6(60%)	1(14.3%)	4(36.4%)
	Work responsibilities (yes)	10 (31.3%)	2(66.7%)	3(30%)	1(14.3%)	3(27.3%)
	Childcare (yes)	9 (28.1%)	1(33.3%)	4(40%)	2(28.6%)	2(18.6%)
	Other					
Individual vs. Group						
	Individual	16 (50%)	1(33.6%)	6(60%)	4(57.1%)	4(36.4%)
	Group	9 (28.1%)	2(66.7%)	3(30%)	-	4(36.4%)
	No Preference	7 (21.9%)	-	1(10%)	3(42.9%)	3(27.3%)
Therapist characteristics						
	Same gender (yes)	21 (65.6%)	1(33%)	7(70%)	5(71.4%)	7(63.6%)
	Speaks my language (yes)	31 (96.9%)	2(66.7%)	10(100%)	7(100%)	11(%100)
	Around my age (yes)	6 (18.8%)	-	1(10%)	3(42.9%)	2(18.2%)
	My culture (yes)	13 (40.6%)	-	4(40%)	2(28.6%)	7(63.6%)
	My religion (yes)	8 (25%)	1(33.3%)	3(30%)	1(14.3%)	3(27.3%)
	Does not matter (yes)	0 (0%)	-	-	-	-

Table 6.

Correlation Matrix for main measures

	1.	2.	3.	4.
1. MVS Total	-	-.168	-.128	-.058
2. BIP Total	-.168	-	.277	.037
3. PHQ-9 Total	-.128	.277	-	.281
4. DFS Total	-.058	.037	.281	-

MVS = Mexican Values Scale
BIP = Brief Illness Perception
PHQ-9= Patient Health Questionnaire
DFS= Diabetes Fatalism Scale

Table 7.

Correlation Matrix for Mexican Values Scale (MVS)

	1.	2.	3.	4.	5.
1. Family Support	-	.664**	.368**	.138	.657**
2. Family Referent	.664**	-	.503**	.188	.740**
3. Family Obligations	.368	.503**	-	.282	.706**
4. Traditional Gender Roles	.138	.188	.282	-	.715**
5. Total MVS	.657**	.740**	.706**	.715**	-

* Correlation is significant at the .05 level
** Correlation is significant at the .01 level

Table 8.

Correlation Matrix for Diabetes Fatalism Scale

	1.	2.	3.	4.
1. Family Support	-	.009	.419*	.581**
2. Family Referent	.009	-	.457*	-.766**
3. Family Obligations	.419*	.457**	-	.310
4. Traditional Gender Roles	.581**	-.766**	-.310	-

* Correlation is significant at the .05 level
** Correlation is significant at the .01 level

Table 9.

Correlation Matrix for measures and demographic variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Age	-	.290	.475**	.116	-.186	.574**	.748**	.162	-.180	-.258	-.482**
2. Years in U.S	.290	-	.375*	.236	.283	.472**	.069	-.221	.112	.202	-.258
3. Years with diabetes	.475**	.375*	-	.182	.188	.036	-.191	-.068	.060	-.180	-.288
4. Glucose level	.116	.236	.182	-	-.013	-.065	.034	-.128	.309	-.019	-.195
5. Body Mass Index	-.186	.283	.188	-.013	-	-.102	-.295	-.353	.074	-.063	-.067
6. Age immigrated	-.574**	-.472**	.036	-.065	-.102	-	.588**	.159	-.118	-.213	-.003
7. Age diagnosed with diabetes	-.748**	.069	-.191	.034	-.295	.588**	-	.162	-.213	-.119	-.364*
8 Total MVS	.162	-.221	-.068	-.128	-.353	.159	.162	-	-.168	-.128	-.058
9. Total BIP	-.180	.112	.060	.309	.074	-.118	-.213	-.168	-		.037
10. Total PHQ-9	-.258	.202	-.180	-.019	-.063	-.213	-.119	-.128	.277	-	.281
11. Total DFS	-.482**	-.258	-.288	-.195	-.067	-.003	-.364*	-.058	.037	.281	-

MVS = Mexican Values Scale
BIP = Brief Illness Perception
PHQ-9= Patient Health Questionnaire
DFS= Diabetes Fatalism Scale

Appendix A. Flyer (English)

¿DO YOU HAVE DIABETES AND ARE LATINO/A?

Receive **$5** for completing an interview about your diabetes and mood.

Call 402-682-1962 to make an appointment here at the clinic.

OR ASK YOUR MEDICAL PROVIDER

It's free and confidential.

Thank You.

Appendix A. Flyer (Spanish)

¿TIENE DIABETES?

Reciba **$5** por completar una breve entrevista sobre la diabetes

y su estado de animo.

Llame al 402-682-1962 para hacer una cita aquí en la clínica.

O HABLE CON SU DOCTOR

Es gratis y confidencial.

Gracias.

Appendix B. Consent form (English)

UNIVERSITY OF NEBRASKA-LINCOLN/PEOPLE'S HEALTH CENTER
CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Identification of Project:
Depression treatment preferences of Latinos with comorbid diabetes.

Purpose of Research:
This is a research project that examines depressive symptoms, cultural variables, and depression treatment preferences among Latino diabetics. To participate in this study you must have a current diagnosis of type 1 or 2 diabetes, self-identify as Latino/a and are 19 years or older.

Procedures:
Participation in this study will require approximately 45-60 minutes of your time. You will be answering a number of questions about you (e.g., your age, marital status), your mood, values, and health behaviors here at People's Health Center. Your responses will *not* become part of your medical records and will only be utilized for the purpose of this project. We will ask you permission to include a questionnaire about your current mood state into your medical chart. We also ask you permission to collect additional information about your health history from your medical records (i.e., blood glucose levels, list of medications, diabetes complications, and concurrent health problems). You can still participate in this study, even if you do not wish for your medical records to be reviewed or to include responses to the depression screener in your medical records.

Risks and Discomforts:
There is also a small, but possible, chance that some of the questions or the information presented to you may influence how you are feeling (for example, if you are already feeling sad, it may cause you to feel worse or sadder). In the event of immediate problems resulting from participation in this study, you will have access to speak with a therapist (the investigator) at no cost to you. Should you request ongoing therapy, the PI will provide you with a referral list. The PI will not be included in the referral list.

Benefits:
It is possible that you will not benefit from this study. If you do not benefit personally, your participation may help researchers better understand how to help Latinos who have diabetes.

Confidentiality:
Any personal information (i.e., name, address) gathered for this study will be kept strictly confidential. The data will be stored in a locked cabinet at the University of Nebraska-Lincoln and will only be seen by the investigator during the study and for two years after the study is complete. The information obtained in this study may be published in scientific journals or presented at scientific meetings but your
name or any other identifying information will not be used. You will *not* be asked to provide information such as social security number.

Compensation:
You will receive a $5 gift card for participating in this project.

Opportunity to Ask Questions:
You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. You can contact the investigator at the numbers listed below. Sometimes study participants have questions or concerns about their rights. In that case, you should contact the University of Nebraska Lincoln Institutional Review Board at 402-472-6965

Freedom to Withdraw:
Participation in this study is voluntary. You can refuse to participate or withdraw at any time without harming your relationship with the researchers or your doctor, or in any other way receive a penalty or loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy:

You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you have decided to participate having read and understood the information presented. You will be given a copy of this consent form to keep.

Name and Signature of Participant:

_____
Name of Participant

_____ _____
Signature of Participant Date

Name and Phone number of Principal Investigator/Co-Investigator:
María José Herrera, M.A., Principal Investigator Cell phone: (402) 682-1962
Dennis E. McChargue, Ph.D., Co-Investigator Office: (402) 472-3197

Appendix B. Consent form (Spanish)

UNIVERSIDAD DE NEBRASKA-LINCOLN/PEOPLE'S HEALTH CENTER
PERMISO PARA PARTICIPAR EN UN ESTUDIO DE INVESTIGACION

Identificación del Estudio
Estudio sobre preferencias de tratamiento en los Latinos con diabetes.

Propósito del Estudio:
Este estudio examina síntomas de la depresión, factores culturales, y preferencia de tratamiento para la depresión. Para participar en este estudio, usted debe de tener diabetes, se identifica como Latino, y es sobre la edad de 19 años.

Procedimiento:
Su participación en este estudio durará aproximadamente 45-60 minutos. Contestará preguntas sobre sus características descriptivas (Ej. lugar de nacimiento, estado civil), su estado de ánimo, valores, y comportamientos de salud aquí en la clínica People's Health Center. Sus respuestas no serán incluidas en su expediente médico. El único cuestionario que le vamos a pedir permiso incluir en su expediente médico, será un cuestionario sobre su nivel de depresión. También le pedimos permiso para obtener información sobre su salud (Ej. niveles de azúcar, su peso, lista de medicamentos, problemas médicos secundarios) de su expediente médico. Igual puede participar en este estudio aun si usted no nos da permiso para revisar su expediente médico.

Riesgos:
Existe una pequeña posibilidad de que algunas de las preguntas, o la información presentada, influya en cómo se esté sintiendo (por ejemplo, si usted ya se siente triste, puede hacerle sentir peor o más triste aun). En el evento que algunos problemas resulten inmediatamente de este estudio, usted podrá hablar con una consejera (la investigadora) a ningún costo suyo. Si usted preferiría recibir servicios de terapia adicional, la investigadora le puede dar una lista de donde adquirir servicios. La investigadora no será incluida en la lista.

Beneficios:
Es posible que usted no se beneficie directamente de su participación en este estudio. Sin embargo, aunque usted no se beneficie personalmente, su participación ayudará a los investigadores a aprender cómo ayudar mejor a las mujeres latinas que tienen diabetes y experimentan síntomas de depresión.

Confidencialidad:
Haremos todo lo posible para asegurarnos de que su información personal (E.j., su nombre, domicilio, y cualquier otra información que nos ofrezca) se mantenga privada. Todos los cuestionarios serán guardados con llave en la Universidad de Nebraska-Lincoln y solo serán vistos por los investigadores, y mantenida hasta dos años después de este estudio. Si este estudio es publicado o presentado en reuniones científicas, nunca utilizaremos su nombre ni ninguna otra información personal.

Compensación:
Por su tiempo, va a recibir un tarjeta de regalo de $5

Preguntas:
Usted puede hacer cualquier pregunta sobre este estudio antes de participar en el estudio. Puede contactar a los investigadores a los números al fin de esta página.
A veces participantes tienen preguntas o preocupaciones sobre sus derechos. En ese caso, debe contactar el Comité de Investigaciones Humanas de la Universidad de Nebraska-Lincoln (University of Nebraska-Lincoln Institutional Review Board) al (402) 472-6965.

Su Derecho:
Usted tiene la libertad de elegir participar o no participar en el estudio. Si decide participar en él, de la misma manera puede dejarlo en cualquier momento. Sin importar la decisión que usted tome, no se le penalizará de ninguna manera.

Permiso, Derecho de Recibir una Copia:

Usted esta voluntariamente tomando la decisión de participar en este estudio. Su firma indica que ha decidido participar en este estudio y que ha leído y entendido la información que le hemos presentado. Se le dará una copia de este permiso para que usted lo guarde.

Nombre y firma del participante:

_____
Nombre del participante

_____ _____
Firma del participante Fecha

Nombre y número de contacto de la investigadora:
María José Herrera, M.A., Investigadora principal Celular: (402) 682-1962 (español)
Dennis E. McChargue, Ph.D., Investigador secundario Trabajo: (402) 472-3197

Appendix C. Release of private health information (English)

AUTHORIZATION FOR THE RELEASE AND USE OF PRIVATE HEALTH INFORMATION (PHI)

Depression Treatment Preferences of Latinos with Comorbid Diabetes

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By signing this document, you give permission for the release and use of your identifiable Private Health Information (PHI) for the research study described here:

The purpose of this study is to examine depression psychotherapy treatment preferences among Latinos with diabetes. Participation in this study will require approximately 45-60 minutes of your time. You will be asked to answer a number of questions about you (e.g., age, marital status), your mood, values, and health behaviors.

The PHI that will be released for this research includes the following: most recent blood glucose level, list of medications, list of diabetes complications, and list of additional health problems.

- **most recent blood glucose level**
- **list of medication**
- **list of diabetes complications**
- **list of additional health problems**

In addition, the following information will be placed in your medical file at People's Health Center after the research is conducted:

- **responses to a depression screener**

Person(s)/Organization(s) <u>providing</u> PHI:	Person(s)/Organization(s) <u>receiving</u> PHI:
People's Health Center 1021 N. 27th St	María José Herrera, M.A. Dennis E

María José Herrera and Dennis E. McChargue from the University of Nebraska-Lincoln agree to protect your health information and will only share this information as described within this research Authorization form. The only reason that your information will be shared with anyone other than the researchers without your permission is if required to do so by law, as directed in the HIPAA Privacy Rule.

The participant must read and initial the following statements:

_____ I understand that my decision to release my PHI is voluntary and People's Health Center may not withhold treatment, payment, enrollment, and/or eligibility for benefits whether or not I sign this Authorization; however, I will still included within this research study if PHI is not released.

_____ I understand that I may change my mind and take back this Authorization at any time. PHI already released by People's Health Center to María José Herrera and Dennis E. McChargue; however, cannot be taken back at that time. Any information already released under this Authorization may be used by the researcher.

To revoke this authorization, please write to:

María José Herrera, M.A.
Dennis E. McChargue, Ph.D.
University of Nebraska-Lincoln
238 Burnett Hall
Lincoln, NE 68588

This PHI Authorization will expire on or within the following timeframe: 6/15/2012

_____ _____

Participant Signature Date

_____

Printed Name of Participant

Appendix C. Release of private health information (Spanish)

AUTORIZACION PARA REVELAR INFORMACION MEDICA PROTEGIDA (IMP)

Estudio sobre preferencias de tratamiento en los Latinos con diabetes.

Al firmar este documento, usted da permiso para que su información médica protegida se divulgué al siguiente estudio:

Este estudio examina síntomas de la depresión, factores culturales, y preferencia de tratamiento para la depresión en personas con diabetes. Su participación en este estudio durará aproximadamente 45-60 minutos. Contestará preguntas sobre sus características descriptivas (Ej. lugar de nacimiento, estado civil), su estado de ánimo, valores, y comportamientos de salud.

El IMP que será revelada para esta investigación incluye lo siguiente: nivel de glucosa de sangre, lista de medicamentos, lista de complicaciones de diabetes, y lista de problemas de salud adicionales.

- **Nivel de glucosa de sangre**
- **Lista de medicamentos**
- **Lista de complicaciones de diabetes**
- **Lista de problemas de salud adicionales**

Además, la siguiente información se colocará en su expediente médico en People's Health Center después de la investigación se lleve a cabo

- **Respuesta a un cuestionario de depresión**

Persona(s)/Organización(s) dando IMP:	Persona(s)/Organización(s) recibiendo IMP:
People's Health Center 1021 N. 27th St	María José Herrera, M.A. Dennis F.

María José Herrera y Dennis E. McChargue de la Universidad de Nebraska-Lincoln se comprometen a proteger su información de salud. Sólo se compartirá esta información como se describe en este formulario de autorización de investigación. La única razón de que su información será compartida con alguien más sin su permiso es si es requerido por la ley, como se indica en la Regla de Privacidad HIPAA.

El participante debe leer y inicial las siguiente declaraciones:

_____ Yo entiendo que mi decisión de revelar mi IMP es voluntario y People's Health Center no puede retener el tratamiento, pago, inscripción y / o elegibilidad para recibir beneficios si firmo o no firmo esta autorización. Sin embargo, todavía seré incluida/o en este estudio si mi IMP no se revela.

_____ Yo entiendo que puedo cambiar de opinión y retirar esta autorización en cualquier momento. IMP que se haya divulgado de People's Health Center a María José Herrera y Dennis E. McChargue, sin embargo, no puede ser retraído. Cualquier información que se haya divulgado bajo esta autorización puede ser utilizada por los investigadores.

Para revocar esta autorización, por favor escriba a:

María José Herrera, M.A.
Dennis E. McChargue, Ph.D.
University of Nebraska-Lincoln
238 Burnett Hall
Lincoln, NE 68588

Esta autorización se vence en: 15 de junio del 2012

_____ _____

Firma del Participante Fecha

_____

Nombre del Participante

Appendix D. Demographic questionnaire

DEMOGRAPHIC QUESTIONNAIRE

1. What is your age? _____years in age
¿Cuál es su edad?

2. What is your sex?
¿Cuál es su sexo?
- ❑ female(0)
- ❑ male (1)
- ❑ transexual (2)

3. What is your current marital status?
¿Cuál es su estado civil?
- ❑ single (0)
- ❑ married/partnered (1)
- ❑ divorced (2)
- ❑ separated (3)
- ❑ widowed (4)

4. What is the highest level of education completed?
¿Cuál es el más alto nivel de estudios terminados?
- ❑ Never attended school (0)
- ❑ Some grade school (1)
- ❑ Completed grade school (2)
- ❑ Some high school (3)
- ❑ Completed high school (4)
- ❑ Some college (5)
- ❑ Completed college (6)

5. What is your current employment ?
¿Cuál es su empleo actual?
- ❑ Full time (0)
- ❑ Part time (1)
- ❑ Unemployed (2)
- ❑ Housewife (3)
- ❑ Retired (4)

❑ Disabled (5)

6.What is your income level? ❑ 0-5,000 (0)
¿Cuál es su nivel de ingresos?

❑ 5,001 – 10,000 (1)

❑ 10,001 – 15,000 (2)

❑ 15,001 – 20,000 (3)

❑ 20,001 – 25,000 (4)

❑ 25, 001 – 30,000 (5)

❑ 30,000 and over (6)

7. Do children live at home? ❑ no (0) ❑ yes (1)
¿Sus hijos viven con usted en su hogar?

8. What country were you born in : _____(country of origin)
¿En qué país nació?

9. How old were you when you moved to the states (U.S): _____(age)
¿Qué edad tenía cuando se mudo a los estados?

10. Which place have you lived most of your life?
¿En qué país ha vivido la mayor parte de su vida?
❑ country of origin (0) ❑ U.S (1)

11. In general, what language(s) do you speak (and read)?
¿Por lo general, que lenguajes habla y escribe?
❑ Only Spanish
❑ Spanish better than English
❑ Both equally
❑ English better English
❑ Only English

Health Related Questions

12. Do you smoke cigarettes? ❑ no (0) ❑ yes (1)
¿Fuma cigarrillos?

12.b. *If yes*, how many cigarettes do you smoke per day :
_____per day
Si fuma, cuantos cigarrillos fuma al día?

13. How old where you when you were first diagnosed with diabetes? : _____ years in age

¿Qué edad tenía cuando se le diagnosticó la diabetes/cuando el doctor le dijo que tenía diabetes?

14. Which of your family members also have diabetes?
¿Cuales miembros de su familia también sufren de diabetes?

❑ husband/wife/partner (0)

❑ children (1)

❑ grandchildren (2)

❑ brothers/sister (3)

❑ parents/grandparents (4)

❑ no one else (5)

15. What medications are you taking for your diabetes?
¿Cuales medicamentos/medicinas está tomando para su diabetes?

❑ No medications, managing my diabetes through diet and exercise (0)

❑ Pills only (1)

❑ Insulin only (2)

❑ Both pills and insulin (3)

16. Have you have any diabetes complication such as retinopathy (blindness)?
¿Ha tenido alguna complicación de la diabetes, tal vez como la perdida de vista (retinopatía)? ❑ no (0) ❑ yes (1)

17. How about amputations?
¿ Ha tenido una amputación?
❑ no (0) ❑ yes (1)

18. What about neuropathy (pain, numbing, tingling of hands and toes)?
¿ Ha tenido dolor neuropático (hormigueo de las manos o dedos de los pies)?
❑ no (0) ❑ yes (1)

19. What was your last glucose level?
*¿Cuál fue su último nivel de glucosa?:*_____
❑ I don't know (0)

❑ below 70 (1)

❑ 70 - 120 (2)

❑ 120 - 180 (3)

❑ 180 and above (4)

19.b. When was the last time you checked your glucose level?:
_____/_____/_____
¿Cual fue la última vez que se chequeo su nivel de glucosa?

20. What is your height? _____feet _____inches or _____in
¿Cuánto mide?

21. What is your weight? _____lbs or _____ki
¿Cuánto pesa?

Mood Related Questions

22. Have you *ever* been down or depressed most of the day nearly everyday for 2 weeks or more?
¿Alguna vez ha estado triste o deprimido/a la mayor parte del día casi todos los días durante 2 semanas o más?

❑ no (0) ❑ yes (1)

23. Have you *ever* lost interest or pleasure in things you typically enjoy most of the day nearly everyday for 2 weeks or more?
¿Alguna vez ha perdido *interés o placer en las cosas que solía gozar casi todos los días durante 2 semanas o más?*

❑ no (0) ❑ yes (1)

24. Have you ever received treatment for depression?
¿Alguna vez ha recibido tratamiento para la depresión?

❑ no (0) ❑ yes (1)

25. Have you ever experienced a panic attack? distress
¿Alguna vez ha tenido un ataque de nervios?

❑ no (0) ❑ yes (1)

Appendix E. Treatment related questions

TREATMENT RELATED QUESTIONS

1. Which therapies are you most interested in?
¿ Cuál de las tres terapias estaría usted más le interesa?

- ❑ cognitive (0) *cognitiva*
- ❑ behavioral (1) *conductual*
- ❑ interpersonal (2) *interpersonal*
- ❑ all (3) *todas*
- ❑ none (4) *ninguna*

2. Would you prefer to recieve therapy , medication, or both, to treat depression?
¿Preferiría recibir terapia, medicamentos, o ambos para tartar la depresion?

- ❑ therapy alone (0) *solo terapia*
- ❑ medication (1) *medicamento*
- ❑ both (2) *ambos*
- ❑ none (3) *ninguno*

3. If therapy was offered once a week (and free), how many weeks would you be willing to meet with your therapist to work on the (selected) therapy?
Si la terapia se le ofreció una vez por semana (y gratis), ¿cuántas semanas estaría usted dispuesto/a a reunirse con su terapeuta para trabajar en la terapia?

_____weeks

- ❑ as long as it takes/ *lo que tome*

4. What potential barriers could prevent you from attending weekly therapy? (mark all that apply)
¿Cual obstáculo le podría impedir asistir terapia una vez por semana?

- ❑ none / *nada*
- ❑ cost of therapy / *costo de terapia*
- ❑ transportation / *transportación*
- ❑ work responsibilities / *el trabajo*
- ❑ childcare / *el cuidado de mis hijos*
- ❑ other

_____

5. Would you prefer the selected therapy in a group setting or individually with a therapist?
¿Preferiría la terapia en un grupo o de forma individual con un terapeuta?

- ❑ individual (0) *individual*
- ❑ group (1) *grupo*

❑ no preference (2) *ningúna preferencia*

6. Which of the following therapist characteristics are important to you: (mark all that apply)
¿Cuál de las siguientes características del terapeuta son importantes para usted?

❑ a therapist of my same gender
un terapista del mismo sexo
❑ a therapist that speaks my language
un terapista que hable mi lenguaje
❑ a therapist that is around my same age
un terapista que sea de mi misma edad
❑ a therapist that is of my culture
un terapista que sea de mi misma cultura (país)
❑ a therapist that is of my religion
un terapista que sea de mi misma religion
❑ none, does not matter
nada, no importa

Appendix F. Mexican Values Scale (English**)**

For each one of the items below, how much do you believe that:

1= Not at all	2= A little	3= Somewhat	4= Very Much	5= Completely

Familism-Support

_____2. Parents should teach their children that the family always comes first.
_____9. Family provides a sense of security because they will always be there for you.
_____20. It is always important to be united as a family.
_____28. It is important to have close relationships with aunts/uncles, grandparents, and cousins
_____37. Holidays and celebrations are important because the whole family comes together.
_____46. It is important for family members to show their love and affection to one another.

Family-Referent

_____4. Children should always do things to make their parents happy.
_____12.When it comes to important decisions, the family should ask for advice from close relatives.
_____30.Children should be taught to always be good because they represent the family.
_____39.A person should always think about their family when making important decisions.
_____47.It is important to work hard and do one's best because this work reflects on the family.

Family-Obligations

_____3. Children should be taught that it is their duty to care for their parents when their parents get old.
_____11. If a relative is having a hard time financially, one should help them out if possible.
_____21. A person should share their home with relatives if they need a place to stay.
_____29. Older kids should take care of and be role models for their younger brothers and sisters.
_____38. Parents should be willing to make great sacrifices to make sure their children have a better life.

Traditional Gender Roles

_____13. Men should earn most of the money for the family so women can stay home and take care of the children and the home.
_____19. Families need to watch over and protect teenage girls more than teenage boys.
_____32. It is important for the man to have more power in the family than the woman.
_____42. Mothers are the main people responsible for raising children.
_____50. A wife should always support her husband's decisions, even if she does not agree with him.

Appendix F. Mexican Values Scale (Spanish)

Para cada uno, ¿cuánto cree usted que?:

1= Nada	2= Poquito	3= Algo	4= Bastante	5= Completamente

Familism-Support

_____2. Los padres deberían enseñarle a sus hijos que la familia siempre es primero.
_____9. La familia provee un sentido de seguridad, porque ellos siempre estarán alli para usted.
_____20.Siempre es importante estar unidos como familia.
_____28. Es importante mantener relaciones cercanas con tíos, abuelos y primos.
_____37.Los días festivos y las celebraciones son importantes porque se reúne toda la familia.
_____46. Es importante que los miembros de la familia muestren su amor y afecto unos a los otros.

Family-Referent

_____4. Los niños siempre deberían hacer las cosas que hagan a sus padres felices..
_____12.La familia debería pedir consejos a sus parientes más cercanos cuando se trata de decisiones importantes.
_____30.Se le debería enseñar a los niños a que siempre sean buenos porque ellos representan a la familia.
_____39. Uno siempre debería considerar a su familia cuando toma decisiones importantes.
_____47. Es importante trabajar duro y hacer lo mejor que uno pueda porque el trabajo de uno se refleja en la familia.

Family-Obligations

_____3. Se les debería enseñar a los niños que es su obligación cuidar a sus padres cuando ellos envejezcan.
_____11. Si un pariente está teniendo dificultades económicas, uno debería ayudarlo si puede.
_____21. Uno debería compartir su casa con parientes si ellos necesitan donde quedarse.
_____29. Los hermanos grandes deberían cuidar y darles el buen ejemplo a los hermanos y hermanas menores.
_____38. Los padres deberían estar dispuestos a hacer grandes sacrificios para asegurarse que sus hijos tengan una vida mejor.

Traditional Gender Roles

_____13. Los hombres deberían ganar la mayoría del dinero para la familia para que las mujeres puedan quedarse en casa y cuidar a los hijos y el hogar.
_____19.Las familias necesitan vigilar y proteger más a las niñas adolescentes que a los niños adolescentes.
_____32.En la familia es importante que el hombre tenga más poder que la mujer.
_____42.Las madres son la persona principal responsable por la crianza de los hijos.
_____50.Una esposa debería siempre apoyar las decisiones de su esposo, aunque no esté de acuerdo con él.

Appendix G. Brief Illness Perception (English)

For the following questions, please circle (tell me) the number that best corresponds to your views about your **diabetes**:

1. How much does your diabetes affect your life?

0	1	2	3	4	5	6	7	8	9	10

No effect at all	Severely affects my life

2. How long do you think your diabetes will continue?

0	1	2	3	4	5	6	7	8	9	10
A very short time										Forever

3. How much control do you feel you have over your diabetes?

0	1	2	3	4	5	6	7	8	9	10
Not at all										Extremely helpful

4. How much do you think your treatment can help your diabetes?

0	1	2	3	4	5	6	7	8	9	10
Absolutely no control										Extreme amount of control

5.How much do you experience symptoms from your diabetes?

0	1	2	3	4	5	6	7	8	9	10
No symptoms at all										Many severe symptoms

6. How concerned are you about your diabetes?

0	1	2	3	4	5	6	7	8	9	10
Not at all concerned										Extremely concerned

7. How well do you feel you understand your diabetes?

0	1	2	3	4	5	6	7	8	9	10
Don’t understand at all										Understand very clearly

8. How much does your diabetes affect you emotionally? (e.g., does it make you angry, scared, upset, or depressed?)

0	1	2	3	4	5	6	7	8	9	10
Not at all affected emotionally										Extremely affected emotionally

Please list in rank-order the three most important factors that you believe caused your diabetes:

1._____
2._____
3._____

Appendix G. Brief Illness Perception (Spanish)

En las siguientes preguntas, por favor marque (diga) el número que mejor corresponde a su opinión acerca de la **diabetes**:

1. ¿Cuánto le afecta la diabetes su vida?

0	1	2	3	4	5	6	7	8	9	10
Ningún efecto en absoluto										Afecta gravemente mi vida

2. ¿Cuánto tiempo cree que su diabetes continuará?

0	1	2	3	4	5	6	7	8	9	10
Un poco tiempo										Para siempre

3. ¿Cuánto control tiene sobre la diabetes?

0	1	2	3	4	5	6	7	8	9	10
Ningun tipo de control										Mucho control

4. ¿Cuánto cree usted que su tratamiento puede ayudar a su diabetes?

0	1	2	3	4	5	6	7	8	9	10
Nada										Extremadamente

5. ¿Qué tanto sufre de síntomas de la diabetes?

0	1	2	3	4	5	6	7	8	9	10
Ningún síntoma en absoluto										Síntomas severos

6. ¿Qué tan preocupado/a está sobre la diabetes?

0	1	2	3	4	5	6	7	8	9	10
No me preocupa										Sumamente preocupada

7. ¿Que tanto se siente que entiende la diabetes?

0	1	2	3	4	5	6	7	8	9	10
No entiendo nada										Entiendo muy claramente

8. ¿Que tanto le afecta la diabetes emocionalmente? (e.g., se siente enojado/a, molesto/a o deprimido/a?)

0	1	2	3	4	5	6	7	8	9	10
No me afecta emocionalmente										Muy afectado/a emocionalmente

¿Cuales son los tres cosas más importantes que causa su diabetes?
1._____
2._____
3._____

Appendix H. Patient Health Questionnaire (English)

*Over the last **2 weeks**, how often have you been bothered by any of the following:*

	Not at all	**Several days**	**More than half the**	**Nearly every day**

			days	
	(0)	(1)	(2)	(3)
a. Little interest or pleasure in doing things?				
b. Feeling down, depressed, or hopeless?				
c. Trouble falling or staying asleep, or sleeping too much?				
d. Feeling tired or having little energy?				
e. Poor appetite or overeating?				
f. Feeling bad about yourself—or that you are a failure or have let yourself or your family down?				
g. Trouble concentrating on things, such as reading the newspaper or watching television?				
h. Moving or speaking so slowly that other people could have noticed? Or the opposite—being so fidgety or restless that you have been moving around a lot more than usual?				
i. Thoughts that you would be better off dead or of hurting yourself in some way?				

Clinician Scoring:

Does the person meet criteria for current major depression? *[If #a or b and five or more of #a-i are at least "More than half the days" (count #2i if present at all).]*

❑ no (0) ❑ yes (1)

Fill out corresponding severity. *[Total score for the nine items ranges from 0 to 27]*

Total Score: _____ *Severity:*_____

Score	Severity
0-4	None
5-9	Mild
10-14	Moderate
15-19	Moderately Severe
20-27	Severe

Appendix H. Patient Health Questionnaire (Spanish)

*¿Durante las últimas **dos semanas**, con que frecuencia le han molestado los siguientes problemas?*

	Nunca	**Varios dias**	**Mas de la mitad de los**	**Casi todos los**

			dias	**dias**
	(0)	(1)	(2)	(3)
a. Tener poco interés o placer en hacer las cosa				
b. Sentirse desanimado/a, deprimido/a o sin esperanza				
c. Tener problemas en dormirse o en mantenerse dormido/a, o en dormir demasiado				
d. Sentirse cansado/a o tener pocas energía				
e. Tener poco apetito o comer en exceso				
f. Sentirse mal de uno mismo – o pensar que es un fracaso, que decepcionaría a si mismo/a o su familia				
g. Tener dificultad para concentrarse en cosas tales como leer el periódico o mirar la televisión				
h. Se mueve o habla tan lentamente que otra gente se podría dar cuenta – o de lo contrario, esta tan agitada/o o inquieta/o que se mueve mucho mas de lo acostumbrado				
i. Se la han ocurrido pensamientos de que seria mejor estar muerta/o pensamiento de de hacerse daño de alguna manera				

Clinician Scoring:

Does the person meet criteria for current major depression? *[If #a or b and five or more of #a-i are at least "More than half the days" (count #2i if present at all).]*

❑ no (0) ❑ yes (1)

Fill out corresponding severity. *[Total score for the nine items ranges from 0 to 27]*

Total Score: _____ *Severity:*_____

Appendix I. Diabetes Fatalism Scale (English)

For each one of the items below, select one of the following:

1 Strongly disagree	**2** Moderately disagree	**3** Disagree	**4** Agree	**5** Moderately Agree	**6** Strongly Agree

____1. I get upset when I think about my diabetes
____2. I feel down when I think about my diabetes
____3. I get frustrated with having to live with diabetes
____4. Diabetes is a disease that makes life more difficult
____5. Diabetes causes a lot of suffering for me
____6. Trusting in God has helped me better deal with my diabetes
____7. I believe God does not give me more than I can bear
____8. I believe God can completely cure my diabetes
____9. I have prayed about my diabetes so I am not going to worry about it anymore
____10. I believe I am able to control my diabetes the way my doctor expects
____11. If I do everything my doctor tells me, I can prevent the complications of diabetes like blindness, amputations, kidney failure, impotence, etc.
____12. I believe that diabetes is controllable

Appendix I. Diabetes Fatalism Scale (Spanish)

Para cada uno, seleccione una de las siguientes:

1	**2**	**3**	**4**	**5**	**6**
muy en	moderadamente	desacuerdo	acuerdo	moderadamente	muy en

desacuerdo	en desacuerdo			en acuerdo	**acuerdo**

____1. Me enojo cuando pienso en mi diabetes
____2. Me siento mal cuando pienso acerca de mi diabetes
____3. Me siento frustrada por tener que vivir con la diabetes
____4. La diabetes es una enfermedad que hace la vida más difícil
____5. La diabetes me ha causado mucho sufrimiento
____6. Confió en que Dios me ha ayudado a manejar mejor mi diabetes
____7. Yo creo que Dios no me da más de lo que pueda soportar
____8. Yo creo que Dios puede curar la diabetes
____9. He rezado por mi diabetes, así que no voy a preocuparme más
____10. Creo que soy capaz de controlar mi diabetes de la forma en que mi doctor espera
____11. Si hago todo lo que mi médico me dice, puedo prevenir las complicaciones de diabetes como ser ciego, amputaciones, insuficiencia renal, impotencia, etc.
____12. Yo creo que la diabetes se puede controlar

Appendix J. Rationale scripts

It can be very common for people with diabetes to experience symptoms of depression. The good news is that different types of treatments exist to help with depression, including medication, therapy, or both. Today, I'll talk to you about three different types

of therapies for depression. I'll show you a picture, read a description, and ask you which you one your prefer.

Es muy común que las personas con diabetes también tengan síntomas de depresión. La buena noticia es que existen varios tratamientos para ayudar con la depresión, incluyendo medicamentos, terapia, o la combinación de los dos. Hoy día, voy a hablar con usted acerca de tres diferentes tipos de terapias para la depresión. Te voy a mostrar una imagen, leer una descripción, y le pediré su preferencia.

COGNITIVE

What we think can influence how we feel. Thoughts are sentences we tell ourselves. Some thoughts can make your mood worse while other thoughts can make your mood better. In this picture, the woman thinks to herself "what's the point of trying if I'm going to fail anyways" and in turn, this makes her feel disappointed and depressed. This type of therapy focuses on identifying unhelpful thoughts and challenging them. Learning to challenge unhelpful thoughts and using more helpful thoughts can help a person feel less depressed.

Lo que pensamos pueden influir cómo nos sentimos. Los pensamientos son frases que nos contamos. Algunos pensamientos pueden hacer que su estado de ánimo se empeore, mientras que otros pensamientos pueden hacer que su estado de ánimo se mejore. En esta imagen, la mujer piensa a sí misma "¿cuál es el punto de tratar de si voy a fracasar de todas maneras" y esto la hace sentir decepcionada y deprimida. Este tipo de terapia se enfoca en identificar los pensamientos negativos y aprender a como desafiarlos. Aprender a desafiar los pensamientos negativos y como usar pensamientos más útiles, le pueden ayudar a una persona sentirse menos deprimida/o.

BEHAVIORAL

What we do can influence how we feel. Behaviors are things that we do like activities. Some activities can make your mood better and others can make your mood worse. In this picture, the woman stays in bed all day (or watches TV all day) and misses all of her appointments. Later she realizes she has done nothing with her day, which makes her feel disappointed at herself and depressed. This type of therapy focuses on increasing pleasurable and meaningful activities. Increasing the number and quality of daily activities can help a person feel less depressed.

Lo que hacemos puede influir cómo nos sentimos. Los comportamientos son cosas que hacemos como actividades. Algunas actividades puede hacer que su estado de animo se empeore, mientras que otras actividades pueden hacer que su estado se mejore. En esta imagen, la mujer permanece en cama todo el día (o ve la televisión

todo el día). Más tarde se da cuenta de que no ha hecho nada con su día, lo que le la hace sentirse decepcionada y deprimida. Este tipo de terapia se enfoca en aumentar actividades placenteras y significantes. Aumentar el número y la calidad de las actividades diarias puede ayudar a una persona sentirse menos deprimida/o.

INTERPERSONAL

Relationships, or lack of relationships, can influence how we feel. When changes in our relationships occur (e.g., the death of a loved one, disputes with others), people can respond with changes in their mood. In this picture, a lack of family support makes the man feel lonely and depressed. This therapy focuses on understanding and improving interactions with others to feel less depressed. Learning about relationship changes can help a person feel less depressed.

Las relaciones que tenemos, a la falta de relaciones, puede influir cómo nos sentimos. Cuando se producen cambios en nuestras relaciones (por ejemplo, la muerte de un ser querido, conflictos con los demás), uno puede responder con cambios en su estado de ánimo. En esta imagen, la falta de apoyo familiar hace que el hombre se siente solo y deprimido. Esta terapia se centra en comprender y mejorar la interacción con los demás para sentirse menos deprimido. Aprender acerca de las relaciones y cambios en las relaciones con otros, puede ayudar a una persona sentirse menos deprimido/a.

Appendix K: Cogntive therapy visual (English)

Description 1: Cognitive Therapy

.

I have a serious health problem and there's nothing I can do about it

DEPRE

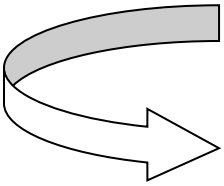
Appendix K: Cogntive therapy visual (Spanish)

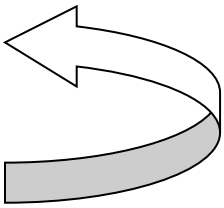
Description 1: Cognitive Therapy

Appendix L: Behavioral therapy visual (English)

Description 2: Behavioral Therapy

Staying in bed all day and missing your

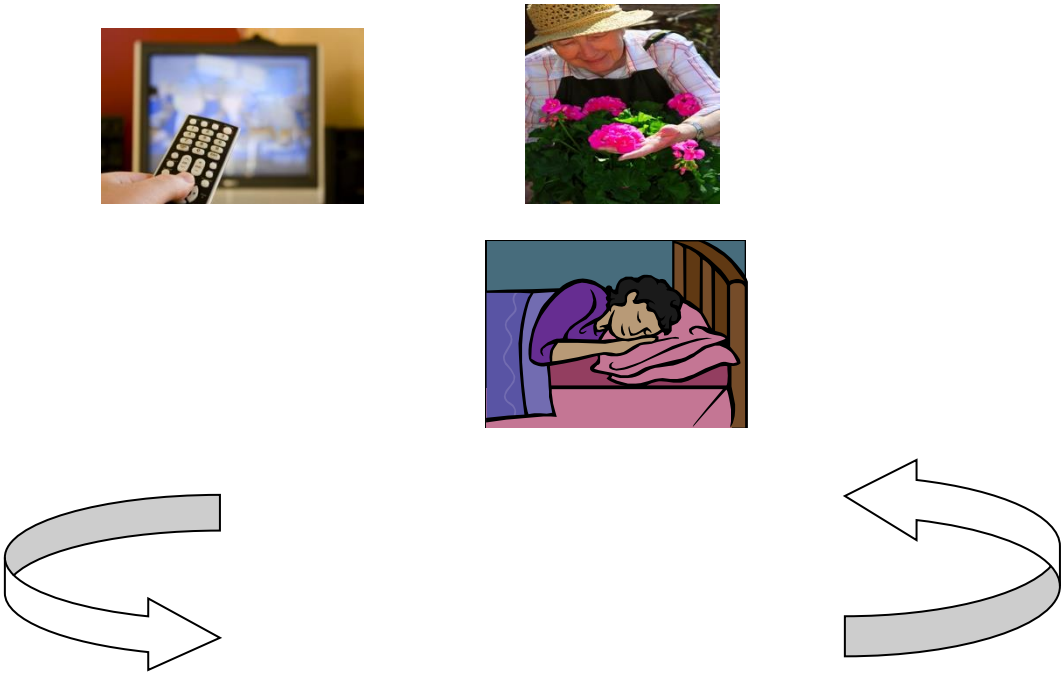




Appendix L: Behavioral therapy visual (Spanish)

Description 2: Behavioral Therapy

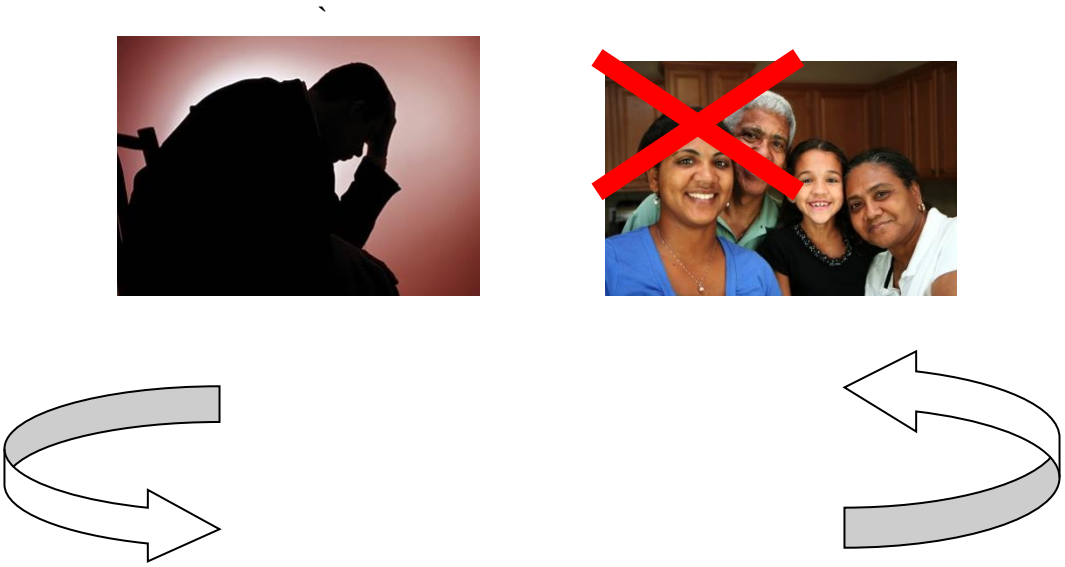
Permanecer en cama todo el día y faltan



Appendix M: Interpersonal therapy visual (English)

Description 3: Interpersonal Therapy

Isolation

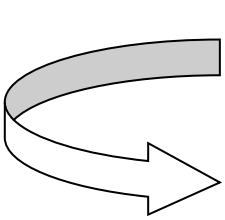


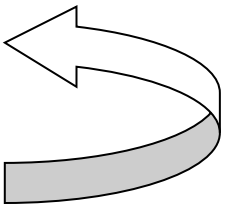
DEPRE

Appendix M: Interpersonal therapy visual (Spanish)

Description 3: Interpersonal Therapy

aislamiento





DEPRE

Appendix N: Treatment credibility (modified)

SPANISH

Randomization order: _____

COGNITIVE

1. ¿Que piensa de este tipo de terapia?

_____

_____

_____

_____

2. ¿Que tan lógico (razonable) se le hace esta terapia?
Nada Algo Mucho

3. ¿Que tan segura/o estaría en recomendar este tipo de terapia a un amigo/a que padece de depresión?
Ninguna seguridad Algo de seguridad Muy seguro/a

4. ¿Que tan segura/o estaría usted en tratar este tipo de terapia?
Ninguna seguridad Algo de seguridad Muy seguro/a

BEHAVIORAL
1. ¿Que piensa de este tipo de terapia?
_____
_____
_____
_____

2. ¿Que tan lógico (razonable) se le hace esta terapia?
Nada Algo Mucho

3. ¿Que tan segura/o estaría en recomendar este tipo de terapia a un amigo/a que padece de depresión?
Ninguna seguridad Algo de seguridad Muy seguro/a

4. ¿Que tan segura/o estaría usted en tratar este tipo de terapia?
Ninguna seguridad Algo de seguridad Muy seguro/a

INTERPERSONAL
1. ¿Que piensa de este tipo de terapia?
_____
_____
_____
_____

2. ¿Que tan lógico (razonable) se le hace esta terapia?
Nada Algo Mucho

3. ¿Que tan segura/o estaría en recomendar este tipo de terapia a un amigo/a que padece de depresión?
Ninguna seguridad Algo de seguridad Muy seguro/a

4. ¿Que tan segura/o estaría usted en tratar este tipo de terapia?
Ninguna seguridad Algo de seguridad Muy seguro/a

ENGLISH
Randomization order: _____

COGNITIVE
1. What do you think of this therapy?
_____
_____
_____
_____

2. How logical does this therapy sound?
Not at all Somewhat
Very Much

3. How confident would you be in recommending this therapy to a friend who suffers from depression?
Not at all confident Somewhat confident
Very confident

4. How confident would you be in trying this type of therapy? Q
Not at all confident Somewhat confident
Very confident

BEHAVIORAL
1. What do you think of this therapy?
_____
_____
_____
_____

2. How logical does this therapy sound?
Not at all Somewhat
Very Much

3. How confident would you be in recommending this therapy to a friend who suffers from depression?
Not at all confident Somewhat confident

Very confident

4. How confident would you be in trying this type of therapy? Q
Not at all confident Somewhat confident
Very confident

INTERPERSONAL
1. What do you think of this therapy?
_____
_____
_____
_____

2. How logical does this therapy sound?
Not at all Somewhat
Very Much

3. How confident would you be in recommending this therapy to a friend who suffers from depression?
Not at all confident Somewhat confident
Very confident

4. How confident would you be in trying this type of therapy? Q
Not at all confident Somewhat confident
Very confident

Appendix O: Qualittative responses

INTERPERSONAL THERAPY

Question- What do you think of this therapy?

Participant 11 (male, 47)

Si sería muy importante y necesario para muchas de las personas, mas cuando fallese un ser querido, le ayudaría bastante a relacionarse y volver a salir del hoyo que ha quedado.

Yes, it would be very important and necessary for many people, but when a loved one passes away, it would help a lot to relate to someone else and to be able to get out of the hole that is on is left in

Participant 14 (female, 30)

Me gusta que trabajen con eso, los pensamientos, no solamente en lo que hiciste sino también en lo que piensas.

I like to work with that, the thoughts, not only what you did but also what you think.

Participant 16 (male, 59)

No. Nada.

No, nothing.

Participant 17 (female, 47)

Mucho, me gusta entender.

A lot, I like to learn.

Participant 18 (female, 54)

Pues sí, estaría de acuerdo que esta terapia seria buena.

Yes, I would agree that this would be a good therapy.

Participant 19 (female, 34)

Si, porque yo a veces tengo muchos problemas en mi casa, con mi familia, y es cuando me trata de dar un poquito de depresión.

Yes, because I sometimes I have many problems in my house with my family, and that's when I start to get a little bit of depression.

Participant 20 (female, 26) –English speaker

It will be very helpful, but then I can see maybe, like a person being like attached to certain people, then just if something does come up, they wouldn't be there at the time they necessarily needed them. I like it less.

Participant 22 (male, 38) – English speaker

I think the idea is great. The thing is, I personally have relationships where I don't get along with people, or with family members, and it contributes to my depression. Well, I've never had a girlfriend, and wished I had done, you know, and would work on my relationships, stuff like that.

If I don't get along with certain family members, it contributes to my depression because I feel alone. I feel alone also because I don't have a girlfriend and I've never had one, so you know, it's… (pause)… I just feel that not getting along with people, or not getting a girlfriend leads to my depression. It all accumulates, and you think about it and think about it and it gets you depressed.

Participant 23 (female, 43)

Osea que por ejemplo, cuando nosotros nos sentimos deprimadas, pues tratamos de platicar, y sacar nuestros problemas y encontra una solución. Y ya nos sentimos menos deprimida, mira, porque ella me hablo. O simplemente ponte a pensar y vente a la iglesia, y pues me esta dando un buen consejo.

I mean, for example, when we feel depressed, well we try to talk and find a solution. And we start to feel less depressed, because look she talked to me. Or just get to thinking and come to church, and so she's giving me good advice.

Participant 24 (female, 62),

No digo que uno debe aislarle, al contrario tratar estar lo más posible relacionado con personas positivas.

I'm not saying that one should isolate, in the contrary they should try to as much as possible to surround themselves with positive people.

Participant 25 (female, 42)

Si porque si estamos todos juntos, se nos olvida un ratito los problemas que tenemos.

Yes, because if we are all together, we forget for a while the problems we have.

Participant 26 (female, 22)

Como yo por ejemplo, hace un año, yo todavía no vivía aquí en Lincoln pero me fui a Texas, y nadamas yo sola. Mi hermana se quedo aquí, y yo siempre he sido muy apegada con mi hermana. Pues es la única hermana que tengo, ella me lleva por 12 años , ella me cuido realmente desde que naci. Yo me sentía bien deprimida porque en eso me di cuenta que yo estaba embarazada. Y yo lloraba. Siempre me la pasaba llorando, encerrada nomas quería estar y pues mi novio miraba eso y decía "yo voy hacer la lucha en llevarte, vamos a ver que nos vamos a ir." Y como él me dijo si nos vamos a ir, me sentía bien bonito porque otra vez iba ver mi hermana y mis sobrinos. Y hace un año que volví a regresar aqui, y soy mas a gusto aquí. Aunque a veces nos peleamos, pero siempre estamos juntas. Me regaña, la regaño, pero siempre estamos juntas. Estar con ella es todo, pues es mi familia.

Like me for example, a year ago, I didn't live here in Lincoln but I went to Texas, just by myself. My sister stayed here, and I've always been very attached to my sister. Well, she is the only sister I have; she is 12 years older, and she took care of me since birth. I felt rather depressed because then I realized that I was pregnant. And I wept. I always was crying, I just wanted to stay indoors . My boyfriend saw this and said "I'm gonna fight hard to take you, you'll see that we'll go." And since he told me we were going to leave, I felt well nice because I would again see my sister and my nephews. I returned over a year ago, and I'm more comfortable here. Though sometimes we fight, but we're always together. She scolds me, I scold her, but we are always together. Being with her is everything, well, she is my family.

Participant 27 (female, 48)

Se me hace que es mas importante la familia, o tener una pareja contigo, que tener una actividad, te ayudara un poco la actividad y tener intercambio en tu forma de pensar, pero la prinicpial que te ayudaría, yo pienso, es la familia o tener una relación con alguien. Yo pienso que te ayudaría mas a salir de tu depresión.

I find that family is more important, or having a partner with you, rather than having an activity. Activities and having a dialogue about your thinking may help a little, but for the most part what would help, I think , is family or having a relationship with someone. I think that would help you more to get out your depression.

Participant 28 (male, 56)

Si puede, esta ultima puede influir las relaciones personales para hacer cambio en el estado de ánimo. Porque eso ayuda mucho para el apoyo psicológico, el estado de ánimo. Ósea te cuento porque mis padres murieron el mismo mes, pero con diferente día, con una diferencia de 13 días. Y eso me afecto a mi muchísimo. Pero la unión entre la familia me ayudo. Ósea yo me considero que fui un muy buen hijo, eso me ayudo mucho a recuperar como estar deprimo por la falta de ellos. Porque estána muy ligado a ellos, y siempre vivía pendiente de ellos. Pero el hecho de haber sido un buen hijo y estar cerca de ellos, que siempre le ayude cuando necesitaban, aunque ellos no me pidieran pero yo estaba pendiente de ellos. Entonces esa unidad entre familia ayuda bastante.

If possible, this last one can influence personal relationships to make mood changes. Because that helps a lot with the psychological support, the mood state. Well, I tell you because my parents died the same month, 13 days appart. That affected me greatly. But the bond between the family helped. Well, I think that was a very good son, and that helped me to recover from being depressed by the lack of them. I was very closely linked to them, and I always helped them with what they needed, even though they never asked me for anything, I was always aware of their needs. And so that unity between family helps a lot.

COGNITIVE THERAPY

Participant 11 (male, 47)

Pienso que es una persona negativa y que no va progresar, ya sea cualquiera problema que tenga, ya sea enfermedad, se le va hacer demasiado para esa persona. Son personas que no van a pasar de ser una persona mas, nadie importante.

I think that it's negative person that is not going to move forward, whether it be any problem you have, whether disease, it's going to be too much for that person. They are people who are not going to be much, no one important.

Participant 14 (female, 30)

Me gusta que trabajen con eso, los pensamientos, no solamente en lo que hiciste sino también en lo que piensas.

I like that they work with that, the thoughts. Not only en what you did but also in what you think.

Participant 16 (male, 59)

Los pensamientos vienen a veces vienen por la presión según el momento, la situación que se encuentra usted y el problema que traiga. Cuando uno no tiene un problema, todo es normal, todo trabaja igual. La mente está libre. Pero cuando hay una preocupación, que un hijo, un padre, o alguien se le enfermo, entonces se le viene a la cabeza todo eso y empieza a reaccionar de otra forma. Como esta decaído o estar pensando "que hago que hago." Pero pues después ya llega la normalidad o soluciona, porque al momento que sucede el problema, se le sube uno a adrenalina. Pero tiende uno a desesperase, hacer cosas alomejor arrebatar la mente, como no debe de hacerlas. Uno pierde la cordura o no sé. Se descontrola al paso del tiempo, pero el tiempo es el mejor doctor. Sanas las heridas y vuelve a la normalidad.

Thoughts come sometimes because of the pressure at the time, the situation in which one Is in and the problem that it brings. When you do not have a problem, everything is normal, everything works well. The mind is free. But when there is a concern, whether it's a child, a parent, or someone is ill, then everything comes to the head and one starts to react differently. Like you start to feel down or be thinking "what do I do, what do I do?" But then later one arrives to a moment of normalcy o solution, because at the moment when problems happen your adrenaline goes up. But one tends to despair, doing things that may seize the mind, which you shouldn't do. You lose your sanity or something. One losses control over time, but time is the best doctor. Time heals wounds and one returns to normalcy.

Participant 17 (female, 47)

Me gusta, tu terapia es muy diferente a otras terapias que he tenido. Es bueno, porque se te desahoga. Esta me gusta, pero tal vez no entiendo mucho abiertamente porque es la primera vez. El dialogo es muy importante.

I like it, your therapy is very different to other therapies I've had. It's good because you vent. This one I like, but perhaps I didn't understand it because it's the first time. To talk about it is very important.

Participant 18 (female, 54)

Participant: Pues este, como dijiste tu si son pensamiento negativo, no me gustaría la terapia, de estar pensando en lo positivo sería mejor, Como aquí dice aquí "soy una carga para mi familia" pues si me pongo a pensar eso me voy a deprimir mas. No estoy entendiendo muy bien la terapia. Si son mis pensamientos, es venir a hablar con alguien para cambiar esos pensamientos negativo?

Participant: Well , like you said these are negative thoughts, I wouldn't like the therapy. To be thinking about positive thoughts would be better. As it says here says here "I am a burden on my family" well if I start to think this I'm going get more depressed. I'm not very well understanding the therapy. If they are my thoughts, is it [therapy] coming to talk to someone about how to change those negative thoughts?

Therapist: Exacto

Therapist: Exactly

Participant: Ah, ándale ahora si lo entendí. Pues sí, estoy de acuerdo entonces en la terapia.

Participant: Ah, ok now I understood. Well yes, I'm in agreement with this therapy.

Participant 19 (female, 34)

Sí, porque puede cambiarlos.

Yes because they [thoughts] can be changed.

Participant 20 (female, 26) – English speaker

That would be something helpful. It would probably take more time, cause a person has spent so much time thinking negative thoughts that they convince themselves that they are not worth anything, so it's gonna take a while to restore back their confidence to change those thoughts.

Participant 22 (male, 38) – English speaker

I agree with it too, I have a serious health problem, but I don't feel like I am a burden to my family. For a while there I did, 'cause I had trouble getting on my socks and my shoes, but now I have a sock aid, and I can do it all by myself. So, it's just like if I lost weight I wouldn't have to have that sock aid. I don't feel like I'm a burden to my family but I have a serious health problem.

Very reasonable [in response to asking how reasonable the therapy is], because of that serious health problem I have, I do get depressed. Because I'm like, man I have diabetes, I wish I were this and that.

Therapist: How do you cope with those thoughts?

Usually blow it off, or just think of something different. I try to channel my depression into something different. Why waste my time dwelling on my depression? Thats one thing I've developed on my own, why dwell on my depression, because it's just gonna get you down and down.

Participant 23 (female, 43)

Ósea que uno mismo se pregunta. Cuando esta uno pensando negativamente, y desecha lo negativo, dice "no tengo que pensar positivo para salir adelante."

Well, one asks oneself that, when thinking negatively, to discards the negative, one says "no, I have to think positive to succeed."

Participant 24 (female, 62)

Si, mayormente si la gente tiene fe, tiene fe en que todo va a salir bien. Y por ejemplo a veces uno tiene pensamientos negativos, y dice uno "no no no, quítame esto". Primeramente se agarra uno del Señor, verdad, si es gente de fe, se agarra uno de Él, y le pide uno al Señor, "quítame estos pensamientos y me pongo en tus manos y que sea tu santa voluntad."

Yes, mostly if people have faith, they have faith that everything will be okay. And for example, sometimes you have such negative thoughts, and one says " no no no, take away this."First, one grabs onto the Lord, really, if they are people of faith. One grabs onto Him, and asks the Lord, "take away these thoughts, I am in your hands, let it be your holy will."

Participant 26 (female, 22)

Pues es cierto porque yo a veces me pongo a pensar, o a recordad más que nada, como cuando estaba en México. Y me pongo muy triste, siempre, siempre, me pongo muy triste, y a veces me pongo a llorar. Porque extraño mucho a mi papa, porque mi papa vive alla. Pero ahorita gracias a Dios, tengo la esperanza que el ya arreglo sus papeles para venir. Y me pongo a pensar también, no pues, el ya tiene sus papeles y va a venir pronto. Acaba de venir en diciembre y ahorita va a volver en Mayo.

Lloro por él, porque él está enfermo, tiene el colesterol alto y la presión. Pero yo le digo yo, le trato de decir. Fíjate, yo en el aplique eso de los pensamientos, Pa pero no pienses mal, piensa bien, vas a ver que todo se va a solucionar. Trata de cambiar tu dieta, le digo, no muchas tortillas, no comas mucho pan, trata de comer mas verduras.

It's true for me sometimes cause I start to thinking, or remember more than anything, the time I was in Mexico. And I get very sad, always, always, I get very sad, and sometimes I get to crying. Because I miss my dad very much, because my dad lives there. But right now, thanks to God, I have hope that he'll fix his papers to come. And I start thinking too, wait a section, he is has his papers and will be coming soon. He just came in December and will return in back in May.

I cry for him because he is sick, he has high cholesterol and blood pressure. But I try to tell him, see, I apply to him the thing about thoughts. I tell him, Pa don't think bad, thing good, you'll see that everything will work out. Try to change your diet, I tell him, not too many tortillas, do not eat a lot of bread, try eating more vegetables.

Participant 27 (female, 48)

Si, te puede ayudar tratarlo con otra persona, cuáles son tus ideas, cuáles son tus pensamientos, te puede ayudar, como intercambiar pensamientos.

Yes, it can help you to talk with someone else, what are you ideas, what are your thoughts, how to exchange thoughts.

Participant 28 (male, 56)

Porque en esto da uno a conocer la parte negativa y positiva en los momentos en que uno se siente deprimido.

Because this allows one to learn about the negative and positive in the moments when one feels depressed.

Participant 31 (female, 40)

Yo no pienso darle mucho lugar a eso. Yo pienso pidiéndole a Dios. Prefiera que no sepa nadie lo que siento. Yo le pido mas a Dios que me ayude. Prefiero platicar con Dios que con la gente. Hay veces que las personas me van a decir otras cosas, puede ser que me siente mas mal.

I don't give that to much of an importance. I think asking God. I would prefer that no one know what I feel. I ask God to help me. I'd rather talk with God than with people. Sometimes people will tell me other things, and that could cause me to feel worse.

Participant 32 (male, 57)

A veces pensaba mucho, pero ya no. Lo que me da, estar alegre y olvidad cosas malas y eso es lo que hago yo siempre.

Sometimes I used to think a lot, but not anymore. What I do get, is to be happy and forget bad things and that's what I always do.

BEHAVIORAL THERAPY

Participant 11 (male, 47)

Si es importante esta porque le ayuda siempre estar ser activo, y sobre todo hacer ejercicio y se le pasa mas rápido el tiempo.

Yes this is important because it helps you to always be active, and especially to do exercise, and and time passes by more quickly.

Participant 14 (female, 30)

Me gusta que la terapia, ayuda para que no este en la cama, que no este viendo solamente la televisión. Al contrario que busque actividades que la hagan sentirle mejor.

I like that the therapy, it helps so you don't stay in bed, so you're not always watching television. In the contrary, to find activities that will make one feel better.

Participant 16 (male, 59)

Pues, si me gusta aumentar las actividades.

Well, yes I like to increase my activities.

Participant 17 (female, 47)

Me gusta porque me estas enseñando los enfoques para que no me pase, para que no lo haga. No puede ser que pases todo el día viendo televisión. No porque seas diabética, vas a parar en el día por cualquier cosita, no. Te digo que me gusta y se me hace importante.

I like it because you're teaching me what to focus on, what not to do. It can't be that one would spend all day watching television. Just because you're diabetic doesn't meant you're gonna stop in the middle of the day for whatever little thing, no. I tell you that I like it [therapy] and relevant.

Participant 18 (female, 54)

Platicar sobre las actividades que a las cuales que uno le dedica mas tiempo y se olvida de las demás. Pues la vida se compone de muchas actividades y a veces hay gente que, nos enfocamos nada mas sola en una. No sé si eso será por la misma depresión, porque como nunca he estado deprimida, o alomjeor te dijo he estado ni cuenta me he dado.

Discuss the activities to which one devotes more time and one forget the rest. Weel, life consists of many activities and sometimes there are people who, focus on only one activity. I do not know if that's because of depression, because I've never been depressed, or maybe I have but haven't been aware of it.

Participant 19 (female, 34)

Yo pienso que está bien. A mí me gustaría dejar de ver la televisión, porque si la tengo todo el día prendida, pero no la veo todo el día. No mas la tengo prendida, y como ando limpiando la casa, o atendiendo a los niños. No mas lo que me gusta es tenerla prendida y estarla oyendo. Mientras me pongo hacer las cosas que tengo que hace.

Yo pienso que tiene que ver, como, si uno se la pasa nomas acostado o ver la televisión, no ve los cambio en uno mismo. Uno tiene que cambiar todo esto… porque para estar solo viendo televisión or estar en la cama, te provoca uno depression.

I think that's fine. I'd like to stop watching television. I do have it turned on all day, but do not see it all day. I just have it turned on, as I'm cleaning the house or taking care of children. I just like to have it on and listen to it as I start doing things I have to do.

Like if someone only passes time in bed or watching television, one doesn't see the changes that occur within oneself. You have to change all that ... because to be just watching TV or lying in bed, provokes depression.

Participante 20 (female, 26) – English speaker

I think, cause you mentioned, other people helping you, close relationships. I mean this one will be good, cause those are activities you can always do, instead of not really,versus the other one , not necessarily depending on another person. You know, sometimes that person will not always be there for you. Something can come up and they may not be able to talk to you. So if you have other activities, you can focus more on that, I think.

Participant 22 (male, 38) – English speaker

> *I think, you know, that hits home because, like yesterday, I didn't work out, and I felt like a bumm 'cause I wasn't working out and felt depressed. I wished I could of gone to the gym, talked to my friends, and just worked out. I slept until 11 and normally I'm up.*

Participant 23 (female, 43)

> *Si pues aquí estamos viendo que la falta de actividad, es lo que nos haría sentir mal porque no estamos haciendo nada. En cambio si decidimos hacer algo, ir a la iglesia, arreglando el jardín, hacer cosas es positivo para nosotros. El ejercicio es importante.*
>
> *Well here we see the lack of activity, that's what would make us feel bad because we are doing nothing. But if we decide to do something, go to church, fix the garden, doing things is good for us. Exercise is important.*

Participant 24 (female, 62)

> *O mantenerse uno ocupada para no estar pensando pensamientos negativos*
>
> *Or to keep busy to not be thinking negative thoughts.*

Participant 25 (female, 42)

> *Pensar, que es lo que puedo hacer y qué voy a hacer. Y se siente uno bien porque piensa mira, no lo pensaba hacer y lo hice.*
>
> *To think, what I can do and what will I do. And one feels good because you think, I didn't intended to do it but I did.*

Participant 26 (female, 22)

> *Yo pienso que es una buena opción, por ejemplo ir al parque, a mi me gusta mucho ir al parque. Llevar al niño a ir a caminar. Y yo cuando me pienso a sentir deprimida, que estoy aquí en la casa, yo me salgo. Yo casi no estado bien, bien, deprimida, y yo solita lo controlo. Me salgo, si tengo el carro, me voy a la tienda, si no me voy a caminar*
>
> *I think it is a good choice, for example go to the park, I really like going to the park. Take my s child to go walking. And I when I begin to feel depressed, when*

I'm here at home, I go out. I hardly been very depressed; I alone control it. I go out, if I have the car, I go to the store, if not I got for a walk.

Participant 27 (female, 48)

Yo cuando estoy en mi depresión, si me la paso todo el día acostada, supuestamente viendo la tele, pero no estoy poniendo atención, y ya mas tarde digo porque estoy acostada? Aqui mismo me pongo hacer ejercicio un rato y ya se me olvida un poco de esa depresión.

When I'm in my depression, if I spend all day in bed, supposedly watching TV, but I'm not really paying attention. Later I say to myself, why I am I lying here in bed? Right here I start doing exercise for a while and then I forget some of that depression

Participant 28 (male, 56)

Si,las actividades son importantes para mejorar el estado de ánimo.

Yes, activities are important to improve one's mood.

Participant 31 (female, 40)

Eso de ver tele, explicarle a él, porque el (esposo) ve mucha tele. Yo de tanto ver tele me desespero. Yo a veces me preocupo a veces porque mira mucho, porque todo el santo día quiere ver futbol.

That about watching television, explain that to him, because he (husband) watches a lot TV. I get anxious from watching too much television. Sometimes I worry because he watches too much, because every single day he wants to watch soccer.

Participant 32 (male, 57)

A veces yo me siento bien, y la gente me mira muy serio,, y yo soy así. A veces cuando voy a hablar con cualquiera, siempre estoy haciéndole una bromita para que no me miren, que yo estoy, y yo soy así. Mucha gente me dicen, tú has cambiado, tú antes eras diferente, así es la vida, el problema es que a veces no tengo mucho tiempo para hablar con gente, tengo un hermano que llega allí, llega a la casa, y se pone hablar y habla y habla, y lo que hago yo le doy la vuelta, entonces él se enoja conmigo. Yo le digo que tú tienes que comprender que yo estoy muy cansando, y yo quiero relajarme, descansar la mente.

Sometimes I feel good, and people view me very seriously, and that's how I am. Sometimes when I go to talk to anyone, I'm always making a little joke so they don't look at me that I am, [being serious] but that's how I am. Many people tell me, you've changed, you were different before. That's life. The problem is that sometimes I have little time to talk to people, I have a brother who gets home, and starts talking and talking, , and what I do is I ignore him, and then he gets mad at me. I tell him, you have to understand that I'm very tired, and I want to relax, rest my mind.

ADDITIONAL COMMENTS

Participant 11 (male, 47)

Yo pienso que en la cultura de los hispanos, muchos no hablamos de la relación intima o relación sexual. Yo me he fijado que si me ha bajado el apetito sexual. Y esas preguntas, no sé si el hispano contesta honestamente por el tabú que traemos. Pero si sería importante incluir esas preguntas, que tanto le ha bajado. Porque yo si me he fijado que cuando fui con el doctor, le pedí me puede dar algo, y me dijo no, te puede afectar los medicamentos y nomas sigue hacer ejercicio y sigue tomado los medicamentos que tenía yo. Pero si me gustaría que nos ayudarían un poquito más en el sentido de la relación sexual con la pareja que tiene cada uno de nosotros.

I think that in the culture of Hispanics, many do not talk about their intimate relationship or sexual relationship. I've noticed that my libido has decreased. And those questions, I don't know if the Hispanic male would answer honestly because of the tabu that it brings. But it would be important to include these questions, how much has it decreased [libido]. I noticed that when I went to the doctor, I asked him if he could give me something. He told me, it could affect your medications and just keep doing exercise and take the medication I was already taking. But I would like that they could help us a little more regarding our sexual relationship.

Therapist: Como se puede preguntar ese tipo de pregunta?

La persona que va hacer la pregunta, necesita poner al que le va a preguntar, que se sienta en confianza así como lo estás haciendo, y el hispano te vea a ti como una persona y no como una mujer o un hambre si fuera, sino alguien que está tratando de ayudarnos a nosotros. Lo mas importante es ponerle la confianza a esa persona, la que vas a entrevistar, que se sienta cómoda y pueda responder lo mas honestamente posible. Porque casi todos cuando tocamos ese tema, cuando yo he platicado con otros hispanos, reúnen ese tema y no son tan abiertos y cambian ese tema . Entonces en ese sentido, si me he fijado yo, en lo personal, no he sentido mucho apoyo o información en esa área.

Yo te lo estoy diciendo porque como mi papa tuvo diabetes, me toco cuando el empezó con el diabetes, y en todos años que tuve con él, agarre mucha información porque yo iba con el al doctor, y yo me fije que nunca se hablo es tema. Y ahora que yo tengo diabetes, sigue el mismo punto. No se habla, no se comenta sabiendo que puede hacer cualquiera otra cosa normal.

The person who is going to be asking the questions, they need to make the interviewee feel comfortable, like you're doing, and the Hospanic person will see you like a person and not a like a woman or man if that's the case, but rather someone that is trying to help us. The most important thing is to put trust in that person, that they feel comfortable and can respond as honestly as possible. Because almost everyone when we talk about about that subject, when I've talked to other Hispanics, they are not very open about it and change the subject. And so in that sense, I've noticed from personal experience, I haven't felt much support or information in that area.

I'm telling you this because as my dad had diabetes, I obtained a lot of information from the doctor when he started with diabetes in all years I was with him. I noticed that he [the doctor] never talked about the subject. An now that I have diabetes, it's the same thing. It doesn't get talked about, it isn't discussed knowing that it could be any other normal thing.

Participant 13 (female, 64)

La diabetes es una enfermedad que no se cura, y hay que estar en tratamiento toda la vida.Al menos a mí, me a llegado la depression pero por otras cosas. La diabetes nunca me a llevado a la depression.

Diabetes is a disease that is not curable, and you have to be in treatment for life. At least to me, I've had depression but for other things. Having diabetes has never led me to depression.

Participant 12 (female, 41)

Yo digo que muchas veces la gente se deprime por otros problemas. La diabetes no es un problema tan grande que no tiene solución. Hasta los doctores dicen que cuidándose y sabiendo llevar una alimentación, uno puede salir adelante. Muchas personas se enfocan en otras situaciones de la vida, y por eso muchas se deprimen. Nomas la diabetes complica la situación.

I say many times people get depressed sometimes by other problems. Diabetes is not that big of a problem that doesn't have a solution. Even the doctors say that by taking care of yourself and having a healthy diet, one can move forward. Many

people focus on other life situations, and that is why many get depressed. Diabetes just complicates the situation.

Participant 14 (female, 30)

Ya me estoy desanimando porque cuando estaba embarazada yo la controlaba la diabetes muy bien y ahora no puedo controlarla. Se me hace mas difícil y se me está saliendo alta y yo digo, porque no puedo? Si podía, porque ahora hoy no estoy pudiendo?

Now I'm discouraged because when I was pregnant, I used to controll my diabetes very well and now I cannot control it. It's getting harder and [gluclose levels] are high and I say to myself, why can't I ? If I could then, why can't I now?

Participant 16 (male, 59) and 15 (female, 55)

Participant 16 (male, 34): *Es bonito entender y aprender, cuando uno no entiende o lo medio entiende, o trata de entender pero se le dificulta, entonces necesita uno platicarlo con otras gentes que estén mas preparado y le estén dando un orientación a uno y entonces ya tiene idea de lo que estamos hablando.*

Participant 16 (male, 59): *It's nice to understand and learn, when one does not understand or kinda understand, or tries to understand but has difficulty, then you need one discuss it with other people who are more prepared (schooled) and they can be give guidance to one, and so then you have a better idea what we're talking about.*

Therapist: *Y usted, que piensa? And what do you think?*

Participant 15 (female, 55): *Se me hace mas fácil.*

Participant 15 (female, 55): *It's hard for me.*

Therapist: *Hay algo mas que debería saber? Is there somthing else I should know?*

Participant 16 (male, 59): *Pues no, todo está bien.*

Participant 16 (male, 59): *Well, no everything is ok.*

Therapist: Estábamos de hablando de cómo mejorar las preguntas. We were talking about how to improve the questions.

Participant *16 (male, 59): Yo pienso que para entender mas estas terapias, la mayoría de los pacientes somos adultos con poco estudio o poco conocimiento de palabras, o no entender muy las palabras porque no son muy usadas, no tiene la capacidad de tener un vocabulario mas avanzado. Pienso que, no se, si puede usar palabras mas entendibles para uno que es adulto. Si uno tuviese el estudio (medio, secundario, bachillero) tendria facilidad mas de palabra y entender mas lo que estando diciendo a uno.*

I think that to understand more these therapies, most of us patients are adults with little study or little knowledge of words, or we don't quite understand the words because they are not widely used. One doesn't have the ability to have a more advanced vocabulary. I think if you can use words that area easier to understand for one. If one had the study (middle school, high school) it would be easier to understand what is being said.

Therapist: *Entonces incluir palabras que son mas común? So include words that are more common?*

Participant 16 (male, 59): *Exactamente, mas común porque hay unas palabras que son nuevas para uno y tarda uno para procesar lo que le quieran dar de entender. Uno que ya es adulto no tiene la capacidad, la mente no está muy abierta en palabras mas modernas. En la medicinas se usan palabras mas sofisticadas.*

Si pienso que hay otras personas que no entienden. Yo trato de entender, pero hay gente. Uno se conoce todo la gente, y uno mismo piensa " a este hombre todavía le falta conocer mas". Como le digiera, esta menos vivido en este mundo, como vienen de provincias, mas remotas donde no hay estudio o muy poco conocimiento. Como ella (points to wife) estudio 3rd año.

Exactly, more common because there are some words that are new tl me and it takes a while to process what you're trying to say. Someone who is an adult and doesn't have the capacity, the mind is not very open to modern words. Medicine uses more sophisticated words.

I do think that there are other people who do not understand. I try to understand, but there are people. One knows other people, and you think to yourself "this man has yet to learn more." How can I say, they are less experienced in this world, as they come from the provinces, remote places where there is little education o very little knowledge. Like she (points to wife) studied only to 3rd grade.

Participant 17 (female, 47)

Therapist: *Como le afecto la diabetes emocionalmente? How does diabetes affect you emotionally?*

Participant 17 (female, 47): *Como yo estaba con la perdida de mis padres, estaba yo moralmente baja de ánimo. Me afecto, me afecto mucho, pero con el paso del tiempo, que se empezaron a componer los problemas, tuve que visualizar mejor la situación. Porque dije, esto no me tiene que afectar. Es una enfermedad, para siempre sí, pero no me tiene por qué afectar porque tengo que aprender a vivir con ella. Es como un compañero/campanera, que va estar allí, no la veo pero la siente. Si quiero vivir bien, tengo que ayudarme a mi misma controlarla. Puede estar con migo sí, pero tengo que hace el control para que no me afecte, para que no me este lastimando tanto. Aun así, lastima, pero uno siempre tiene que tener en la cabeza positivamente y no negativamente.*

As I was dealing with the loss of my parents, I was in a low mood. It affected me, it affected me a lot, but over time, when the problems started to fix themselves, I had to visualize the situation better. Because I said, this does not have to affect me. It is a disease, forever yes, but it does not have to affect me because I have to learn to live with it. It's like a companion that will always be there, I do not see but I feel it. If I want to live well, I have to help myself to control it [diabetes]. It can be with me yes, but I have take over so it does not affect me, so that it does not hurt me so much. Still, it hurts, but you always have to keep your head positively and not negatively.

La diabetes no tiene por qué afectarte, estovarte. Es un sinfín de cosas que tienes que hacer. Algún día va a morir uno, de todos modos, pero morir feliz.

Diabetes does not have to affect you, bother you. It's a range of things you have to do. Someday one will die anyway, but die happy.

Vive a lo máximo, vive lo mejor que puedas. Corre, baila, hace ejercicio, cuídate para que puedas vivir mejor. No fume, no tomes, y mira, casi medicamento no tomo. Trato de no toma, no tomar medicamento, porque casi por lo regular está en la comida. Esta en tu persona que quieras hacerlo. Yo, yo me hablo "hay que bonita te vez"

Live to the fullest, live the best you can. Run, dance, exercise, take care of yourself so you can live better. Do not smoke, do not drink, and look, I hardly take medication. I try not to take medication, because almost usually, it's in the food. It is within you if you want to do it. I, I tell myself, "look how pretty you are."

He tenido terapia del estado por mis hijas. Yo que soy Hispana, al principio el Ingles me molestaba, porque no te ponen toda la atención como hispana. Cuando te encuentran un intérprete, te ayuda mucho. Eso, sinceramente, como Hispana, me molestaba que todo me lo decían y ingles y no entenderlo. Uno tiene entender, pero yo no entendía nada. Que importante es que nos pongas la atención.

I have had therapy from the state for my daughters. Me being Hispanic, at the beginning English bothered me, because you don't get all the attention being Hispanic. When they find an interpreter, it helps a lot. That, frankly, as a Hispanic, it bothered me that everything they said was in Enlgish and I did not understand. One tends to understand, but I didn't understand anything. How important is that they give you attention.

Muchas veces yo lo oí en mi familia, "la terapia es para los locos, los tarados, mongolos" No , las terapias son muy buenas. Obvio que tu vas a escuchar una persona "te van a terapiar" no, no, no, eso es normal. Ayuda mucho a que tu hables con una terapista, porque esas personas no le dicen nada a nadien de la vida. Si yo fuera tu paciente, verdad, tu no le vas a decir a todos lo que te conto.

Many times I heard it in my family, "therapy is for crazy people, the morons, the retarded." No, therapies are very good. Obviously you're going to hear a person say "you're going to be 'therapized' " no, no, no, that's normal. It helps to talk if you talk to a therapist, because these people do not say anything to anyone about life. If I were your patient, right, your not going to tell everyone what I tell you.

De todo un poco porque si me dice la doctora, sinceramente no quiero tomar pastillas porque por lo regular te dan pastillas. Lo hago y personalmente, la terapia que hago yo, es la mejor. Que estés activa, te encuentras ocupada. Si estas pensando que no sirves para nada, como no, si te vas a ver la televisión, ve una película, pero no 8 horas. Para y estate con tu familia. Cuando yo quiero ver una película, yo les dijo (a mi familia) quieren ver una película CON MIGO, si me dicen sí, eso me da alegría. Cuando me dicen sí, eso me emociona. Entre los tres escogemos que. Yo soy muy activa, soy muy haci, nunca estoy quieta.

A little bit of everything, because if the doctor tells me, I honestly do not want to take pills because usually they give you pills. I do it and personally, the therapy I do is the best. To be active, to find yourself being busy. If you are thinking that you are good for nothing, of course, if you're going to watch TV, watch a movie, but not for 8 hours. Stop and stay with your family. When I want to watch a movie, I told them (my family) want to see a movie WITH ME, if they say yes, it

gives me joy. When they say yes, I am excited. Among the three we choose the movie. I am very active, that's how I am, I'm never still.

Es mejor terapia que empastillarte, como que no me gusta.

Therapy is better than to pill yourself up, I don't like that.

Cada persona tenemos diferente depresión. Alomejor mi vecina está deprimida porque tiene problemas con su esposo, tiene problemas en su país, son tantas los problemas que no se sabe como nuestro cuerpo actúa.

Each person has a different kind of depression. Perhaps my neighbor is depressed because she has problems with her husband, has problems in her home country, there are so many problems that we do not know how our body works.

Participant 18 (female, 54)

Pues si yo estuviera bien segura que tenga depresión, si me gustaría tratarlo, platicar con alguien, y ya ese alguien, yo creo que me diría si yo necesito medicamentos.

Si. Pues he sabido, pues se que hay muchas terapias para drogadictos, pero nunca me he fijado que a los diabéticos le puede dar depresión. Tal vez la he tenido, pero no me he dado cuenta.

Well if I was quite sure I had depression, I would like to treat it, talk to someone, and that someone would tell me if I need medication.

Yes. Well I've know there are many therapies for drug addicts, but I've never noticed that people with diabetes can get depression. Maybe I have had it, but I haven't noticed.

Participant 22 (male, 38) – English speaker

Therapist: *do you think diabetes and depression go hand and hand?*

Participant 22 (male, 38): *I mean yeah, cause just like, not that it's the same thing, like a person who has cáncer or some other terminal disease, I can see them depressed as well. I could see why they would be depressed. Not that it would be the same situation, but anything that affects your health is going to affect you mentally too.*

Therapist: *If your diabetes is not managed well, how does that affect you emotionally?*

Participant 22 (male, 38): *If it's not managed, like in my case, at one point in time it wasn't managed. It kinda tires you out, it makes you feel real tired, if you have certain foods, it can cause you to get tired. Don't feel like doing anything, and don't get anything done. And it keeps going.*

Therapist: *Does it affect your thoughts?*

Participant 22 (male, 38): *Yes, cause you're just thinking about what's gonna happen, if the sugars get high am I gonna have to get something amputated? Thats come across before.*

Therapist: *How do you cope with those scary thoughts?*

Participant 22 (male, 38): *I usually try to think of something else, try to make a plan, maybe next time I work out.*

Well just like for being a Latino and diabetic, the food we eat, and all that stuff. There is a lot of obesity. I think as far as, you know, I dont know. I lost my thought.

Therapist: *Having diabetes kinda affects your mood, do you think that being Latino factors in that at all?*

Participant 22 (male, 38): *I think so, being Latino, being Mexican American, not relating to the American things. Or not speaking Spanish, so you don't relate to the Latino side, so I think that can get me down personally. Yeah I do'nt speak Spanish but yeah I'm still Mexican. I still have love for both culturas. People say "oh you do'nt speak Spanish, you're not Mexican" and that gets me kinda down.*

Therapist: *How does depression affect your diabetes care?*

Participant 22 (male, 38): *When I'm feeling down, maybe my blood sugars may drop, or if I'm eating a lot more, indulge or gluttany, doing that from being depressed, my blood sugars go up. As far as being a Latino with diabetes, it's just hard.*

Participant 23 (female, 43)

Yo pienso que uno después se hace uno dependiente del medicamento. Y asi con terapia, ya uno sana mas sanamente.

I think that one afterwards becomes dependent on medication. And so with therapy, and one heals more healthily.

Participant 28 (male, 56)

La depresión está ligada a la parte a la diabetes. Porque yo cuando me diagnosticaron, vine y me dieron el examen de sangre, pero no me dijeron ese mismo día sino me llamaron a los tres días. Para mí fue impactante eso, y esta almorzando, y se me quito el apetito porque yo no esperaba eso. Fue impactante para mí, porque, no es que me cuide mucho en la alimentación, pero trato en lo posible de no comer exagerado, tal vez lo hice en mi juventud cuando era niño. Pero ya a una edad adulta, no lo hecho. No dormía, se me quito el apetito, estado de depresión, no sentirse bien es depresión. Fue difícil, difícil para mí.

Depression is related to the diabetes. For me when I was diagnosed, I came and they gave me a blood test, but was not told that day. Instead they called me three days later. For me it was shocking, and I was having lunch, and it took my appetite away because I was not expecting that. It was shocking to me because, it's not like I watched what I ate, but I try as much as possible to not eat in exaggeration. Perhaps I did in my youth when I was a child. But as an adult, I have not done it. I did not sleep, I lost my apetite, a sate of depression, to not feel good is depression. It was hard, hard for me.

Ya tengo la diabetes bajo control, y me hace sentir bien porque es para mí. Yo me tengo que cuidar y nadie mas lo tiene que hacer. Ósea hay un medico que el da el apoyo médico o de pronto, psicológico si se le puede decir así, porque ellos le dice no como esto, tiene que hacerlo, he seguido las reglas de acuerdo las que el me ha dado. Creo que en este momento, debido a eso, es que estoy bien. Pero siempre porque hubo un apoyo por parte del médico. Si no hubiera sido por él, y no me lo hubiera diagnosticado, siguiera igual o peor. Crea que para mí fue demasiado difícil. En mi familia, no hay nadie con diabetes. La doctora me dijo que es genético.

Now I have the diabetes under control, and makes me feel good because it's for me. I have to take care of myself and no one else has to do that. Well there is a doctor who provides medical support or suddenly, psychological if you can say so, because they tell you not eat this, you have to do it. I have followed the rules according to what he has told me. I think at this point, because of that, I'm fine. But only because there was support from the doctor. If it were not for him, and had they not diagnosed it, I would be the same or worse. I believe that it was very difficult for me. In my family, no one has diabetes. The doctor told me it's genetic.

Participant 30 (female, 37)

Te comentaba que pues qué bueno que te estás dedicando a eso porque a los Latinos nos hace falta más información acerca de la diabetes. Por ejemplo en mi pueblo, yo dure mucho sin ir a México, como 10 años, y cuando fui recién este octubre pasado, 2 o 3 personas estaban siega de la diabetes. Y yo pienso que toda su vida vivían con eso y ni si dieron ni cuenta que la tenían. Pues como no se dieron cuenta, no se cuidaron, y pues pidieron la vista y ahora una de esas personas ya murió hace días. Y esto son cosas impactante pues.

I was telling you that, well, it's great that you're devoting yourself to that because Latinos, we need more information about diabetes. For example in my town, I lasted a long without going to Mexico, like 10 years, and when I went this past October, 2 or 3 people were blind with diabetes. And I think they lived their whole lives with it, and they didn't even realize that they had. Well since they did not realize it, they did not take care of themselves, and so they lost their sight. And a few days ago, one those persons passed away. These are shocking things.

Aquí, vendito sea a Dios, que tenemos muchas ayudas y mucha información, y es bueno eso. Yo no quisiera yo que mis hijos padecerían de la diabetes, nunca, si me preocupa realmente.

Here [U.S.], thanks be to God, we had a lot of help and a lot of information, and that is good. I would not want for my children to suffer from diabetes, ever, and that truly worries me.

Cuando estamos hablando de niños es mas cruel. Ya uno como quiera sabe lo que puedes o no puedes comer, pero a los niños no, todos se les antoja, y es triste, la diabetes infantil es muy triste, la verdad. Porque uno como niño todo quiere comer y es feo que te digan, eso no, eso si puedes.

When we are talking about kids, it is more cruel. One already knows what you can or can't eat, but not kids. They crave everything, and it's sad. Honestly, childhood diabetes is very sad. Because you wan to eat everything as a child, and its bad when someone tells you 'not that, but that you can [eat]' .

He tenido números muy bueno, a parte de mi alimentacion. Cuando estuve embarazada de mi niña, me mandaron a una reunión y fue muy buena, era una orientación. Es por eso que no me preocupo tanto tanto, porque la llevo bien controlada.

I have had very good numbers, due to my diet. When I was pregnant with my daughter, I was sent to a meeting and it was very good. It was an orientation. That's why I do not worry so much, because it's been well controlled.

Participant 32 (male, 57)

Ninguna, yo aquí miro tv nomas un poco. Y yo a veces estoy deprimido pero mi mente me dice no ponte contento, me pongo yo hacer chistes, o hacer algo que la gente me mira, me dice este anda contento. Nomas por un rato y ya después cambio.

None, I just watch television for a bit here. And sometimes I'm depressed but my mind tells me ' no, get happy" and I start to make jokes or do something that when people look at me, they say 'he's happy.' Just for a while and then I later change.

COMMENTS ABOUT THREE THERAPIES

Participant 12 (female, 41)

Yo pienso que las tres son importante, trabajan juntas. Tanto como los pensamientos como las actividades y como relacionarse con otras personas.

Recomendar? Si alguien que está sufriendo de mucha depression, le ayudaría a que salga de ese hueco donde esta porque tanto corregiría sus pensamientos como se entretiene en haciendo cosas y no estar pensando en cosas que no debe y enfocarse en cosas que esta hacienda, y el trato con las personas también.

I think all three are important, working together. Much like the thoughts, much like the activities and how to relate to other people.

Recommend? If someone is suffering from depression, from a lot of depression, it would help to get out of that hole because it [therapy] would correct their thoughts, how they spend their time doing things, and not entertains thoughts about things they shouldn't be doing and to focus to do things they should be doing, and on how to treat other people as well.

Participant 13 (female, 64)

Las tres, porque hay muchas personas que se deprimen mucho, se alejan, se enferman mas.

The three, because there are many people that get depressed a lot, they isolate themselves, they sick more.

Participant 14 (female, 30)

Yo digo que las tres, porque creo que cuando uno siente depression, es en todo. Uno hace las malas cosas como nomas se enfocan en estar dormido y esto y el otro, le llegan pensamientos malos, y hay veces que la persona se aíslan de los familiares, pero yo digo que las tres terapias funcionarian. Hay veces que uno se siente desanimado y se acuesta, y no se duerma. Y se está pensando "soy un fracaso, porque yo? Y al estar en la cama pues no va estar aqui con la familia. Creo que todo combina.

I say the three, because I think you feel depression, its in everything. You do bad things like focus only on sleep and this and that, you get bad thoughts, and there are times when the person isolates from family members. But I say that the three therapies would work. There are times when you feel discouraged and goes to bed, and do not fall asleep. And you're thinking "I'm a failure, why me? And by being in bed, well, you're not going to be with family. I think everything ties together.

Participant 17 (female, 47)

Todas son importante, pero para empezar, si yo estuviera comenzando, es esta (la de las actividades) porque eso es lo que va hacer tu persona, empezar a educarte. También esto, porque tienes que tener relaciones con la gente, esta (cognitive) no me gusta porque, bueno no. Con esta (behavioral) me gustaría empezar si no supiera nada. Aquí se ve la persona que esta activa. Estar acostada, no, me enfermaría de los riñones.

All are important, but to start, if I was starting out, this one (the one with the activities) because that is what will make a person, to start to learn. This, too, because you have to have relationships with people, this (cognitive) I do not like it, well no. I would like to start with this (behavioral) if I knew nothing. Here you see the person is active. Lying in bed, no, I would get ill from my kidneys.

Participant 22 (male, 38) – English speaker

I think all three, well for number one here, I have relationship problems with family members not getting along. I think as well as developing, talking to a girl, having a friend at first, having a relationship like that. And here with thinking, I think a lot, and those thoughts race in my head. And with the last one, I just think they all work. Because with me, if one works out, then I can go to the next one. For this thinking one, channel my issues and not get depressed. Last time, when I wasn't working out, when I hurt my back, I was out for a month. I felt like a bum the whole time. I was getting depressed 'cause I wasn't going to the gym.