DIABETES, DEPRESSION AND SYNDEMIC SUFFERING AMONG AFRICAN AMERICAN PATIENTS:
THE INTERSECTIONALITY OF RACE, GENDER AND CLASS

by

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DISSERTATION

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Dedication

First giving honor to Our Creator for grace and mercy, I also wish to thank my ancestors and elders. I certainly appreciate my husband, Kevin, my children, my mother, my family, friends and colleagues for all of their dedicated support. This process has been long, arduous and rewarding. I would not have made it through the program and this project without their prayers, love and encouragement. I greatly appreciate your patience and understanding during the many days, nights, weekends and holidays that I have spent researching and writing.

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LIST OF ABBREVIATIONS

AADE – American Association of Diabetes Educators
AAGP – American Association of Geriatric Psychiatry
ACEs – Adverse Childhood Experiences
ADA – American Diabetes Association
ANA –American Nutrition Association
APA – American Psychiatric Association
BCC –Baylor Community Care
BMI – Body Mass Index
CDD – Centers for Disease Prevention and Control
CFR – Code of Federal Regulations
DHWI ® – Diabetes Health and Wellness Institute®
$D^2 S^2$ – Diabetes, Depression and Syndemic Suffering – conceptual model
DSM-5 – Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition
F2F – Face To Face
HbA1c or A1c – Hemoglobin A1c or A1c lab test
HIPAA – Health Insurance Portability and Accountability Act
HRSA – Health Resources and Services Administration
IMPACT ™ - Improving Mood-Promoting Access to Collaborative Treatment ™
IRB – Institutional Review Board
KERA – Call Letters for Public Broadcasting Service and National Public Radio for North Texas
LCSW – Licensed Clinical Social Worker
MDD – Major Depressive Disorder
MHA – Mental Health America
NADD – National Association of Deans and Directors of Schools of Social Work
NASW – National Association of Social Workers
NCHS – National Center of Health Statistics

NDIC – National Diabetes Information Clearinghouse

NDSR – National Diabetes Statistics Report

NHBs – Non-Hispanic Blacks

NHWs – Non-Hispanic Whites

NIDDKD – National Institutes of Diabetes and Digestive and Kidney Diseases

NIH – National Institute of Health

PCMH – Patient Centered Medical Home

PHQ-9© - Patient Health Questionnaire-9 ©

SAVA – Substance Abuse, Violence and AIDS

SDOH- Social Determinants of Health

SFBT – Solution Focused Brief Therapy

SSI- Supplemental Security Income

SSRIs - Selective Serotonin Reuptake Inhibitors

UCLA – University of California, Los Angeles

USCB – U. S Census Bureau

USDA – U. S. Department of Agriculture

USDHHS – U. S. Department of Health and Human Services

USDHHS-OMH - U.S. Department of Health and Human Services - Office of Minority Health

VIDDA – Violence, Immigration, Depression, Diabetes, and Abuse

ABSTRACT

DIABETES, DEPRESSION AND SYNDEMIC SUFFERING AMONG AFRICAN AMERICAN PATIENTS: THE INTERSECTIONALITY OF RACE, GENDER AND CLASS

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This research study illustrates the overarching syndemic theory, which was used to explain the interconnections of type 2 diabetes, clinical depression, and human suffering among low-income African American outpatients in the southern sector of Dallas TX, USA. The intersections of race, gender, and class were additional variables that were included in this research. Furthermore, this research indicated how poverty, social relationships and other conditions stressed individuals and populations, weakened their natural defenses and caused exposure to disease clusters.

I have coined the term D^2 S^2 to deconstruct the social/syndemic interconnections that interface with diabetes, depression and human suffering. The first dimension in the D^2 S^2 Model is *D*iabetes – the chronic blood glucose dysregulating condition. The second dimension is *D*epression – the biochemical mood disorder, which is often chronic, internalized and untreated. The third and fourth dimensions are *S*yndemic *S*uffering – which entails adverse psychological and social conditions encompassing poverty, social relationships and other conditions. The

discussion of these four dimensions in this research was illustrated by the personal narratives of six (6) African American outpatients, was shaped by and associated with social, political and economic inequalities, and was escalated by the chronic adversity of diabetes and depression. The $D^2 S^2$ Model was developed from the triangulation of the biological, psychosocial and survey data, as well as, through the critical examination of narratives. The narratives indicated that internalized stress and chronic hardships interacted with the self-management of type 2 diabetes and depression. Their narratives indicated that the most frequently occurring themes were physical health problems, mental health problems, occupational problems and economic problems.

The research study findings established the value of using narratives in qualitative research and how this methodology provided a vast depth and breadth of knowledge from the information that was gathered. Other findings indicated that psychosocial distress, poverty, and unemployment were major contributing factors vis-à-vis type 2 diabetes, depression and syndemic suffering.

The results indicated the benefits of Solution Focused Brief Therapy (SFBT) in the treatment of depression with these outpatients who were living with type 2 diabetes, as evidenced by decreased or stabilized scores on the nine question psychometric screening instrument, the Patient Health Questionnaire-9 © (PHQ-9 ©). Further results indicated that applied syndemic theory was very useful and a “goodness of fit” in addressing the research questions and the intersections of race, gender and class.

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CHAPTER 1

INTRODUCTION

The Twin Epidemics of Diabetes and Depression

The twin epidemics of the blood glucose dysregulating, insulin resistant condition of diabetes mellitus-type 2 (hereafter, type 2 diabetes) and the brain chemical imbalance condition of depression and its thought, behavioral and mood manifestations are significant health concerns in the United States. Depression, in its major and minor forms of profound sadness, is a common comorbidity in persons living with diabetes (Anderson, Horton, O' Toole, Brownson, Fazzone, & Fisher, 2007). In a research article on treating diabetes, moderate to severe depression symptom levels have been found with these patients (Anderson et al., 2007). The treatment complexities of these two illnesses are a profound burden for these patients and their families, and are certainly challenging for health care providers and health care systems. The prevalence of depression varies across adult populations who are living with diabetes, but this prevalence has been estimated to be between 18 and 31 percent (Anderson et al., 2007). The population of these depressed patients with diabetes who have moderate to severe depressive symptoms ranges from 30 to 70 percent (Anderson et al., 2007). Often, because of the overarching nature of the depressive symptoms and insufficient diabetes self-care management, patients with diabetes and depression may have higher rates of diabetes complications (de Groot & Lustman, 2001), including coronary artery disease (Clouse, Lustman, Freedland, Griffith, McGill, & Carney, 2003), cerebrovascular accidents/strokes, retinopathy/vision loss, nephropathy/renal (kidney) failure, neuropathy/nerve damage, limb amputations and premature death (Medline, U.S. National Library of Medicine, 2015), worse glycemic control (Katon et al., 2004; Lustman et al., 2000), increased symptoms of diabetes (Ciechanowski et al., 2003;

Ludman et al., 2004), decreased physical functioning (Egede, 2004) and increased health care utilization (Egede, Zheng, & Simpson, 2002).

Diabetes

The National Diabetes Statistics Report (NDSR, 2014) indicated that the number of persons of all ages with diabetes, i.e., type 1 – insulin deficient and type 2 – insulin resistant, increased from 26 million in 2010 to 29.1 million in 2012, or 9.3 percent of the U.S population. This data included 1.8 million Texans (Texas Human Services Commission Report, 2014). All sectors of American society are impacted by the burden of diabetes, in terms of, the economic costs, reduced earnings, lost productivity, higher insurance premiums, and reduced quality of life for patients with diabetes along with their support persons (American Diabetes Association [ADA], 2008). Furthermore, all types of diabetes were listed as the seventh leading cause of death in the United States (Centers for Disease Prevention and Control [CDC], 2013), and this condition was listed as the underlying cause of death on 75,578 death certificates (CDC, 2013). Diabetes may be an underreported cause of death (NDSR, 2014), as the primary causes of death, i.e., cardiovascular diseases: strokes/cerebrovascular accidents and heart attacks/myocardial infarcts, are often complications of diabetes (National Institutes of Diabetes and Digestive and Kidney Diseases [NIDDKD], National Institutes of Health [NIH], 2013).

Diabetes and the Intersections of Race, Gender and Class. Blacks or African Americans (alone or in combination with other races/ethnicities) constituted 13.6 percent of the total 308,745,538 person population in the United States in 2010 (U.S. Census Bureau [USCB], 2011). Within this Black or African American population, according to a 2008 U.S. Department of Health and Human Services – Office of Minority Health [USDHHS-OMH] report regarding diabetes, this population is disproportionately afflicted by diabetes:

> African Americans are twice as likely to be diagnosed with diabetes mellitus-type 2 as Non-Hispanic Whites [NHWs]. In addition, (African Americans) are more likely to suffer the complications from diabetes, e.g., end-stage renal (kidney) disease, lower extremity amputation and high blood pressure. African American adults were said to be 70 percent more likely than NHW adults to have been diagnosed with diabetes by a physician. African Americans with diabetes mellitus-type 2 were 1.7 times more likely to be hospitalized, as compared to NHWs. Furthermore, research indicated that African American adults were 2.2 times more likely to die from complications of diabetes mellitus-type 2, as compared to NHW adults (U.S.DHHS-OMH, 2008, page 1).

The disproportionate impact of diabetes on the Black/African American population is further complicated by gender roles, educational achievement, employment, income and the availability of health insurance. African American women may be in gender roles as single or married parents and/or as elder/disabled caregivers (ADA, 2012; Carter-Edwards, Skelly, Cagle, & Appel, 2004; Davidson, 2001; Health Resource Services Administration [HRSA], 2007; Lavery, van Houtum, Ashry, Armstrong, & Pugh, 1999; Samuel-Hodge et al., 2000; Shultz et al., 2002; Troxel, Matthew, Bromberger, & Sutton-Tyrell, 2003; World Health Organization [WHO], 2001). African American men may engage in risk taking behaviors (Gough & Connor, 2005; Jack, 2004; Segal, 1993; Williams, 2003). For African Americans with low-income/low wage earnings, self-care and caring for others can be compromised (Carter-Edwards et al., 2004; HRSA, 2007; U. S. Social and Economic Supplement of the U. S. Census, USCB, 2010). As a result of poor quality education and academic challenges, it is difficult for many African Americans to obtain higher income/higher wage earning employment opportunities (Hill-Briggs & Daughtery, 2010; National Association of Social Workers [NASW], 2016; USCB, 2010;

USCB, 2014a) and accompanying health insurance (U. S. Social and Economic Supplement of the U.S. Census [USCB], 2013).

Depression

Depression is also known as major depressive disorder (MDD). It is a serious, challenging, recurrent condition of profound sadness (Mental Health America [MHA], 2007). Its symptoms may be limited to just one episode. However, depressive symptoms often return (MHA, 2007). For some people, symptoms may return after initial antidepressant treatment and are known as “unresolved symptoms” In the latter case, more than one medication may be needed to manage depressive symptoms (MHA, 2007). According to the Diagnostic and Statistical Manual of Mental Disorders-Fifth Edition, DSM-5 ™ (American Psychiatric Association [APA], 2013), major depressive disorders consists of several signs and symptoms which last for at least two weeks (APA, 2013; Pfizer, Inc., Spitzer, Williams, & Kroenke, 1999).

There is no single cause of depression. However, biological, psychological, social and environmental factors may all contribute to its development. Whatever the specific causes, evidence based research has firmly established that MDD is a biological brain disorder, i.e., brain chemical imbalances (MHA, 2007). Furthermore, research has found genetic predispositions to MDD, and increased risks for individuals to develop depression when there is a family history of this illness (MHA, 2007). Various events, such as major losses, unemployment, life changes, homelessness, chronic stress vis-à-vis the continued secretion of cortisol and other stress hormones, unresolved grief and loss regarding the death of a loved one, being a trauma survivor, alcohol and/or other drug abuse, i.e., the use of mood/mind altering substances, may trigger episodes of depression (MHA, 2007). Illnesses, such as diabetes, heart disease and cancer and some medications, may also trigger episodes of depression (MHA, 2007). Depression is the most frequently occurring mental health disorder in the United States, and 80 to 90 percent of those suffering from various levels of depression, i.e., mild, moderate or severe, can be effectively treated. With effective treatment, such as psychotherapy and/or anti-depressive medication, persons living with depression can return to their normal daily activities, relationships and feelings (MHA, 2007).

Complications of Diabetes and Depression among African Americans

Research suggests that for some African Americans, life stress and depression may precede and even act as a causal factor for diabetes through biochemical imbalances of the stress hormones: cortisol, norepinephrine, epinephrine, adrenaline and dopamine, and low serotonin levels (Pouwer et al., 2010), as well as, behavioral pathways resulting from intergenerational and historical traumas (DeGruy Leary, 2005). Furthermore, diabetes may be secondary to the hardships associated with diabetes or to the ensuing biochemical factors associated with this condition (Ali, Stone, Peter, Davies, & Khunti, 2006). Because of the stigma associated with mental illness and as an alternative depression intervention with African Americans, several studies have indicated that the participatory religious and spiritual practices of many African Americans denotes healthier behaviors and overall wellbeing, lower cases of severe symptoms of mental illness and substance use, along with increased engagement and utilization of treatment services (National Association of Deans and Directors of Schools of Social Work [NADD], 2013). Additionally, the utilization of religious leaders, spiritual leaders, and faith based organizations has often occurred in lieu of services provided by behavioral health care professionals (NADD, 2013).

Given the aforementioned statements about the significance of diabetes and depression, it is noteworthy that the intersectionality of race, gender and class are additional variables that may impede healthier coping and may lead to health care disparities within vulnerable populations, such as socioeconomically disadvantaged, uninsured African American patients. Even though literature exists on the related intersections of diabetes and depression among African Americans, this literature lacks the in-depth illustrations of their life experiences. Consequently, through the use of narratives obtained from clinical interviews, this author/principal investigator’s in-depth, qualitative research study will examine the life experiences of selected African Americans outpatients who are living with both type 2 diabetes and depression, within a particular community in the southern sector of Dallas, Texas, USA.

Purposes of Research Study

The purposes of this qualitative research study were to describe and explore the life experiences of African American outpatients by: 1) deepening the understanding of the life experiences of socioeconomically disadvantaged African Americans who are living with both type 2 diabetes and depression, with a focus on the intersectionality of race, gender and class; and 2) through narratives, as gathered from clinical interviews, to deepen the understanding of how the related social-environmental determinants of health and social-emotional suffering converge to complicate the life experiences of these African Americans who have both type 2 diabetes and depression.

Significance to Social Work

The research topic of “Diabetes, Depression and Syndemic Suffering among African American Patients: The Intersectionality of Race, Gender and Class” is relevant to social work research, practice, and education, because of the attributes of the profession of social work. According to the revised preamble of the National Association of Social Workers (NASW) Code of Ethics (2008), the primary mission of the profession of social work is to help meet the basic human needs of all people and to enhance human well-being, with particular attention to the needs and empowerment of people who are oppressed, vulnerable and living in poverty. Furthermore, the historic and defining features of professional social work have been situated within the social context of individual well-being and the well-being of society (NASW, 2008, para. 1). Attention to the environmental forces that create, contribute to, and address problems in daily living is also fundamental to social work (NASW, 2008, para. 1). Cognizant that social workers promote social change and social justice with and on behalf on individuals, families, groups, organizations and communities (NASW, 2008, para. 1), the role of the professional social worker is certainly important in our contemporary societies. Moreover, sensitivity to cultural and ethnic diversity, along with striving to end oppression, discrimination, poverty and other forms of social injustice are essential elements of professional social work (NASW, 2008, para. 1). Given the aforementioned ethical principles of social work, the foci of this clinical social worker/principal investigator’s research study was on diabetes, depression, the social-environmental determinants of health and socio-emotional suffering, that is, oppression, discrimination, poverty, and social injustice among low-income African American outpatients who live in the southern sector of Dallas, TX. Also, included in this discussion was the related intersectionality of race, gender and class. Intersectionality seeks to understand how various social, cultural and biological categories, including race, gender, class, age, ability, religion, sexual orientation, (racial) caste, nationality and other identity axes interact on multiple and/or simultaneous levels (DeFrancisco & Palczewski, 2014).

CHAPTER 2

LITERATURE REVIEW AND CONTEXT

The preceding chapter introduced the topic of diabetes, depression and related suffering and its significance to social work, discussed the purpose of the research study and contextualized the research problems. This chapter contains a review of the related literature and research. Specifically, the following related literature and research will be discussed: diabetes, depression and low-income African Americans; population health and social work terminology; diabetes and the intersections of race, gender and class including poverty; depression; the co-morbidity of diabetes and depression; racism, diabetes and depression; social-environmental and physical determinants of health including in the southern sector of Dallas, TX (also known as, South Dallas) and systemic factors.

Subsequent chapters will discuss the theoretical framework related to applied syndemics; the research design and methodology, including sample selection, data collection, analysis and interpretation procedures; the narrative research; the key research findings, results, conclusions and recommendations for social work practice.

Diabetes, Depression and Low-income African Americans

Research indicated that the rates of type 2 diabetes and clinical depression are higher in African American communities than in the Non-Hispanic White (NHW) population (de Groot & Lustman, 2001). These higher rates of diabetes and depression may be due to increased income disparities, community isolation, decreased health and social services (Briere & Elliot, 2003). Cognizant of these observations, this author/principal investigator’s narrative research illuminated the experiences of low-income African Americans adults who are living with diabetes and depression in and near the southern sector of Dallas, TX, USA (also known as South Dallas), and related intersections of race, gender and class.

Population Health and Social Work Terminology

In population health research literature, the terms “African American” and “Black” are often used interchangeably. In this study, these terms were used to refer to persons having origins in any of the Black racial groups of Africa. The Black or African American populations in the United States includes people who listed their race(s) on the U.S. census as “Black, African American, or Negro” or reported entries such as African American, Sub-Saharan African, such as, Kenyan and Nigerian, or Afro-Caribbean, such as, Haitian and Jamaican (Office of Management and Budget [OMB], 1997; U.S Department of Commerce, Economics and Statistics Administration, USCB, 2011).

The most frequently used term in this research study was “African American” as it is a self-definition that is considered to be culturally specific. Please note that the term “minority” was rarely used in this dissertation, as this term has been used to categorize people who have few social power positions. Furthermore, it is considered by some people of color to be a disparaging, disempowering term.

The term biopsychosocial-environmental-cultural and spiritual perspective was used in this research study to describe the strengths/empowerment approach found in social work practice, education and research. The term biopsychosocial-environmental-cultural and spiritual perspective is an expansion of Engel’s earlier work (1977; 1980). This perspective takes into account the medical or physical aspects of humans [bio]; the psychological or emotional aspects [psycho]; the socioeconomic, sociocultural and sociopolitical issues in human lives [social]; and discovering how meaning is found in the lives of humans [spiritual] (NASW, 2008). This biopsychosocial-environmental-cultural and spiritual perspective was embedded in this social work research study.

Diabetes

Type 2 diabetes is linked to genetics, insulin resistance, obesity, sedentary lifestyles, diet, exercise patterns and social inequalities. Diabetes is also linked to urbanization, socioeconomic deprivation, hardships, stress, distress and social network constraints. “With diabetes, the social context and political-economic inequities may not always be clear, but they certainly do exist” (Mendenhall, 2012, p. 19).

Diabetes is a group of diseases marked by high levels of blood glucose (blood sugar) resulting from problems in how the human hormone, insulin, is produced or works, or both. According to the Centers for Disease Control and Prevention [CDC], when a person has diabetes, the body is deficient of or is resistant to its’ own insulin. In type 1, which is 5 to 10 percent of diagnosed cases, the body is insulin deficient. In type 2, which is 90 to 95 percent of diagnosed cases, the body is insulin resistant (CDC, 2014a). The focus of this dissertation was on type 2 diabetes. If the blood glucose builds up in the body and its levels are not controlled, it can lead to serious complications such as heart disease, stroke, kidney failure, blindness, amputations of the legs and feet, depression and premature death (NDSR, 2014). The epidemic of diabetes in the United States is a significant health concern, as 29.1 million people of all ages, or 9.3 percent of the U.S population have diabetes and 86 million have pre-diabetes (NDSR, 2014). Of the African American population, 21 million people have diagnosed diabetes and 8.1 million people have undiagnosed diabetes (NDSR, 2014). These statistics are of particular importance to African Americans, as the age adjusted percentage of people aged 20 years or older with diagnosed diabetes, by race and ethnicity in the United States from 2010-2012, included 13.2 percent of Non-Hispanic Blacks [NHBs]/African Americans (NDSR, 2014). Furthermore, in 2013, diabetes was the seventh leading cause of death in the United States based on 75,578 death certificates on which diabetes was listed as the underlying cause of death (CDC, 2013). Even though it is a factor in cardiovascular disease, myocardial infarcts (heart attacks) and/or cerebrovascular accidents (strokes), diabetes may be an underreported cause of death, as only 35 to 40 percent of people with diabetes who died had diabetes listed anywhere on their death certificates, and only 10 to 15 percent of these persons had it listed as the underlying cause of death (NDSR, 2015). This leading cause of death statistic is of particular importance to African Americans, as diabetes is this community's fifth leading of death (CDC, 2013).

The CDC's 2012 geographic distribution of rates of diagnosed diabetes in adults across U.S. counties indicated that the percentages were higher in the Southeast. This county data was used to define geographic areas called the "Diabetes Belt" within which the prevalence of diagnosed diabetes is especially high. This area includes 644 counties in 15 states in the southeastern part of the U.S., including Texas.

The national economic burden of diabetes and the estimated total costs in 2012-2013 was $245 billion, which includes $176 billion for direct medical costs and $69 billion in indirect costs: disability, work loss, reduced productivity and premature death (NDSR, 2014). However, this estimate did not include the intangible psychosocial costs of nonpaid caregiving, patient pain and suffering, non-diabetes attributed health care expenditures and medical costs associated with undiagnosed diabetes (ADA, 2016). All sectors of American society are impacted by the burden of diabetes: reduced earnings, lost productivity, higher insurance premiums, and reduced quality of life for persons living with diabetes and also the hardships for their families and friends (ADA, 2016).

Diabetes and the Intersection of Race

In 2014, the U.S Census Bureau estimated 45,672,250 African Americans in the United States, meaning that 14.3 percent of the total American population of 318.9 million is Black/African American in combination with another race (USCB, 2014c). The “Black only” category itself totaled 42.2 million African Americans, or 13.2 percent of the total U.S. population (USCB, 2014c). According to the U.S. Department of Health and Human Services-Office of Minority Health, African Americans are almost twice as likely to be diagnosed with diabetes as Non-Hispanic Whites [NHWs]. In addition, African Americans are more likely to suffer complications from diabetes, such as end stage renal (kidney) disease, lower extremity amputations and high blood pressure (USDHHS-OMH, 2015b). Furthermore, African American adults were said to be 80 percent more likely than NHW adults to have been diagnosed with diabetes by a physician. In 2010, African Americans were 3.4 times more likely to be diagnosed with end stage renal (kidney) disease as compared to NHWs (USDHHS-OMH, 2015b). In 2012, Non-Hispanic Blacks [NHBs]/African Americans with diabetes were 3.5 times more likely to be hospitalized for lower limb amputations as compared to NHWs (USDHHS-OMH, 2015b). In 2013, African Americans were twice as likely as NHWs to die from diabetes (USDHHS-OMH, 2015b). The health risk factors related to insulin resistant diabetes includes obesity, being overweight, hypertension, high cholesterol and cigarette smoking (USDHHS-OMH, 2015b). A 2014(b) report from the Centers for Disease Control and Prevention [CDC] indicated that the number of residents with diabetes increased from 26 million to 29.1 million in 2012 – 9.3 percent of the U.S. population, and included approximately 1.8 million Texans (Texas Human Services Commission Report, 2013).

Diabetes and the Intersection of Gender

Women. Prevalence figures indicated that 11.5 million (10.2 percent) of all women aged 20 years or older have diabetes. When estimates of those who were diagnosed and undiagnosed are considered, the projected number of adult women with diabetes was almost 19 million (National Center of Health Statistics [NCHS], 2007). Diabetes is a physiological phenomenon, and is also a deeply personal experience that impacts and is affected by the intimate realities, social structures, and the confluences of person, place, physical environment, "circumstances" and family history (Arthur & Rowe, 2010). Diabetes disproportionately occurs among African American women (Adams, Lucas, & Barnes, 2008), and it has far-reaching community impacts. African American women are more often and more adversely affected by diabetes than any other group in the United States (NCHS, 2007). Sadly, diabetes is the fourth leading cause of death and disability among African American women (Heron, 2007).

A major risk factor for diabetes is being overweight or obese. African American women have the highest rates of being overweight or obese, the latter with a body mass index [BMI] of greater than 30, and compared to other groups in the U.S. about four out of five African American women are overweight or obese (USDHHS-OMH, 2013). In 2011, African Americans were 1.5 times as likely to be obese as NHWs, and African American women were 80 percent more likely to be obese than NHW women (USDHHS-OMH, 2013). In obese women, higher levels of the hormone testosterone were associated with developing diabetes (Oh, Barrett-Connor, Wedick, & Wingard, 2002). Differences in the effects of body weight had a greater association with the onset of diabetes and its related comorbidities in women than in men (Ding, Song, Malik, & Liu, 2006).

According to the World Health Organization [WHO] (2010), type 2 diabetes is contextualized by the critical factors of race, gender, class and culture. Sex is biologically based, but gender is defined by cultural roles, norms, perceptions, responsibilities and expectations (WHO, 2010). Structural inequalities, such as access and/or control of political power and economic resources, are often translated by gender/cultural role differences (WHO, 2010). The confluence of race, gender, sex and socioeconomic factors interact with diabetes risk and disease and are not easily teased out or isolated (Arthur et al., 2010). This was particularly true for African American women, who are more likely to be single heads of households compared to NHW women (Arthur et al., 2010). African American women were more likely to live in poverty, regardless of family structures (Health Resources and Services Administrations [HRSA], 2007), and were more adversely affected by the complications and comorbidities of diabetes (Signorello et al., 2007). The effects of poverty and diabetes were not mediated by education for African American women (Arthur et al., 2010). Educational attainment was not a reliable predictor of income for African American women, likely due to structural barriers such as underemployment and limited economic opportunities (Arthur et al., 2010).

Regarding diabetes and obesity, African American women at all income levels are disproportionately affected by obesity, with less than 20% at a healthy body mass index [BMI] (Kumanyika et al., 2007). According to the CDC, African American women have the highest rates of being overweight or obese compared to all other racial or ethnic groups in the U.S., with four out of five African American women being overweight or obese. Compared to NHW adults, NHB have a 77 percent higher rate of diagnosed diabetes (CDC, 2010). Thus, African Americans have a significantly higher chance of being diagnosed with diabetes, tend to have higher BMIs and have a higher incidence of diabetes-related complications (USDHHS, 2012). Prior research studies have suggested that histories of childhood trauma are a potential risk factor for developing diabetes and adult obesity, particularly for African American women (Gustafson & Sarwer, 2004).

Men. Long recognized as a contributing determinant or as inter-generational societal influences, research has indicated that traditional male attributes, such as, risk taking, invulnerability and societal role expectations collectively exacerbate poorer health outcomes among men (Gough & Conner, 2005; Jack, 2004; Segal, 1993; Williams, 2003). With this in mind, there is much work to be done in African American men's health, especially as health care disparities necessitate more gender-appropriate interventions (Jack, 2004; Liburd, Namageyo-Funa, & Jack, 2007) and African American men have the disproportionate burden of diabetes and its complications (Jack, Gross, & Troutman, 2010).

Of all racial groups, U. S. born African American men tend to have worst health outcomes, with the lowest life expectancies and highest death rates, compared to men and women of other racial and ethnic groups in the United States – a fact that has remained unchanged for at least the past fifty years (LaVeist, 2005). Globally, the life expectancy for African American men in the United States, a wealthy, developed nation, is troubling compared to the life expectancy of men in non-industrialized, less developed, resource-poor countries (Jack, Gross, & Troutman, 2010). This raises important questions between the geographic "place" and health outcomes. The persistent and overwhelming disparities in morbidity and mortality among African Americans is not completely understood (Harper, Lynch, Burris, & Smith, 2007). The social and economic variables of marital status, insurance status, and socioeconomic status [SES] are less predictive of health outcomes in U. S. born African American men (Jack et al., 2010a). A number of epidemiological studies have indicated that up to 31 percent of the excess mortality specific to diabetes, African American men experience a disproportionate burden of microvascular and macrovascular complications associated with diabetes (Hardy & Bell, 2004). Diabetes, cigarette smoking, and being hypertensive increased the individuals' risk of cardiovascular disease, and this was typically more prevalent among men (Arsham, 1998). The complex management of diabetes necessitates research to identify the factors that enhance or minimize the ability of African American men to achieve and maintain healthy diabetes self-care behaviors (Jack, 2007), such as stress management (Donath et al., 2008), diet and exercise (Reader, 2007), foot care (Canavan, Unwin, Kelly, & Connolly, 2008), the most frequently cited sexual complication of erectile dysfunction (Jack, 2005; Penson & Wessells, 2004) and concerns about other possible complications (Jack et al., 2010a).

In a few studies including African American men, poorer health outcomes, including higher hemoglobin A1c blood tests, cholesterol levels and blood pressure readings, were reported. In these studies, typically no specific explanation, such as gender norms, gender roles, gender role conflict and perceptions of masculinity were offered (Jack, 2004). Further insights are needed into how masculinity influences self-care behaviors, diabetes knowledge and attitudes, social support, and quality of life among men. This area of research is particularly needed among African American men who are living with diabetes (Jack et al., 2010). However, there are important contributory factors that influence behavior, health status, and quality of life among persons living with diabetes, regardless of race, gender, or ethnicity (Jack et al., 2010a). Fisher (2006) reported four categories of contributory factors: biological, affective/emotional, social and financial. Notably absent from diabetes education and disease management targeting

African American men is an understanding of gender role conflict, stress and strain due to health, impeding the ability and/or willingness for African American men to negotiate the many social cues that promote gender role behaviors (Jack et al., 2010a). Thus, more culturally specific and gender-centered research among African American men who are living with diabetes is needed (Jack, Totson, Jack, & Sims, 2010). Additionally, further research is needed to learn how inconsistent sources of health care and the lack of health insurance impacts health outcomes for African American men (Jack et al., 2010b). Furthermore, male- and family-centered diabetes self-management education research must consider the relationship between health and masculinity among African American men and the important constructs of gender norms, gender roles, and gender roles conflicts (Jack et al., 2010b). With this in mind, a modified culturally specific, gender-centered ecological framework may be useful to frame gender-centered and targeted interventions to help African American men and their families (Jack et al., 2010b).

Diabetes and the Intersection of Class

Diabetes is a devastating disease that affects one's quality of life and is affected by interdependent genetic, social, cultural, historic and economic factors (Chow, Foster, Gonzalez, & McIver, 2012). For example, researchers have found that racial and ethnic groups living in low-income, impoverished neighborhoods – households under $20,000/year – were exposed to many more life stressors. This exposure to poverty elevates their risk of diabetes, obesity, anxiety and depression, due to surges in the stress hormone, cortisol (Curry, 2016). Mental and emotionally stressful, economically stress-filled environments trigger a flood of cortisol, leading to high blood glucose, high blood pressure, stress eating/compulsive overeating of energy-dense, high-sugar, high-fat, cheap comfort foods, and obesity (Curry, 2016). Being in high-alert, violent situations, living in food deserts with few or no grocery stores, homelessness, wondering where your next meal is coming from (food insecurity), being unemployed, being unable to purchase medications, being unable to pay rent and utilities, and feeling unjustly scrutinized because of one's skin color/racism, signals the adrenal glands to continuously release cortisol, leading to inflammation and illness (Curry, 2016). Poverty, racism, discrimination and heightened stress responses lead to poorer physical and mental health outcomes among African Americans. For persons in lower socioeconomic groups, there was evidence of diabetes health disparities related to socioeconomic status (Lynch, Waite, & Davey, 2013)

Poverty. According to the 3rd Quarter U.S. Bureau of Labor Statistics [BLS] report (2015) and U.S. Census Bureau [USCB] American Community Survey (2014), the African American median household annual income was $35,481 vs. $53,657 for all races. The 2015 weekly earnings for all African American workers was $624 vs. $803 for all races. The weekly earnings for African American men was $652 vs. $889 for all men. The weekly earnings for African American women was $608 vs. $721 for all women. According to the U.S. Census Bureau (2014a), during the 1990s, African American income grew considerably. However, by 2000, 56% of African American households had an annual income of $35,000 or more compared to 36 % in 1969. Because of the 2008-2013 economic recession, the number of African Americans with annual household incomes of $35,000 or more dropped to 51% by 2014, reversing the previous gains. During this most recent recession, the percentage of African American households with annual incomes under $15,000 increased from 19% in 2000 to 24% in 2010, which was well below the poverty line for these families (USCB, 2014a). Since the Civil Rights Era, the incomes of African Americans improved significantly, but were still lower than all other Americans (USCB, 2012). According to the U.S. Census Bureau (2012), the median income for African American families was $40,946, which is more than $20,000 less per year than the median income for other American families was $62,527. However, the median income for African American married couples at $65,914 was twice that of African American male headed or female headed household families at $33,890 and $25,594 respectively. Thus, there appears to be a substantial benefit for African Americans in married-couple families. In 2012, there were 39,623,138 African Americans in the U.S. vs. total population of the United States of 313,914,040 individuals (USCB, 2012). In terms of individual income for African Americans, the individual per capita income was $18,102 vs. $27,319 for all U.S. individuals. The mean income for full time employed African American men and women was $46,357 and $40,473 respectively vs. $65,650 and $47,001 respectively for all U.S. men and women. Furthermore, the median income for full time employed African American men and women was $37,526 and $33,251 vs. $47,473 and $37,412 respectively for all U.S. men and women (USCB, 2014a). In 2010, an increase in unemployment decreased the African American median income. Income is also correlated to education. During the recent recession, higher unemployment was seen for African Americans who had a high school diploma or less, while Masters prepared African Americans were able to sustain and maintain (USCB, 2012).

Poverty in South Dallas, TX. This dissertation's research study focused on the "Diabetes Belt" in the southern sector of Dallas, TX, USA (also known as, South Dallas), a largely African American community, and the diabetes health and wellness center situated in zip code 75210. Dallas, Houston, Fort Worth and San Antonio, TX were among the ten fastest growing cities in the United States (www.forbes.com, January 27, 2015). Furthermore, the economy in the Dallas-Fort Worth-Arlington metroplex reached $440.1 billion in 2013, one of the fastest growing metros in the United States (www.star-telegram.com, June 20, 2014). However, 2013 statistics indicated that the median household income for zip code 75210, in the largely African American the southern sector of Dallas, TX, was $15,258 vs. $42,846 in the entire city of Dallas and $49,481 in Dallas County (USCB, 2013). The mean household income in zip code 75210 was $22,892 vs. $70,018 in the entire city of Dallas and $72,851 in Dallas County (USCB, 2013). The per capita household income for 75210 was $9,484 vs. $27,426 in the entire city of Dallas and $26,816 in Dallas County (USCB, 2013). The percent of high income households of more than $200,000 per year in 75210 was 0.0 percent vs. 5.7 percent in the entire city of Dallas and 5.0 percent in Dallas County (USCB, 2013). Table 2.1 shows the median household incomes in zip code 75210 by age of householder (USCB, 2013), as compared to the median household incomes by age of the householder of residents in the City of Dallas and the surrounding Dallas County suburbs.

Table 2.1

Median Household Income by the Age of the Householder

	75210 – South Dallas	**City of Dallas**	**Dallas County**
Householder < 25 years old	**$7,917**	$26,680	$28,137
Householder 25-44 years old	**$20,536**	$44,538	$49,398
Householder 45-64 years old	**$14,659**	$49,853	$59,823
Householder 65+ years old	**$12,945**	$34,405	$38,197

Source. U.S. Census Bureau, 2013

Based on the aforementioned statistics, the residents in the southern sector of Dallas, TX, in zip code 75210, represent the least, the left out and the left behind. Consequently, it is not surprising that there are such high rates of diabetes and depression in this and surrounding communities, especially for African Americans. Furthermore, on a macro scale level, for native, U. S. born African Americans, the entire United States is the “bad neighborhood”, because of perceived racism and discrimination (Curry, 2016). This perceived racism and discrimination is reportedly not experienced as much by first generation African born or Caribbean born Blacks, Hispanics, or Asians, all of whom are healthier and live longer than U.S. born African Americans (Curry, 2016). Obviously, this complex, multi-problem situation is more than just diet and exercise. More importantly, it is about the socioeconomic and the social-environmental contexts, vis-à-vis chronic stress, poor neighborhoods, poverty, racism, sexism, classism and discrimination and the need for racial, social, economic, and environmental justice.

Depression

Clinical depression, a thinking, mood and behavioral condition, was a major cause of absenteeism, productivity loss and disability among adults. Annually, about 19 million Americans adults – 9.5 percent of the adult population – had a depressive illness (Valenstein, Vijan, Zeber, Boehm, & Buttar, 2001). Depression was the most prevalent mental health condition among older adults, aged 55 years or older (American Association of Geriatric Psychiatry [AAGP], 2008). Depression resulted in functional impairment, work and home life difficulties, missed workdays and reduced productivity (NCHS, 2007; Pratt & Brody, 2008). Depression also increased health care costs and impacted lost productivity by contributing to the severity of other costly conditions, such as diabetes (Campbell et al, 2006).

Depression is also known as major depressive disorder (MDD). It is a serious, challenging, recurrent condition of profound sadness. Its’ symptoms may be limited to just one episode. However, depressive symptoms often return. For some people, these symptoms may return after initial antidepressant treatment and are known as unresolved symptoms (MHA, 2007). In the latter case, more than one medication may be needed to manage depressive symptoms. According to the Diagnostic and Statistical Manual of Mental Disorders-Fifth

Edition, DSM-5™ (APA, 2013), major depressive disorders consist of several of the following symptoms, and these symptoms last for at least two weeks (see Table 2.2).

Table 2.2

Major Depression Disorder Symptoms

Persistent sadness (perhaps with tearfulness) or irritable mood
Pronounced changes in sleep (sleeping too much or too little
Changes in appetite (eating too much or too little)
Changes in energy (loss of energy or fatigue)
Difficulties in thinking concentration and/or remembering
Physical slowing or agitation
Lack of interest or pleasure from activities that were once enjoyed
Feelings of guilt, worthlessness, hopelessness, helplessness and/or emptiness
Difficulties in decision making
Persistent physical symptoms that do not respond to treatment, such as headaches, body aches, digestive disorders and chronic pain
Recurrent thoughts of death or suicide

Source. Mental Health America, 2007

There is no single cause of depression. However, psychological, social and environmental factors may all contribute to its development. Whatever the specific causes, evidence based research has firmly established that major depressive disorder (MDD) is a biological disorder due to brain chemical imbalances (MHA, 2007). Furthermore, research has found genetic predispositions to MDD. Additionally, there is an increased risk for individuals to develop depression when there is a family history of this illness (MHA, 2007). Various events and major losses, such as unemployment, homelessness, the death of a loved one, being a trauma survivor, alcohol and/or other drug abuse, i.e., the use of mood or mind altering substances, and chronic stress vis-à-vis the secretion of cortisol and other stress hormones may trigger episodes of depression (MHA, 2007). Depression is the most frequently occurring mental health disorder in the United States. Eighty to ninety percent of those suffering from different levels of depression:

mild, moderate or severe, can be effectively treated with talk psychotherapy (MHA, 2007), such as cognitive behavioral therapy or problem-solving therapy and/or antidepressant medication, especially selective serotonin reuptake inhibitors [SSRIs] (de Groot et al., 2010). With effective treatment, persons living with depression can return to their normal daily activities, relationships and feelings (MHA, 2007).

The Comorbidity of Diabetes and Depression

Depression is a significant comorbid condition for patients with diabetes, and depressive symptomatology was twice as likely in persons living with diabetes (de Groot et al., 2010). Research found that those already diagnosed with diabetes had higher depression rates (Eaton et al., 2002). Additionally, studies documented that a lifetime history of depression increased the risk of developing diabetes later in the life cycle (Knol et al., 2006). Depressive symptoms were associated with worsened blood glucose levels (ADA, 2014) and diabetes complications (ADA, 2014). Significant additional functional, fiscal and psychological costs were associated with patients who had depression and diabetes (Ciechanowski, Katon, & Russo, 2000; Egede, Ellis, & Grubaugh, 2009). Relapse of depressive symptoms was a challenge for patients living with diabetes and their providers (de Groot et al., 2010). Patients with comorbid depression and diabetes had a 2.3 times increased risk of early mortality (Katon et al., 2005). Studies documenting the prevalence and impact of depression in people living with diabetes indicated significant adverse effects of depression on morbidity and mortality when both conditions are present (de Groot et al., 2010). Fortunately, antidepressant medications, especially selective serotonin reuptake inhibitor [SSRIs], which have either hypoglycemic (“low blood sugar”) or euglycemic (“good blood sugar”) effects and/or cognitive behavioral or problem-solving psychotherapy have been shown to be effective in treating depression in people with diabetes (de

Groot et al., 2010). Open dialogue between patients and provider can overcome barriers to treatment and reduce the potential impact of depression relapse (de Groot et al., 2010).

Research with low-income, urban primary care patients of various racial and ethnic groups indicated that those who reported more childhood trauma (abuse, neglect, household dysfunction, cumulative adverse childhood experiences [ACEs]) were more likely to be diagnosed with diabetes in adulthood (Lynch, Waite & Davey, 2013). Additionally, culturally specific research indicated that low-income African Americans were affected disproportionately by chronic disease and mental health issues (CDC, 2015). Recent research by the UCLA Center for Culture, Trauma and Mental Health Disparities shed light on the causes and impacts of this disparity (University of California, Los Angeles [UCLA], 2015). These research studies analyzed certain types of negative experiences that affected low-income African Americans. This research found five environmental factors, called “domains” that can predict depression, anxiety and post-traumatic stress disorder. These five domains are:

1. Experiences of discrimination due to racial, ethnic, gender or sexual orientation
2. A history of sexual abuse
3. A history of violence in the family or from an intimate partner
4. A history of violence in an individuals’ community
5. A chronic fear of being killed or seriously injured

Suffice it to say, the effects of these experiences are cumulative and their impacts accrue over a person’s lifetime (UCLA, 2015).

Racism, Diabetes and Depression

Regarding diabetes, depression and related health disparities in the U.S., it is important to consider the role of racism. Racism is maltreatment of persons based on one's racial group. Racism can negatively impact individuals - both psychologically and physiologically, and can negatively impact health behaviors, as well as, the delivery and quality of care in health care systems (Brondolo, Gallo, & Myers, 2009). It has been suggested that the patterns of racial disparities in the quality of U.S. health care continues even when differences in socioeconomic status, health insurance, comorbidity, stage and severity of disease and medical facility type are taken into account (Williams & Mohammed, 2009). Shavers and Shavers (2006) in examining the relationship of various types of discrimination, along with racial and ethnic health disparities, reported that racial discrimination against Americans of various racial and ethnic groups fostered a difficult to break multigenerational cycle of poverty. The findings from these research studies suggested that the association between race, socioeconomic status and health disparities is very complex. (Williams & Sternthal, 2010).

Social Environmental-Physical Determinants of Health

The social environmental-physical determinants of health are related to social human geography. This aspect is related to social theory, sociology and social phenomena (Dunbar, 1977). Social human geography and the conditions therein are the factors related to where people live, work, learn and play can affect a wide range of health outcomes and risks (CDC, 2015b). These conditions are known as social determinants of health [SDOH] (CDC, 2015b). Herein, more education is a predictor of better health, but poverty limits access to safe neighborhoods and healthier foods. (Adler & Newman, 2002; Saegert & Evans, 2003; Walker, Keane, & Burke, 2010). Low income, unstable housing, unsafe neighborhoods or substandard education and other health disparities are striking in communities with poor SDOH (Braveman, 2006; Norman, Kennedy, & Kawachi, 1999). It is important to address the SDOH in order to create health promoting social and physical environments. However, despite comparable population-level trends, social, economic and cultural factors shape the individual-level experiences of co-occurring diseases, such as diabetes and depression, within each unique sociocultural context (Mendenhall, 2015). Mendenhall's research (2015) demonstrated that the concept and construct of the social determinants of health and disease must include the social, economic and cultural factors which "shape and are shaped by the emergence and convergence of disease and suffering" (p. 2). Therefore, health care professionals and researchers should apply their knowledge about SDOH to improve individual and population health, and also to advance health equity (Williams, Costa, Odunlami, & Mohammed, 2008; Marmot et al., 2007).

To advance health equity and to improve individual and population health, the CDC's (2015) "Healthy People 2020" health promotion initiative developed five key areas of SDOH, which also includes the environmental-physical aspects (see Table 2.3 for further details):

- Economic Stability: poverty, employment, food security and housing/residential stability
- Education: high school graduation, higher education, language/literacy and early childhood education/development
- Social and Community Context: social cohesion, civic participation, perception of discrimination/equity and incarceration/institutionalization
- Health and Health Care: access to behavioral health care, access to primary care and health literacy
- Neighborhood and Built Environment: access to healthy food, housing quality, crime/violence and environmental conditions

Table 2.3

Social and Environmental-Physical Determinants of Health

Social Determinants of Health	**Environmental-Physical Determinants of Health**
Safe housing and local food markets	Natural environments, such as green space, e.g., trees and grass or weather and climate change
Educational, economic and job opportunities	Built environmental, such as buildings, sidewalks, roads and bike lanes
Quality education and job training	Housing and community design
Community-based recreational/leisure activities	Worksites, schools and recreational settings
Transportation options	Physical hazards and exposure to toxic substances
Public safety	Physical barriers, especially for persons living with disabilities
Social support	Aesthetic elements, e.g., trees, good lighting, benches
Social norms and attitudes, e.g., racism, discrimination and government distrust	
Crime, violence and social disorder exposure, e.g., community trash and lack of cooperation	
Socioeconomic conditions, e.g., poverty concentrations and related stressful conditions	
Residential segregation	
Linguistic/language/literacy considerations	
Emerging technology and mass media access, e.g., cell phones, the internet and social media	
Culture, e.g., beliefs, traditions, thinking, food, dance, faith traditions, etc.	
Available resources to meet daily needs	

Source. www.healthypeople.gov/2020

Social Environmental-Physical Determinants of Health in South Dallas, Texas

Geographic Community Setting. Social determinants of health and social human geography were factors in the selection of this setting/research site. This setting/research site is located at the Diabetes Health and Wellness Institute ® [DHWI ®] at the Juanita J. Craft Recreation Center, a trusted place for individuals and families which is located in the southern sector of Dallas, TX in zip code 75210, a medically underserved community with poor SDOH, including as a health professional shortage area for primary care, dental care and mental health (USDHHS/Health Resources and Services Administration [HRSA] Data Warehouse, 2016). DHWI is an affiliate of Baylor Scott and White Health and Baylor University Medical Center at Dallas and is a joint effort with the City of Dallas. DHWI opened in June 2010 to help medically underserved, uninsured and economically disadvantaged persons in South Dallas, who are living with diabetes, depression and other chronic illnesses. DHWI is housed in the recreational center that is named after the beloved and well known African American community activist, civil rights organizer, social justice reformer and public servant, the late Juanita Jewel Shanks Craft (1902-1985). The grand-daughter of African slaves, Juanita Craft spent her lifetime working for equal rights for African Americans, the expansion of rights for Native Americans and Hispanics, and integration for all races (Baylor Scott & White Health, 2016).

The southern sector of Dallas contains many jewels, including the Texas historic landmark – the Juanita J. Craft Civil Rights House, the national historic landmark – Fair Park – home to the State Fair of Texas, the African American Museum, the Dallas Weekly newspaper, many of the African American fraternities and sororities, the Martin Luther King Cultural Center, the Martin Luther King, Jr. and Malcolm X Boulevards (Texas Historical Commission's Texas Heritage Trails Program, 2016; Blacks in Dallas, 2016). Since just after the Civil War when Black farmers settled this area to farm, the southern sector of Dallas has always had a significant Black/African American presence (Blacks in Dallas, 2016). For more than a century, the southern half of Dallas grew into a large Black working and middle class community, and became the premier African American community for working and middle class African American homeowners (Blacks in Dallas, 2016). However, in recent decades, large population losses, social and economic injustices have left many economically poor African Americans behind, along with numerous abandoned, neglected and demolished properties (Blacks in Dallas, 2016). The median incomes in the southern sector of Dallas now range from $12,000 to $28,000 annually (Blacks in Dallas, 2016). The median home values range from $30,000 to $80,000, with rents in the $600 to $800 range (Blacks in Dallas, 2016). There is an imbalance between the number of home owners and the number of renter households, particularly for low-income residents (Dallas Morning News, 2016). Fortunately, the neighborhood housing stock is now experiencing new development and community revitalization, compliments of the nonprofit Habitat for Humanity, Rebuilding Together Dallas, and other organizations which are working together to attract more homeowners and foster economic development. In order to bridge the “North (affluent) – South (poor) Dallas Gap”, the Dallas Area Habitat for Humanity are committed to lifting up the quality of life and economic future of the southern half of the city and its residents (Dallas Morning News, 2016). Habitat for Humanity is working toward neighborhood transformation and stabilization by growing property tax rolls, creating jobs, generating home ownership, improving educational achievement, reducing violent crime in challenged neighborhoods and enhancing high school graduation (Dallas Morning News, 2016).

Social Determinants of Health: Diabetes and Depression in South Dallas, TX

Among other issues and concerns, type 2 diabetes is very common in the southern sector of Dallas. Within the city of Dallas, people who live in the city’s southern sector – south of Interstate 30 and east of Interstate 35 – often have diabetes, have more problems from their diabetes and are more often hospitalized for diabetes than people who live in any other area of Dallas County (Baylor Scott & White Health, 2016). Within the Dallas’ Frazier community, in zip code 75210, a grim statistic used to be that people living there were three times as likely to die from diabetes-related complications than those in Dallas County overall (KERA Breakthroughs, 2014) . Cognizant that African Americans were twice as likely to have diabetes as white people and that living in poverty also doubles one's risk of developing the disease (KERA Breakthroughs, 2014), the Baylor Health Care System and the City of Dallas established a $15 million dollar partnership to provide better prevention and care of diabetes through the Diabetes Health and Wellness Institute (Baylor Scott & White Health, 2016). DHWI serves about 3,500 people annually (KERA Breakthroughs, 2014).

Untreated depression among this vulnerable population who have diabetes is a significant chronic disease and public concern that requires urgent intervention. The comorbidities of diabetes (an endocrine disorder) and clinical depression (a mood disorder) in Texas and throughout the United States are major health concerns, particularly for African Americans. The intersectionality of race, class and gender are variables that may impact health care access and disparities (differences) within these vulnerable populations. Furthermore, according to the National Institutes of Health [NIH] (2014), cultural competence is critical to improving access to high-quality health care and in reducing heath disparities, especially among vulnerable populations. The incorporation of a systems approach, which is inclusive of individuals, groups, communities, institutions, cultural variations and racial, class and gender disparities vis-à-vis health care delivery systems, is necessary in order to examine cultural competence in diabetes and depression care. Since 2010, this systems approach has been operationalized at the Diabetes Health and Wellness Institute (DHWI) in the southern sector of Dallas, TX. DHWI is the cornerstone of Baylor's Southern Sector Initiative, created in 2006, to address the region's health care needs relative to diabetes. This Institute works to weave diabetes prevention and treatment into the fabric of the Frazier community and is a part of this neighborhood. DHWI is conveniently located near the Fair Park Dallas Area Rapid Transit (DART) public transportation line (Baylor Scott & White Health, 2016). DHWI is built of the four fundamental principles: 1) clinical care in the neighborhood; 2) community-based, multidisciplinary research; 3) integration of social, cultural, political and economic initiatives; and 4) collaborative support. The goal of the Institute is to improve the lives of those at risk for developing diabetes or those who have been diagnosed with the disease. DHWI offers its' members and/or patients diabetes education, primary health care, social work/behavioral health care, disease management, nutritional counseling, cooking demonstrations, computer literacy classes, a fitness center, aerobic exercise training, a gymnasium, a game room, tennis courts, baseball and football fields, walking trails, a farm stand and afterschool programs (Baylor Scott & White Health, 2016). The DHWI programs incorporate the seven self-care principles of the American Association of Diabetes Educators, i.e., the AADE7 Self-Care Behaviors™: healthy eating, being active, monitoring, taking medications, problem solving, reducing risks and healthy coping (American Association of Diabetes Educators, 2010).

The review of extant literature discussed in this chapter indicates that despite numerous challenges, positive clinical, behavioral and organizational efforts have been forthcoming, given the awareness of one's own cultural world view, attitudes toward cultural differences, knowledge of different cultural practices and worldviews, and the development of cross-cultural skills. It is anticipated that increased awareness, knowledge base enhancement and skill development certainly will help in improving health care access and reducing disparities for persons living with diabetes and clinical depression, especially with vulnerable populations, such as African Americans living in the southern sector of Dallas, TX.

Systemic Factors

Thinking systemically, social work researchers recognize that genetic factors may impact one's susceptibility to health conditions, along with other factors related to the level of health risk knowledge, skills and attitudes, the practice of healthy behaviors and disease prevention. These factors are evident at the individual (micro systems) level, environmental/community (meso systems) level and larger (macro) systems levels. At the individual level, African Americans must have greater access to health resources, in order to, decrease avoidant and postponement behaviors and also to eliminate health care disparities. Cognizant of the historical, generational mistrust and suspicion of health care systems, especially among African Americans (e.g. the Tuskegee Experiment), due to racism and discrimination, multi-dimensional targeted and focused outreach efforts are needed to build trusting relationships with African Americans. Health care outreach related to diabetes and depression must recognize the compounding and cumulative impacts of inadequate access to primary health care and mental/behavioral health care, poverty, low literacy levels, poor education, and high stress levels. At the environmental/community levels, there is the recognition of the disproportionate disease burden that is borne by culturally diverse and vulnerable populations, particularly across the life stage for individuals with low socioeconomic status and poor general health (USDHHS, 2016). For historically disadvantaged populations, such as African Americans, low socioeconomic status was a major barrier in access to health care (General Accounting Office, 2000). The lack of community-based health centers and the lack of racial and ethnic diversity in the health care force in underserved communities are “problems to be worked” in order to enhance utilization and access in racial/ethnic communities.

Nutrition is another salient factor, as “dietary practices among African Americans are deeply rooted in African American history and culture” (Liburd, 2003). This is an affirmation of the dietary and nutrition practices that are deeply rooted in its culture and history. Food is a factor in diabetes-related complications and disordered/emotional (over) eating. Food is a multi-generational factor in family gatherings, special occasions, socialization, the transmission and active, observable translation of values, sentiments, and enduring messages (Liburd, 2003). Food has major cultural significance in the African American community, making adherence to “healthier eating” in one’s diabetes self-management plan a major challenge. The cultural significance of food, along with food insecurity, food insufficiency and living in “food deserts”, where there is limited access to fresh fruits and vegetables, sources of whole wheat, lean meats and other healthier food choices, are further challenges for African Americans.

In terms of wider systems level factors and the health care infrastructure, is it essential to have a diverse workforce and also to develop model national programs where excellent, integrated (primary care and behavioral) health care is being provided (The Commonwealth Fund et al., 2008). Healthy People 2020 (CDC, 2015) reminds health care professionals and researchers that much work still needs to be done, even in the face of local, state and federal resource limitations (e.g., personnel, facilities and equipment). African Americans may have limited (co-pay) financial resources for health promotion and disease prevention. Consequently, low socioeconomic status may persist as a barrier for some community members in accessing health care services.

Conclusion

Based on a review of the extant literature, it is evident that the twin epidemics of diabetes (a metabolic/endocrine disorder) and clinical depression (a brain chemical imbalance) are major public health concerns in the United States, particularly for African Americans. The inter-sectionality of race, gender, and class are variables that may impact health care access and disparities (differences) within these vulnerable populations. Furthermore, cultural competence is critical to improving access of high-quality health care and in reducing disparities, especially among vulnerable populations. The incorporation of syndemic and systems approaches, which is inclusive of individuals, groups, communities, institutions, cultural variations and racial, ethnic, class and gender disparities vis-à-vis health care delivery systems, is necessary in order to examine cultural competence in diabetes and depression care. This literature review indicates that positive clinical, behavioral and organizational efforts are ongoing, given the awareness of one's own cultural world view, attitude toward cultural differences, knowledge of different cultural practices and worldviews, and the development of cross-cultural skills. Increased awareness, knowledge base enhancement and skill development certainly will continue to help in improving health care access and in reducing disparities for person living with diabetes and clinical depression, especially with vulnerable populations, such as African Americans.

CHAPTER THREE

THEORETICAL FRAMEWORK: SYNDEMIC THEORY

The Bidirectionality of Diabetes and Depression

The chronic blood glucose dysregulating condition of diabetes mellitus affects more than 29 million people in the United States (Centers for Disease Control and Prevention [CDC], 2015). Cognizant of this statistic, empirical research has found that a bidirectional relationship exists between the significant health concerns of diabetes and the thinking, mood and behavioral health condition of profound sadness, which is known as clinical depression and major depressive disorder [MDD], (Renn, Feliciano, & Segal, 2011). Previous research found an increased prevalence of depressive symptoms in persons living with diabetes (Renn et al., 2011). In this regard, given the burden of chronic illness, depressive symptoms were often thought to be a consequence of diabetes (Renn et al., 2011). However, due in part to biochemical changes and reductions in self-care behaviors in depressed individuals, further research suggested that depression may be a risk factor in the development of diabetes (Renn et al., 2011). Thus, depression appears to be both a risk factor and a consequence of diabetes (Renn et al., 2011). Meta-analyses provided evidence for a bidirectional relationship, and indicated that people living with diabetes had a 15 percent increased risk of depression, and people living with depression had a 60 percent increased risk of developing diabetes (Mezuk, Eaton, Albrecht, & Golden, 2008). Talbot and Nouwen’s (2000) literature review also suggested a bidirectional relationship between diabetes and depressive symptomatology. The psychosocial burden of chronic disease, along with the biochemical and physiological changes associated with diabetes, provided modest evidence that depression is a consequence of diabetes (Renn et al., 2011). Given the aforementioned discussion, this dissertation’s research study, which was conducted with low-income African Americans who are living with diabetes and depression in the southern sector of Dallas, TX, and discussed these bidirectional relationships. Additionally, the life complexities of these persons who have both diabetes and depression through individual-level narratives was illustrated.

The disproportionate prevalence of the chronic condition of type 2 diabetes, among African Americans, coupled the mood disorder of depression, are closely associated with social-environmental disparities of health, also termed social suffering (Mendenhall, Seligman, Fernandez, & Jacobs, 2010). The role of depression in diabetes continues to inform the medical, psychosocial and anthropological literature, and the emerging research findings, along with the scientific and clinical discourse (Mendenhall et al., 2010). Mendenhall et al.'s (2010) research indicated that social suffering is linked to diabetes causality, wherein diabetes was used like an "idiom of distress" through which somatic symptoms were leveraged to disclose psychological distress. This was said to be particularly true for low-income persons, as diabetes and depression converge (Mendenhall et al., 2010). This observation is also relevant for many low-income African Americans who reside in the southern sector of Dallas, TX, for whom diabetes and depression converge. Thus, syndemic research and theory was used as a theoretical lens and analytic framework for understanding the interconnections of diabetes, depression and social suffering for this social work/behavioral health research.

Syndemics: Biosocial Disease and Health Reconceptualization

Applied Syndemic Research and Theory

It is important to explore the developing field of syndemic research and theory. By addressing the underlying social and environmental causes, syndemics provides an analytic framework regarding disease interactions, disease origins, threats to human life and wellbeing, and for the prevention of damaging disease interactions (Singer, 2009b, p. 16-18). In low-income neighborhoods, such as in the Frazier community in the southern sector of Dallas, TX, where there are food deserts (U.S. Department of Agriculture [USDA], 2015), homelessness, substandard housing, residential overcrowding, gang violence, domestic violence, limited health care resources, and the linkages of diabetes, obesity, substance abuse and mental illness, this syndemic perspective can intentionally address these complex realities and community health issues (Singer, 2009b, p. 16-18). Syndemic theory extends the work of other researchers, given the human behavior in the social environment context in disease causation and progression. Consequently, the syndemic concept is multidisciplinary, encompassing various health disciplines, in understanding and addressing human health as an intricate biosocial process (Singer, 2009b).

As a critical systems approach to public and community health (Singer, 2009b, p. 16-18), syndemics necessitates a rethinking of traditional social scientific and public health understandings of disease. According to Singer (2009b, p. 16-18), a syndemic involves the working together of a set of enmeshed and mutually enhancing health problems, i.e., diabetes and depression, within a context of noxious physical and social conditions, i.e., social suffering. This interaction can significantly affect the overall disease burden and health status of a population. (Singer, 2009b). Consequently, the health of physical and social environments, communities, economic and political structures are impacted by these multifaceted systemic interactions.

This perspective is known as a *biosocial* approach to disease causation (Singer, 2009b, p. 16-18). This biosocial approach is defined as “the concentration and deleterious interaction of two or more diseases or other health conditions in a population, especially as a consequence of social inequity and the unjust exercise of (political) power” (Singer, 2009b, p. xv), especially in marginalized communities and vulnerable populations. This approach influences the development of health promotion interventions and can deepen our understanding of these communities and populations (Singer, 2009b), including the focus of this dissertation’s research in the southern sector of Dallas, TX.

Since the 1970s, emerging from medical anthropology, the field of syndemic research and theory has provided an analytic framework regarding the interactions of diseases and underlying social and environmental causes (Foster & Anderson, 1978), and has been used to examine diabetes and depression. In the mid-1990s, the term syndemic was expounded upon by the medical anthropologist, Merrill Singer (2009b, p. 16-18). An applied medical anthropology researcher, Singer was employed for over twenty-five years in a community based, direct service, and research organization located in a primarily African American inner-city neighborhood (Singer, 2009b). From his daily experiences, Singer (2009b) became painfully aware of the multitude of health problems caused by being marginalized and having a low-income in American society. As poverty is linked to diabetes and depression self-management, Singer (2009b) observed that poverty is intertwined the biological stressors of social discrimination, diverse pathogens, toxic substances in the living and working community environments, climatic extremes owing to inadequacies of clothing and shelters, where heat and cold can impact one’s ability to be active by exercising and to stay healthy. Furthermore, in low-income, impoverished communities, the presence of food deserts, where there is a lack of fresh vegetables, fruits and other healthful whole foods, leading to unhealthy eating, food insufficiency and malnutrition (U.S. Department of Agriculture [USDA], 2014; American Nutrition

Association [ANA], 2015), is a tremendous biopsychosocial stressor. On this latter point, the food deserts are largely due to a lack of healthy food providers, grocery stores and farmers' markets (ANA, 2015). Instead, the presence of local quickie marts provide a wealth of sugary, processed and fat laden foods that are major contributors to the epidemics of diabetes and obesity (ANA, 2015). These readily available foods may also be used in disordered eating and for the self-medication of depressive symptoms (Rogers Wood, 2001), particularly in African American communities.

The Prevention Institute (2002) has summarized that increasingly the chief underlying cause of health disparities is social and economic inequality. Social and economic inequality is identified as poverty, limited education, social bias, institutional racism, and related environmental conditions, as evidenced by food deserts and limited access to health care (Prevention Institute, 2002). These conditions either directly produce ill health or promote unhealthy behaviors that lead to poor health outcomes, including diabetes and depression.

Diabetes and depression are useful lenses through which to operationally define the term syndemic. However, there are the inherent challenges of differentiating two or more components of a single disease from two or more interacting diseases (Singer, 2009b). Diseases may be found independently or may be connected. Interacting diseases constitute a syndemic with significant adverse consequences, including heightened mortality (Keller, Hader, DeZeeuw, & Rasche, 2007; Punjabi et al., 2002). The term syndemic and the syndemic concept entails the affirmation that disease is both a social construct and a (bio-) pathological reality (Hays, 2000). According to Singer (2009b), the syndemic perspective is concerned with disease interaction and its host, in shaping the course and expression of a disease, along with recognizing the biomedical disease concept. More importantly, the syndemic perspective incorporates the sociocultural origins and social determinants of disease (Singer, 2004). Herein, the social circumstances surrounding the encounter with pathogens are of paramount importance (Waldram, Herring, & Young, 2006). To be clear, a syndemic is operationally defined as “the concentration and deleterious interaction of two or more diseases or other health conditions in a population, especially as a consequence of social inequity and the unjust exercise of (political) power” (Singer, 2009b, p. xv). Regarding social inequities and power differentials, public health researcher, Krieger (2005) asserts that social inequality kills. Furthermore, Krieger identifies that for individuals and communities, social inequality negatively impacts the overall quality of health, the ability to have a healthy start in life, increases the disease and disability burden, and brings about premature death, as evidenced by the proliferation of diabetes and depression in the Frazier community in the southern sector of Dallas, TX. The powerful social determinants of poverty and discrimination, inadequate medical care, and human rights violations are life and death issues that impact the degree of lifelong suffering (Kreiger, 2005). Low-income persons generally have worse health outcomes than more affluent social groups, because “health and wealth go hand in hand” (Singer, 2009b, p. xiii). Persons with multiple diseases and multiple health problems can be provided with health and social support services, but still face a myriad of needs. Mindset changes regarding health and illness need to be created toward a new and more holistic way of thinking (Singer, 2009b), especially in marginalized communities and vulnerable populations where there are health disparities, as is the case in the Frazier community in the southern sector of Dallas, TX. In these marginalized communities and vulnerable populations and elsewhere where diabetes and depression proliferate, the American Association of Diabetes Educators ([AADE], 2016) recommends seven key focus areas, known as the AADE7 Self-Care Behaviors ™, i.e., healthy eating, being active, taking medications, monitoring, problem solving, risk reduction, and healthy coping (AADE, 2016), with an emphasis by this clinical social worker/diabetes educator on problem solving, risk reduction and healthy coping.

According to the American Association of Diabetes Educators (AADE, 2016), healthy eating is important in order to know which foods affect one's blood glucose/blood sugar. Being active is beneficial for weight loss, overall health benefits, lowering one's blood pressure and cholesterol, improving one's mood, anxiety and stress reduction. For people living with diabetes, physical activity can also keep one's blood glucose/blood sugar levels normal and keep one's diabetes in control (AADE, 2016). Taking medications is necessary for persons living with diabetes to work on lowering their blood glucose/blood sugar levels, to reduce risks of complications and to feel better (AADE, 2016). Monitoring is a necessary part of diabetes self-care/self-management, as vital information is obtained from one's weight, blood pressure and blood glucose/blood sugar levels. Monitoring helps one to know when they are on target, and is beneficial in making food and activity adjustments so that the body can perform at its best (AADE, 2016). Problem-solving skills help persons living with diabetes to prepare for the unexpected and to make a plan for dealing with similar future problems (AADE, 2016). Having diabetes puts one at risk for developing other health problems. However, by understanding the risks, one can take steps now to lower the chances of diabetes-related complications (AADE, 2016). For people living with diabetes, this chronic condition can affect one's physical and emotional state, and may be associated with depression symptomatology. Having mixed feelings about one's diabetes self-management is a normally expectable experience. Certainly, healthy coping is important to reduce the negative emotions as they can impact diabetes self-care. (AADE, 2016).

Diabetes and depression self-care management necessitates looking at the whole situation, and not just as a part of a single disease or social condition, as health and social problems impact individual and communities. However, the traditional biomedical approach, i.e., relating to both living organisms and disease treatment, is the predominant approach in medicine and health care. This approach often does not pay much attention to the social environments of people with diseases. The reality is that the social environments of people have a major impact on their diseases (Singer, 2009b), as indicated in Table 3.1. Furthermore, the social environments of people, such as in the Frazier and surrounding communities in the southern sector of Dallas, TX, have a major impact on their health and wellness. This awareness is critical to understanding the signs and symptoms of diseases, the spread and clustering of diseases between and within populations, and the intertwined disease burden at the individual and population levels (Singer, 2009b).

Table 3.1

Medical and Syndemic Scientific Thinking

Medical Scientific Thinking	**Syndemic Scientific Thinking**
Biomedical Approach	Biosocial Approach
Includes germ theory and pathogenic causes; particular microbes; specific diseases	Includes racial, ethnic, class, gender, geographic, and other factors

Source. Author’s analysis of syndemic theory

Given the aforementioned commentary, it is clear that a central tenet of syndemic research and theory indicates that diseases do not exist solely within the bodies of those they inflict, nor within a social vacuum (Syndemics Research, 2007). Thus, the impact of disease and disease transmission are never merely a biological process. Poverty/economic hardship, institutionalized/covert and overt racism, sexism, ostracism, structural violence, deteriorated infrastructures, social disruption, inadequate health care and other factors are of greater importance in the extent of disease spread (Syndemic Research, 2007). These factors take a toll on human wellbeing. This multiplicity of factors and resulting interactions increase the total burden of disease. For marginalized groups and vulnerable populations, structural disadvantages and significant disparities increase social suffering and years of life lost (Syndemics Research, 2007). Thus, syndemic research and theory are certainly an appropriate lens through which to examine the intersections of race, culture, socioeconomic status, class, gender and the social-environmental determinants of health. For persons who are living with diabetes and depression, as well as for their health care and behavioral health providers, especially in the southern sector of Dallas, TX and elsewhere, knowledge about syndemic interconnections is of paramount importance.

Syndemic Theory: Going Beyond Comorbidity

Singer (2009b) notes that there are three primary disease pathways: infectious agents, genetics, and body-environmental interactions. This contemporary disease pathway understanding includes an awareness of co-present and co-infectious diseases (Singer, 2009b). Knowledge about the existence of pathogens with multiple strains, and the role of biologic individuality in population health is also included (Singer, 2009b). The field of syndemics furthers the advancement of biomedical and public health thinking about disease (Singer, 2009b). Syndemic theory represents a *paradigm shift* in the understanding of what disease is and how it is manifested in complex biosocial feedback environments (Singer, 2009b).

The term *comorbidity* has traditionally been used in biomedicine to denote this (disease) co-occurrence (Feinstein, 1970). The frequent disease patterns of comorbidity or co-occurrence, with more than one disorder or disease in the same patient, interrupts the biomedical principles of disease separation and independence. According to Singer (2009b), some disease complexes and comorbid disease patterns occur with enough regularity to have their own names, suffixed as *triad* or *syndrome*, as in metabolic syndrome: obesity, high blood pressure, high blood glucose and abnormal cholesterol levels. Medical literature case reports generally mention the disease complexes and comorbid disease patterns, rather than the syndemic disease interactions. In comorbidity research, schemas have been developed to assist medical professionals in making treatment decisions, related to cost/benefit analysis in treating a patient with multiple health conditions; and what might happen if one condition is treated in the co-presence of other conditions (Singer, 2009b).

Medical anthropologist, Emily Mendenhall (2015) notes that syndemics provides a critical alternative to comorbidity, by recognizing how social realities shape individual illness experiences and also the distribution of diseases across populations. Consequently, Mendenhall argues that in the study of comorbidity, a syndemic approach is fundamental, given the essential integration of the biological, social, cultural and psychological factors that shape the distribution of disease and illness experiences within a time and place context (Mendenhall, 2015).

The individual experiences of comorbid conditions are shaped by social and cultural factors, further pushing the concept of comorbidity apart from and beyond nosological disease classification categories and biological realities that shape illness experiences (Mendenhall, 2015). Consequently, in order to understand why certain populations and individuals suffer, syndemic theory goes beyond comorbidity by examining present and historical trends (Mendenhall, 2015). Margaret Lock (2001) has argued that recognition of all medical knowledge and practice is historically and culturally constructed, and is embedded in political economies. Furthermore, this medical knowledge and practice are subject to continual transformation, both locally and globally (Lock, 2001). Thus, an understanding of the syndemic approach is critical to understanding comorbidities, given cross-cultural variances (Mendenhall, 2015). The syndemic approach is of particular importance in examining major depressive disorder, which is distinctive in its phenomenology, prognosis, social origin, and psychobiology, as social and cultural processes play major roles in how people generally experience and express distress cross-culturally (Good, 1993; Good & Kleinman, 1985). Thus, biology and disease must be culturally contextualized. This is especially important because living in a resource-poor context may shape co-morbid epidemiology and one's lived experiences (Kohrt et al., 2005; Shidhaye, Mendenhall, Sumathipala, Sumathipala, & Patel, 2013).

Mendenhall (2015) has evaluated the syndemic construct through her research on the foundational synergistic interactions of co-occurring diabetes and depression in vulnerable populations residing in the United States (Chicago, Illinois), India and South Africa. Mendenhall (2015) argues that the comorbidities of diabetes and depression cluster with social and economic factors, and this biosocial process exemplifies the heart of syndemic theory. Furthermore, despite comparable population-level trends, social, economic and cultural factors shape the individual-level experiences of co-occurring diseases within each unique sociocultural context (Mendenhall, 2015). Thus, Mendenhall's research (2015) demonstrates that the concept and construct of the *social determinants of health and disease*, must include the social, economic and cultural factors which "shape and are shaped by the emergence and convergence of disease and suffering" (p.2).

As evident in the Frazier and surrounding communities in the southern sector of Dallas, TX, the social inequalities of residential instability, population density, deteriorating housing, environmental toxins, lack of access to adequate nutrition and medical care, racial discrimination, internalized self-hatred, marginalization, stigmatization, deprivation, maladaptive self-medication responses through substance abuse, being targeted for personal, community or structural violence, including by the criminal justice systems, etc., negatively impact people (Singer, 2009b). These demoralized population sectors produce optimal circumstances for disease spread, concentration and interaction. Consequently, health care providers, mental health professionals, diabetes educators and health care researchers must be cognizant that the most critical social determinants of health are biopsychosocial-environmental and cultural.

Syndemic theory challenges the notions of how comorbid conditions are experienced, reveals how sociocultural factors shape individual-level experiences of co-occurring diseases, and promotes cross-cultural thinking (Mendenhall, 2015). The complex biosocial framework of diabetes and depression is an example of applied syndemics and may be ethnographically centered, as with Non-Hispanic African Americans. Furthermore, this applied diabetes-depression-syndemic suffering framework (coined in this dissertation by the term $D^2 S^2$) takes into account the following factors (Mendenhall, 2012, 2015), all of which are related to diabetes, depression and syndemic suffering:

- Structural Factors: addressing issues of how people move securely in the world, from policies and laws, to unemployment, poor health care access, discrimination, poverty, food deserts and living in unsafe neighborhoods
- Sociocultural Factors: addressing issues of how people live in the world, through the guise of racism, gender roles, gender inequality, religion, food preferences and social networks
- Relationship Factors: influencing how people negotiate structural and sociocultural challenges, which shapes social support, family conflict, family involvement, partner characteristics, relationship conflict and institutional support

- Individual Factors: the fundamental roles of how people experience and interact in the world, as evidenced by their responses to traumas, adverse childhood experiences (ACEs), lifestyle choices, obesity, self-efficacy, genetics, behaviors and coping mechanisms

It is evident that the aforementioned factors surrounding this biosocial syndemic framework are larger than the mere co-occurrence of diabetes and depression. Again, these factors and other forces must be culturally contextualized and population specific (Mendenhall, 2015). According to Mendenhall (2015), the concept of syndemics also allows the examination of epidemiology, which is defined as disease incidence, distribution, patterns, causes, effects and control of population health conditions (WHO, 2015). This examination occurs alongside the experience of these conditions at the individual level (Mendenhall, 2015). In the syndemic concept, there must be attention to the cross-cultural application of disease and social condition clustering. Furthermore, syndemic research and theory increases the understanding of the synergistic impacts of one disease and another within the individual (Mendenhall, 2015). Additionally, it requires the study of *syndemic human suffering*, with suffering defined as pain, distress and hardship ("suffering" found in Merriam-Webster, Inc., 2015). Cognizant of this human suffering, Singer (1996) coined the term SAVA syndemic to deconstruct the interaction of substance abuse, violence and AIDS, especially as this disproportionately affected low-income Puerto Ricans and other ethnic residents living in U.S. urban centers. Mendenhall (2012, 2015) built upon Singer's foundational work, and coined the term VIDDA syndemic to deconstruct the complex dynamics of violence, immigration, depression, diabetes and abuse among first- and second- generation Mexican immigrant women in Chicago, IL. Thus, the simultaneous examination of both the population- and individual- level dynamics can bring about more thoughtful and holistic interpretations, related to how and why disease and suffering are distributed among socially and economically marginalized groups (Mendenhall, 2015), identified in this dissertation's research by the conceptual model of Diabetes-Depression-Syndemic Suffering, or D^2 S^2.

Consequently, this overarching syndemic theory is a useful conceptual model for understanding diabetes, depression and psychosocial-environmental suffering, especially among marginalized groups and vulnerable populations, such as low-income African Americans in the southern sector of Dallas, TX. Applied syndemic theory increases the understanding of the underlying factors leading to medical diseases, and also explicates social maladies or social-behavioral outcomes (Klein, 2011).

As initially mentioned, individual-level illness experiences and lay discourse narratives from urban African American, low-income people, who are living with diabetes, depression, social, psychological and physical syndemic suffering in the southern sector of Dallas, TX were discussed in this dissertation's research study. These narratives illustrated the holistic agendas of syndemics and chronicity. Syndemics and chronicity explain diabetes, depression and the macrosocial factors that shape and embody individual suffering and disease (Weaver & Mendenhall, 2014). This applied syndemics framework describes how poverty, oppressive social relationships and other social conditions, weaken individuals and populations (Singer, 2009a; Singer & Clair, 2003; Singer et al., 2006). The chronicity/chronic disease and syndemic approaches assist in the holistic analyses of disease processes and the interaction of the social, psychological and biological factors (Weaver & Mendenhall, 2014).

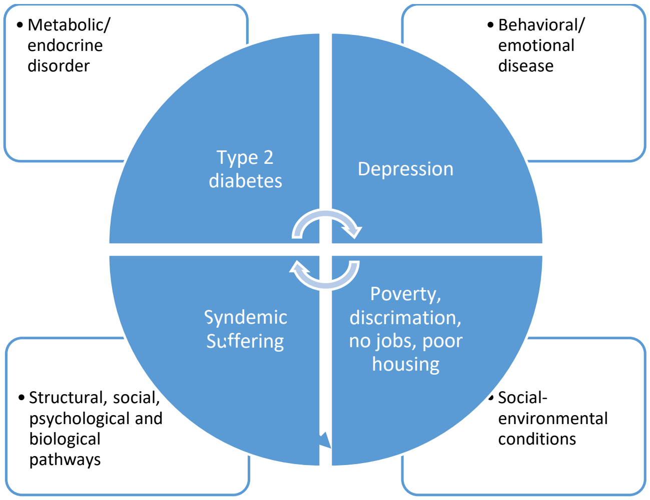
Diabetes, depression and syndemic suffering related to low-income African Americans identifies the diverse interaction of disorders, diseases, disparities and social conditions which are culturally contextualized. This cultural contextualization includes racial discrimination, poverty, substandard housing, unemployment, and as previously mentioned, food deserts (USDA, 2014), etc. This diabetes, depression and syndemic suffering ($D^2 S^2$) paradigm is illustrated in Figure 3.1.

According to Singer (2009b), another major factor in syndemics is structural violence, also known as offenses against human dignity, which includes social disadvantages and stigmatization suffered by people of color, the poor, documented and undocumented immigrants, women, the homeless and other marginalized groups. For example, African Americans experience a 50 to 100 percent higher burden of illness and mortality from diabetes than Non-Hispanic White [NHW] Americans (Smedley, Stith, & Nelson, 2003). Given the aforementioned social-environmental factors and conditions, it is necessary to confront the racial and other disparities in combating poorer and unequal health care treatment (Smedley et al., 2003).

The key dimensions of the disorders, diseases, disparities, social and environmental factors that influence syndemics are found in the following interactions: behavioral vs. physical health, acuity vs. chronicity, unidirectional vs. bidirectional causality. These dimensions are applicable to diabetes, depression, syndemic suffering, and related social-environmental conditions. These conditions emerge from the rigors of daily self-care management, and other conditions that disproportionately impact low-income African Americans, who are suffering with diabetes and depression, as indicated in Figure 3.1.

Figure 3.1

Diabetes, Depression, Syndemic Suffering and the Social-Environmental Conditions



Diabetes and Syndemics: A Biosocial/Physical Health Condition

Diabetes is a chronic, progressive disease that occurs when the human pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Insulin is an essential hormone that regulates blood glucose (blood sugar). Hyperglycemia, or high blood glucose, is a common effect of uncontrolled diabetes (WHO, 2013). Globally, diabetes mellitus-type 2 (hereafter, diabetes) comprises 90 percent of the people who are living with diabetes. Diabetes is largely the result of excess body weight and physical inactivity (WHO, 2013). Diabetes affects adults, adolescents and children. Chronic hyperglycemia of diabetes is associated with long term damage, dysfunction and failure of various body organs, especially the eyes, kidneys, nerves, heart and blood vessels (ADA, 2013). A healthy diet, regular physical activity, maintaining a healthy body weight and avoiding tobacco use can prevent or delay the onset of diabetes (WHO, 2013). Of note, the chronic disease and endocrine disorder of diabetes was the seventh leading cause of death in the United States (CDC, 2013). This leading cause of death statistic is of particular importance to African Americans who comprise 13.2 percent of the U.S. population (USCB, 2014b). In the United States, the incidence of diabetes is significantly higher among African Americans than among NHWs (USDHHS-OMH, 2015a, 2015b).

Research has indicated that positive diabetes self-management and self-care strategies include eating more fruits and vegetables, food portion control, weight loss, exercise and medication use for African American outpatients (Lynch, Fernandez, Lighthouse, Mendenhall, & Jacobs, 2012). However, many African Americans who are living with diabetes have expressed skepticism about taking medications and described regular activities of daily living as exercise (Lynch et al., 2012). Reportedly, both glucose self-monitoring and prevention of diabetes complications, such as foot or eye exams, were not as salient to the low-income African American outpatients included in this research study (Lynch et al., 2012). For African Americans, these research findings can serve as development guides for “beginning where the patient is” in tailoring culturally competent diabetes self-management interventions (Lynch et al., 2012).

An estimated 4.9 million African American adults, or 18.7 percent of all African Americans equal to or greater than 20 years of age have diagnosed or undiagnosed diabetes, compared to 7.1 percent of NHW Americans (National Diabetes Information Clearinghouse, [NDIC], 2011). Due to genetics, obesity and insulin resistance (Fellowship of Postgraduate Medicine, 2005), this risk of diabetes among African Americans is 77 percent higher than among NHW Americans (CDC, 2011). African Americans who are living with diabetes are more likely to suffer the diabetes complications of end stage renal (kidney) disease, lower extremity amputation and high blood pressure (USDHHS-OMH, 2015a). African American men were 2.7 times more likely to start (dialysis) treatment for diabetes related end-stage renal disease, as compared to NHW men (USDHHS-OMH, 2015a). In 2012, African Americans with diabetes were 3.5 times more likely to be hospitalized, as compared to NHWs (USDHHS-OMH, 2015a). In 2013, researchers indicated that African American adults were twice as likely to die from complications of diabetes, as compared to NHW adults (USDHHS-OMH, 2015a). African Americans are almost 50 percent more likely to develop diabetic retinopathy (eye disease) than NHWs (ADA, 2012).

One in four African American women over 55 years of age has diabetes (Wagner, Pizzimenti, Daniel, Pandya, & Hardigan, 2008). Ethnographic research on racism and health beliefs of African American women with diabetes has indicated that exposure to racism was linked to poor health outcomes, negatively impacted diabetes care and interfered with diabetes self-management and control (Wagner et al., 2008). Exposure to the stressor of racism was a common phenomenon for these African American women, and their beliefs linked racism to poor health. Detrimental health, such as cardiovascular and metabolic problems, plus exposure to racist events, internalized anger and negative emotions lead to maladaptive coping strategies including unhealthy food choices and food portions for these women (Wagner et al., 2008). For positive diabetes health promotion and interventions with African Americans, knowledge about health beliefs related to racism is essential (Wagner et al., 2008).

Depression and Syndemics: A Biosocial/Behavioral Health Condition

The thinking, mood and behavioral health condition of clinical depression is known as major depressive disorder (MDD). It is a serious, challenging and often recurring condition of profound sadness (MHA, 2007). Its’ symptoms may be limited to just one episode. However, depressive symptoms often return. For some people, symptoms may return after initial antidepressant medication treatment, and these are known as unresolved symptoms (MHA, 2007). In the latter case, more than one medication and psychotherapy may be needed to manage the depressive symptoms. According to the Diagnostic and Statistical Manual of Disorders-Fifth Edition DSM-5 ™ (APA, 2013), major depressive disorders consist of several symptoms, and these symptoms last for at least two weeks. There is no single cause of depression. However, biological, psychological and environmental factors may all contribute to its development (MHA, 2007). Evidence based research has firmly established that MDD is largely a biological brain disorder due to chemical imbalances (MHA, 2007). Other MDD factors include genetics, familial predispositions, life events, unresolved grief, major losses, unemployment, life changes, homelessness, chronic stress, trauma survivorship and self-medication with alcohol and/other drugs, and may trigger episodes of depression (MHA, 2007). Depression is the most frequently occurring mental health disorder in the U.S. (MHA, 2007). Eighty to ninety percent of those suffering from various levels of depression, i.e., mild, moderate or severe, can be effectively treated with psychotherapy and/or antidepressant medication (MHA, 2007). With effective treatment, persons living with depression can return to their normal activities, relationships and feelings (MHA, 2007).

Evidenced based research suggests that for some African Americans, stress and depression may precede and even act as a causal factor for diabetes through biochemical imbalances (de Groot, Anderson, Freedland, Clouse, & Lustman, 2001b). These biochemical imbalances are related to the continued secretion of stress hormones: cortisol, norepinephrine, epinephrine/ adrenaline and dopamine (de Groot et al., 2001b). Behavioral pathways are also related to the secretion of these stress hormones, such as those resulting from intergenerational and historical traumas (DeGruy Leary, 2005). Additionally, depression with diabetes may be secondary to the hardships associated with diabetes or to the ensuing biochemical factors associated with depression. (Ali, Stone, Peter, Davies, & Khunti, 2006). Because of the stigma associated with mental illness and as an alternative depression intervention, some African Americans use their participatory religious and spiritual practices, their religious and spiritual leaders and their faith-based organizations for depression care (NADD, 2013).

Diabetes and Depression: Risk Factors and Complications

According to Roy and Lloyd (2012), a range of factors may be associated with the risk of developing depression. In the general population and among people with living with diabetes, the increased prevalence of depression has been found among persons with the following characteristics: female gender, younger and/or older age, those with poor social support, people with lower socioeconomic status and individuals living alone (Roy & Lloyd, 2012). Occurrence of late or acute complications, insulin therapy and persistent poor glycemic control increases the risk of depression among people living with diabetes (Brown, Majumdar, Newman, & Johnson, 2006; Knol et al., 2007; Golden et al., 2008; Collins, Corcoran, & Perry, 2009; Pouwer et al., 2010). The relationship of socioeconomic status (Ostler et al., 2001; Everson, Maty, Lynch, & Kaplan, 2002), socioeconomic hardship and poor health, irrespective of race and ethnicity (Lynch, Kaplan, & Shema, 1997; Ross, 2000; Saul & Payne, 1999) is critical to understanding depression in diabetes.

Given the aforementioned research about depression and its major and minor forms of profound sadness, it is a common comorbidity in persons who are living with the chronic, blood glycose dysregulating, metabolic condition of diabetes. Moderate to severe depressive symptom levels have been found in patients with diabetes (Anderson et al., 2007). The treatment complexities of these two illnesses are a profound burden for patients and their families, and are certainly challenging for health care providers and health care systems (Anderson et al., 2007).

The prevalence of depression varies across adult populations who are living with diabetes, but it was estimated to be between 18 percent and 31 percent (Anderson et al., 2007). The population of these patients with moderate to severe depression ranged from 30 percent to 70 percent (Anderson et al., 2007). Often, because of the overwhelming nature of the symptoms, patients with diabetes and depression may have higher rates of diabetes complications (de Groot et al., 2001b), including coronary artery disease (Clouse et al., 2003), cerebrovascular accidents/strokes, retinopathy/vision loss, nephropathy/renal (kidney) failure, neuropathy/nerve damage, limb amputations and premature death (Medline, U.S. National Library of Medicine/USDHHS, NIH, 2015), worse glycemic control (Katon et al., 2004; Lustman et al., 2000), increased symptoms of diabetes (Ciechanowski, Katon, Russo, & Hirsch, 2003; Ludman et al., 2004), decreased physical functioning (Egede, 2004) and increased health care utilization (Egede et al., 2002). Thus, it is time to recognize the importance of depression in diabetes disability, morbidity and mortality, in order to identify how to elevate mental health services within diabetes care (Mendenhall, Norris, Shidhaye, & Prabhakaran, 2014). A systematic review has demonstrated that one third of low-income persons living with diabetes also have depression (Mendenhall et al., 2014). These studies underscore the need for integrating comprehensive behavioral/mental health care into the diabetes standard of care within health systems (Mendenhall et al., 2014). The use of psychometric inventories, such as the Patient Health Questionnaire© [PHQ], are beneficial tools. The PHQ has been translated and validated in a variety of languages (Pfizer, Inc. et al., 1999). In the case of diabetes and depression among low-income women in resource-constrained settings, the social determinants of physical and behavioral/mental health contributes to a holistic agenda for women’s health (Mendenhall et al., 2014). Research on this population must address the experiential plurality that shapes women’s health vis-à-vis the social determinants of depression (Mendenhall et al., 2014). This is evidenced by gendered subjugation within the home and public sphere, along with the structural determinants of diabetes and obesity, including poor access to healthy foods and health care (Mendenhall et al., 2014). Thus, an understanding of psychosocial and sociocultural factors, along with the need for empowerment can have a positive influence on the lifetime health and wellbeing of women (Mendenhall et al., 2014).

Thus, health care professionals must recognize that mental health is essential to physical health and holistic wellness (Prince et al., 2007). Mental health diagnosis and treatment can be integrated into primary care (Lund, Tomlinson, & Patel, 2015). Given the aforementioned statements about the significant issues and concerns related to diabetes, depression and syndemic suffering (D^2 S^2), the intersectionality of race, gender, and class are additional variables that impact healthy coping and may lead to health care disparities among marginalized and vulnerable populations, such as African Americans.

Aday (2001) notes that those at risk for poor physical, psychological or social health are these vulnerable populations. Additionally, persons may be potentially at risk for certain illnesses, based on genetic predispositions (Scanlon & Lee, 2007), resulting from life circumstances, due to illness or life events (de Chesnay & Anderson, 2012). In health care, those with a greater-than-average risk of developing health problems are vulnerable populations (Aday, 2001; Sebastian, 1996), given their marginalized status, limited access to economic resources, or personal characteristics: race, age and gender. (de Chesnay & Anderson, 2012). Due to racism, sexism, ageism, classism and elitism, many in the African American communities have traditionally been socially excluded/marginalized (de Chesnay & Anderson, 2012). Unfortunately, this marginalization is often evident among persons who are low-income/impoverished, including the working poor (de Chesnay & Anderson, 2012). In the United States, these persons may have limited access to health care because of the way health insurance is obtained (de Chesnay & Anderson, 2012). Certain individuals and groups are particularly vulnerable to healthcare problems, notably victims of violence, but also persons dealing with specific health problems associated with (human) development (de Chesnay & Anderson, 2012). A philosophy of social justice (is) valued by health care professionals (Larkin, 2004) and health care consumers to address those who are marginalized and vulnerable populations. Aday's framework and model (2001) for studying vulnerable populations incorporated the World Health Organization's (WHO, 1948) definitions of health – physical, psychological and social. This model (Aday, 2001) also incorporated the relationship between the community and the individual on various policy levels. Aday's framework/model helps in understanding the nature of health care for vulnerable populations and incorporates the critical variables of access, cost and quality (de Chesnay et al., 2012), and this model is useful in the discussion of diabetes, depression and syndemic suffering.

Conclusion

Syndemic theory is a biosocial analytic systems approach to public and community health, and included underlying social-environmental causes (Singer, 2009b). The two chronic diseases of diabetes and depression illustrate the complex interconnections, bidirectional relationships and related syndemic suffering (Mendenhall, 2012, 2015). Poverty, oppression, structural inequalities and disparities within marginalized communities and vulnerable populations have been exemplified in this discussion of syndemic research and theory. Syndemic theory was used to answer the questions of how the intersections of race, class and gender impact diabetes and depression care, in seeking a deeper understanding of human behavior in the social environment, vis-à-vis the social-environmental determinants of health. This is of particular importance among African Americans from the Frazier community in the southern sector of Dallas, TX. In this dissertation’s research study, individual-level illness experiences and lay discourse narratives from these urban, low-income persons, who are living with diabetes, depression and the social, psychological and physical suffering were used as vivid case illustrations. These life illustrations from marginalized persons and vulnerable populations shape and embody individual suffering and disease. They indicate how the macrosocial factors, holistic agendas, and chronicity explain diabetes and depression (Weaver & Mendenhall, 2014). Knowledge about marginalized persons and vulnerable populations described how poverty, oppressive social relationships and other social conditions, stress and weaken individuals and populations (Singer, 2009b; Singer & Clair, 2003; Singer et al., 2006). The chronicity/chronic disease and related approaches assisted in the holistic analyses of disease processes, along with the interaction of the social, psychological and biological factors (Weaver & Mendenhall, 2014).

CHAPTER FOUR

METHODS

Purpose Statement

The purposes of this study were to describe and explore the life experiences of African American outpatients who are living with type 2 diabetes and clinical depression. This study was designed to address the following needs, related to the conceptual model of Diabetes-Depression and Syndemic Suffering, i.e., $D^2 S^2$: 1) To increase the knowledge about low-income African Americans who are living with both type 2 diabetes and depression; and 2) To deepen the understanding of the intersectionality of race, gender, class, the socio-emotional and socio-environmental determinants of health, and resultant suffering, i.e., population disease interactions that exacerbate the negative health effects of the diseases (Singer, 2009b).

This chapter identifies the research questions, the human subject ethical considerations, and the research setting and processes. Furthermore, the patient sample, data collection process, research design, credibility statements, qualitative paradigms guiding the research, and the data analysis and representations are also discussed in this chapter.

Research Questions

The following overarching research question and sub-questions were examined through sociodemographic data analysis and through the use of narratives (Chan, 2010): what are the life experiences of this cohort sample African American women and men who are living with type 2 diabetes and depression?; what are the racial, gender and class specific issues in type 2 diabetes care and diabetes care?; what are the social, emotional and clinical issues in type 2 diabetes care and depression care?; and what are the unmet biopsychosocial-cultural-environmental and spiritual needs to be addressed in type 2 diabetes care and depression care?

Human Subject Ethical Considerations

It is necessary to obtain institutional approval prior to the conduction of a research study. This research study utilized previously collected, archival case record data (paper files stored in locked file cabinets and password protected electronic health records), which reduced human subject research concerns and avoided ethical concerns regarding data collection (Rubin & Babbie, 2011). Ample federal government safeguards for protecting participants/respondents, including protection of their identities, i.e., de-identification of protected health information, are in place for ethical and legal reasons. Cognizant of these ethical and legal considerations, this study was approved (Reference Number #097168) for expedited review as a new study by the Baylor Research Institute's Institutional Review Board (IRB), and affiliated organizations involved in the research. This study was determined to be eligible for expedited review as it involved no greater than minimal risk to the (human research) subjects, and it fits into the following category from the approved 1998 IRB list, i.e., Category 5: research involving materials (such as, data, document records or specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis). The IRB approval period for this research project began on March 10, 2015 and ends on February 22, 2017. This study is approved to be conducted at the following location: the Baylor/Diabetes Health and Wellness Institute [DHWI] and its Baylor Community Care [BCC]/Family Health Center, a patient-centered medical home, at the Juanita J. Craft Recreational Center in South Dallas, TX. The IRB determined that this health record/case file study qualifies for a waiver of informed consent in accordance with federal law 45 CFR 46.116 (d) and a privacy and confidentiality waiver of the Health Insurance Portability and Accountability Act [HIPAA] Authorization 45 CFR 160 and 164. A copy of the IRB approval letter is included in Appendix A of this research study. Throughout all of the clinical and research processes, ethical standards related to confidentiality and privacy were observed with all of the patient information.

Research Setting and Processes

The setting involved in this research study began operating in June 2010. This setting is an integrated primary care and behavioral health outpatient clinic, situated in a patient centered medical home (PCMH) and is co-located with diabetes education and wellness center in the southern sector of Dallas, TX. The life experiences and related suffering of selected adult outpatients was included in this study. This qualitative research included sociodemographic information, observations, semi-structured clinical interviews, and reviews of self-reported survey questionnaires, biometric lab and anthropometric data via document/case file reviews. Each patient in the cohort sample were interviewed by using an open-ended, Solution Focused Brief Therapy interview guide developed for this group. These interviews were scheduled at the convenience of the patients and written transcripts of these interviews were created. The case files from the cohort sample were selected due to the breadth and depth of information therein.

Patient Sample

A purposive sampling frame of forty-six health records/case files (N=46), from the time frame of January 2012 to October 2013, were selected, gathered and reviewed, given the inclusion criteria of low-income African American female and male adult outpatients who were 18 years or older, did not have any health insurance, had both type 2 diabetes and clinical depression, and resided in the southern sector of Dallas, TX. These adult outpatients received solution-focused brief diagnostic and/or psychotherapeutic treatment, during the time frame of January 2012 to October 2013. The sampling frame and selective review of these forty-six (N=46) health records/case files met the needs of this research study, and was reflective of the type of outpatients who have seen in the integrated primary care and behavior health care clinic at this diabetes health and wellness center since its opening in June 2010. The health record/case file review indicated that on average, at least two face-to-face [F2F] clinical interviews for social work/behavioral health assessments and interventions were conducted with each of these outpatients. From this sampling frame, a cohort of six (6) case files of three (3) African American females and three (3) African American males were purposefully selected because they were more robust and contained the most depth of clinical, sociodemographic, biometric, psychometric, and anthropometric information.

The reviewed health records/case files included outpatients who were diagnosed with insulin resistant, type 2 diabetes and various levels of clinical depression – profound sadness, with mild, moderate or severe symptoms for at least two weeks (APA, 2013) or dysthymia – chronic sadness for at least two years (APA, 2013). Patients with insulin deficient, type 1 diabetes, gestational diabetes, generalized anxiety disorder, bipolar disorder, schizophrenia, or substance use disorders were excluded because they were not the diagnoses of focus for the research study.

Data Collection

The data was organized using a framework based on a syndemic model, adapted from Mendenhall’s (2014) previous research. Themes were inductively identified using information derived from the patient’s case files and interview transcriptions. The identified themes in the analysis were presented using descriptions from interviews, along with other information from archival case file data. The thematic information was described by the patients in their own words. Consequently, quotes from the patients were presented to reveal the authenticity of their information.

This study used combined data collection methods and was conducted from January 2012 to October 2013. All of the generated data offered perceptions of the life experiences of the outpatients. The research objectives were to identify the factors relevant to the previously stated research questions and sub-questions, and as derived from the data sources, including clinical interviews and observations. Each interview and observation were viewed as a single incident (an “assessment” or a “session”), and were analyzed individually. In order to address the research questions, common themes were identified across the data.

The data collection procedure of utilizing previously collected, secondary data set information, i.e., case files/health records, from the clinical caseload of this author/principal investigator was utilized and included in the process of filing for IRB approval. The use and analysis of secondary data is a cost effective way of obtaining quality data on key social problems (Sales et al., 2006). In this research study, relevant socio-demographic, diabetes and obesity screening biometric lab data was obtained, i.e., hemoglobin A1c [HbA1c or A1c] – checking for blood glucose levels, and the body mass index [BMI] – checking for obesity. The socio-demographic characteristics, i.e., race, gender, age, marital status, employment and income levels, along with the biometric characteristics of this cohort are described in detail in the findings of this study. The PHQ-9© depression screening symptom scores and direct observations via Solution Focused Brief Therapy are also discussed in the findings of this study.

Semi-Structured Clinical Interviews

The semi-structured clinical interviews in this study incorporated aspects of Solution Focused Brief Therapy. The Solution Focused Brief Therapy (SFBT) approach grew out of the work of two American social workers, Steve de Shazer and Insoo Kim Berg. SFBT is a goal-directed collaborative approach to psychotherapeutic change (Pichot, Dolan, & Teri, 2003). SFBT is conducted through direct observation of the patient's/client's response to a series of precisely constructed questions (de Shazer, Dolan, Korman, Trepper, McCollum, & Berg, 2007). In SFBT, these sessions empathically focus on the present and future, patient/client competencies, strengths, positive traits, and envisioning a preferred future (de Shazer et al., 2007; Pichot et al., 2003). In this study, the SFBT approach incorporated miracle questions, exception questions, coping questions, scaling questions, a time-out, accolades and tasks (Greenberg, Ganshorn & Danilkewic, 2001).

The patient interview data was collected, transcribed and coded. This process included the indexing, searching and theorizing of the data. This process assisted the researcher in discovering commonalities and in appropriately disaggregating the data. Debriefings with the researcher's professional social work reviewer/mentor were used to check for error and unnecessary material, to edit the content of the project and to offer feedback and reactions during the study's progression. This reviewer also served as an auditor who reviewed the research design and verified its accuracy.

Self-Reported Survey Questionnaires

In this research study, an evidence-based instrument, i.e., the highly reliable nine (9) question depression screening survey questionnaire, the Patient Health Questionnaire [PHQ-9]

(Pfizer Inc., 1999) was self-administered to all Baylor/Family Health Center [FHC] clinic outpatient/participants. These questionnaires were delivered back to this clinical social worker/researcher/principal investigator during face-to-face [F2F] patient interviews, ensuring same day follow up on depression symptoms and reduced research selection bias. The PHQ-9 questionnaire provides diagnostic and treatment information regarding clinical depression, but does not contextualize the patient's social life.

Biometric Lab and Anthropometric Data

Relevant diabetes [high blood glucose] and obesity [total body fatness] lab and anthropometric data was obtained from the patients/participants' electronic medical health records. The biometric anthropometric and lab data consisted of the following information:

1. The weight in pounds

2. The body mass index [BMI], a weight-for-height index measured in kilograms per meter squared, kg/m2 (McCance & Huether, 2002) and us "used widely in clinical and public health settings to determine obesity in men and women" (Arroyo & Mincey, as cited in Jack, 2010, p. 26). Independent of sex/gender and age for adults, a BMI of greater than 30 kg/m2 (> 30) has been the cutoff for obesity (World Health Organization [WHO], 1998).

3. The hemoglobin A1c test, which is used for diabetes management and research. It reflects the average of a person's blood glucose levels over the past three months. The test results are reported as a percentage. Below 5.7 percent is a normal HbA1c level, and above 5.7 is indicative of pre-diabetes. An HbA1c level of 6.5 or above is diagnostic of diabetes. The HbA1c goal for persons with diabetes is 7 percent or less (< 7). (National Institute of Diabetes and Digestive and Kidney Disease [NIDDKD], 2014).

Research Design

The overall design of this study was qualitative. Direct observations, clinical interviews that incorporated aspects of solution focused brief therapy, interview transcriptions, sociodemographic information, reviews of surveys and other documents provided robust data and thick, rich descriptions regarding the impacts of type 2 diabetes, depression and syndemic suffering.

A review of the literature on research methodology supported the use of a qualitative methodology for this study. According to Denzin and Lincoln (2000), qualitative research “crosscuts disciplines, fields, and subject matters” (p. 2). Furthermore, qualitative research is defined as “phenomenological inquiry, using qualitative and naturalistic approaches to inductively and holistically understand human experiences in context-specific settings” (Patton, 1990, p. 37). According to Merriam (2002), “qualitative researchers are interested in understanding the meaning people have constructed, that is, how they make sense of their world and the experiences they have in the world” (p. 6). The use of qualitative research methods has been supported for “research that is designed to provide an in-depth description of a specific program, practice, or setting” (Mertens, 2005, p. 159). In this study, the researcher/principal investigator has been able to garner an understanding of the reality of the life experiences of outpatients who received diabetes and depression care services at a community based diabetes health and wellness center in the southern sector of Dallas, TX.

In 2010, social work/behavioral health services were a new program at this community based diabetes health and wellness center in the southern sector of Dallas, TX. When this study was initiated, there was a limited amount of research regarding the effectiveness of this integrated service model, that is, social work/behavioral health care and primary health care. It has been asserted “if a concept or phenomenon needs to be understood because little research has been done on it, then it merits a qualitative approach” (Creswell, 2013, p. 22). Regarding qualitative research studies, Merriam (2001) indicates that “they are useful in areas…where little research has been conducted” (p. 27).

In qualitative research, the researcher serves as the primary instrument for data collection and analysis (Merriam, 2001). Qualitative researchers are “intrigued with the complexity of social interactions as expressed in the daily life and with the meanings the participants themselves attribute to those interactions” (Marshall & Rossman, 2006, p. 2). Within in this paradigm, there is an “interactive process” between the researcher and the participant (Mertens, 2005, p. 14).

Credibility Statements

For many qualitative researchers, the ideas of reliability, i.e., consistency over time, and validity, i.e., that which is true and relevant, are not in keeping with their post-modern epistemological rejections of assumptions connected the objectivity (Rubin & Babbie, 2011). Instead, some qualitative and mixed methods researchers believe that it is possible to recognize the critical role of reliability and validity in qualitative and mixed methods studies, while at the same time appreciating the need to take a different perspective on the role of reliability and validity in qualitative and mixed methods studies (Rubin & Babbie, 2011).

Consequently, it has been reported that researchers who primarily use qualitative methods, are more likely to use terms such as trustworthiness, credibility, dependability, and confirmability, instead of the tern validity (Seidman, 1998). Additionally, other qualitative researchers speak about operational definition challenges to many of the criteria, e.g., credibility, comprehensiveness and coherence, which are often used in evaluating the trustworthiness of their own writing and that of others (Alvermann, O'Brien, & Dillon, 1996). Furthermore, other researchers who primarily use qualitative methods have described for validity criteria, items such as consistency, completeness, convictions and meaningfulness (Kronick, 1989).

Cognizant that the researcher serves as a research instrument (Marshall & Rossman, 1999; Patton, 2002), as is the norm in qualitative research, the research analyst is the main instrument of the study (Aguirre & Bolton, 2013). Herein, in this research on diabetes, depression and syndemic suffering, as the researcher/principal investigator, I was the analytic mechanism for this study. Consequently, it is necessary to identify my role, professional and personal values, assumptions and biases. I am an African American woman, and based on genetics, age and lifestyle factors, I am at risk for developing type 2 diabetes and obesity. In terms of credentials, I have been a professional social worker since 1977 and I am a Licensed Clinical Social Worker (LCSW) in the State of Texas. Additionally, I am a certified marriage and family therapist, a certified case manager and a retired ordained Christian minister. Academically, when this research was conducted, I was a full time social work doctoral student at a North Texas university. Professionally, I am a full time clinical social worker/behavioral health psychotherapist and depression care manager. I am also an American Association of Diabetes Educators (AADE) Level III diabetes educator at an urban diabetes health and wellness center in Dallas, TX, and have more than six (6) years of working with patients who are living with diabetes and depression. Cognizant that my personal biases may impact data collection and interpretation, I have endeavored to ensure and maintain objectivity. Additionally, my social work faculty advisor, who is an associate professor and the director of an undergraduate social work program at a North Texas university's school of social work, has served as my co-analyst and mentor. A major role that my faculty advisor played was to balance out any pre-existing biases that I may have had in my data analysis, due to the fact that my research has been conducted at my current place of employment, i.e., at the diabetes health and wellness center, and the fact that I gathered the data being studied.

Qualitative Paradigm Guiding the Research

Qualitative research seeks to establish interpretations and outcomes that are grounded in data and “not figments of imagination” (Mertens, 2005, p. 15). The next section provides the rationale for the use of narrative case study approaches for this study.

Narrative Research

Through integrating narrative research, narratives have been used by several professional disciplines, such as, social work, medicine, nursing, therapy and counseling, to enable practitioners and researchers to experience case-based reasoning, decision-making, and professional role exploration (Torcivia, Picard & Younghouse, 2001). According to Laurel (2014), narratives are often used in research by health care professionals. Laurel notes that “a narrative…is a story of a real life problem or situation that provided sufficient background data so that the problem can be analyzed and solved” (p. 1). Laurel (2014) notes that a narratives are written in the form of a story, with a problem to solve, has characters with names, uses authentic dialogue, has descriptive and realistic details, with an easy to follow flow, sufficient problem information, is analyzable in order to develop a proposed solution, and focuses on the reader on key points and pertinent questions. Narratives should not just be descriptive, but should engulf the reader in the life experiences of the participants. Through multiple forms of data collection, a historical context is often provided, which may include direct observations, interviews and document reviews (Merriam, 2001).

The narratives in this study came from my outpatient caseload, as a clinical social worker/author/principal investigator. This research employed a narrative approach in order to gain an in-depth understanding of the lives of low-income African Americans who are living with type 2 diabetes, depression, the intersectionality of race, gender, and class, the socio-emotional and socio-environmental determinants of health, and suffering. These narratives provided a detailed and thick description of the individuals or settings, followed by an analysis of the data for issues or themes (Stake, 1995).

In this research design, the narratives were from six (6) life stories of out-patients who are living with type 2 diabetes, depression, socio-emotional and socio-environmental determinants of health and suffering, in order to extract the meanings of their life experiences (Creswell, 2013). This research design is appropriate because the narratives of these out-patients/participants may enhance the delivery of social work services to other racial, ethnic and culturally diverse persons who are living with type 2 diabetes and depression, particularly African Americans. This research approach allowed for the in-depth understanding which is associated with idiographic concerns, in order to, to explain behavior by enumerating the reasons unique to that individual (Rubin & Babbie, 2011). Thus, this research methodology considered the deeper aspects of particular human experiences. Furthermore, these methods generated robust information from theoretically richer observations (Rubin & Babbie, 2011).

Data Analysis and Representation

Data Analysis

This data analysis process necessitated making meaning from the data, text, data preparation, in-depth analysis, and data interpretation (Creswell, 2013). The research looked for themes, pattern and depth within the data. From interview observation analysis, data coding and analysis of themes and patterns. Herein, the first goal was to describe the subjective experiences and views of the patients. The second goal was to identify the intersectionality of race, gender, and class in diabetes care, depression care and related suffering. The initial review of each interview transcript was the first level of identification. The researcher identified the interview context and transcribed each interview. This process resulted in the identification of themes and sub-themes from the interviews, in addition to, providing the needed information to assess and code the observations and documents.

The research data analysis consisted of preparing and organizing the data, i.e., the text data from transcripts and reducing the data into themes. This was done by way of reviewing six (6) case files, composing six (6) narratives, and then analyzing the narratives for themes. More specifically, for this research study, the “data analysis spiral” included the procedures of representing, describing, classifying, interpreting, reading, memoing, and managing data into narratives, codes and themes (Creswell, 2013). The notes were read through, had marginalia, and the initial codes were organized. The cases were contextualized and the patients’ epiphany stories and life experiences were placed into a chronology. Aggregated categories were used to establish patterns and themes.

Coding. The coding process identified primary biopsychosocial-cultural and spiritual themes. The themes were delineated into various areas, with each one focusing on one of the research sub-questions. The primary themes were further classified into sub-themes. The findings from the research question and sub-questions were identified, included brief quotes from the interviews, observational findings and document reviews, as illustrated in the themes and sub-themes.

Data Representation

The data representation was used to interpret the larger meanings of the life stories, and allowed for generalizations of what was learned. The foci of the narratives were on the unique and general life features, theories and processes, and provided an in-depth picture of the cases, with the inclusion of tables and figures, as appropriate (Creswell, 2013). Given the small sample size, that is, the small number of case files/health records involved and the nature of this method, the findings of this study are not generalizable and has other limitations. These limitations, along with the data interpretation of the results and findings of the narratives will be described in detail in Chapter Five and further discussed in Chapter Six.

CHAPTER FIVE

RESULTS

Purpose Statement

The purposes of this research study were to describe and explore the experiences of African American outpatients who are living with type 2 diabetes and clinical depression. The goal of this research is to demonstrate that these outpatients experienced suffering. This study was designed to address the following objectives:

1) To increase the knowledge about low-income African Americans who are living with both type 2 diabetes and depression,

and

2) To deepen the understanding of the intersectionality of race, gender, and class, along with their socio-emotional and socio-environmental determinants of health.

Research Questions

The following overarching research question and sub-questions were examined using narratives (Chan, 2010) related to six (6) African American women and men who reside in the Frazier and surrounding communities in the southern sector of Dallas, TX and their sociodemographic data:

1) What are the life experiences of this cohort sample of African American women and men who are living with type 2 diabetes and depression?
    a) What are the racial, gender and class specific issues in type 2 diabetes and depression care?
    b) What are the social, emotional and clinical issues in type 2 diabetes and depression care?

c) What are the unmet biopsychosocial-cultural-environmental and spiritual needs to be addressed in type 2 diabetes and depression care?

In this research study, the individual-level illness experiences and lay discourse narratives from these urban, low-income persons, who are living with diabetes and depression were used as vivid illustrations. These illustrations from these marginalized, vulnerable persons shape and embody individual suffering and disease. They indicated how the macrosocial factors, holistic agenda, and chronicity explain diabetes and depression (Weaver & Mendenhall, 2014). Knowledge about marginalized persons and vulnerable populations described how poverty, oppressive social relationships and other social conditions, stress and weaken individuals and populations (Singer, 2009b; Singer & Clair, 2003; Singer et al., 2006). The chronicity/chronic disease and related approaches assisted in the holistic analyses of disease processes, along with the interaction of the social, psychological and biological factors (Weaver & Mendenhall, 2014).

Narratives

The results of this study are presented in two parts: 1) narratives, and 2) thematic analysis of these narratives. For confidentiality purposes, each narrative uses pseudonyms for the six (6) African American outpatients. The narrative accounts attempt to incorporate the most salient facts about the life stories of these individuals. All of the outpatients in these narratives were high school graduates and resided in the southern sector of Dallas, TX (also known as, South Dallas). The sociodemographic, psychometric, biometric lab and anthropometric data about these outpatients is listed in Table 5.1 below.

Table 5.1

Sociodemographic, Psychometric, Biometric Lab and Anthropometric Data

Names	**#SFBT Sessions**	**PHQ-9 Pre/ Post**	**Weight**	**BMI**	**A1c Pre/ Post**	**Employment**	**Education**	**Income Pre/Post**
Mary	12	26/19	138 lbs.	23%	13.1%/ N/A	unemployed	High School graduate	None/ Social Security
Barbara	3	21/21	181 lbs.	33%	12.6%/ N/A	employed, then laid off/ unemployed	Associates degree	Salary/none
Linda	3	6/6	192 lbs.	34%	11%/ 6.7%	unemployed	High School graduate	None/has disabled spouse's income
John	3	19/14	385 lbs.	51%	8.5%/ N/A	unemployed	Associates degree	None/none
Carl	2	13/13	289 lbs.	39%	6.3%/ 7.1%	unemployed	High School graduate	None/none
Martin	2	19/15	188 lbs.	24%	6.6%/ N/A	employed, from full time to part time	High School graduate	Full time income/part time income

Mary's Story

Mary was 47 years old at the time of her first integrated care (diabetes primary care and social work/behavioral health) clinic visit. Mary was the single mother of one 25 year old son, who was incarcerated, near Paris, TX. Her son has four children, Mary's grandchildren, who resided in Paris, TX with their mother. Mary is a member of the Christian faith community and the Baptist denomination, but she did not have a church home. Even though she lived in Dallas, most of Mary's supportive family members and friends lived in Paris, TX (103 miles away). One day, Mary said that she was so sad and despondent, and said "I am so sad because I'm unemployed." Mary had been a private duty sitter with elderly patients, but her only patient died. Mary said "Now, I have no income and no health insurance. My family and friends have to give me money to live. I can't stay at my father's house anymore, he doesn't want me there." She was disappointed that all of the Dallas homeless shelters were full. Mary said "I just don't like Dallas anymore. But I have nowhere to go now, and I can do bad all by myself. I just want to go home to Paris, TX." So, Mary planned to walk on foot to Paris, TX to be with her family and friends. I was shocked about Mary's plan and cautioned her that the walking plan from Dallas, TX to Paris, TX was a personal safety issue. That same day, I was able to obtain a one way Greyhound bus ticket for Mary (at a cost of $18) to get her to the halfway point of Greenville, TX (54 miles away), from where she said that she would be picked up by a friend. Mary was very appreciative of this help and called me the next day to say that she arrived in Paris, TX "safe and sound."

Several weeks later, Mary came back to Dallas from Paris, TX. She told me that she visited a mental health counselor "many years ago" for depression treatment and was prescribed an antidepressant medication. Mary said that this mental health intervention was "very helpful" to her. Mary's medical history included her diagnosis of type 2 diabetes in 1988. Her blood glucose (blood sugar) at her initial clinic visit was 212 (high) and her A1c lab test was 13.1% (extremely high). Her type 2 diabetes was complicated by hypertension (high blood pressure) and pyelonephritis (kidney infection). Due to recent past histories of diabetic ketoacidosis (extremely high blood glucose), Mary was going to need injectable insulin medication soon. Mary said "I am sad and worried about my diabetes… and my vision is not the best." Due to food insecurity/food unavailability, Mary said that she wasn't eating in a healthy way. She said

"I can only eat one meal a day…usually breakfast." I was sad when Mary shared that without health insurance, she wasn't able to obtain her medications, nor was she able to exercise.

Mary's initial depression screening indicated severe depression, with a PHQ-9 score of 19 out of 27. Mary denied having suicidal ideas or thoughts, had no self-reported history of alcohol or other drug abuse, and no nicotine/cigarette use. Mary had a family history of type 2 diabetes and hypertension. Mary's mother died from lung and liver cancer, 6 years prior to Mary's initial clinic visit.

Mary's father was said to be very unhappy because Mary and her male friend/significant other had to live with him, due to their homelessness. She said "I didn't feel welcome, because my father doesn't want us there, but we don't have anywhere else to go." Mary said that she had a past history of living in shelters due to homelessness or of being at risk of homelessness (residential instability). Mary said that her father left her family when she was age 3 and reportedly he was not very helpful to the family in the past. Mary's parents divorced many years ago. However, two years prior to the death of Mary's mother, Mary reconnected with her father in Dallas, because Mary's mother told her "get in touch with your father."

Mary said that she was "not happy" in her relationship with her male friend/significant other, as he became increasingly "mean and controlling", but she said that she "fears being alone…I don't want to be lonely." During her twelve face to face (F2F) psychotherapy sessions with me, Mary was able to process her thoughts and feelings about her significant other, her family, and her health challenges. She also received crisis intervention (when she was homeless and depressed again), grief counseling (after her father died) and community referrals (to the local community mental health center). Over time, Mary's PHQ-9 depression screening scores ranged from 19 (moderately severe depression) to 26 (severe depression). Through it all, Mary often felt hopeless and helpless, lost and alone. However, as a resilient woman of faith, Mary believed “Jesus loved her and God had her back.” As a result, she was able to “keep hope alive” and again did not verbalize any suicidal ideas or thoughts. Over time, Mary was able to retain her Food Stamps, and enroll in an insulin prescription assistance program. Eventually, Mary was able to obtain Supplemental Security Income (SSI), Medicaid, and her own one bedroom apartment in Dallas. Months later, Mary was lost to follow up at the integrated care clinic, as she permanently relocated to Paris, TX.

Barbara’s Story

At the time of her first integrated care (diabetes primary care and social work/behavioral health) clinic visit, Barbara, age 56, had health insurance and was employed as a health care technician with twenty-six years of work experience. She had multiple health challenges, including type 2 diabetes, hypertension (high blood pressure), renal (kidney) failure, congestive heart failure and sleep apnea. At this time, Barbara’s blood glucose (blood sugar) was 199 (high) and her A1c lab test was 12.6% (very high). Barbara had a past history of two heart attacks, and a family history of type 2 diabetes and hypertension.

Barbara is a member of the Christian faith community and is of the Baptist denomination. She regularly attended church services and was in ministry school. Barbara is a divorced mother of three adult children (one daughter and two sons). Barbara’s daughter lives with her, along with Barbara’s male friend/significant other. Given the challenges of adult family members living together, I smiled when Barbara said that everyone in her household were said to “get along well with each other.”

At her initial clinic visit, Barbara complained of anxiety, insomnia and depression. She had a PHQ-9 depression screening score of 21 out of 27, indicative of severe major depression. Barbara denied suicidal ideas or thoughts. Due to Barbara's history of cardiac problems, anti-depressant medications were not prescribed. Barbara's health challenges, distress, sadness and anxiety were reportedly exacerbated by her being a victim of "work harassment" (job insecurity) over the past twenty-four months. I was saddened when Barbara said "I've been singled out, because I would get sick at the job. Then, I would have to do unnecessary stuff (additional assignments). I've been treated as if I'm invisible (at work)." Because of the work harassment, Barbara felt that she was going to lose her job. She said "There's a plan to get rid of the old staff (like me) in order to bring in new (younger, Spanish speaking) people." As a result, Barbara was very frustrated about her work situation and said "I just want to make enough money to pay my mortgage, my car note and my other bills. I'm not ready to retire yet. I must keep working!" Several months later, Barbara was laid off from her job, was denied unemployment compensation (and Barbara wondered "why was I denied?"), lost her health insurance. I assisted Barbara with the prescription assistance program enrollment process, because she had no money for her insulin and other medications. Barbara's adult children and her male friend/significant other had to help Barbara with her bills, including her mortgage and car payments. I provided Barbara with three psychotherapy sessions for her to process her thoughts and feelings about her work, financial and health challenges. Additionally, I assisted Barbara with her Social Security Disability application process. Barbara was lost to clinic follow up for several months thereafter, despite numerous outreach efforts.

Linda's Story

Linda was a 50 year old married woman, with two adult children. She used to work as a data operator. However, Linda now was unemployed and without health insurance. In her initial integrated care (diabetes primary care and social work/behavioral health) clinic visit, she was found to have a nineteen year history of uncontrolled type 2 diabetes, along with diabetes peripheral neuropathy (nerve complications) which can affect one's fingers, hands, legs, feet and toes, to which Linda said "I have tingling in my fingers and toes." At her initial clinic visit, her A1c lab test was 11% (high), but in follow up visits her A1c lab test was 6.7% (good). Her average blood glucose (blood sugar) was 143 (moderately elevated). However, according to Linda's self-monitored blood glucose record/log book, she was at risk for hypoglycemia (low blood glucose). I felt badly for Linda when she said "what's up with this? I've never been this sick before."

Even in the face of Linda's health challenges, her initial PHQ-9 depression screening score was 6 out of 27, indicative of minimal symptoms of major depression; Linda's response was "I don't have time to be depressed." However, Linda seemed to be experiencing chronic depression (dysthymia), due to her lack of "me time" and "caregiver burnout." Linda was the primary caregiver of her disabled husband. "He had a massive stroke while he was riding on the bus and wound up in a coma." She was also the primary caregiver of her elderly father who lived alone. She used to receive unemployment compensation, but that ended several months ago. Now, Linda had to rely on her husband's monthly Social Security Disability check and support from her two adult children to pay the household bills and to purchase her diabetes medications. Given her psychosocial stressors, related to her health, family caregiving and financial challenges, Linda was seen for only two psychotherapy sessions with me, but she also attended diabetes education classes. After graduating from the diabetes education classes, I was so pleased when Linda told me: “I am doing much, much better” She said “I’m speaking up for myself” meaning she was more assertive in setting limits and establishing boundaries with her demanding siblings, spouse and father. Additionally, Linda stated that she was “carving out more me time” for her stress management, self-care and wellness: “my counseling and diabetes classes has been helping me so much! I’m walking more and I’m planning to sign up for the free water aerobics classes.”

Despite her continuing financial challenges, Linda stated that her perspective on things was “different now…in a good way.” Linda had a pending Social Security Disability application and she had a pending application to become a paid caregiver for her disabled husband. Her disabled husband was said to be more helpful in completing household chores: “he washes the dishes and folds the clothes.” Especially through her difficult times, Linda said that she was sustained by her Christian faith and she remained active as a leader in the youth ministry at her home church.

Linda still struggled with anxiety-producing health challenges, i.e., she had two hypoglycemic episodes, indicative of possible “hypoglycemic unawareness.” These two episodes, one at home and one at church, necessitated involvement by paramedics. Linda verbalized her lessons learned from these “scary experiences.” She said that she learned that she must take her insulin as prescribed; she must eat more food; and she has to keep “emergency food or beverages” with her at all times. Other than these two “scary” episodes, Linda said that she was very pleased with the self-care improvements and the progress that she made in a relatively short amount of time. Because of her progress and caregiving time constraints, Linda said that she wished to hold off on further follow up counseling sessions. I informed Linda that further counseling/psychotherapy and educational services would be available should future needs arise.

John's Story

John was 41 years old at the time of his first integrated care (diabetes primary care and social work/behavioral health) clinic visit. John lives with his paternal grandmother and his father. John's mother died seven years ago. He said "I love my family. But one day, I'm gonna have my own apartment." John's type 2 diabetes and hypertension were described as "deteriorated" by the primary care physician. John was "shocked" to learn that he soon was going to have to use injectable insulin for his diabetes treatment regimen, and not just oral medications. His blood glucose (blood sugar) was 430 (very, very high) and his A1c lab test was 8.5% (high). John did not have any health insurance and had to apply for the insulin prescription assistance program. John was very tall, but also morbidly obese (with a body mass index [BMI] of 51%). A friendly, pleasant man he was known among his family members and friends as a "gentle giant", and he seemed like a "gentle giant" to me. Initially, he seemed like he had the baseline motivation for his diabetes and hypertension self-care, but he was in need of a lot of educational materials, training and encouragement. But upon further conversation, John shared "I'm losing interest in my health care…my health is a 'downer.' I'm so tired; I have no motivation, no drive to do better…I'm so depressed."

John was denied unemployment compensation, and had been unemployed for three years prior to his initial clinic visit. A former truck driver, John had been released from prison and had a felony conviction. He had been incarcerated for several years. I was dismayed that because of his past felony conviction, John was having great difficulty in finding a job. As a result, John had to live with his grandmother and his father.

John had been married three times, was now divorced and had 4 biological children (three sons and one daughter) and dozens of godchildren. I empathically listened as John verbalized his feelings of sadness, related to his unresolved grief regarding his daughter's death from congenital heart problems after his release from prison. That daughter's mother/John's ex-wife continued to negatively impact John's life, reportedly by her dishonest behavior toward him, including allegedly false child abuse allegations. His ex-wife's behavior was said to be responsible for John's incarceration.

John's initial PHQ-9 depression screening score was 19 out of 27, indicative of moderately severe depression. He did not verbalize any suicidal ideas or thoughts. John declined a prescription for anti-depressant medication, as he wanted to continue using deep breathing and creative visualization techniques that I taught and practiced with him, for his depression self-care and stress management. John received three psychotherapy sessions with me. Thereafter, I smiled when he said "I appreciated telling my story to someone." These interventions were supplemented by community resource referrals (e.g., prescription assistance program, vocational rehabilitation programs and legal assistance services). Months later, John's follow up PHQ-9 depression screening score was 14 out of 27, indicative of moderate depression.

John's depression self-care and "positive mental attitude" was sustained by his supportive fiancée, family and friend support, growing up in a Christian home and his developing Buddhist faith, all of which was said to be helpful in John's continued relaxation and stress management. However, John said that he still had some low self-esteem issues and depression symptoms, because of his continued unemployment. Due to his felony conviction, he remains unemployable. Consequently, I referred John to a vocational rehabilitation program that helped ex-offenders. Fortunately, John was trying to "keep on, keeping on…one day at a time," and by his positive self-talk and reflections regarding: “my good moral and family values, my respect for my elders, my helpfulness with the vulnerable and children, not tolerating bullying, not spanking children, not having children fear you.” However, after all was said and done, John felt that his life and health was “negatively impacted by ‘the (child welfare and criminal justice) System’ and dysfunctional people.” John was lost to clinic follow up due to re-incarceration.

Carl’s Story

Carl was a 47 year old married man and father of two sons. He was unemployed and had no health insurance, necessitating enrollment in the prescription assistance program. At the time of his first integrated care (diabetes primary care and social work/behavioral health) clinic visit, Carl’s type 2 diabetes was controlled with insulin. That day, he had an A1c lab test of 6.3% (very good), but a blood glucose (blood sugar) of 181 (moderately high). His past history of elevated blood pressure/ hypertension and elevated cholesterol was now well controlled with medications. Carl had a family history of type 2 diabetes and hypertension. Due to blood flow problems, Carl took a vasodilator medication for erectile dysfunction. As a part of my role, I had a brief conversation with Carl about his sexual health. I was initially uncomfortable with this kind of conversation with my male patients, but it was a necessary talk. He denied symptoms of depression and anxiety at his initial clinic visit.

At his follow up visit, Carl complained of depressed mood. His PHQ-9 depression screening score was 13 out of 27, indicative of moderate depression. He denied having suicidal ideas or thoughts. Carl’s low self-esteem, sadness and distress was surrounding his lack of health insurance, his inability to purchase his medications, his inability to be a better financial provider for his family, and his unemployment. He had been a chef for the past 30 years, but lost his job seven months ago. Additionally, his wife had also been unemployed for the past four months.

This couple's savings was nearly depleted, as they had to pay for their living expenses from their meager savings. Carl admitted that he needed more motivation to address his depression self-care and for his diabetes self-management. Carl received two psychotherapy sessions with this me.

Carl said that he was sustained by his Christian faith and Baptist church attendance, and this really helped to enhance his mood and elevate his spirits. I was so pleased that at his follow up clinic visit, Carl shared his "praise report" with me. After participating in the Thanksgiving holiday turkey giveaway at his church, Carl and his wife were offered well-paying, full time food service/food preparation jobs. However, due to his new employment opportunity, Carl did not return to this clinic for follow up visits. Instead he went to another clinic for care, as it was closer to his home.

Martin's Story

Martin was a 35 year old single man, who resided with his female friend/significant other. Martin was a former school custodian, who was now working part-time with a shipping company. Due to his financial constraints, health insurance was unaffordable for Martin, and so he had no health insurance. At his initial integrated care (diabetes primary care and social work/behavioral health) clinic visit, Martin was found to have hypertension and epigastric (abdominal) pain associated with acute renal (kidney) failure. His kidney failure was a significant complication of his uncontrolled type 2 diabetes. His A1c lab test was 6.6% (good), but he had a past history of high blood glucose (blood sugar). Martin had a family history of type 2 diabetes. Martin needed to see a nephrologist (kidney specialist) as soon as possible (for possible consideration of kidney dialysis), but I felt badly that he was scared and ambivalent about seeing the kidney specialist. I encouraged Martin to reconsider the recommendation from his primary care physician. But, he continued to refuse this recommendation for him to go back to the Emergency Room immediately, because of his acute renal failure symptoms.

Martin denied depression and anxiety, but he was very distressed about his health challenges. His PHQ-9 depression screening score was 19 out of 27, indicative of moderately severe depression. Martin denied suicidal ideas and thoughts. After this visit, Martin was lost to follow up for months. When he returned to the clinic, he still had acute renal (kidney) failure, but his PHQ-9 depression screening score was 15 out of 27, indicative of moderate depression. I empathically listened to Martin, who still very distressed about his health, and remained apprehensive about following up with the nephrologist. He said “I don’t wanna hear any bad news.” Because of his health complications, Martin was seen for only two psychotherapy sessions with me. However, for his stress management, Martin continued to be primarily supported by his family members and friends. He said that he did not have a faith community and no religious affiliation.

After these clinic visits with the primary care physician and me, the clinic staff was reminded of his previous statement: “I don’t wanna hear any bad news.” Unfortunately, Martin did not return to this diabetes clinic for his other scheduled appointments, and was lost to further follow up, despite numerous outreach efforts.

Narrative Themes

The theoretical lens and analytical framework of syndemic theory was used to increase the knowledge about low-income African Americans who are living with both type 2 diabetes and depression, to deepen the understanding of the intersectionality of race, gender, and class along with the, socio-emotional and socio-environmental determinants of health, and resultant suffering. The overarching question about the life experiences of this cohort of six (6) African

American women and men who reside in the Frazier and surrounding communities in the southern section of Dallas, TX (also known as, South Dallas) was examined through data analysis and through the use of narratives (Chan, 2010). This syndemic approach identified substantial themes that are relevant in this study; additionally, the themes of resilience and optimism emerged. Resilience is defined as the capability to recover after stress and strain, and an ability to recovery from or adjust to change or misfortune (www.merriam-webster.com). Optimism is defined as the inclination to anticipate favorable, positive outcomes (www.merriam-webster.com). Optimism has been found to be linked to resilience (Collins, 2007), and appear to be positive ingredients in individuals who progress from being victims, to survivors, to thrivers.

All of these extracted themes and related intersections are described below, in order of frequency, are summarized Table 5.2 and exemplified in Table 5.3.

Extracted Narrative Themes and Related Intersections

The following sections discuss the extracted narrative themes and related intersections that emerged from the clinical interviews, and are described below, in order of frequency. These themes and intersections appear to indicate the constructs that can be used to explore, develop, implement and evaluate social work/behavioral health services or to improve existing services.

Physical health problems and intersections of race, gender and class. One of the social determinants of health [SDOH] is health and health care, related to access to health care and health literacy (CDC, 2015). In this research study, the outpatients who were seen by me for social work/behavioral health services were at risk of or had the presence of type 2 diabetes complications, such as hyperglycemia (high blood glucose), hypoglycemia (low blood glucose), obesity and/or hypertension (high blood pressure). Often, these individuals could not afford, or had no money to purchase their needed medications, including injectable insulin. Consequently, I assisted them in applying for prescription assistance programs.

Race. Race is defined as human categorization based on physical characteristics (www.merriam-webster.com). Racism is the maltreatment of persons based on one's racial group. Racism can have negative impacts on individuals, can negatively impact health behaviors, as well as, the delivery and quality of care in health care systems (Brondolo et al., 2009). Patterns of racial disparities (Williams & Mohammed, 2009) in type 2 diabetes care is also linked to genetics, insulin resistance, sedentary lifestyles, diet, exercise patterns and social inequalities. Diabetes is also linked to urbanization, socioeconomic deprivation, hardships, stress, distress and social network constraints. "With diabetes, the social context and political-economic inequities may not always be clear, but they certainly do exist" (Mendenhall, 2012, p. 12). The CDC's 2012 geographic distribution of rates of diagnosed diabetes in adults across U.S. counties indicated that the percentages were higher in the Southeast. This county data was used to define geographic areas called the "Diabetes Belt" within which the prevalence of diagnosed diabetes is especially high. This area included 644 counties in 15 states in the southeastern part of the U. S., including the Frazier community in South Dallas, TX. According to the U. S. Department of Health and Human Services-Office of Minority Health, African Americans are almost twice as likely to suffer complications from diabetes, such as end stage renal (kidney) disease, lower extremity amputations and high blood pressure (USDHHS-OMH, 2015b). The health risk factors related to insulin resistant diabetes included obesity, being overweight, hypertension, high cholesterol and cigarette smoking (USDHHS-OMH, 2015b). Obviously, these complex, multi-problem situations are more than just diet and exercise, as indicated in Mary's story, an African American woman who struggled with homelessness, food insecurity, relationships conflicts and depression, in addition to, her diabetes self-care management.

Gender. According to the World Health Organization (WHO, 2010), type 2 diabetes is contextualized by the critical factors of race, gender, class and culture. Sex is biologically based, but gender is defined by cultural roles, norms, perceptions, responsibilities and expectations (WHO, 2010). Structural inequalities, such as access and/or control of political power and economic resources, are often translated by gender/cultural role differences (WHO, 2010). The confluence of race, gender, sex and socioeconomic factors interact with diabetes risk and disease and are not easily teased out or isolated (Arthur et al., 2010). This is particularly true for African American women (Arthur et al., 2010), as indicated in Linda's story, which revealed that she faced health challenges and caregiver burnout, as the primary caregiver of her disabled husband and elderly father. Linda said "I don't have time to be depressed", but in fact she was chronically depressed, unemployed, and had no "me time". Linda's story is in line with research which indicates that diabetes disproportionately occurs among African American women (Adams, Lucas, & Barnes, 2008), and this has far-reaching community impacts. African American women are more often and more adversely affected by diabetes than any other group in the United States (NCHS, 2007). Sadly, diabetes is the fourth leading cause of death and disability among African American women (Heron, 2007). A major risk factor for diabetes is being overweight or obese, and Linda, who had a body mass index [BMI] of 34%, also struggled with obesity. African American women have the highest rates of being overweight or obese, the latter with a body mass index [BMI] of greater than 30, and compared to other groups in the U.S. about four out of five African American women are overweight or obese (USDHHS-OMH, 2013). In 2011, African Americans were 1.5 times as likely to be obese as Non-Hispanic Whites

[NHWs], and African American women were 80 percent more likely to be obese than NHW women (USDHHS-OMH, 2013). With obese women, higher levels of the hormone testosterone are associated with developing diabetes (Oh et al., 2002). Differences in the effects of body weight have a greater association with the onset of diabetes and its related comorbidities in women than in men (Ding et al., 2006).

Long recognized as a contributing determinant or as inter-generational societal influences, research has indicated that traditional male attributes, such as risk taking, invulnerability and societal role expectations collectively exacerbated poorer health outcomes among men (Gough & Conner, 2005; Jack, 2004; Segal, 1993; Williams, 2003). With this mind, there is much work to be done in African American men's health, especially as health care disparities necessitate more gender-appropriate interventions (Jack, 2004; Liburd et al., 2007). Furthermore, African American men have the disproportionate burden of diabetes and its complications (Jack et al., 2010), including the most frequently cited sexual complication of erectile dysfunction (Jack, 2005; Penson & Wessells, 2004). As seen in Carl's story, whose type 2 diabetes was controlled with insulin, his hypertension and elevated cholesterol was well controlled with medications, now had to take a vasodilator medication for erectile dysfunction, because of blood flow problems. Thus, male- and family-centered diabetes self-management education research must consider the relationship between health and masculinity among African American men and the important constructs of gender norms, gender roles, and gender role conflicts (Jack et al., 2010). Thus, gender-centered frameworks and targeted interventions may be useful to help African American men and their families (Jack et al., 2010).

Class. Diabetes is a devastating disease that affects one's quality of life and is affected by interdependent genetic, social, cultural, historic and economic factors (Chow et al., 2012) For example, researchers have found that racial and ethnic groups living in low-income, impoverished neighborhoods – households under $20,000/year – were exposed to many more life stressors. This exposure to poverty elevates their risk of diabetes and obesity due to surges in the stress hormone, cortisol (Curry, 2016). Feeling unjustly scrutinized because of one's skin color/racism, signals the adrenal glands to continuously release cortisol, leading to inflammation and illness (Curry, 2016). Poverty, racism, discrimination and heightened stress responses leads to poorer physical health outcomes among African Americans. For persons in lower socio-economic groups, there is evidence of diabetes health disparities related to socioeconomic status. This dissertation's research study focused on the "Diabetes Belt" in the southern sector of Dallas, TX, USA (also known as, South Dallas), a largely African American community, and specifically the low-income Frazier community in zip code 75210 (USCB, 2013). Based on median household incomes for residents in South Dallas, TX, who live in zip code 75210, they represent the least, the left out and the left behind. All of the outpatients discussed in this study were faced with unemployment or underemployment, along with being socioeconomically impoverished, due to no or low income. Consequently, it is not surprising that there are such high rates of diabetes in this and surrounding communities, especially for African Americans. Herein, the multi-problem situations are about the socioeconomic and social-environmental contexts, vis-à-vis chronic stress, poor neighborhoods, poverty, racism, sexism, classism and discrimination and the need for racial, social, economic and environmental justice.

Mental health problems and intersections of race, gender and class. Health and health care are one of the five key areas of SDOH, and is related to access to behavioral health care (CDC, 2015). In this research study, outpatients who received social work/behavioral health services had major or minor symptoms of depression or dysthymia (chronic depression). Some were prescribed antidepressants, but often could not afford to purchase it, even antidepressants from the $4.00 pharmacy list. For these persons who were living with diabetes and depression, their symptoms were exacerbated by their multi-problem life situations, stress, distress, and low self-esteem. Some of these outpatients struggled with their feelings of grief and loss related to the deaths of beloved family members. They also experienced feelings of grief and loss regarding the loss of their jobs, their loss of income, and other losses.

Race. Depression is the most frequently occurring mental health disorder in the United States (Mental Health America [MHA], 2007). There is no single cause of depression. However, psychological, social and environmental factors may all contribute to its development. Whatever the specific causes, evidence based scientific research has firmly established that major depressive disorder (MDD) is a biological disorder due to brain chemical imbalances (MHA, 2007). Genetic predispositions and family history are other risk factors for this illness (MHA, 2007). Various life events and major losses, such as unemployment, homelessness, the death of a loved one, being a trauma survivor, alcohol and or other drug abuse, and chronic stress vis-à-vis the secretion of cortisol and other stress hormones may trigger episodes of depression (MHA, 2007). The triggering of episodes of depression due to various life events and major losses was indicated in Mary's story, who was at risk of homelessness and also in John's story, who had unresolved feelings of grief and loss regarding the death of his young daughter.

Racism can also have a negative psychological impact on individuals, can negatively impact health behaviors, as well as, the delivery and quality of care in health care systems (Brondolo et al., 2009). Untreated depression among vulnerable populations who have diabetes is a significant chronic disease and public health concern that requires urgent intervention. The comorbidities of depression and type 2 diabetes in Texas and throughout the United States are major health concerns, particularly for African Americans. On a macro scale, for native, U.S. born African Americans, the entire United States is the “bad neighborhood”, because of perceived racism and discrimination (Curry, 2016). This perceived racism and discrimination is reportedly not experienced as much by other racial and ethnic groups, all of whom are healthier and live longer than U.S. born African Americans (Curry, 2016). All of these depressed outpatients who were living with type 2 diabetes and discussed in this study lived in or around South Dallas, TX. In the middle of the 20th century, South Dallas was the premier African American community for working and middle class homeowners (Blacks in Dallas, 2016). However, in recent decades, large population losses social and economic injustices have left many economically poor African Americans behind, along with numerous abandoned, neglected and demolished properties (Black in Dallas, 2016), leading to the “North (affluent/largely White residents) – South (poor/largely Black residents) Dallas Gap” (Dallas Morning News, 2016).

Gender. According to Roy and Lloyd (2012), a range of factors may be associated with the risk of developing depression. In the general population and among people living with diabetes, the increased prevalence of depression has been found among persons with the following characteristics: female gender, younger and/or older age, those with poor social support, people with lower socioeconomic status and individuals living alone (Roy & Lloyd, 2012). In the case of low-income women in resource constrained settings, the social determinants of physical and behavioral/mental health contributes to a holistic agenda for women’s health (Mendenhall et al., 2014). Research on this population must address the experiential plurality that shapes women’s health vis-à-vis the social determinants of depression (Mendenhall et al., 2014). The need for empowerment can have a positive influence on the lifetime health and wellbeing of women (and men) (Mendenhall et al., 2014). As indicated in Barbara’s story, who faced type 2 diabetes, depression and harassment in the workplace/job insecurity, she was empowered and had a greater sense of wellbeing, as she was able to process her thoughts and feelings in her psychotherapy with me.

Class. African Americans experience high rates of depression and diabetes, especially for African Americans in the Frazier and surrounding communities in South Dallas, TX, in or near zip code 75210. Research with low-income, urban primary care patients of various racial and ethnic groups have indicated that those who reported more childhood trauma, such as abuse, neglect, household dysfunction, cumulative adverse childhood experiences [ACEs], were more likely to be diagnosed with diabetes in adulthood (Lynch et al., 2013). African Americans are also impacted by post traumatic slave syndrome, and its historical and intergenerational traumas (DeGruy Leary, 2005). Additionally, research has indicated that low-income African Americans are affected disproportionately by chronic disease and mental health issues (CDC, 2015). Recent research by the UCLA Center for Culture, Trauma and Mental Health Disparities shed light on the causes and impacts of this disparity (University of California, Los Angeles [UCLA], 2015). Research studies have analyzed certain types of negative experiences that may affect low-income African Americans. This research has found five environmental factors, called “domains” that can predict depression, anxiety and post-traumatic stress disorder. These five domains are:

1. Experiences of discrimination due to racial, ethnic, gender or sexual orientation
2. A history of sexual abuse
3. A history of violence in the family or from an intimate partner
4. A history of violence in an individuals’ community
5. A chronic fear of being killed or seriously injured

Suffice it to say, the effects of these experiences are cumulative and their impacts accrue over a person's lifetime (UCLA, 2015). Furthermore, the effects of poverty on these individuals are not mediated by education, as educational attainment was not a reliable predictor of income, likely due to structural barriers such as underemployment and limited economic opportunities (Arthur et al., 2010). For all of the low-income outpatients in this study who reside in or around South Dallas, TX, for whom diabetes and depression converge, diabetes was used like an "idiom of distress" (Mendenhall et al., 2010). Furthermore, for these low-income outpatients, social and economic inequality, such as poverty, limited education, social bias, institutional racism and environmental conditions, as evidenced by food deserts and other factors, lead to health disparities (Prevention Institute, 2002).

Occupational problems and intersections of race, gender and class. One of the five key areas of the social determinants of health [SDOH] includes education, and is related to high school graduation and higher education, as these impact occupational opportunities (CDC, 2015). All of the outpatients in this research study were high school graduates, but many were dismayed because of their long-term unemployment. One woman had work distress, job insecurity, threats of job loss, stressful work schedules, difficult work conditions, job dissatisfaction, job changes and discord with her boss, and later experienced a layoff from her job. One man faced employment challenges due to a past history of felony convictions. Others went from being employed to being unemployed. One man became underemployed, as he went from full time to part time employment. I was able to make referrals to vocational rehabilitation and employment programs for some of these individuals.

Race. On a macro scale level, for native, U. S. born African Americans, the entire United States is the "bad neighborhood", because of perceived racism and discrimination (Curry, 2016).

This complex, multi-problem situation indicates the need for racial, social, economic and environmental justice. As seen in Barbara's story, who had type 2 diabetes, depression, and other health challenges, also felt racially profiled at work and treated as if she was invisible. Barbara felt that there was a plan to bring in new (younger, Spanish speaking) staff, and get rid of the long-term, African American staff.

Gender. African American women are more likely to live in poverty, regardless of family structures (Health Resources and Services Administration [HRSA], 2007), and are more adversely affected by the complications and comorbidities of diabetes (Signorello et al., 2007). For African American men, there needs to be an understanding of gender role conflict, stress and strain due to health, impeding the ability and/or willingness for African American men to negotiate the many social cues that promote gender role behaviors (Jack et al., 2010). As seen in John's story, gender role conflicts, i.e., his inability to be the provider and protector for his children, the stress and strain due to his type 2 diabetes, depression and obesity, being unemployed, uninsured and an ex-offender, seemingly impeded his ability and/or willingness to negotiate certain social cues in the promotion gender role behaviors.

Class. In 2010, an increase in unemployment decreased the African American median income. Income is also correlated to education. The median household incomes in zip codes 75210 in South Dallas, TX by age of households ranged from $7,917 to $12,945 (USCB, 2013). Based on the aforementioned statistics, the residents in the southern sector of Dallas, TX, in zip code 75210, represent the least, the left out and the left behind. This is exemplified by the fact that all of the low-income outpatients in this study, who lived in or around South Dallas, TX, were unemployed or underemployed, and had low or no income.

Economic problems and intersections of race, gender, and class. Economic stability is one of the five key areas of SDOH, as this is related to poverty and other factors (CDC, 2015). All of the outpatients in this research study faced significant socioeconomic and financial constraints. Several of them were impoverished and had no income source. They were helped by or dependent upon family members and/or friends for money. Some of these outpatients went from salaries to unemployment compensation, but later had to deal with the ending of their unemployment compensation. One woman became a paid caregiver for her disabled husband. One man had to simultaneously deal with his unemployment, along with the unemployment of his wife. This couple nearly depleted their savings, as they had to use it for their daily living expenses.

Race. Racial discrimination, internalized self-hatred, marginalization, stigmatization, deprivation, maladaptive responses, being targeted for personal, community or structural violence, including by the criminal justice system, etc., can certainly negatively impact people (Singer, 2009b) and their socioeconomic opportunities. As exemplified in John’s story, this African American man was living with type 2 diabetes and depression, and was also dealing with having a past felony conviction. It is difficult enough for African Americans to obtain employment, but employability is negatively impacted even further by having involvement with the criminal justice system and having past felony convictions.

Gender. Educational attainment was not a reliable predictor of income for African American women, likely due to structural barriers such as underemployment and limited economic opportunities (Arthur et al., 2010). For U. S. born African American men, the social and economic variables of marital status, insurance status, and socioeconomic status [SES] were less predictive of health outcomes (Jack et al., 2010). All of the low-income African American women and men discussed in this in this study were high school graduates and two had Associate’s degrees. However, as indicated in previous research, their educational attainment was not a reliable predictor of income for these African American women (Arthur et al., 2010) and also for these men (Jack et al., 2010).

Class. Where people live, work, learn and play can affect a wide range of health outcomes and risks (CDC, 2015). These conditions are known as social determinants of health [SDOH] (CDC, 2015). Herein, more education is a predictor of better health, but poverty limits access to safe neighborhoods or healthier foods (Adler & Newman, 2002; Saegert & Evans, 2003; Walker et al., 2010). Low income, unstable housing, unsafe neighborhoods or substandard education and other health disparities are striking in communities with poor SDOH (Braveman, 2006; Norman et al., 1999). Because of the 2008-2013 economic recession, the number of African Americans with annual incomes of $35,000 or more dropped to 51% by 2014, reversing previous gains (U.S. Census Bureau [USCB], 2014a). Since the Civil Rights Era of the 1960s, the incomes of African Americans have improved significantly, but are still lower than all other Americans (USCB, 2012). In 2010, an increase in unemployment decreased the African American median income. Income is also correlated to education. During the recent recession, higher unemployment was seen for African Americans who had a high school diploma or less, while Masters prepared African Americans were able to sustain and maintain (USCB, 2012). All of the low-income African Americans in this study were high school graduates, but with one exception, all were limited to no or low income, after exhausting or being denied unemployment compensation. This was demoralizing, as indicated by John’s comment: “I’m so tired, I have no motivation, no drive to do better…”

Resilience and optimism and intersections of race, gender and class. Resilience is defined as the capability to recover after stress and strain, and an ability to recover from or adjust to change or misfortune (www.merriam-webster.com). Optimism is defined as the inclination to anticipate favorable, positive outcomes (www.merriam-webster.com). Research on resilience has found that this descriptive label may apply to persons who appear to function under stressful and adverse environmental conditions (Klohen, 1996). Earlier research also focused on protective factors and processes (Rutter, 1987). Optimism has been found to be linked to resilience (Collins, 2007), and they appear to be positive ingredients in individuals who progress from being victims, to survivors, to thrivers. In this research study, all of these outpatients, in their own unique ways were resilient and optimistic. They often gave what little they had in service to others, but remained self-empowered through their own "Higher Power", especially as this was connected to their spirituality and religious faith.

Race. It has been said that grace and forgiveness are the hallmarks of the African American Christian church (Carten, 2015). Historically, in the African American Christian church, authentic conversations happened about the legacy of African slavery, the need to repress feelings of anger and outrage, and the need to forgive racism (Carten, 2015). The African American Christian church often buffered its members and the community from the full impact of racism, but the unresolved traumas were and are still transmitted from generation to generation (DeGruy Leary, 2005). However, the spirits of resiliency and optimism prevail, as evidenced by several of the narratives in this study, such as, with Mary who said "Jesus loves me" and "God's got my back"

Gender. Unfortunately, racist and sexist gender role stereotyping in the larger society has often identified the African American woman as "the strong Black superwoman" and the African

American man as “a Black male troublemaker”. In the face of such stereotyping, how can African American women and men cope in healthy ways? It is through the collective spirits of resilience and optimism that African American individuals and communities have been and are able to strive and envision a brighter future, especially as this emanates from spirituality and religious faith.

Class. Resilience and optimism may be negatively impacted by limited educational opportunities and lower socioeconomic status. Historically and contemporaneously, the African American Christian church has been a source of resilience and optimism, and often a resource for the basic necessities of life: food through food pantries, clothing through the distribution of donated clothing, shelter through services for the homeless, health care through parish nurses and clinics, transportation by way of the church van, etc. In these and other ways, the church and its ministry partners/faith community become beacons of optimism and hope, particularly for “the hungry, the hurting and the homeless.” As evidenced by the narratives in this research, most of these outpatients received their spiritual sustenance from their local faith community, and often received other concrete services.

Primary support group problems and intersections of gender and class. Social and community context, related to social support, social cohesion, civic participation, perception of discrimination/equity are important factors in SDOH (CDC, 2015). In this research study, one woman, who was living with diabetes and depression, also had to deal with conflicts with family members and friends, and she longed to be with her family and friends who lived far away. Another woman had no “me time” and became a “burned out” primary caregiver who was responsible for her disabled husband and her elderly father. As indicated in their narratives, threads of grief and loss were woven throughout the lives of all of the individuals in this study.

Given their particular issues and concerns, these outpatients were receptive to the solution focused brief therapy that I was able to provide with them.

Race. Relationship factors influence how people negotiate structural and sociocultural challenges, and this shapes social support, family conflict, family involvement, partner characteristics, relationship conflict and institutional support (Mendenhall, 2012, 2015). Relationship factors and social support are important for African Americans to relieve suffering. Emotional support is very important in African American families, as indicated in John’s story, when he said: “I love my family” and in Barbara’s story when she said that everyone in her household “get along well with each other”. On the other hand, the lack for emotional support from family members is disheartening, as indicated in Mary’s story, when she said: “I can’t stay at my father’s house anymore, he doesn’t want me there. I don’t feel welcome, but (I) don’t have anywhere else to go.”

Gender. Sociocultural factors address how people live in their world, through the guise of racism, gender roles, gender inequality, religion and social networks (Mendenhall, 2012, 2015). These sociocultural factors impact African American women and men as they navigate socializing with others. As seen in Barbara’s story, despite her work stress, she was supported by her Christian faith community and Baptist denomination, as she regularly attended church services and she was in ministry school. Additionally, as seen in John’s story, his positive mental attitude and spiritual centeredness was sustained by supportive family members and friends, growing up in a Christian home and his developing Buddhist faith. For all of the low-income African American outpatients in this study, religion and spirituality were very important in their ability to cope and live in their world, especially through the guise of racism, gender roles and gender inequality (Mendenhall, 2012, 2015). In this regard, I am reminded of Mary's comment, a resilient woman of faith, who believed that "Jesus loved her and God had her back".

Class. Structural factors address how people move securely in their world, including unemployment, poverty and living in unsafe neighborhoods (Mendenhall 2012, 2015), and how these factors create suffering for African Americans. All of the outpatients in this study had to deal with unemployment or underemployment, low-income/poverty and living in unsafe neighborhoods, such as the Frazier community in South Dallas, TX. I am reminded of John's comment, when he said: "But one day, I'm gonna have my own apartment", even though that was probably unrealistic, given his great difficulty in finding a job due to his past felony conviction. The realities of their life situations created suffering for these low-income African American outpatients from South Dallas, TX.

Housing problems and intersections of race, gender and class. Safe housing, quality housing, residential stability and residential segregation are factors in SDOH (CDC, 2015). As indicated in this research study, due to residential instability, some of these outpatients were at risk of homelessness or had a history of homelessness. One man, John, lived with family members, as he did not have a permanent place to live. One woman, Mary, had frequented homeless shelters in the past. Both of these individuals envisioned having their own apartment at some point in the future.

Race. In recent decades, in South Dallas, TX, large population losses, social and economic injustices have left many economically poor African Americans behind, along with numerous abandoned, neglected and demolished properties (Blacks in Dallas, 2016). The median home values range from $30,000 to $80,000, with rents in the $600 to $800 range (Blacks in Dallas, 2016). There is an imbalance between the number of home owners and the number of renter households, particularly for low-income residents (Dallas Morning News, 2016). In Mary's story, she had to live with a relative. In Barbara's story, her adult daughter lived with her, along with Barbara's male friend/significant other. In Linda's story, she lived with her disabled husband. In John's story, he lived with his paternal grandmother and his father. In Carl's story, he and his unemployed wife lived together and were barely making ends meet. In Martin's story, he resided with his female friend/significant other. All of the stories of these low-income, African American outpatients indicated how social and economic injustices left these economically poor, South Dallas residents behind (Blacks in Dallas, 2016).

Gender. The Diabetes Health and Wellness Institute ® [DHWI ®], in the Frazier community in South Dallas, TX and zip code 75210, is housed in the recreational center that is named after the beloved and well known African American community activist, civil rights organizer, social justice reformer and public servant, the late Juanita Jewel Shanks Craft (1902-1985). The grand-daughter of African slaves, Juanita Craft spent her lifetime working for equal rights for African Americans, the expansion of rights for Native Americans and Hispanics, and integration for all races (Baylor, Scott & White Health, 2016). All of the low-income, female and male African American outpatients in this study, identified that the Diabetes Health and Wellness Institute at the Juanita J. Craft Recreation Center, in South Dallas' Frazier community, helped them to "keep hope alive" and address the key self-care behaviors of healthy eating, being active, monitoring, taking medications, problem solving, reducing risks, and healthy coping (American Association of Diabetes Educators, 2010).

Class. In order to bridge the "North (affluent) – South (poor) Dallas Gap", the Dallas Area Habitat for Humanity has been committed to lifting up the quality of life and economic future of the southern half of the city and its residents (Dallas Morning News, 2016). Habitat for

Humanity is working toward neighborhood transformation and stabilization by growing property tax rolls, creating jobs, generating home ownership, improving educational achievement, reducing violent crime in challenged neighborhoods and enhancing high school graduation (Dallas Morning News, 2016). I ensured that all of the low-income African Americans in this study, were made aware of the work of Habitat for Humanity in South Dallas' Frazier community (Dallas Morning News, 2016), to further apprise them about the ongoing, positive neighborhood transformation and stabilization, and to pique their interest about other positive opportunities in this community.

Other psychosocial and/or environmental problems and intersections of race, gender and class. The neighborhood and the built environment, along with food security, access to healthy food and local food markets, history of incarceration/institutionalization, transportation options, crime/violence and environmental conditions are other relevant aspects of SDOH (CDC, 2015). From this research study, I was reminded of Mary's story, a woman who had no transportation resources to come to the clinic for her appointments with her primary care provider and me, or to go elsewhere. Mary, who was living with type 2 diabetes and depression, also dealt with hunger, food instability, insufficient food and inadequate food access, along with nutritional deficiencies. I provided her with food and beverages and referred her to local food pantries. All of these outpatients lived in food deserts, where there was a lack of neighborhood grocery stores and nutritious foods. On another note, I am reminded of John's story, as he faced legal/criminal justice issues, given his past history of incarceration, due to a felony conviction, which reportedly was due to false criminal allegations. I was able to refer John to a vocational rehabilitation program that had special programs for ex-offenders. Mary was worried about her adult son, her only child, who was incarcerated more than 100 miles away, and was going to walk on foot to visit her son. Mary appreciated that I was able to obtain a Greyhound bus ticket for her to get to her destination so that she could visit with her son.

Race. African Americans must have greater access to health resources, in order to, decrease avoidant and postponement behaviors and also to eliminate health care disparities. Cognizant of historical, generational mistrust and suspicion of health care systems, especially among African Americans (e.g., the Tuskegee Experiment), due to racism and discrimination, multi-dimensional targeted and focused outreach efforts are needed to build trusting relationships with African Americans.

Nutrition is another salient factor, as “dietary practices among African Americans are deeply rooted in African American history and culture” (Liburd, 2003). Nutrition is an affirmation of the dietary and nutrition practices that are deeply rooted in African American culture and history. Food is a factor in diabetes-related complications and disordered/emotional (over) eating. Food is a multi-generational factor in family gatherings, special occasions, socialization, the transmission and active, observable translation of values, sentiments, and enduring messages (Liburd, 2003). Food has major cultural significance in the African American community, often making adherence to “healthier eating” in one’s diabetes self-management plan a major challenge. The cultural significance of food, along with food insecurity, food insufficiency and living in “food deserts”, where there is limited access to fresh fruits and vegetables, sources of whole wheat, lean meats and other healthier food choices, are further challenges for African Americans. I am reminded of Mary’s story and her issues of food insecurity/food unavailability. Mary said that she wasn’t eating in a healthy way, and said “I can only eat one meal a day…usually breakfast.”

Gender. Sociocultural factors address gender roles, gender inequality, religion and how people live in their world (Mendenhall, 2012, 2015). This factor is important in assessing the needs of African American women and men. Sociocultural factors were evident in Mary's story, as she said that she was "not happy" in her relationship with her (unemployed, homeless) significant other/male friend, as he became increasingly "mean and controlling", but Mary had "fears of being alone…I don't want to be lonely." From John's story, I learned that he was known as a "gentle giant", but was sad because of his great difficulty in finding a job, given his past felony conviction and incarceration.

Class. Exposure to poverty elevates risks of diabetes, obesity, anxiety and depression, due to surges in the stress hormone, cortisol (Curry, 2015). Mental and emotionally stressful, economically stress-filled environments trigger a flood of cortisol, leading to high blood glucose, high blood pressure, stress eating/compulsive overeating of energy-dense, high-sugar, high-fat, cheap comfort foods, and obesity (Curry, 2015). Being in high-alert, violent situations, living in food deserts with few or no grocery stores, homelessness, wondering where your next meal is coming from (food insecurity), being unemployed, being unable to purchase medications, being unable to pay rent and utilities, and feeling unjustly scrutinized because of one's skin color/racism, signals the adrenal glands to continuously release cortisol, leading to inflammation and illness (Curry, 2015). Poverty, racism, discrimination and heightened stress responses leads to poorer physical and mental health outcomes among African Americans. For person with low-incomes, there is evidence of diabetes health disparities related to their socioeconomic status (Lynch et al., 2013). From Barbara's story, I learned that her distress from "work harassment" (job insecurity) exacerbated her type 2 diabetes, depression and cardiac problems. Feeling racially profiled at work, Mary became increasingly frustrated about her work situation. She eventually was laid off from her job, lost her health insurance, and was denied unemployment compensation.

Table 5.2

Frequency of Themes for the Research Question and Related Intersections

Themes	**Number of Patients Mentioning**	**Related Intersections**
Physical health problems	6	Race, gender and class
Mental health problems	6	Race, gender and class
Occupational problems	6	Race, gender and class
Economic problems	6	Race, gender and class
Resilience and optimism	6	Race, gender and class
Primary support group problems	2	Race, gender and class
Housing problems	2	Race, gender and class
Other psychosocial and/or environmental problems	4	Race, gender and class

These themes and their linkages to diabetes and depression are described in Table 5.3 below, as extracted from the six (6) narratives.

Table 5.3

Exemplified Themes

Theme and Intersection	Examples from Narratives
Physical health problems, vis-à-vis race, gender and class	• Mary: Mary was diagnosed with type 2 diabetes in 1988, In 2012, her blood glucose and A1c were uncontrolled and complicated by high blood pressure, a kidney infection/ pyelonephritis, and vision problems. Mary said “I am sad and worried about my diabetes…my vision is not the best.” Mary couldn’t obtain her medicine, including her injectable insulin, nor was she able to exercise. • Barbara: Barbara had uncontrolled type 2 diabetes, high blood pressure, kidney failure, and congestive heart failure. She had a past history of two heart attacks. After Barbara lost her health

	insurance and had no money to purchase her insulin and other medications, I assisted her in applying for the prescription assistance program. • Linda: Linda had a 19 year history of uncontrolled type 2 diabetes, along with diabetes complications. Linda was at risk for high blood pressure. Linda said “what’s up with this? I’ve never been this sick before.” Linda also had two “scary” episodes of low blood glucose/hyperglycemia that necessitated involvement by paramedics. • John: John’s type 2 diabetes and high blood pressure were described as “deteriorated” by his physician. John was shocked to learn that he soon was going to have to use injectable insulin, and not just oral medicines. His blood glucose and A1c were very high. John was also morbidly obese. • Carl: Carl’s blood glucose was moderately high. Due to blood flow problems, Carl had to use a vasodilator medication for erectile dysfunction. Carl had no health insurance and I assisted him in applying for the prescription assistance program to help him obtain insulin and other medications. • Martin: Martin has uncontrolled type 2 diabetes, and also acute kidney failure, high blood pressure, and epigastric abdominal pain. Martin needed kidney dialysis, but he said “I don’t wanna hear any bad news”. Martin was subsequently lost to follow up.
Mental health problems, vis-à-vis race, gender and class	• Mary: Mary said that she had visited a mental health counselor “many years ago” for depression treatment and was then prescribed an antidepressant medication. Mary said that this mental health intervention was “very helpful” to her. At the time of her intervention with me, Mary wasn’t able to obtain her antidepressant, nor other medications, despite her moderately severe to severe depression symptomatology. Through it all, Mary felt hopeless, helpless, lost and alone. However, Mary was resilient and was able to “keep hope alive” through her Christian faith and through her psychotherapy sessions with me. • Barbara: Barbara complained of anxiety, insomnia and depression. I provided Barbara with three psychotherapy sessions for her to process her thoughts and feelings about her work, financial and health challenges. I also assisted her with the Social Security Disability application process.

	• Linda: Linda had minimal symptoms of major depression, but she had chronic minor depression. Linda said "I don't have time to be depressed". Linda had numerous psychosocial stressors related to her health, family caregiving and financial challenges. Linda received psychotherapy sessions and diabetes education. She later shared with me and said "I am doing much, much better…I'm speaking up for myself, and I'm carving out more me time". • John: John had moderately severe depression, but declined antidepressant medication recommendation. He shared "I'm losing interest in my health care…my health is a 'downer'. I'm so tired. I have no motivation, no drive to do better. (But) I appreciated telling my story to someone". I offered empathic listening and positive feedback to John. • Carl: Carl has symptoms of moderate depression surrounding his lack of health insurance, his inability to purchase his medications, his inability to be a better provider for his family, and his and his wife's unemployment. Carl was very receptive to my psychotherapeutic interventions. • Martin: Martin was depressed and very distressed about his health and feared bad news. Initially, Martin was initially receptive to psychotherapeutic and case management interventions, but later became avoidant, regarding coming to the clinic, as he feared "bad news" from his physician.
Occupational problems, vis-à-vis race, gender and class	• Mary: Mary was so sad and despondent, and said "I'm so sad because I am unemployed". Mary used to be an in home private duty sitter with elderly patients, but her only patient died. • Barbara: Barbara's health challenges, distress, sadness and anxiety were said to be exacerbated by her being a victim of "work harassment" (job insecurity) over the past 24 months. She said: "I've been singled out, because I would get sick at the job. Then I would have to do unnecessary stuff (additional assignments). I've been treated as if I'm invisible (at work). Because of the work harassment, Barbara felt that she was going to lose her job. She said "there's a plan to get rid of the old staff (like Barbara) in order to bring in new (younger, Spanish speaking) people". As a result, Barbara was very frustrated about her work situation and said "I just want to make enough money to pay my mortgage, my car note and my other bills. I'm not ready to retire yet. I must keep working."

	• Linda: Linda used to be a data operator, but was now unemployed. • John: John was denied unemployment compensation and had been chronically unemployed. A former truck driver, John had great difficulty finding a job because of his past felony conviction and years of incarceration. I referred John to a vocational rehabilitation program that helped ex-offenders. • Carl: Carl had been a chef for 30 years, but lost his job months ago. His wife also lost her job a couple of months ago. • Martin: Martin used to have a full time job with health insurance and benefits, but now had a part time job with no health insurance and few other benefits.
Economic problems, vis-à-vis race, gender and class	• Mary: Mary said “I have no income and no health insurance. My family and friends have to give me money to live.” Without health insurance, Mary told me that she wasn’t able to obtain her medications. • Barbara: Barbara was laid off from her job, was denied unemployment compensation, and she wondered “why was I denied?” Barbara’s adult children and her male friend/ significant other had to help Barbara pay her bills, including her mortgage and car payments. • Linda: Linda used to receive unemployment compensation, but it ended. Linda then had to rely on her husband’s monthly Social Security Disability check. • John: John received financial help from his father and grandmother. • Carl: Carl felt sad about his inability to be a better financial provider for his family. • Martin: Martin had limited income, which impacts his ability to care for himself.
Resilience and optimism vis-à-vis race, gender and class	• Mary: Though at risk of homelessness, Mary was a woman of faith who believed that “Jesus loves me” and “God has my back” • Barbara: Though facing intense work stress, Barbara was an active member in her Christian faith community, and a part of the

	Baptist denomination. A regular church attender, Barbara was also in ministry school. • Linda: I learned from Linda that she was the primary caregiver for her disabled husband and her elderly father, and was experiencing “caregiver burnout”. Linda still continued her individual psychotherapy and even graduated from diabetes education class. Linda said “I am doing much, much better…I’m speaking up for myself and carving out more ‘me’ time”. • John: I learned from John that he was considered to be a “gentle giant”, and he loved his family very much. Even though this ex-offender was chronically unemployed, he said that he was able to keep a “positive mental attitude”, as sustained by his supportive fiancée, family members and friends. Because he grew up in a Christian home, and also because of his developing Buddhist faith, John said that he was able to “keep on, keeping on” in his positive self-talk and reflections regarding his “good moral and family values, respect for elders, helpfulness with the vulnerable and children, by not tolerating bullying, by not spanking children, and by not having children fear you”. • Carl: I learned from Carl that he and his wife were both unemployed. However, through it all, Carl was sustained by his Christian faith and Baptist church attendance, which really helped to enhance his mood and elevated his spirits. Carl later shared his “praise report” with me, in that, both he and his wife received full time food service/food preparation jobs! • Martin: I learned that from Martin that he was not a member of a faith community and had no church affiliation, but was primarily supported by his immediate and extended family and friends.
Primary support group problems, vis-à-vis race, gender and class	• Mary: Mary said “I can’t stay at my father’s house anymore. He doesn’t want me there…I don’t feel welcome, but I don’t have anywhere else to go.” Mary reconnected with her father, because her (ill) mother said “get in touch with your father.” Mary said that she was “not happy” in her relationship with her male friend/significant other. Mary said “he’s mean and controlling”, but she “fears being alone…I don’t want to be lonely.” Mary said “I don’t like Dallas anymore. But I have nowhere else to go, and I can do bad all by myself. I just want to go home to be with my family and friends in Paris, TX.” • Linda: Linda lacks “me time” and had “caregiver burnout”. She was the primary caregiver of her disabled husband. “He (her

	husband) had a massive stroke while he was riding on the bus and wound up in a coma". She was also the primary caregiver of her elderly father who lived alone.
Housing problems, vis-à-vis race, gender and class	• Mary: Mary's father was said to be unhappy because Mary and her male friend/significant other had to live with him, due to their homelessness. Mary said that she had past history of living in homeless shelters or being at risk of homelessness. • John: John said "I love my family, But one day, I'm gonna have my own apartment".
Other psychosocial and/or environmental problems, vis-à-vis race, gender and class	• Mary: Mary planned to walk on foot from Dallas, TX to Paris, TX (103 miles away) to be with her family and friends. This was a personal safety issue. That same day, I was able to obtain a one way Greyhound bus ticket for Mary (at a cost of $18) to get her to the halfway point of Greenville, TX, from where she would be picked up by a friend. • Mary: Mary said that she wasn't eating in a healthy way. She said "I can only eat one meal a day…usually breakfast". I gave her an apple and a cup of coffee. • John: The dishonest behavior of John's ex-wife was said to be responsible for John's incarceration. • Mary: Mary's only child/her adult son, then age 25, was incarcerated, near Paris, TX. Mary's four grandchildren/ her son's children also lived in Paris, TX. Mary wanted to be with her family in Paris, TX. This is why she wanted to walk from Dallas, TX to Paris, TX.

This narrative research and the myriad of factors related to diabetes, depression, and the intersectionality of race, gender and class will be discussed in detail in Chapter Six. Applied syndemic theory, syndemic suffering, and the strengths-based, linked themes of resilience and optimism, related to the altruism, self-sacrifice, and survival skills that largely emanated from the spirituality and religious faith of these African American individuals/community residents will also be discussed in Chapter Six.

Specifically, the themes of resiliency and optimism were exemplified in all of the narrative stories. For example in Mary's story, though at risk of homelessness, she was a woman of strong faith who believed that "Jesus loved her and God had her back". In Barbara's story, though facing intense work stress, Barbara was an active member in her Christian faith community, and a part of the Baptist denomination. A regular church attender, Barbara was also in ministry school. From Linda's story, I learned that she was the primary caregiver for her disabled husband and her elderly father. Linda continued her individual psychotherapy with me and graduated from diabetes education class. She said "I am doing much, much better…I'm speaking up for myself, and I'm carving out more 'me' time". From John's story, I learned that he was considered to be a "gentle giant", and he loved his family very much. Even though this ex-offender was chronically unemployed, he said that he was able to keep a "positive mental attitude", as sustained by his supportive fiancée, family members and friends. Because he grew up in a Christian home, and also of his developing Buddhist faith, John stated that he was able to "keep on, keeping on" in his positive self-talk and reflections regarding his "good moral and family values, respect for elders, helpfulness with the vulnerable and children, by not tolerating bullying, by not spanking children, and by not having children fear you." From Carl's story, I learned that Carl and his wife were both unemployed. However, through it all, Carl was sustained by his Christian faith and Baptist church attendance, which really helped to enhance his mood and elevated his spirits. Carl later shared his "praise report" with me, in that, both he and his wife received full time food services/food preparation jobs. Finally, in Martin's story, I learned that he was not a member of a faith community and had no church affiliation, but was primarily supported by his immediate and extended family and friends. Thus, for all of these outpatients the themes of resiliency and optimism, along with the therapeutic power of narrative storytelling, indicated how many of these individuals went from being victims, to survivors, to becoming thrivers, and this will be further discussed in Chapter Six.

CHAPTER SIX

DISCUSSION

This research study illustrated the overarching syndemic theory, which was used to explain the intersections of type 2 diabetes, depression, psychosocial suffering among low-income African American outpatients who reside in the southern sector of Dallas, TX, USA. The intersections of race, gender and class has also been included in this research. These intersections described how poverty, oppressive social relationships and other social conditions stress individuals and populations, weaken natural defenses and cause exposure to disease clusters.

I have coined term D^2 S^2 to deconstruct the syndemic interconnections and psychosocial phenomenon that interacts with diabetes, depression and human suffering. The first dimension in the D^2 S^2 Model is *D*iabetes –the chronic blood glucose dysregulating condition. The second dimension is *D*epression – the biochemical mood disorder, which is often chronic, internalized and untreated. The third and fourth dimensions are *S*yndemic *S*uffering – which entails adverse psychological and social conditions encompassing poverty and oppressive social relationships. The discussion of these four dimensions in this study was illustrated by the personal narratives of African American outpatients, was shaped by and associated with social, political and economic inequalities, and was escalated by the chronic adversity of diabetes and depression.

Given the aforementioned overview, the purposes of this research study were to describe and explore the experiences of six (6) low-income African American outpatients who are living with type 2 diabetes and depression. The goal of this research was to demonstrate that these outpatients also experienced syndemic suffering. This study was designed to address the following objectives:

1) To increase the knowledge about low-income African Americans who are living with both type 2 diabetes and depression, and also
2) To deepen the understanding of the intersectionality of race, gender, and class, along with, the socio-emotional and socio-environmental determinants of health.

The following overarching research questions and sub-questions were examined using sociodemographic, biometric and anthropometric data, along with narratives (Chan, 2010) related to six (6) African American women and men who reside in the Frazier and surrounding communities in the southern sector of Dallas, TX, also known as, South Dallas:

1) What are the experiences of this cohort sample of African American women and men who are living with type 2 diabetes and depression?
    a) What are the racial, gender and class specific issues in type 2 diabetes and depression care?
    b) What are the social, emotional and clinical issues in type 2 diabetes and depression care?
    c) What are the unmet biopsychosocial-cultural-environmental and spiritual needs to be addressed in type 2 diabetes and depression care?

In this research study, the individual-level illness experiences and lay discourse narratives from these urban, low-income persons, who are living with diabetes and depression were used as vivid illustrations. Illustrations from these marginalized, vulnerable persons shape and embody individual suffering and disease. They indicated how macrosocial factors, holistic agendas, and disease chronicity explain diabetes and depression (Weaver & Mendenhall, 2014). Knowledge about marginalized persons and vulnerable populations described how poverty, oppressive social relationships and other social conditions, stress and weaken individuals and populations (Singer, 2009b; Singer & Clair, 2003; Singer et al., 2006). The chronicity/chronic disease and syndemic approaches assisted in the holistic analyses of disease processes, along with the interaction of the social, psychological and biological factors (Weaver & Mendenhall. 2014).

Cognizant of the syndemic theoretical lens and analytical framework, the previously mentioned narratives from the six (6) low-income outpatients who are living with both type 2 diabetes and depression demonstrated syndemic theory and described their social suffering. Their stories and settings are unique. In explaining human behavior in the social environment, this study emphasized how syndemic theory was useful in addressing the previously identified "what" questions related to the physical health problems, mental health problems, occupational problems, economic problems, primary support group problems, housing problems, social-environmental problems, food access problems, legal/criminal justice problems, and the other psychosocial and/or environmental problems of this cohort sample of six (6) low-income outpatients. This study demonstrated that the diabetes and depression self-management for these outpatients was negatively impacted by syndemic suffering, as coined by D^2 S^2.

Results for Research Question 1 and Sub-Questions

Research question 1 and its sub-questions were: what were the experiences of this cohort sample of six (6) African American women and men who are living with type 2 diabetes and depression?; what were the social, emotional and clinical issues in type 2 diabetes and depression care?; and what were the unmet biopsychosocial-cultural-environmental and spiritual needs to be addressed in type 2 diabetes and depression care?

The analysis of the primary themes related to this research questions indicated that physical health problems, mental health problems, occupational problems and economic problems were the most frequently occurring for these outpatients. In terms of semi-structured clinical interviews, these African American outpatients received between two (2) to twelve (12) Solution Focused Brief (psycho) Therapy (SFBT) sessions, and the average number of sessions were four (4) sessions. These psychotherapy sessions and associated case management targeted and focused on the priority issues and concerns of these outpatients, related to their physical health problems, mental health problems, occupational problems, economic problems, primary support group problems, housing problems, social-environmental problems, food access problems, legal/criminal justice problems and/or other psychosocial and/or environmental problems. The benefits of these psychotherapeutic interventions was evidenced by decreased or stabilized scores on the self-reported psychometric survey, the nine question Patient Health Questionnaire (PHQ-9) depression screening instrument. According to the biometric lab and anthropometric data, as indicated in Table 6.1, two of the women and two of the men in this cohort were considered obese, as indicated by Body Mass Index (BMI) scores of greater than 30%. Two women in this cohort had BMIs of 33% and 34 % respectively, and two men in this cohort had BMIs of 51% and 39% respectively. There was limited pre and post hemoglobin A1c average blood glucose lab data, given the goal of less than 7% as evidence of controlled diabetes. For all three of the women in this cohort, their pre-A1c lab data indicated significantly elevated values of 13.1%, 12.6% and 11.0% respectively. For one of the three men in this cohort, his pre-A1c lab data indicated an elevated value of 8.5%. In terms of employment and financial income data, five of the six outpatients were unemployed and all six had significant financial constraints. Educationally, all six of these outpatients were high school graduates and two of the six had associates degrees from local community colleges.

Primary theme and intersections: Physical health problems and race, gender and class. According to their narratives and also the biometric lab data seen in Table 6.1, the six outpatients in this sample cohort were at risk for or had the presence of diabetes complications. They had insufficient money and many could not afford to purchase their needed medications, necessitating applications for prescription assistance programs. These outpatients either lost, were illegible for or could not afford health insurance. One female outpatient really struggled with hypoglycemic (low blood glucose) episodes and hypoglycemic unawareness. These outpatients had hyperglycemia (high blood glucose) and many needed injectable insulin medication. Most of these outpatients had hypertension (high blood pressure), and one male outpatient had erectile dysfunction, necessitating the prescription of a vasodilator medication.

These findings were in line with existing research about type two diabetes and African Americans. More than 29 million U.S. residents are living with diabetes, including insulin resistant, type 2 diabetes (NDSR, 2014). These U.S residents impacted by diabetes included 1.8 million Texans (Texas Human Services Commission Report, 2013). This health condition places a high burden on American society (ADA, 2007), including African Americans. African Americans are disproportionately afflicted with diabetes (USDHHS-OMH, 2008). With African Americans, type 2 diabetes is linked to genetics, obesity, sedentary lifestyles, diet, exercise programs, and social inequalities. Additionally, for African Americans, type 2 diabetes is 6to urbanization, socio-economic deprivation, hardships, stress, distress, and social network constraints. Thus, there appears to be linkages of disease to the social context and political-economic inequities (Mendenhall, 2012).

Primary theme and intersections: Mental health problems and race, gender and class. According to the narratives and also the depression screening scores, as seen in Table 6.1, all six outpatients in this sample cohort were diagnosed with mild to severe major depressive disorder or chronic dysthymia. Two of the three women were prescribed an antidepressant, but could not afford to purchase it. Two of the three men were prescribed an antidepressant. One declined the antidepressant medication recommendation, and the one man had failing kidneys and was not able to take the antidepressant medication. All six of these outpatients had stress, distress and some levels of low self-esteem. One male outpatient was struggling with unresolved feelings of grief and loss regarding the death of his young daughter, and one female was dealing with the death of her father.

These findings are in line with current research on clinical depression which is identified as major and minor forms of profound sadness. The percent of depressed patients who have diabetes, and have moderate to severe depressive symptoms ranges from 30% to 70% (Anderson et al., 2007). Particularly with African Americans, predisposition to depression, related to major losses, unemployment, life changes, homelessness, chronic stress, unresolved grief and loss, trauma survivorship, substance use and abuse, may cause continued secretion of cortisol and other stress hormones (MHA, 2007). Additional depression predisposition factors for African Americans are intergenerational and historical traumas, i.e., post traumatic slave syndrome (DeGruy Leary, 2005). Due to depression and mental health stigma, and as an alternative intervention for depression, the participatory religious and spiritual practices of African Americans portends healthier outcomes (NADD, 2013). This latter point was evident with this study's cohort sample, in that five of the six outpatients shared in their psychotherapy sessions that they were sustained by their Christian faith and one male outpatient shared that he was sustained by his Buddhist faith.

Primary theme and intersections: Occupational problems and race, gender and class. According to the narratives and also the employment information indicated in Table 6.1, five out six of these outpatients were unemployed and one went from full time to part time employment. Three out of six of these outpatients were chronically unemployed, that is, they had no employment for more than 12 months. One of these outpatients faced significant work distress, job insecurity, threats of job loss, stressful work schedules, job dissatisfaction, job changes, and discord with boss or co-workers, before being laid off. Two of these outpatients went from being employed to being unemployed. One male outpatient dealt with employment challenges related to past felony convictions. One male outpatient was underemployed, after going from full time employment to part time employment. These findings were in line with research about the lower than average income for full time African American men and women and how increased unemployment decreased African American median incomes (USCB, 2012). Income is also correlated to education. During the 2007-2008 recession, higher unemployment rates was seen for African Americans who had a high school diploma or less, while Masters prepared African Americans were able to sustain and maintain (USCB, 2012). All six of the outpatients in the sample cohort have a high school diploma and two of them have associates degrees from local community colleges.

Primary theme and intersections: Economic problems and race, gender and class. According to the narratives and also the economic/income information in Table 6.1, four of the six outpatients began in this study with no income. Two of these outpatients went from no income to some income. One female outpatient went from full time income to no income, and one male outpatient went from full time income to part time income. The narratives indicated that many of these patients were impoverished with no income source, necessitating financial help and dependence on family members and/or friends for money. These outpatients with diabetes and depression experienced significant financial constraints. Some went from salaries to unemployment compensation, the ending of unemployment compensation, the necessity of becoming a paid caregiver for a disabled husband, or the simultaneous unemployment of an outpatient and his wife, having to use their savings for their living expenses and then depleting their savings. These experiences are in line with research on the geographic “Diabetes Belt” in the southern sector in Dallas, TX, USA, also known as, South Dallas, a largely African American community, with a specific focus on the economically hard hit Frazier community in zip code 75210, and the diabetes epidemic in that community. With median incomes of between $7, 917 to $12, 945 (USCB, 2013) in this zip code, these community residents represented the least, the left out and the left behind. Consequently, such high rates of diabetes and depression in this and surrounding communities is not surprising, especially for African Americans.

Furthermore on a macro scale level, for many native, U.S. born African Americans, the entire United States is the “bad neighborhood”, because of perceived racism and discrimination (Curry, 2016). This perceived racism and discrimination is reportedly not experienced as much by first generation African born or Caribbean born Blacks, Hispanics, or Asians, all of whom are healthier and live longer than U.S. born African Americans (Curry, 2016). Obviously, this complex, multi-problem situation is more than just diet and exercise. More importantly, it is about the socio-economic and socio-environmental context, vis-à-vis chronic stress, poor neighborhoods, poverty, racism, sexism, classism, discrimination and the need for racial, social, economic and environmental justice.

Primary theme and intersections: Resilience and optimism and race, gender and class. Resilience is defined as the capability to recover after stress and strain, or an ability to recover from or adjust to change or misfortune (www.merriam-webster.com). Optimism is defined as the inclination to anticipate favorable, positive outcomes (www.merriam-webster.com). Research on resilience has found that this descriptive label may apply to persons who appear to function under stressful and adverse environmental conditions (Klohen, 1996). Earlier research also focused on protective factors and processes (Rutter, 1987). Optimism has been found to be linked to resilience (Collins, 2007), and appear to be positive ingredients in individuals who progress from being victims, to survivors, to thrivers. In this research study, all of these outpatients, in their own unique ways, were resilient and optimistic. They often gave what little they had in service to others, but remained self-empowered through their own “Higher Power”, especially as this was connected to their spirituality and religious faith.

As seen in the narratives and the reflections of resiliency and optimism in Table 5.2 and Table 5.3 in Chapter Five, the strengths-based themes of resilience and optimism, related to altruism, self-sacrifice and survival skills, largely emanated from the spirituality and religious faith of these African American individuals/community residents. The themes of resilience and optimism, along with the therapeutic power of narrative storytelling, indicated how these individuals went from being victims, to survivors, to becoming thrivers.

It has been said that grace and forgiveness are the hallmarks of the African American Christian church (Carten, 2015). Historically, in the African American Christian church, authentic conversations happened about the legacy of African slavery, the need to repress feelings of anger and outrage, and the need to forgive racism (Carten, 2015). The African American Christian church often buffered its members and the community for the full impact of racism, but the unresolved traumas are still transmitted from generation to generation (DeGruy Leary, 2005). However, the spirits of resiliency and optimism prevail, as evidenced by several of the narratives in this study, such as, with Mary who said “Jesus loves me” and God’s got my back.”

Unfortunately, racist and sexist gender role stereotyping in the larger society has often identified the African American woman as “the strong Black superwoman” and the African American man as “a Black male troublemaker”. In the face of such stereotyping, how can African American woman and men cope in healthy ways? It is through the collective spirits of resilience and optimism that African American individuals and communities have been and are able to strive and envision a brighter future, especially as this emanates from spirituality and religious faith.

Resilience and optimism may be negatively impacted by limited educational opportunities and lower socioeconomic status. Historically and contemporaneously, the African American Christian church has been a source of resilience and optimism, and often a resource for the basic necessities of life: food through food pantries, clothing through the distribution of donated clothing, shelter through services for the homeless, health care through parish nurses and clinics, transportation by way of the church van, etc. In these and other ways, the church and its ministry partners/faith community become beacons of optimism and hope, particularly for “the hungry, the hurting and the homeless”. As evidenced by the narratives in this research, most of these outpatients received their spiritual sustenance from their local faith community, and often received other concrete services.

Connections with Applied Syndemic Theory

Syndemic Suffering. Mendenhall et al.’s (2010) research indicated that social suffering is linked to diabetes causality, wherein diabetes is used like an “idiom of distress” through which somatic symptoms are leveraged to disclose psychological distress. Mendenhall et al. stated that this was particularly true for low-income persons, as diabetes and depression converge. Given the aforementioned overview, according to syndemic research and theory, that is, the working together of a set of enmeshed and mutually enhanced health problems within a context of noxious physical and social conditions, syndemics negatively impacts the overall disease burden and health status of a population (Singer, 2009b). Syndemics was used in this study as the theoretical lens and analytical framework for understanding the interconnections of diabetes, depression and social suffering, identified in this study as D^2 $S^{2.}$, and is depicted in Figure 6.1 below.

Cognizant of this syndemic theoretical lens and analytical framework, the previously mentioned narratives of the low-income African American individuals who are living with diabetes and depression, demonstrated applied syndemic theory and described the syndemic suffering of these individuals. Furthermore, as evidenced by the six (6) aforementioned narratives, the bidirectional relationship (Renn, Feliciano, & Segal, 2011) of the twin epidemic of type 2 diabetes and depression was demonstrated and are significant health concerns in the geographic “Diabetes Belt” region in the southern sector of Dallas, TX, also known as, South Dallas. This bidirectional relationship of the twin epidemic of type 2 diabetes and depression disproportionately impacts African Americans, including the outpatients in this research study. The treatment complexities of these two illnesses and the related syndemic suffering are tremendous burdens for these outpatients and their families, and are certainly challenging for health care providers and health care systems. The disproportionate impacts on the African American community are further complicated by male/female gender role conflicts. Furthermore, other factors included limited educational achievements, unemployment, underemployment, low-income, low wage earnings (USCB, 2013), and the unavailability of health insurance.

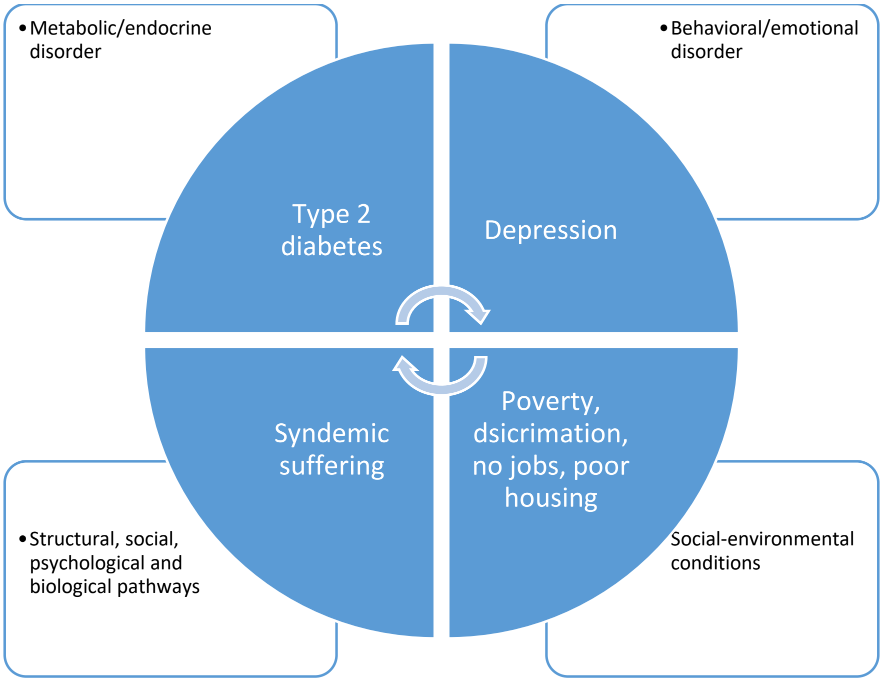
The disproportionate prevalence of the chronic condition of type 2 diabetes, among African Americans, coupled with the mood disorder of depression, are closely associated with social and environmental health disparities, termed syndemic suffering (Mendenhall et al., 2010). This convergence of social-environmental and physical determinants of health and social-emotional suffering complicates the life experiences of African Americans who are living with the comorbidities of type 2 diabetes and depression. This suffering may lead to high blood glucose, high blood pressure, disordered eating, stress eating and compulsive overeating of high sugar, high fat, cheap, comfort foods and obesity (Curry, 2016). Being in high-alert, violent situations, living in food deserts with few or no grocery stores, homelessness, food insecurity, unemployment, inability to purchase medications, inability to pay for rent and utilities may lead to inflammation and illness (Curry, 2016). Furthermore, as evident in the Frazier and surrounding communities in South Dallas, TX, the social inequities of residential instability, population density, deteriorating housing, environmental toxins, lack of access to adequate nutrition and medical care, racial discrimination, internalized self-hatred, marginalization, stigmatization, deprivation, maladaptive self-medication responses through substance abuse, being targeted for personal, community or structural violence, including by the criminal justice systems, etc., negatively impact people (Singer, 2009b). These demoralized population sectors produce optimal circumstances for disease spread, concentration and interaction.

Syndemic theory challenges the notions of how comorbid conditions are experiences, reveals how sociocultural factors shape the individual-level experiences of co-occurring diseases, and promotes cross-cultural thinking (Mendenhall, 2015). The complex biosocial framework of type 2 diabetes and depression is an example of applied syndemics and may be ethnographically centered, as with Non-Hispanic African Americans. This applied diabetes-depression-syndemic suffering framework was coined in this research study by the term $D^2 S^2$, and takes into account structural, sociocultural, relationship and individual factors, all of which are related to diabetes, depression and syndemic suffering.

In the face of this syndemic suffering, as indicated from the narratives of the six (6) low-income African American outpatients in this study, racial, social, economic and environmental justice is needed, along with economic stability, quality education, a positive social and community context, access to health and health care, supportive neighborhoods and built environments.

Figure 6.1

Diabetes, Depression, Syndemic Suffering and the Social-Environmental Conditions



Intersectionality of Race, Gender and Class. For individuals living with diabetes, depression and syndemic suffering, the intersection of race, gender and class may also impede healthier coping and can lead to health care disparities. These intersections may also include racism, sexism and classism, that is, disparities and inequities based on race, gender and social class.

Race. African Americans often face maltreatment based on their racial group. This is called racism. Racism has a negative psychological and physiological impact on individuals, communities and populations. Racism can negatively impact health behaviors, as well as, the delivery and quality of care in health care systems (Brondolo, Gallo & Myers, 2009). Patterns of racial disparity in the quality of health care in the United States continue, even when differences in socio-economic status, health insurance, co-morbidities, stage and severity of disease and medical facility types are taken into account (Williams & Mohammed, 2009). Research on various types and discrimination, along with racial and ethnic health disparities reported that racial discrimination against Americans of various racial and ethnic groups interfaced with multigenerational cycles of poverty (Williams & Sternthal, 2010). The findings from these research studies suggested that the associations among race, socioeconomic status and health disparities is very complex (Williams & Sternthal, 2010). The six (6) low-income African American outpatients in this study, by virtue of "being Black in America" had to deal with their life experiences in the face of institutional, structural (James, 1996) and societal racism (Scheurich, 1997) that excluded them from fully taking part in social institutions.

Gender. Diabetes disproportionately occurs among African American women (Adams, Lucas, & Barnes, 2008), and is their fourth leading cause of death (Heron, 2007). Being overweight or obese (with a body mass index of greater than 30) are major risk factors for diabetes among African American women (USDHHS-OMH, 2013). Due to body image concerns, some African American women may have depressive symptoms. Furthermore, with

African American women, gender roles as single or married/partnered parents and/or as elder/disabled caregivers may be complicating self-care factors (ADA, 2012). For the three (3) low-income African American women discussed in the narratives, all had body image concerns and two were dealing with being overweight or obese. Two of these women were caregivers for the elderly or disabled family members, and these factors complicated their diabetes and depression self-management care.

For African American men, traditional male attributes, such as, risk taking, societal role expectations, and invulnerability may exacerbate poorer health outcomes (Gough & Connor, 2005; Jack, 2004). The life expectancy of African American men is troubling (Jack et al., 2010a). African American men experience the disproportionate burden of diabetes complications (Hardy & Bell, 2004), including the sexual complication of erectile dysfunction (Jack, 2005). Thus, culturally and gender specific interventions are needed (Jack et al., 2010a). For the three (3) low-income African American men discussed in the narratives, all had body image concerns and two were dealing with being obese. One of these men was dealing with the sexual complication of erectile dysfunction and one other man was avoiding the probability of kidney dialysis. Two of these men were dealing with unemployment, and one of these men also had employability issues related to his history of felony convictions.

Class. The six (6) low-income African Americans outpatients in this study faced significant challenges related to their socioeconomic status. These outpatients received primary care, social work/behavioral health care and other services at a facility located in zip code 75210, a medically, underserved community with poor social determinants of health. The community area and zip code has been identified as a health professional shortage area for primary care, dental care and mental health care (USDHHS/HRSA, 2016). The southern sector of Dallas, also known as South Dallas – the area south of interstate highway I-30 and east of interstate highway I-35, was a premier African American community for working and middle class African American homeowners (Blacks in Dallas, 2016). However, in recent decades, due to large population losses, social and economic injustices, many African American South Dallas residents have been left economically poor and left behind, along with the numerous abandoned, neglected and demolished properties (Blacks in Dallas, 2016). With low median annual incomes, low median home values ranging from $30,000 to $80,000, and with apartment rents in the $600 to $800 range (Blacks in Dallas, 2016), there is an imbalance between the number of homeowners and the number of renter households, particularly for low-income residents (Dallas Morning News, 2016). Given this backdrop, life was very challenging the six (6) outpatients in this study, along with other African Americans residents in South Dallas, TX.

Psychotherapeutic Interventions: Solution Focused Brief Therapy

The semi-structured clinical interviews in this study incorporated aspects of Solution Focused Brief Therapy. The Solution Focused Brief Therapy (SFBT) approach grew out of the work of two American social workers, Steve de Shazer and Insoo Kim Berg. SFBT is a goal-directed collaborative approach to psychotherapeutic change (Pichot et al., 2003). SFBT is conducted through direct observation of the patient's/client's response to a series of precisely constructed questions (de Shazer et al., 2007). In SFBT, these sessions empathically focus on the present and future (de Shazer et al., 2007; Pichot et al., 2003).

In this study, the SFBT approach incorporated the miracle question, exception questions, coping questions, scaling questions, time-out, accolades and tasks (Greenberg et al., 2001). The narrative story of "Mary" is an excellent exemplar of the culturally contextualized use of SFBT with African Americans. As illuminated through SFBT, Mary's story and all of the narratives addressed the research sub-questions of what are the racial, gender and class specific issues in type 2 diabetes and depression care, what are the social, emotional and clinical issues in type 2 diabetes and depression care and what are the unmet biopsychosocial-cultural-environmental and spiritual needs to be addressed in type 2 diabetes and depression care.

Mary, who had a history of homelessness, family conflict, relationship discord, unemployment, food insecurity, diabetes, depression and syndemic suffering, received the most number of SFBT sessions and made substantial, positive changes over time. As a solution focused brief therapist, I refrained from making interpretations and being confrontational with Mary, until I had safety concerns about her when she said that she was planning to walk 103 miles from Dallas, TX to Paris, TX. Instead, I obtained a Greyhound bus ticket for her. Over a nine month period, Mary made incremental “baby step” progress in a positive direction, and I used “scaling questions”, on a zero to ten scale to assess her progress. I was able to help Mary to identify her goals, helped her to envision a preferred future of what her life would be like once her goals were accomplished, used “miracle questions” related to what would happen if her problems were gone, and how would she was able to cope in a healthier way. I helped Mary to think about “exceptions”, or times when some of her goals where already happening somewhat, and used these positive thoughts to help us co-construct effective solutions. I affirmed and validated her gifts, skills and talents, as a caring mother, grandmother, former home health elder caregiver and woman of faith. This strength-based, therapeutic approach empowered Mary, who eventually got her own one bedroom apartment, Social Security Supplemental Income (SSI), and Medicaid.

This research study illustrated the overarching syndemic theory, which was used to explain the interconnections of type 2 diabetes, depression, psychosocial suffering among low-income African American outpatients who reside in South Dallas, TX, USA. The intersections of race, gender, and class were also included in this research. These intersections described how poverty, social relationships and other social conditions stress individuals, and populations, weaken natural defenses and cause exposure to disease clusters. Herein, the primary narrative themes and related intersections of race, gender and class were discussed, along with their connections with applied syndemic theory. Additionally, the psychotherapeutic intervention of Solution Focused Brief Therapy was discussed. Collectively, the narratives from these low-income African Americans who are living with type 2 diabetes, depression and syndemic suffering addressed the research sub-questions of what are the racial, gender and class specific issues in type 2 diabetes and depression care, what are the social, emotional and clinical issues in type 2 diabetes and depression care and what are the unmet biopsychosocial-cultural-environmental and spiritual needs to be addressed in type 2 diabetes and depression care.

Implications

Cognizant of the issues and concerns related to diabetes, depression, syndemic suffering and the intersectionality of race, gender and class, the syndemic theoretical lens and analytical framework, was illustrated in narratives of the six (6) low-income individuals who are living with both type 2 diabetes and depression. These narratives demonstrated syndemic theory and described their individual social suffering. The stories and settings of these individuals are unique. In explaining human behavior in the social environment, this study emphasized how syndemic theory was useful in addressing the previously identified “what” questions: what are the life experiences of this cohort sample of African American women and men who are living with type 2 diabetes, depression and syndemic suffering ($D^2 S^2$); what are the race, gender, and class specific issues in type 2 diabetes care, depression care and syndemic suffering; what are the social, emotional and clinical issues in type 2 diabetes care, depression care and syndemic suffering; and what are the unmet biopsychosocial-cultural-environmental and spiritual needs to be addressed in type 2 diabetes care, depression care and syndemic suffering.

Another study result was to further establish the value to using narratives in qualitative research. This methodology provided a vast depth and breadth of information gathered regarding the life situations of these six (6) outpatients.

The use of simple questions, empathic listening and Solution Focused Brief Therapy (SFBT) with these outpatients revealed how beneficial these social work/behavioral health interventions were. This useful information was relevant to this current and future research. The information gathering process and related research is supported by the in-depth narrative process. In each of the semi-structured, Solution Focused Brief Therapy interviews, the outpatients freely shared their life situations in great detail. By being kind, empathic and emotionally present, I was not surprised about how forthcoming these outpatients were in sharing their issues and concerns with me. Through this life enhancing psychotherapy and other supportive interventions, these outpatients felt listened to, heard and empowered in their diabetes self-management care, their depression self-management care, and in the personal and spiritual healing from their syndemic suffering.

This research was also beneficial to me, as a clinician, researcher, and as the primary tool in this study. Over time, I was able to further develop my clinical and research skills. Substantial learning occurred for me from my reflections on interactions with these outpatients and the subsequent narrative research.

It has been more than two to three years since I conducted these patient interviews and related research. In retrospect, the lessons that I have learned have prompted me to truly value human resiliency and survivorship. In addition, my positive experiences of serving in South Dallas, TX, enhanced my appreciation of individual and community empowerment. Additionally, I had an opportunity to further develop my advanced practice clinical skills and qualitative research skills. There is so much more to learn about low-income African Americans who are living with type 2 diabetes, depression and syndemic suffering. I trust that this research study will expand the development of narrative research and other qualitative research techniques.

The instruments used with these outpatients included clinical interviewing, the PHQ-9 psychometric depression screening tool, and information from the biometric tools of the A1c, BMI and weight, along with sociodemographic information. These instruments provided holistic representations of the health, wellness, life stressors and supports that were present in the lives of these outpatients. These instruments elucidated the factual data that was relevant to conducting this research. The qualitative information gathered from the narrative interviews and the nature of narratives as a tool of the investigative process provided a detailed and rich description of the phenomenon under investigation. Certainly, a significant amount of valuable information was extrapolated from qualitative interviews (Patton, 2002). This narrative method was useful for gathering life story information. This method provided robust depth and breadth of information. The narratives in this study elucidated the previously discussed syndemic theory, as this was related to disease interactions within populations that exacerbated negative health effects of any or all of the diseases (Singer, 2009). Furthermore, the personal life stories of the six (6) outpatients allowed for deep insightfulness into their detailed and individualized realities – that is, the powerful stories of African Americans who were living with type 2 diabetes, depression, syndemic suffering and the intersectionality of race, gender and class.

Limitations

Despite its robustness, because of the small number of outpatient case files/health records involved and the nature of this method, the findings from this study are not generalizable and have finding limitations. First, this study was limited to the clinical data collected from six (6) case files/health records. However, this availability and convenience sampling process is more feasible for and popular with social work practitioners and researchers who work in community based agencies or organizations, and is justified based on the availability of patients/clients/ consumers (Rubin & Babbie, 2011). Consequently, it is important not to overgeneralize the research findings obtained in this study to other groups, because of a lack of random sampling and selection (Rubin & Babbie, 2011). Second, this study is limited to interview information from six (6) out-patients. This interview data is reliant on the accuracy of the recollections and authentic descriptions of this clinical interviewer, who was also the researcher and principal investigator. Finally, it is possible that the qualitative data collection methods may introduce bias. The information gained through the data collection process is dependent upon the skill of this researcher and the ability of this researcher to obtain and interpret the information.

In presenting the life stories of these six, low-income African American residents from South Dallas, TX, who are living with type 2 diabetes and depression, given the intersectionality of race, gender and class, this study provided a fuller picture of their struggles and suffering. The aforementioned narratives, when compared to the previously introduced applied syndemic theory, demonstrated a “goodness of fit”. Cognizant of this, a clinician may be able to more thoroughly screen for depression and other distress, especially with low-income patients who are living with type 2 diabetes. However, the use of applied syndemic theory in this research study seemingly missed the strength-based theme of resilience and related altruism, self-sacrifice, survival skills that emanated from the spirituality and religious faith of these African American individuals/community residents and the therapeutic power of their narrative storytelling.

Many life experiences contributed to each of their six narratives, such as, adult and childhood traumas, financial hardships, homelessness, relationship conflicts, health challenges, and grief and loss issues. These life experiences exacerbated their feelings of hopelessness and helplessness, often leading to episodic health care and the possible need for crisis intervention.

Conclusions

This qualitative research study fulfilled its purpose by describing and exploring the life experiences of six (6) low-income African American outpatients who are living in South Dallas, TX, with both type 2 diabetes, depression and syndemic suffering, and by obtaining a deeper understanding of their social-emotional struggles and socio-environmental disadvantages, with a focus on race, gender and class. Furthermore, this study fulfilled its other purpose, as evidenced by the narratives gathered from clinical interviews, by obtaining a deeper understanding of how the intersectionality of race, gender and class, the related social-environmental determinants of health, and social-emotional suffering converged to complicate the life experiences of these South Dallas, TX African Americans who have both type 2 diabetes and depression.

This study highlighted the importance for clinical practitioners and health care researchers to have in-depth knowledge about human behavior in the social environment. Although this study is not generalizable, it does affirm and validate the importance of knowing how health challenges and psychosocial distress can serve as barriers to health and wellness, in addition to, negatively impacting clinical outcomes and population health. Another research highlight is the advantageousness of utilizing qualitative methods and narrative research. The semi-structured, Solution Focused Brief Therapy interviewing techniques, along with the use of standardized psychometric tools, and data from anthropometric and biometric information, allowed for a fuller sense of the life experiences of these low-income African Americans who had type 2 diabetes, depression and syndemic suffering, given the intersectionality of race, gender and class. The depth and breadth of the information that was shared in this study demonstrated benefits to both outpatients and clinical practitioners. Each of the six outpatients shared the meaningfulness, empowerment and healing that came from the therapeutic power of telling their stories, because they often had no one else with whom to talk. Thus, this process of social work/behavioral health service delivery was very important to these outpatients. From a strengths-based perspective, the theme of resilience, and related altruism, self-sacrifice, and survival skills that emanated from the spirituality and religious faith of these African American individuals/community residents and the therapeutic power of their narrative storytelling indicated how many of these individuals went from being victims, to survivors, to becoming thrivers.

Due to a lack of narrative literature and in order to increase the clinical research knowledge base, further research on type 2 diabetes, depression and syndemic suffering is needed. Therefore, as a clinician and researcher, I recommend more frequent use of the narrative method. This approach provided a great depth and breadth of information, and revealed a perspective on the life experiences of this low-income population. This type of study can have valuable implications for community outreach and early intervention efforts. This type of study also elucidates the surrounding factors and nuances of syndemic suffering. Furthermore, it is useful in understanding the healing and empowerment processes experienced by these outpatients.

This study indicated that the social work/behavioral health services were very well received and appreciated by these outpatients. This positive feedback affirmed and validated the importance of completing a thorough biopsychosocial-cultural-environmental and spiritual assessment and allowing these individuals to “tell their stories”. As a clinician and researcher, I recommend the availability of mental health professionals and integration of behavioral health services in primary care settings. The behavioral health services provided by these mental health professionals should include in-depth assessments and psychotherapeutic treatments, and the work should be done collaboratively, with other helping professionals from a variety of fields, including physicians, nurses, social workers, chaplains, diabetes educators and community health workers. As a clinician and researcher, I affirm that culturally competent psychotherapy, education and referral services are very beneficial with low-income adults and other populations. These integrated primary care and behavioral health services are also beneficial to older adults, young adults and adolescents who are living with type 2 diabetes, depression and syndemic suffering (D^2S^2).

According to the National Institutes of Health (2014), cultural competence is critical to improving access to high-quality health care and in reducing health disparities, especially among vulnerable populations. The incorporation of a systems approach, which is inclusive of individuals, groups, communities, institutions, cultural variations and racial, gender, and class disparities, vis-à-vis health care delivery systems, is necessary in order to examine cultural competence in diabetes and depression care. Since 2010, this systems approach has been operationalized at my place of employment, the Diabetes Health and Wellness Institute (DHWI) in the southern sector of Dallas, TX. DHWI addresses diabetes, depression and syndemic suffering. DHWI is the cornerstone of the Baylor Health Care System/Baylor Scott and White Health's Southern Sector Initiative, created in 2006, to address the region's health care needs relative to diabetes. The Institute works to weave diabetes prevention and treatment into the fabric of the Frazier community, is situated in zip code 75210, and is a part of this low-income neighborhood. DHWI is conveniently located near many public transportation lines (Baylor Scott & White Health, 2016). DHWI is built on the four fundamental principles: 1) clinical care in the neighborhood; 2) community-based, multidisciplinary research; 3) integration of social, cultural, political and economic initiatives; and 4) collaborative support. The goal of the Institute is to improve the lives of those at risk for developing diabetes or those who have been diagnosed with the disease. DHWI offers its' members and/or outpatients diabetes education, primary health care, social work/behavioral health care. disease management, nutritional counseling, cooking demonstrations, computer literacy classes, a fitness center, aerobic exercise training, a gymnasium, a game room, tennis courts, baseball and football fields, walking trails, a farm stand for fresh fruits and vegetables, and afterschool programs (Baylor Scott & White Health, 2016). The DHWI programs incorporate the seven self-care principles of the American Association of Diabetes Educators (AADE), that is, the AADE7 Self-Care Behaviors ™: healthy eating, being active, monitoring, taking medications, problem solving, reducing risks and healthy coping (American Association of Diabetes Educators, 2010).

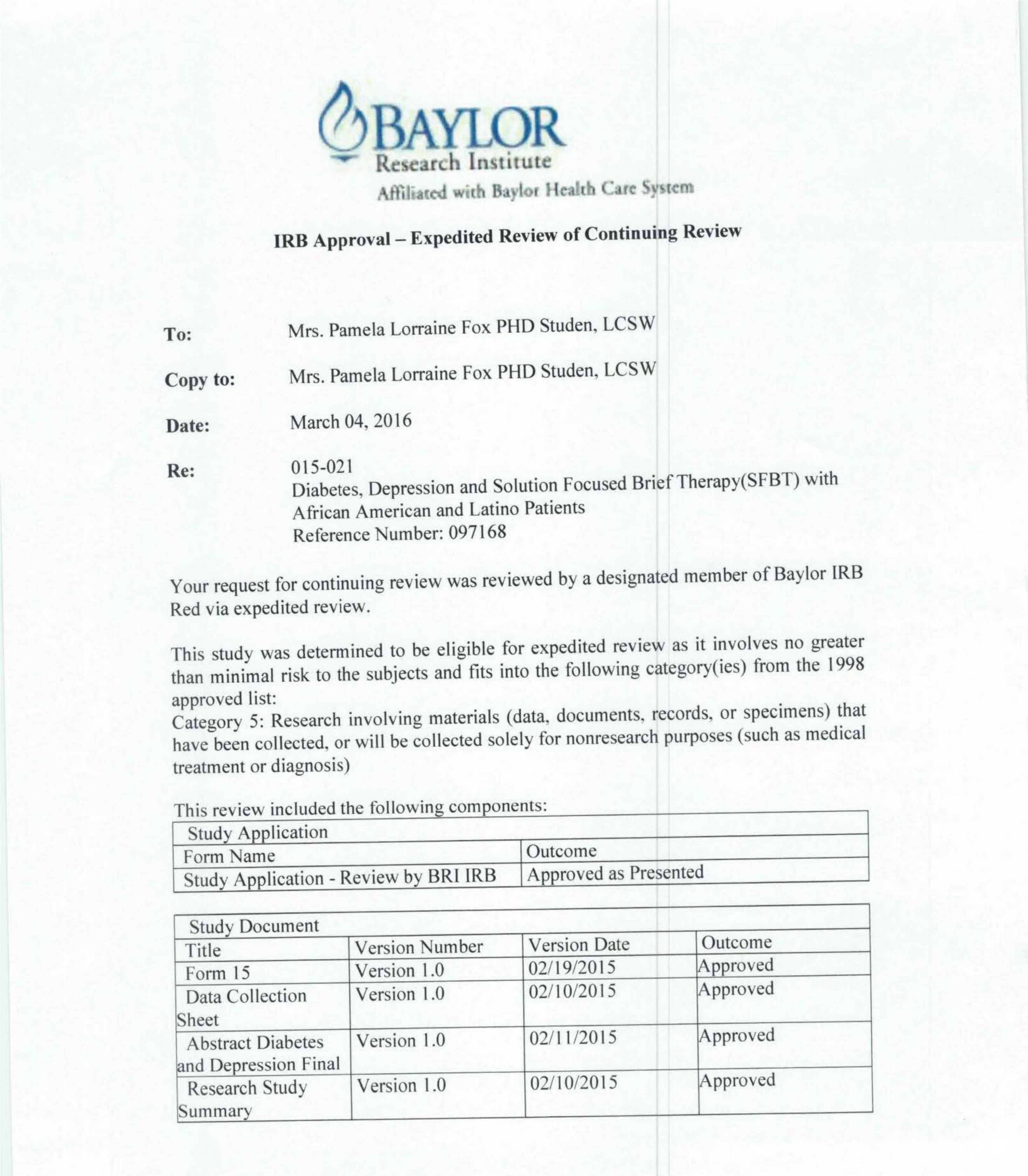
The next steps in this research may be to seek grant funding for multi-site research, and to incorporate the use of the evidence-based Improving Mood-Promoting Access to Collaborative Treatment ™ [IMPACT ™] Model of integrated primary care and depression/behavioral health care (Unutzer, Powers, Katon, & Langston, 2005), given its focus on the integration of primary care and behavioral health.

Significance to Social Work

The biopsychosocial-cultural-spiritual perspective (Engel & Romano, 1977, 1980; NASW, 2008) used in this study is certainly relevant to social work practice, education and research, because of the attributes of the profession of social work. I affirm the primary mission of my profession of social work in helping to help meet the basic human needs of all people, and to enhance human well-being, with particular attention to the needs and empowerment of people who are oppressed, vulnerable and living in poverty (NASW, 2008). Furthermore, the historic and defining features of the profession of social work have been situated within the social context of individual well-being and the well-being of society (NASW, 2008). The role of professional social work is certainly important in our contemporary societies, as social workers promote social change and social justice, with and on behalf of individuals, families, groups, organizations and communities (NASW, 2008). Moreover, sensitivity to cultural and ethnic diversity, along with striving to end discrimination, poverty and other forms of social injustice, are also part of the mission of professional social work (NASW, 2008).

Given the aforementioned ethical principles and professional attributes of social work, as a clinical social worker and principal investigator, the foci of my research study was on type 2 diabetes, depression, syndemic suffering ($D^2 S^2$), that is, social-environmental determinants of health and social-emotional suffering. Specifically, this study examined the oppression, discrimination, poverty, and social injustice among low-income African American outpatients who live in the southern sector of Dallas, TX, USA and the related intersectionality of race, gender and class. The concepts of diabetes, depression, syndemic suffering and intersectionality interfaces with social work, as these concepts and social work seek to understand how various social, cultural and biological categories, including race, gender and class, age, ability, religion, sexual orientation, and other identity axes interact at multiple and/or simultaneous levels (DeFrancisco & Palczewski, 2014), and impact human behavior in the social environment.

APPENDIX A



BAYLOR
Research Institute
Affiliated with Baylor Health Care System

IRB Approval – Expedited Review of Continuing Review

To: Mrs. Pamela Lorraine Fox PHD Studen, LCSW

Copy to: Mrs. Pamela Lorraine Fox PHD Studen, LCSW

Date: March 04, 2016

Re: 015-021
Diabetes, Depression and Solution Focused Brief Therapy(SFBT) with African American and Latino Patients
Reference Number: 097168

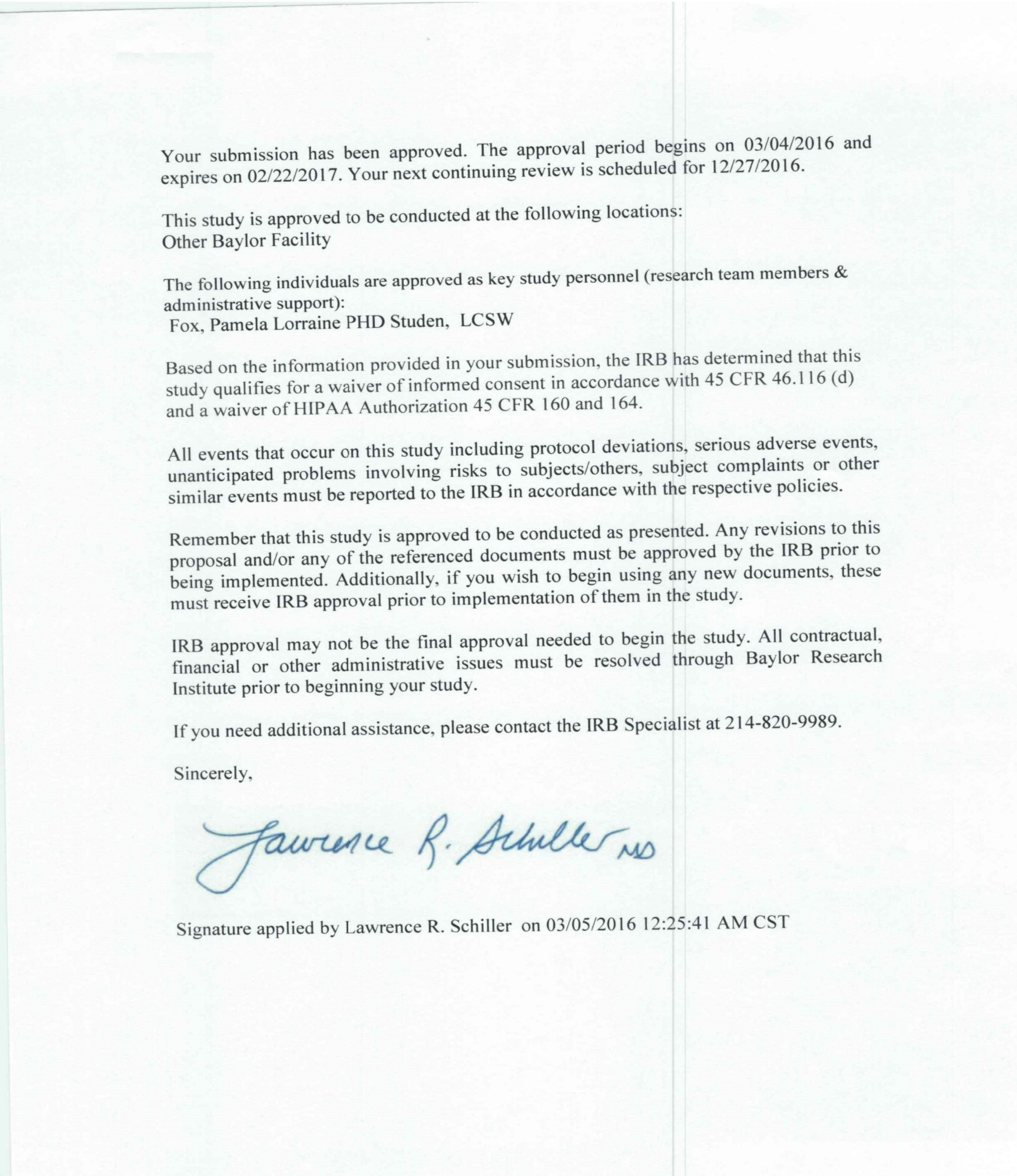
Your request for continuing review was reviewed by a designated member of Baylor IRB Red via expedited review.

This study was determined to be eligible for expedited review as it involves no greater than minimal risk to the subjects and fits into the following category(ies) from the 1998 approved list:
Category 5: Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis)

This review included the following components:

Study Application	
Form Name	Outcome
Study Application - Review by BRI IRB	Approved as Presented

Study Document			
Title	Version Number	Version Date	Outcome
Form 15	Version 1.0	02/19/2015	Approved
Data Collection Sheet	Version 1.0	02/10/2015	Approved
Abstract Diabetes and Depression Final	Version 1.0	02/11/2015	Approved
Research Study Summary	Version 1.0	02/10/2015	Approved



Your submission has been approved. The approval period begins on 03/04/2016 and expires on 02/22/2017. Your next continuing review is scheduled for 12/27/2016.

This study is approved to be conducted at the following locations:
Other Baylor Facility

The following individuals are approved as key study personnel (research team members & administrative support):
Fox, Pamela Lorraine PHD Studen, LCSW

Based on the information provided in your submission, the IRB has determined that this study qualifies for a waiver of informed consent in accordance with 45 CFR 46.116 (d) and a waiver of HIPAA Authorization 45 CFR 160 and 164.

All events that occur on this study including protocol deviations, serious adverse events, unanticipated problems involving risks to subjects/others, subject complaints or other similar events must be reported to the IRB in accordance with the respective policies.

Remember that this study is approved to be conducted as presented. Any revisions to this proposal and/or any of the referenced documents must be approved by the IRB prior to being implemented. Additionally, if you wish to begin using any new documents, these must receive IRB approval prior to implementation of them in the study.

IRB approval may not be the final approval needed to begin the study. All contractual, financial or other administrative issues must be resolved through Baylor Research Institute prior to beginning your study.

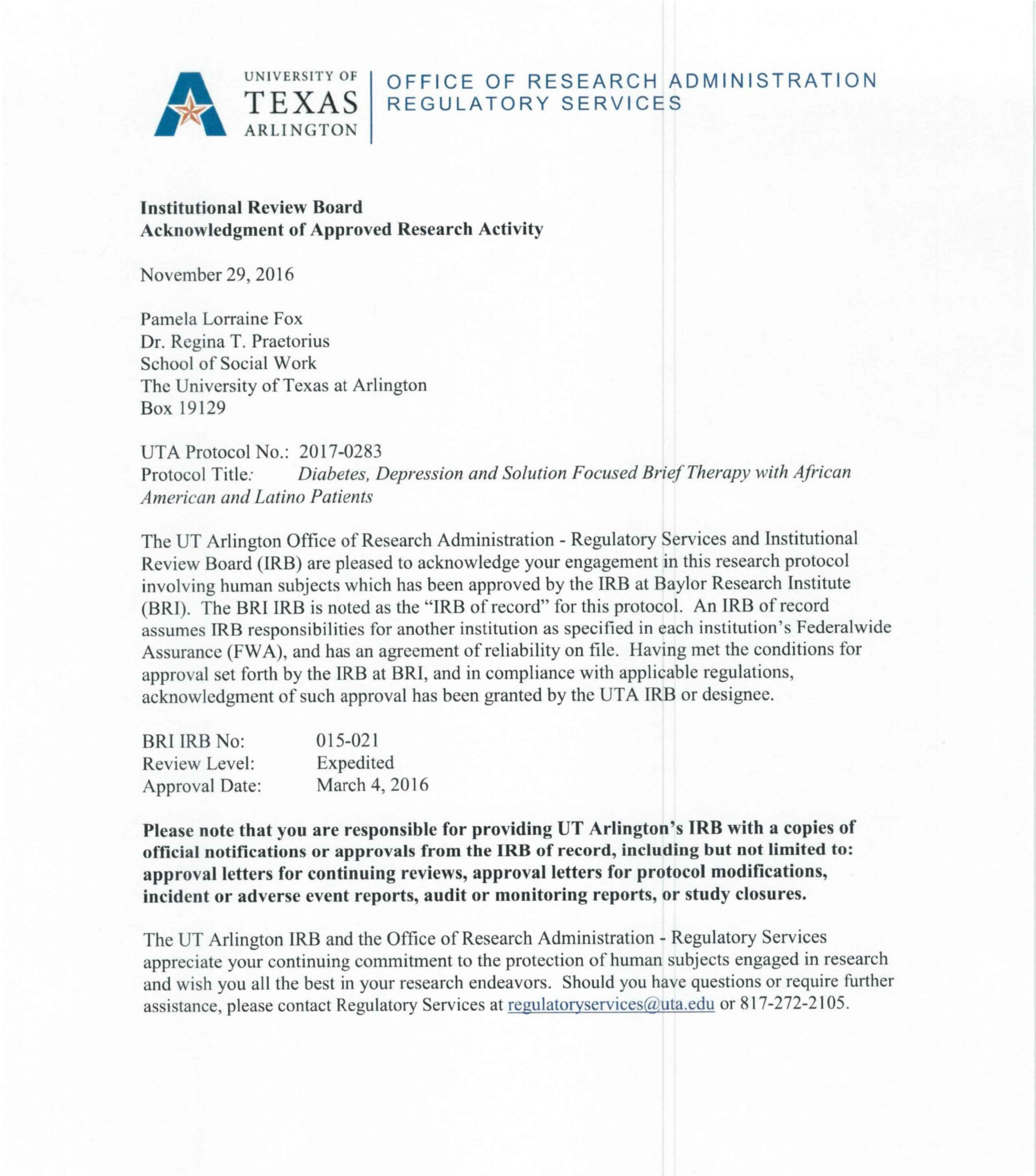
If you need additional assistance, please contact the IRB Specialist at 214-820-9989.

Sincerely,

Lawrence R. Schiller MD

Signature applied by Lawrence R. Schiller on 03/05/2016 12:25:41 AM CST

APPENDIX B



UNIVERSITY OF
TEXAS
ARLINGTON
OFFICE OF RESEARCH ADMINISTRATION
REGULATORY SERVICES

Institutional Review Board
Acknowledgment of Approved Research Activity

November 29, 2016

Pamela Lorraine Fox
Dr. Regina T. Praetorius
School of Social Work
The University of Texas at Arlington
Box 19129

UTA Protocol No.: 2017-0283
Protocol Title: *Diabetes, Depression and Solution Focused Brief Therapy with African American and Latino Patients*

The UT Arlington Office of Research Administration - Regulatory Services and Institutional Review Board (IRB) are pleased to acknowledge your engagement in this research protocol involving human subjects which has been approved by the IRB at Baylor Research Institute (BRI). The BRI IRB is noted as the "IRB of record" for this protocol. An IRB of record assumes IRB responsibilities for another institution as specified in each institution's Federalwide Assurance (FWA), and has an agreement of reliability on file. Having met the conditions for approval set forth by the IRB at BRI, and in compliance with applicable regulations, acknowledgment of such approval has been granted by the UTA IRB or designee.

BRI IRB No:	015-021
Review Level:	Expedited
Approval Date:	March 4, 2016

Please note that you are responsible for providing UT Arlington's IRB with a copies of official notifications or approvals from the IRB of record, including but not limited to: approval letters for continuing reviews, approval letters for protocol modifications, incident or adverse event reports, audit or monitoring reports, or study closures.

The UT Arlington IRB and the Office of Research Administration - Regulatory Services appreciate your continuing commitment to the protection of human subjects engaged in research and wish you all the best in your research endeavors. Should you have questions or require further assistance, please contact Regulatory Services at regulatoryservices@uta.edu or 817-272-2105.

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