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Culture and Food Practices of African-American Women with Type 2 Diabetes

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Culture and Food Practices of African-American Women with Type 2 Diabetes

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Dedication

I dedicate this to my husband, Kelvin W. Sumlin, and our two daughters, Jayla and Gabrielle Sumlin; and my mother, Joe Ann Smith for all of their love, encouragement, prayers, and support in my educational endeavor.

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Culture and Food Practices of African-American Women with Type 2 Diabetes

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African-American women (AAW) have had the largest increase in diagnosed diabetes in the US. Few studies have focused solely on dietary changes (one of the foundations for diabetes self-care), particularly in the context of family and the role of AAW. The purpose of this descriptive ethnographic study was to explicate cultural influences on food practices of AAW with type 2 diabetes (T2DM) in order to inform the health care community as well as future development of culturally-tailored interventions. Specific aims were to describe typical daily food practices and identify cultural influences on food practices of AAW with T2DM.

Symbolic Interactionism, a sensitizing framework for viewing AAW with T2DM as a subculture, guided this study. Purposeful sampling was used to recruit 20 AAW who: were between 35 and 70 years of age, had been diagnosed with T2DM, shopped and prepared meals for their families, and attended church functions where food was served . Data collection consisted of one-one-one interviews and participant observation of church fellowship dinners, grocery shopping, and food preparation. A social anthropological

approach to content analysis was used to describe behavioral regularities in food practices. Trustworthiness was maintained by an audit trail.

Findings indicate that for informants in this study, who had diabetes ranging from 2 to 30+ years, there is a constant struggle between cultural food practices and eating healthier because of diabetes, particularly within the home setting where a majority of daily food practices take place. Difficulties in making dietary modifications result from conflicts between the need to change dietary practices to control diabetes and personal food preferences, as well as the preferences of people within the participants' social network. In addition, difficulties derive from AAW's emotional dedication to the symbolism of food and traditional cultural food practices.

AAW are the gatekeepers for family food practices and are the keys to healthy dietary practices. This study begins to fill the research gap regarding cultural dietary food practices of this population. With increased knowledge, researchers and health care providers will be better able to improve AAW food practices, and ultimately improve diabetes control in this high-risk population.

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Chapter 1: Introduction

The number of people diagnosed with type 2 diabetes (T2DM) is growing exponentially. In 2013 there were over 380 million people worldwide with diabetes (International Diabetes Federation, 2014). Within the US the number of persons diagnosed with T2DM is projected to increase from 11 million in 2000 to over 29 million in 2050, a 165% increase (Boyle et al., 2001). African Americans (AA) are disproportionately affected by T2DM in prevalence, disease complications, and cost with respect to their Caucasian counterparts. The risk for diagnosed diabetes among AA is 77% higher than Caucasians (National Diabetes Information Clearing house [NDIC], 2011). In the US 25.8 million people are diagnosed with diabetes; 4.9 million of these are AA aged ≥20 years, which is 18.7% or double the rate among Caucasian Americans (Center for Disease Control [CDC] National Diabetes Fact Sheet, 2011).The number of AA with diabetes is expected to increase by 275% by the year 2050 (Boyle et al., 2001).

Complications due to diabetes are numerous and costly. Compared to their Caucasian counter parts, AA are twice as likely to develop complications such as amputation and kidney failure as a result of suboptimal metabolic control (CDC, Diabetes Complications, 2012). Subsequently, hospitalizations of AA due to diabetes complications are 1.5 times higher than Caucasians (CDC, Hospitalization, 2011) and diabetes is the fourth leading cause of death (African Americans [AA] and Diabetes Fact Sheet, 2009). The annual direct and indirect costs for diabetes are over $245 billion

(ADA, 2013). Since AA are hospitalized more often they are likely to accrue more of the total diabetes related costs.

Not only are there ethnic differences in those affected by diabetes, there are also gender differences. Of the 25 million adults with diabetes in the US, 12.6 million are women (CDC, Diabetes Public Health Resource, 2012). Women with T2DM more than men with T2DM tend to be affected by blindness and heart disease, the number one complication of diabetes (CDC, Diabetes Public Health Resource, 2012). Women have lower survival rates from diabetes-related heart attacks than men and thus, experience lower quality of life (CDC, Diabetes Public Health Resource, 2012). In fact, the death rate for women with diabetes ages 25 to 44 years is three times greater than that for women without diabetes (CDC, Diabetes Public Health Resource, 2012).

Among all ethnic groups the number of African-American women (AAW) affected with T2DM has been increasing the most. In 2011, AAW had the largest increase in prevalence of diagnosed diabetes in the US (CDC, Diabetes Data and Trends, 2011). Among AAW 55 years of age and older 1 in 4 have diabetes (Office on Women's Health, US Department of Health and Human Services, 2010). This high impact of diabetes on AAW can be attributed to the increase in obesity, which is dependent on lifestyle behaviors of diet and physical activity. Four out of five AAW are overweight (a BMI>25%) or obese (BMI≥ 30%, US Department of Health and Human services Office of Minority Health, 2011). For this population literature also suggests that the increase in diagnoses and lack of diabetes control, defined as a glycosylated hemoglobin (A1C) > 6.5%, have been partially due to consumption of traditional AA foods, i.e.,. fried foods

high in both fat and salt (Agurs-Collins, Kumanyika, Ten-Have, & Campbell, 1997; Airhihenbuwa et al., 1996; Bovell-Benjamin, Dawkin, Pace, & Shikany, 2009). Traditional expectations of family members may make it more difficult for AAW to improve their eating habits in order to manage their diabetes more effectively.

Controlling T2DM can be a very daunting task. A number of self-management skills are required to manage diabetes; however, the foundational skill is to make appropriate dietary changes. Healthy dietary modifications can produce significant improvements in T2DM (American Diabetes Association [ADA], Standards of Care, 2014). In fact, healthy dietary changes can reduce A1C up to 2% (ADA, Standards of Care, 2014). However, due to the woman's role within the home AAW with T2DM are challenged to change culturally rooted food habits to attain optimal diabetes control.

For AAW the maternal role, which includes being a multi-caregiver, is highly valued and is often placed above self-management needs. The definitions of the maternal role, family expectations, and cultural influences on food practices are generally passed down through generations. For example, a family expectation, which many AAW take pride in, is the preparation of traditional meals. Women find great pleasure in seeing their friends and family members enjoy their cooking and this satisfaction can out rank the women's responsibility for caring for her diabetes. Because the recommended ADA dietary guidelines tend to conflict with traditional AA food practices, following diabetes dietary recommendations is the most challenging lifestyle change for AAW to make.

There are several other reasons for targeting the female gender in making successful dietary changes. First, AAW are one of the largest populations affected by

T2DM. Secondly, like other populations, gender plays a significant role in food practices that occur within the home. Women more than men are the gatekeepers of health for the family and they tend to be more engaged in household activities, such as grocery shopping and meal preparation (Wong, Gucciardi, Li, & Grace, 2005). Cultural influences on food practices generally are passed from one generation of women to the next generation (Denham, Mandogian, & Schuster, 2007; Liburd, 2003). That means that having women improve their own dietary habits likely improves eating habits for their families as well, thereby decreasing the diabetes risk of future generations (Sumlin, & Garcia, 2012).

Previous studies have shown that traditional diabetes education, which includes content on recommended dietary changes, has not been successful in AA communities (Anderson-Loftin, Barnett, Bunn et al., 2005; Keyserling, Ammerman et al., 2000). It has also been argued that one of the keys to reducing racial and ethnic health disparities is with culturally competent health care (Ziemer et al., 2003). Therefore, culturally tailored diabetes interventions were developed for this population (Agurs-Collins et al., 1997; Anderson-Loftin, Barnett, Bunn et al., 2005; Keyserling, Samuel-Hodge et al., 2002; Mayer-Davis, D'Antonio, Smith et al., 2004; Two-Feathers et al., 2005; Utz, Steeves, Wenzel, Jones, & Muphy, 2006). Culturally tailored interventions incorporate ethnic beliefs, values, customs, food patterns, language, and health care practices (Anderson-Loftin, Barnett, Sullivan et al., 2002; Anderson-Loftin, Barnett, Bunn et al., 2005). However, few studies have focused solely on how to integrate culture into dietary changes required for diabetes control (Anderson-Loftin, Barrnett, Sullivan et al., 2002;

Anderson-Loftin, Barnett, Bunn et al., 2005; Ziemer et al., 2003). There is growing evidence that interventions that focus on a single health behavior, rather than multifaceted interventions (e.g. diet, physical activity, plus blood glucose monitoring), resulted in more significant improvements in health (Conn et al., 2007). Furthermore, although studies involving an in-depth focus on dietary changes have been conducted with Mexican-American women (Benavides-Vaello, 2008); ethnographic type studies of dietary changes that AAW are willing to make were not found. Hence, there remains a gap in knowledge about food beliefs and practices of AAW with diabetes, key information needed to develop dietary interventions for this population that will result in sustainable health outcomes.

STATEMENT OF THE PROBLEM

Nearly five million AA are currently diagnosed with diabetes. This number is expected to increase by 275% by the year 2050. It is predicted that nearly 50% of all AAW will develop diabetes and face the risk of subsequently dying from complications, such as heart disease, the number one killer in the US. The deadly impact of this disease on AAW has been attributed to high rates of obesity, which are a result of unhealthy eating habits including the consumption of traditional AA foods.

Healthier dietary habits have been documented to improve glycemic control in those with T2DM. However, for AAW to change traditional food practices in order to attain optimal glycemic control has proven to be difficult. Food represents many things, ranging from an expression of love to an artistic expression of cooking skills. Yet,

changing dietary habits is the key to diabetes control and decreasing the effects of T2DM on this population.

In order to change dietary practices for the AA population as a whole, women are the key. They are typically the caregiver within the home and therefore, they serve as gatekeeper of health for the entire family. Once women change their eating habits, they have the capability to change the eating habits of their family, thus impacting the health of both their current family members as well as of future generations.

PURPOSE

The purpose of this study was to explicate cultural influences and symbolisms of food practices of AAW with T2DM in order to translate this information to the health care community as well as future researchers. The study was informed by the researcher's pilot work and clinical experiences, which suggested that certain culturally based food practices may be resistant to change but healthy modifications that take culture into consideration may be more acceptable and thus successful. This in-depth descriptive ethnographic study involved one-on-one interviews in addition to observations of food practices: grocery shopping and typical food selection, meal preparation, and consumption within social settings (e.g., family dinners, church socials).

The specific aims of this descriptive ethnography were to: (1) describe typical daily food practices of AAW with T2DM; and (2) identify the cultural influences of food practices of AAW with T2DM. The findings from this study will be used as a foundation for developing sustainable culturally tailored dietary interventions for this population.

RESEARCH QUESTIONS

Specific research questions that were examined for this dissertation study were:

1. What are the day-to-day food selection, preparation, and consumption processes of AAW with T2DM?
2. What are the typical food selections and consumption practices when dining out?
3. What are the types of foods selected and quantities consumed at social gatherings (i.e. church functions, holidays)?
4. What are the valued behaviors and beliefs that influence food practices of AAW withT2DM?
5. To what degree do social interactions with family, friends, church acquaintances, and health care providers influence food practices?

SENSITIZING FRAMEWORK

Because diabetes control is heavily based on food practices, and these practices are based on an individual's culture and their social interaction within that culture, it is important to understand cultural influences on food practices for AAW with T2DM. The use of ethnographic techniques, as well as Symbolic Interactionism and viewing AAW with T2DM as a subculture, was used as a sensitizing framework to guide this dissertation study.

Through naturalistic inquiry qualitative descriptive studies provide a comprehensive summary of events in everyday language of those events (Sandelowski, 2000). Ethnography, a form of qualitative research, is the study of a specific population

as they perform their normal daily activities within a specific setting (Spradley, 1980). Qualitative descriptive studies usually consist of interviews while the ethnographic technique, which also includes observations in social settings, provides further insight into the population of interest and the phenomena of interest. Unlike quantitative researchers, qualitative researchers do not utilize theories and pre-select variables to study and draw conclusions (Sandelowski, 2000). However, a theory can be used in qualitative studies to provide a framework for data inquiry, as well as provide context for the phenomenon under study (Benavides-Vaello, 2008).

Symbolic Interactionism. There are three premises that are associated with Symbolic Interactionism: (a) people act on things based on the meanings that they have placed on them, (b) the source of the meanings placed on things develop from social interaction, and (c) meanings can change based on the interpretation from the interaction of the things (Blumer, 1969). The use of Symbolic Interactionism "assume[s] that meaning is made and constantly changed through interaction and becomes embedded in social context" (Blumer, 1969). These premises have been modified to specifically examine food practices of AAW with T2DM. Food practices are viewed and developed based on an individual perception, their social interaction, and the meaning they assign to food practices.

Subculture. From Symbolic Interactionism food practices are constructed based on an individual perception, which can be attributed to one's cultural ties. People within a culture tend to hold common values, ideals, beliefs, and behaviors that are acquired through learning from other members within the group (Munhall, 2007). AAW with

T2DM were viewed as a subculture in that they tend to hold the same cultural practices of AA yet there are gender differences for women particularly in relationship to food and the fact that they have diabetes. Women tend to view food not only as a source of nutrition but as a way to bond and interact with others. For AAW food is often tied to their identities. A woman's sense of self is based on her ability to feed her family (de Certeau & Giard, 2008). For AAW being able to prepare a good "home cooked meal" is a source of pride. However, for AAW with T2DM changes must be made in food practices in order to achieve diabetes control. This sensitizing framework, Symbolic Interactionism and viewing AAW with T2DM as a subculture, provided a guide for inquiry related to the meaning and symbols placed on food practices in relation to cultural practices and social interactions.

DEFINITIONS

1. Culture - "is broadly defined as the values, beliefs, attitudes, and practices accepted by members of a group or community" (Kittler, & Sucher, 2008, p. 5). Culture is learned and changes in regards to time, place, and social dynamics (Kittler & Sucher, 2008).
2. Cultural knowledge - is both explicit, which is a level of knowledge that is easily accessible and communicated; and tacit, which remains "outside" of awareness (Spradley, 1980).
3. Value – is an idea of relative worth and importance. For the purposes of this study of AAW diagnosed with T2DM, values were viewed within the content of the AA ethnic group and food practices.

4. Behaviors - the way in which someone functions or operates. For the purposes of this study, behaviors were defined as functions and/or operations conducted during the performance of food practices within a social setting.
5. Food practices - included the food selection, preparation, and consumption processes.
6. Ethnography - is a process of learning about a group of people through their culture (Spradley, 1980) as they go through their daily lives (Emerson, Fretz, & Shaw, 1995).
7. African-American woman - any woman who self-identified as being African American and resided within the US.
8. African-American women with type 2 diabetes - are those women who have been told by their health care provider they have type 2 diabetes at least two years ago.

ASSUMPTIONS

1. Descriptive ethnography is the appropriate research method to learn about AAW with T2DM and cultural food practices.
2. Food selection, preparation, and consumption processes are influenced by culture.
3. Family's and friends' expectations influence food practices.
4. Food practices can be modified despite cultural influences on food practices.
5. AAW are willing and able to accurately express their perceptions regarding their culture and how culture and members within their social network influence their diabetes self-management through diet.

LIMITATIONS

1. Snowball sampling includes the researcher's dependence upon referrals made by study participants; thereby decreasing the researcher's control over the sampling method. Also the participants are likely to refer people with whom they are familiar, thus providing the researcher with a small subgroup of the interested population. The researcher attempted to decrease this effect by recruiting initial subjects from multiple church sites.
2. Due to the study design and sampling technique generalization was not be possible. However, generalization was not the purpose of this study but to gather information in order to add to the body of knowledge regarding AAW with T2DM and dietary practices.
3. The researcher is an AAW and an "insider," which is both a strength as well as a potential limitation. Assumptions can be made on the part of the researcher regarding this population's perspective of cultural influences and values; therefore, efforts were made to set aside personal knowledge and background in order to present the data from the perspective of the AAW research participants.
4. The researcher is also a health care professional, who can be viewed as an "outsider" by research subjects, thus leading to limitations in regard to subjects being completely truthful regarding food practices in fear of being judged. Therefore, efforts were made to reassure subjects that the information they provided would not be judged nor corrected during the study.

CHAPTER SUMMARY

The incidence of T2DM among AA continues to rise. This disease is becoming more prevalent among AAW, leading to complications such as heart disease and ultimately premature death for this population.

Descriptive ethnography and the sensitizing frame work of Symbolic Interactionism and viewing AAW as a subgroup, was used to explore cultural food practices. The primary intent was to determine what these practices were in order to convey this information to the health care community as well as future researchers. The researcher for this study is also an AAW and shares some of the common ethical values and beliefs that were studied. Typical controls for potential bias during the conduct of this research were employed to maintain study rigor. This researcher is well suited for providing a voice for this population to improve research interventions and ultimately the health outcomes of AAW with T2DM.

Chapter 2: Literature Review and Significance of Study

There are three main types of diabetes: type 1, type 2, and gestational. T2DM, which is the focus for this dissertation, is the most prevalent form of diabetes accounting for 90-95% of all adult cases (CDC, National Diabetes Fact Sheet, 2011). T2DM is a result of elevated blood glucose levels due to either: (1) the pancreas not making enough insulin or (2) insulin resistance in which case the body does not properly use insulin (CDC, National Diabetes Fact Sheet, 2001). One of the functions of insulin is to maintain blood glucose levels within a normal range. The glycosylated hemoglobin (A1C) is a three-month average of blood glucose levels as well as a diagnostic tool for diabetes (ADA, standards of care 2014). Currently, for those without diabetes the normal A1C value is less than 5.7%. For the population at increased risk for diabetes, or pre-diabetes, the A1C range is 5.7- 6.4%. Anyone with an A1C equal to 6.5% or greater is considered to have diabetes (ADA, standards of care 2014).

Diabetes can usually be controlled with the following: daily blood glucose monitoring, a healthy balanced diet, exercise, medication, and regular medical visits. For those with diabetes an A1C less than 7% is considered controlled (ADA, standards of care, 2014). Poorly controlled diabetes, an A1C greater than 8%, can lead to complications as well as elevated health care costs and eventually premature death.

Diabetes complications are a direct result of an increase in blood viscosity leading to decrease blood volume to different parts of the body (Cho, Mooney, & Cho, 2008). Complications can include but are not limited to: cardiovascular disease, retinopathy, nephropathy, neuropathy, and amputations.

T2DM is a debilitating disease physically, emotionally, and financially, not only to the individual but to society in general. For the AA population the diabetes burden continues to outweigh their Caucasian counterparts two to one, specifically for AAW. The primary key to delaying or reversing the negative effects of T2DM for AAW and their families is dietary modifications. There are three areas in the literature that were reviewed within the context of the sensitizing framework of Symbolic Interactionism and AAW as a subculture, which also add to the significance of this study: (a) the number of AAW developing T2DM and complications is rising epidemically, thereby adding to society's diabetes cost burden; (b) women are the "gatekeepers" of food practices and health for their families; therefore, if women change their food habits the entire family benefits; and (c) the current gap in the literature regarding AAW and the relationship between ethnicity, food practices, and having T2DM, which has possibly led to the development of and recommendations by HCPs for unsustainable dietary practices for AAW with T2DM.

COST TO SOCIETY

In 2013, 382 million people had diabetes globally and this number is expected to rise to 592 million by the year 2035 (International Diabetes Federation [IDF], 2014). The longer that people live with diabetes the more likely they will develop complications (Young et al., 2008). Often times these complications are present at the time of diagnosis. Those diagnosed with diabetes also have a large reduction in life expectancy. For example with people diagnosed at age 40 years old: men will lose 11.6 years and females will lose 14.3 years (Narayan, Boyle, Thompson, Sorensen, & Williamson, 2003). In

2007, diabetes was the 7th leading cause of deaths in the US and diabetes is estimated to be underreported on death records by 35-40% (NDIC, 2011). The number of females between the ages of 30 and 70 who died due to diabetes was over 59,000 (World Health Organization [WHO], Disability Adjusted Life Year [DALY's], 2011).

AA are twice as likely to develop diabetes and subsequent complications that can lead to a financial burden to society (CDC, Data and Trends, 2013). AA are twice more likely to develop blindness, 3 to 6 times more likely to develop kidney disease, and 3 times more likely to have extremity amputations (ADA, African Americans and Complications, 2009). In 2009, hospitalizations due to diabetes were 60% higher for AA than Caucasian Americans (CDC, Data and Trends, 2013). In 2012 direct and indirect medical costs were over $245 billion (ADA, 2013). The annual individual medical cost for diagnosed T2DM being nearly $10,000 (Dall, Zhang, Chen, Quck, Yang, & Fogli, 2010). Diabetes accounts for 20% of all hospital costs within the U.S. (Russo & Jiang, 2004). Diabetes hospitalizations are mostly via emergency room (67%) and a majority of the patients are uninsured (Russo & Jiang, 2004). AA have 75% more emergency department visits than the entire diabetes population (ADA, 2013). One in five AA are uninsured (Russo & Jiang, 2004). The uninsured usually cannot afford to pay the expense of hospitalizations. In fact, the uninsured are only able to pay about 12% of their total hospital stay, leaving $73 billion of health care costs uncompensated (US Department of Health and Human Services [DHHS], 2011). These costs are shifted to those with insurance and their employers (National Diabetes Information Clearinghouse [NDIC], 2011).

Diabetes indirect costs, which are over $58 billion, are a result of lost wages, disability, and premature mortality (CDC, Data and Trends, 2000; DHHS Office of Women's Health, 2010). For AA with diabetes complications, such as blindness, kidney failure resulting in the need for dialysis, and amputations, can lead to non-productivity. If AA are hospitalized at a rate 60% higher than Caucasian Americans, then it follows that a large portion of diabetes costs can be attributed to AA.

THE HISTORIC SYMBOLISM OF FOOD FOR AFRICAN AMERICANS

When discussing food practices of AA it is important to understand the historical symbolism of food and the importance of social gatherings incorporated into food practices for this population. The symbolism of food and cultural food practices for AA is deeply rooted in the history of black people specifically dating back to the time of slavery. Historically, ethnic groups have been identified based on social interactions, which can include interactions related to food practices (Liburd, 2003). Food serves as a symbol of belonging among members of various groups and cultures (Barthes, 2008). For many years food has been a vehicle of communication to bring family and friends together in order to: (1) enjoy good food, (2) spend time with each other, and (3) increase the bonds of relationships (Barthes, 2008). However, during the era of slavery the symbolism of food became more significant for AA, perhaps more than for any other ethnic population (Graddick, 2011; Liburd, 2003). Although not all AA were enslaved, all were affected by the racial and economic oppression endured by those who were enslaved and the effects of this era are deeply embedded within the food practices of this population even today (Graddick, 2011; Liburd, 2003).

During centuries of racial and economic oppression food became an important symbol of several concepts that many AA value today. During slavery many black families were often permanently separated from each other to work on different plantations across different slave states. This separation produced various traditional "soul food" preparation technics as well as heightened the importance of social gatherings of family and friends. AA typically consumed many of the unwanted parts of hogs and cows, such as the feet, intestines, necks, and the head, meats that were considered unacceptable for consumption by Caucasian slave owners. Traditional soul food techniques included taking these unwanted parts and preparing them with care and love and serving them to other blacks who were present on the plantation. Some of the foods included: chitterlings also known as chit'lins (hog intestines) that were either slow cooked or battered and deep fried; cracklins also known as pork rinds (pork fat with skin) that were deep fried and consumed either alone or added to cornbread batter; neckbones (beef or pork) that were slow cooked; and pigs' feet were often slow cooked and, like chit'lins, eaten with vinegar and hot sauce (African American Registry, 2013). While living on plantations slaves only had access to their own grown vegetables (African American Registry, 2013) so these meats were served with home-grown vegetables, such as collard and turnip greens, okra, and yams. Other cultural staples were added, such as rice, black eyed peas, and macaroni and cheese, just to name a few.

Food not only symbolized love and caring but it also became a symbol of wealth. During a time when AA did not own anything of value, in their possession nor to offer others, great value was placed on preparing and having food to share with others (Liburd,

2003). The ability to produce and control food distribution that was available to AA during slavery provided them with a sense of power, personal affirmation, and identity similar to anyone who possesses an abundance of valuable resources (Liburd, 2003). Food as a symbol of wealth may have contributed to the practice of having large quantities of food at social gatherings.

Even after the slavery era many AA remained economically challenged and could not afford better cuts of meats; thus, soul food preparation continued to involve adding other easily accessible foods such as raccoon, rabbit, deer, and squirrel (Graddick, 2011; Liburd, 2003). But preparation of soul food continued not only because of the expense but also because of the representation of the hardship endured by AA during slavery (Graddick, 2011). For these reasons, even AA who could afford better cuts of meat also continued to prepare and consume soul food. Being able to prepare traditional soul food became a great source of pride, as well as a representation of the slavery era.

Food was also a way for AA on plantations, who were often strangers to one another, to bond with each other and provide each other with a sense of hope despite their surrounding circumstances. Even before slavery AA shared a strong 'kinship,' which included the collective thought held by many AA that "we are, therefore I am" (Hines & Boyd-Franklin, 2005, p.68). Enslaved families were not only separated but enslaved AA men and women on plantations were not allowed to take part in any form of marriage (Hines & Boyd-Franklin, 2005). The changing of partners was common because the enslaved AA were thought of as breeders for more laborers (Hines & Boyd-Franklin, 2005). Therefore, the significance of 'kinship' and the importance of social gatherings for

this population grew and has remained a part of AA cultural practices to this day. It is not uncommon for AA, specifically women, to make sacrifices in order to attend and participate in food preparation and consumption at social gatherings. For example, if an AAW is not feeling well it is not uncommon for this woman to continue to prepare sometimes elaborate meals for social gatherings; despite the discomfort she may be experiencing she continues in order to uphold tradition (Liburd, 2003).

The historical representation of food and the importance of social gatherings have been part of the cultural practices for this population for many decades. Even though the slavery era is probably not mentioned during the teaching of cultural food practices from one generation to the next, it is one of the underlining reasons why these food practices are continued today by AA, specifically the women (Liburd, 2003).

FAMILY GATEKEEPERS OF FOOD PRACTICES AND HEALTH

Gender plays a significant role in food practices that occur within the home, not only for AA but with other ethnic groups as well. Many women maintain the "traditional" role of food management (buying, preparing, and serving of food) within the home (Broom & Lenagh-Maguire, 2010). More than men, women tend to be engaged in household activities such as grocery shopping and meal preparation (Broom & Lenagh-Maguire, 2010; Denham et al., 2007; Wong et al., 2005).

Historically, the kitchen is the place where cultural values and influences on food practices are shared and passed throughout future generations (Airhihenbuwa et al., 1996; Liburd, 2003). Such values include the preparation of meals for the household, particularly to satisfy the spouse, which is believed by many to be a requirement in

maintaining a strong marriage. Because traditional meals such as soul food and southern cooking are taught without the use of cookbooks and food measuring devices, many AAW take pride in their ability to prepare meals and care for their family especially if they do not have occupations outside the home (Liburd, 2003). However, there are an increasing number of AAW who have entered and continue to enter the work force but they remain the primary meal preparer and caregiver in the home (Broom, & Lenagh-Maguire, 2010).

It can be difficult for AAW with T2DM to make appropriate food changes for optimal diabetes control due to family expectations of traditionally prepared meals (Airhihembuw et al., 1996; deGroot et al., 2003). Often, women's health needs are secondary to the family and women often lack support to make dietary changes necessary for diabetes control (Broom & Lenagh-Maguire 2010; Hepworth, 1999). However, since the women are the family gatekeepers of food practices, they have the potential to make healthy food changes for themselves and thereby improve the overall health of the entire family. Therefore, it follows that if AAW improve their food practices, they can influence future food practices and possibly decrease the risk of the development of T2DM in future generations.

GAPS IN THE LITERATURE

The current research literature lacks information on the challenges of balancing diabetes, cultural values, and food practices in the large number of AAW suffering from T2DM and its complications. There seems to be a constant struggle for these women to maintain ethnic identity while having T2DM.

There is growing need for a study that examines food practices of AAW with T2DM. First, dietary modifications significantly improve T2DM control (ADA, Standards of medical care in diabetes, 2014). In fact, dietary change is recognized as the cornerstone for managing diabetes (Ziemer et al., 2003) because healthy diets have been found to reduce A1C by 2.0%-age points (ADA, 2014). In a meta-analysis dietary interventions overall reduced weight by 20 pounds and A1C by 2.7%-age points, on average (Brown, Upchurch, Anding, Winter, & Ramirez, 1996). Secondly, the use of traditional diabetes education that includes modifications in diet and nutrition without reference to cultural influences has been ineffective for AAW (Anderson-Loftin, Barnett, Bunn et al., 2005; Keyserling, Ammerman et al., 2000). It has been proposed that the reason for unsuccessful results with generic education for this population was because the interventions were not culturally tailored and, in some cases, conflicted with cultural values.

The development of culturally tailored interventions emerged around 1989 out of the response to the increase in diversity and health disparities within the US (Betancourt, Green, & Carrillo, 2002). "Cultural tailoring, sometimes referred to as 'cultural competence,' is defined as the process of creating culturally sensitive interventions, often involving the adaptation of existing materials and programs for racial/ethnic sub-populations" (Resnicow, Baranowski, Ahluwalia, & Braithwaite, 1999, p.11). Culturally tailored interventions should be designed to include the: (1) more obvious surface structures of the targeted population, such as language, clothing, and ethnic specific foods; and (2) more deep structures of the culture, such as values and beliefs of the

population under study. AAW highly value the gathering of family and friends at meals, so the inclusion of family and friends for meal demonstration and tastings would be an example of cultural tailoring of an intervention (Melkus et al., 2010; Rimmer, Silverman, Braunschweig, Quinn, & Liu, 2002; Skelly, Carlson, Leeman, Soward, & Burns, 2009; Utz, William et al., 2008).

Even though there has been limited success in attaining glycemic control with culturally tailored interventions, more studies are needed of AAW, an understudied population. Some of the studies reviewed for this dissertation involved focus group work in order to inform the development of culturally tailored interventions. No qualitative studies have been found that gathered in-depth information from AAW with T2DM regarding cultural dietary practices and preferences. Qualitative studies are necessary to gain the perspective of the population of interest in order to prepare interventions that will be acceptable and successful.

For this dissertation study several literature reviews were conducted to gain a broader view of the available literature on AAW with T2DM and dietary practices. The systematic review examined qualitative studies of AAW's perspective of controlling diabetes with diet as well as quantitative studies that examined culturally tailored interventions for AAW with T2DM. A portion of the quantitative review has been previously published (Sumlin & Garcia, 2012) and for the purposes of this dissertation study was updated with additional studies. A summary of the literature review with the inclusion of the updated studies follows below. Additional information regarding the characteristics of the quantitative studies can be found in Sumlin and Garcia (2012).

Systematic review-qualitative studies

Background. There are varying dietary recommendations for those who have T2DM. According to the ADA, due to the need to combine carbohydrates, protein, fat, and individual food preferences to meet metabolic goals of those with T2DM, everyone should receive individualized dietary counseling for meal plans by register dietitians (ADA, standards of care, 2014). There are many helpful tips provided by health care professionals in order to eat a healthy diet and maintain optimal glucose control, for example buying specific foods such as more fruits and vegetables and avoiding other types of foods such as high fat foods. However, for AAW following those healthy tips is often difficult.

For AAW, and most likely other ethnic groups, the way in which foods are prepared and consumed bring people together as a ethnic group, thus forming ethnic identity. Ethnic identity is very important to most people. Yet, the interaction with others by belonging to a group can make consuming foods in order to control diabetes a challenge.

Even though there has been increasing interest in research on decreasing the effects of T2DM in AAW, no studies were located that explored in-depth perspectives of AAW controlling T2DM with dietary practices. Some authors conducted focus groups with this specific population in order to develop culturally tailored interventions; however, these studies did not exclusively involve explorations of culture and dietary practices (Anderson-Loftin & Moneyham, 2000; Samuel-Hodge, Keyersling, Headen et

al., 2000; Two Feathers, Kieffer, Palmisano, Anderson, Janz et al., 2007; Utz, Steeves et al., 2006).

The purpose of the review of qualitative studies is to synthesize the available literature regarding AAW with T2DM and their perspectives on self-management skills specifically focusing on dietary changes. A recent meta-synthesis was conducted on self-management of T2DM (Gomersall, Madill, & Summer, 2011) in which the authors critically evaluated qualitative literature on patients' perspectives regarding T2DM self-management. This synthesis included 38 studies that involved diverse ethnic groups from across the world including Pakistanians, South Asians, Mexican Americans, and Creole people. The review of qualitative studies for the purpose of this dissertation will focus solely on AAW with T2DM and their dietary practices.

Method meta-synthesis approach. To obtain information on dietary practices of AAW with T2DM the steps provided by Sandelowski et al. (1997) were followed and included: (a) determining inclusion criteria for studies, (b) determining the comparability of methodologies across studies, and (c) comparing findings across studies. The recent meta-syntheses by Gomersall et al. (2011) was also used as an added guide for this review.

Literature search strategy. Using the sensitizing framework of Symbolic Interactionism and AAW as a subculture the search began by identifying studies that included AA, specifically women, and their perspectives on managing T2DM with diet. The inclusion criteria for the studies included: (a) qualitative or mixed method research; (b) the majority (greater than 50%) of the sample was AA; (c) all participants were adults

with T2DM; (d) the study included information regarding the perceptions of the population on dietary practices and adherence; and (e) the study was available in English. Excluded were studies that were solely quantitative in nature, or the study disease focus was something other than T2DM.

The following databases were searched: PubMed, CINAL, PsycInfo, Web of Science, Anthropological Index, and ERIC. The following search terms and their appropriate synonyms for each database were used: *African American, African American women, type 2 diabetes, diet, qualitative research, focus groups, and ethnography*. Even though the use of focus groups is considered qualitative research many of the located studies were only found by specifically using the term "focus group" in the search field. In addition to electronic databases, the reference list of each pertinent study was searched.

After completing the initial screening by title and abstract, 21 studies were selected for further review. Of the 21 studies, 6 were eliminated as follows: (a) all participants did not have T2DM (Kieffer et al., 2004); (b) focus group questioning did not obtain information regarding diabetes and dietary practices (Madden et al., 2011); (c) one study was an intervention study only (Carter, Nunlee-Bland, & Callender, 2011); (d) two studies focused on AA and diet but were not diabetes focused (James, 2004; Atkinson et al., 2009); and (e) one study examined the barriers to following dietary recommendations with T2DM, but the participants were majority Caucasian (Vijan et al., 2004). A total of 15 studies was examined and included for this review: 13 focus group/interview type studies and two ethnographic studies. This review is divided into two sections. The first

section will contain synthesized information from the 13 focus group/interview studies. The second section will include summaries and conclusions of the two ethnographic studies in more detail.

Focus/interview groups

Characteristics of the literature. Detailed characteristics of the studies can be found in table 1 (Tables). Sample sizes ranged from 5 to 73 participants. Participants of each study were predominantly AA, majority women, with only one study including a small portion of Caucasians (Anderson-Loftin & Moneyham, 2000). Eight of the 13 studies used focus groups, which ranged from as few as 2 groups up to 10 groups per study. Two studies used multiple discussion groups (El-Kebbi et al., 1996; Jones et al., 2008) for which the methodology is like that of a focus group; however, the discussion groups are smaller in order to provide each participant more discussion time (El-Kebbi et al., 1996).

The remaining three studies used one-on-one in-depth interviews (Bhattachary, 2012; Nthangeni et al., 2001; Pierre-Louis, Akoh, White, & Pharris, 2011). Bhattachary (2012) used thematic focused interviews. Pierre-Louis et al. (2011) used narrative interviews with interpretive phenomenology in order to understand the experience of AAW living with T2DM. The study by Nthangeni et al. (2002) used a mixed method approach that included in-depth interviews to better understand dietary practices, knowledge, and barriers to compliance of black South Africans with T2DM. Of note, two studies exclusively focused on dietary practices of those with T2DM (El-Kebbi et al., 1996; Nthangeni et al., 2001)

Across the 12 studies the same method, qualitative content analysis, was used in developing themes regarding AAW perceptions of living with diabetes and dietary practices. Accordingly, extracting data from the studies resulted in approximately 45 statements related to dietary practices and T2DM. Working inductively from these statements and available literature about AAW with T2DM and dietary patterns, a table was created to represent the overall themes of the findings (Sandelowski, Lambe, & Barroso, 2004; see table 1).

Findings. The data, or 45 statements, were categorized into 3 major themes: (1) recommendations for intervention studies; (2) facilitators to healthy eating; and (3) barriers to healthy eating. Barriers to healthy eating were further categorized into three subthemes: (a) problems with dietary practices; (b) lack of self-control; and (c) emotional feelings regarding dietary changes due to having diabetes.

Recommendations for intervention studies. Many of the focus group studies were conducted to obtain information from the population of interest in order to develop culturally tailored interventions to improve glycemic control. Some of the studies included specific questions in order to gain this type of information from the focus groups; however, only participants from two studies provided dietary recommendations for future interventions. The two studies, Anderson-Loftin and Moneyham (2000) and Utz, Steeves et al. (2006), received the same recommendation from participants, which was to include healthy nutritional cooking classes as a part of the interventions.

Facilitators to healthy eating. Within the context of everyday living the facilitators to healthy eating from the perspective of AAW included knowing foods that

help control diabetes such as: decrease in sweets, starchy foods, and red meat; and increase intake of vegetables, broiled meats, and fish (Onwudiewe et al., 2011). Additional facilitators included: changing the eating pattern for the whole family (Utz, Steeves et al., 2006); receiving encouragement and support for proper food changes (Anderson-Loftin & Moneyham, 2000; Murrock 2014); and constantly working to balance healthy eating (Utz, Steeves et al., 2006; Wenzel, Utz, Steeves, Hinton, & Jones, 2005).

Barriers to healthy eating. There were four studies that identified direct barriers to healthy dietary practices, which mostly involved food, family, and friends (Anderson-Loftin & Moneyham, 2000; El-Kebbi et al., 1996; Murrock, 2014; Samuel-Hodge, Keyserlin, Headen et al., 2000). For example, barriers included: the lack of support for making dietary changes (El-Kebbi et al., 1996), or the policing of diet and food choices by others (Anderson-Loftin & Moneyham, 2000). One study found that the participants believed that their cultural heritage and the way in which food practices were created was in and of itself a barrier to healthier eating (Anderson-Loftin, & Moneyham, 2000). Because ethnic identity for most AAW is tied to food preparation, consumption, and interactions with family and friends, it is not surprising that many of the direct barriers to eating healthy involved eating in daily social settings.

Lack of self-control. Another type of barrier to healthy eating is lack of self-control (Chlebowy, Hood, & LaJoie, 2010). Lack of self-control is believed by many as probably the underlying cause of unhealthy eating for most people, thus the need for social support for making changes. Study participants reported that family members

would bring unhealthy foods into the home, which often led to internal conflicts of making healthy food choices (Jones et al., 2008). These conflicts were further intensified by personal food preferences (Blanhard, Green, Taylor, McEntee, & Latchaw, 1999) based on previous eating habits.

Difficulty with dietary practices. Healthy dietary practices can be very complex. Because of the complexity it was not surprising that dietary practices were barriers to healthy eating habits. Some study participants had difficulty with: reading food labels (Onwudiwe et al., 2011; El-Kebbi et al., 1996), healthy cooking (Bhattachary, 2012; El-Kebbi et al., 1996), timing of meals (Chlebowy et al., 2010; Murrock, 2014), and knowing the correct portion sizes to consume (Bhattachary, 2012; Nthangeni et al., 2002).

Emotions in regards to food. Emotions can play a significant role in dietary practices for anyone, not only for those who are trying to eat healthy to control diabetes. It was reported that negative emotions could hinder AAW from eating healthy. Many of these women tend to feel deprived of foods that they enjoy because of their disease (Blanchard et al., 1999; Samuel-Hodge, Keyserling, Headen et al., 2000), or they would find comfort in eating when faced with stressful situations (Bhattarchy, 2012; Pierre-Louise et al., 2011). Some participants reported that trying to follow the daily recommendations provided by health care professionals were both tiring and frustrating (Chlebowy et al., 2010; Pierre-Louise et al., 2011).

Systematic review-qualitative discussion/summary. There were 13 studies included in this qualitative review. Sixty-seven percent of the studies were focus group

studies with the remainder of the studies either utilizing discussion groups or interviews. All of the studies used content analysis to determine common themes related to dietary practices of AAW living with T2DM. The results across studies unveiled several points regarding dietary practices of this population. First, even though some of the focus groups were conducted in order to assist in intervention development, only two studies had participants that provided dietary type recommendations for future interventions such as the inclusion of cooking classes. This limited amount of information was shocking given that dietary practices are the most difficult diabetes regimen to master and that diabetes intervention studies included dietary components. It seems reasonable to expect that more information on dietary recommendations for interventions would have been collected.

Facilitators to healthy dietary practices were consistent across studies. Participants reported that being equipped with dietary knowledge was very important to making dietary changes. Changing dietary practices of the whole family and avoiding tempting foods were also helpful. There were many facilitators to healthy eating mentioned; however, facilitators to healthy dietary practices were outweighed by barriers. Thus, AAW continue to have difficulty with adhering to a healthy eating plan.

For AAW who participated in these studies barriers were either self-imposed, such as lack of control, or imposed by others. Barriers to healthy eating ranged from very concrete such as reading food labels to more abstract concepts such as cultural and social norms. Six of the 13 studies included within this review had the specific purpose of identifying barriers to self-management behaviors, yet all of the studies (except for one

study) mentioned barriers to healthy eating. This attests to the magnitude of the difficulty that many AAW face in controlling T2DM with healthy eating. Even though there are guidelines for a healthy balanced meal and some women consult with dietitians, AAW still find it difficult to follow such recommendations due to the lack of cultural history integrated into dietary plans. There are over 85 thousand registered dietitians in the nation, only 2.7% are AA (Commission on Dietetic Registration, 2012) and it is likely that non-AA dietitians are educated in a system that is not knowledgeable about ethnic foods and dietary practices. The chances that an AAW with T2DM can and will consult with an AA registered dietitian are slim. Even though the non-AA dietitians are beginning to gain some understanding of the type of foods that AA population consume, they still lack understanding of the social environment and its influence on food consumption for this population.

The sensitizing framework of Symbolic Interactionism was used in order to search and locate studies for this review. The literature examined food practices based on the individual perception of AAW but it lacked the impact of cultural influences as well as social interaction that are placed on the meaning assigned to food practices; thus, possibly resulting in the inability for AAW to consume and maintain healthier foods practices. Because food practices are based on cultural and social norms in line with the premises of Symbolic Interactionism, these factors cannot be ignored when examining the food practices of AAW. Thus, this gap provided more reason for a study to be conducted with AAW and examining their cultural food practices, the main purpose of this dissertation study.

Ethnographic Studies

There were two ethnographic studies located regarding AAW with T2DM and dietary practices. The first study focused on general diabetes management strategies for AA and Nigerians (Popoola, 2005). The second study focused more specifically on dietary practices of two ethnic groups, one of which was AAW (Schoenberg & Drungle, 2002).

The study by Popoola (2005) examined AA and Nigerians living with diabetes to identify coping patterns and management strategies in dealing with diabetes and it's complications, specifically limb amputations. Participant observations and interviews lasted between 1 to 3 hours with 35 participants, 20 Nigerians in Nigeria and 15 AA in the US, all of whom were living on fixed incomes. The Nigerians lived on past savings or family support and the AA were supported by Medicaid or veteran administration benefits; 64% were female. The researcher conducted the interviews in each participant's home followed by time observing and photographing artifacts in the home or work environment. Observations included inspection of the participant's legs, feet, and possible wounds, as well as activities related to diabetes management such as insulin injections and food intake.

From the data Popoola (2005) was able to identify five common themes: (1) the diabetes experience, which included the mental, physical, and financial burden of diabetes; (2) the experience of economic insecurities; (3) the spiritual experience, which not only included the participants' inability to attend church services and events but how their faith in God kept them motivated to continue to live; (4) the use of complementary

and alternative therapies, including garlic, cinnamon, honey, etc., which were used by all participants; and 5) the holistic experience from which the participants expressed how diabetes changed their life and body. Popoola (2005) found these themes to be common in both the Nigerians and the AA in the US.

The second ethnographic study was by Schoenberg and Drungle (2002) who explored and identified barriers to diabetes self-management among two ethnic groups, AAW and Caucasian women. More specifically, the authors examined the effects of duration of diabetes, treatment modalities, education level, poverty level, and diabetes education on dietary adherence. The authors conducted face-to-face interviews with 51 participants, 53% AA and 47% Caucasians, all from north Florida. Each interview lasted from 90 to 120 minutes. The authors also included two case studies that focused on the background/family and social history to what the participants believed were the causes of their diabetes.

Themes that resulted from the interviews were the participants' perspectives on etiology of their diabetes which included: poor former dietary practices, family history of diabetes, an improperly functioning body, personal risk factors, and being overweight. The authors also found that there was a significant relationship between the perspective of the women in the study regarding the onset of their diabetes and their adherence to prescribed dietary regime (Schoenberg & Drungle 2002). The women who attributed the onset of diabetes to self-imposed factors (e.g. improper eating habits or being overweight) versus non-biomedical factors (e.g. genetics, being a member of a high-risk ethnic group, or age) were significantly more likely to follow a diabetes dietary meal

plan. These results were evident regardless of diabetes duration, treatment modalities, education level, poverty level, diabetes education, or ethnicity.

Ethnographic summary. This dissertation study was an ethnographic type study and from the extensive literature search, it was surprising that there were only 2 ethnographic studies located that included at least 50% AAW providing their perspectives on living with T2DM and dietary practices. Given that there were only two studies a summary of each study was included. This limited number of studies supports further investigations into this population in order to develop more sustainable dietary interventions for AAW with T2DM. Without the insight of AAW about the struggle they continue to have in balancing their diets with cultural and ethnic backgrounds, intervention effects will continue to be self-limiting. The study by Popoola (2005) did not specifically provide detailed information regarding dietary practices of AA; however, it did provide both further insight into the burden of diabetes on this population and the need to focus on this population to improve diabetes health outcomes.

The study by Schoenberg and Drungle (2002) focused on the factors that influence lack of dietary adherence. The authors conducted interviews with both AA and Caucasian women to further determine if individual factors such as ethnicity are contributors to dietary adherence in diabetes control. Ethnicity was not found as a factor; however, other factors, such as self-induced versus biomedical causes, do determine whether women adhere to recommended dietary plans. In this dissertation study the researcher examined the current dietary practices of AAW with T2DM in order to identify dietary changes these women were willing to make and those that will be more

difficult to change. As of note, neither of the ethnographic studies provided this type of information. The results from these two studies, as well as the results from this dissertation study, add to the current body of literature in order to improve dietary interventions and ultimately improve glycemic control and health outcomes for AAW with T2DM.

Review of quantitative intervention studies – search. The following electronic databases were searched: PubMed, Cumulative Index to Nursing and Allied Health Literature, ERIC, Gender Studies, PsycInfo, the Cochrane Review database, Web of Science, ProQuest Sociological Abstracts, and *The Diabetes Educator* journal index. The search terms and their synonyms appropriate for each database included: *nutrition, African-American women, type 2 diabetes, community health worker, nutrition intervention, and diabetes management*.

Inclusion criteria. The inclusion criteria were: (a) a majority of the participants were AA, (b) the author(s) included a detailed description of the dietary component for the interventions, (c) studies included the effects of the intervention on the outcome variables, glycosylated hemoglobin and/or fasting blood glucose; (d) the study was written in English; and (e) studies were conducted between 1989, the beginning of implementation of cultural tailoring in health care to decrease health disparities for minorities, and 2013.

Extracted data. Extracted data from the studies included: purpose of the study, study design/setting, characteristics of the subjects and intervention, measures, and major findings (Table 2).

Findings - characteristics of the studies. A total of 18 studies were included; 15 were published in the original review (Sumlin & Garcia, 2012) with an additional 3 studies (Magee et al., 2011; Melkus, Chyun, et al., 2010; and Spencer et al., 2011) added to update the review. The 18 studies represented 3 different categories of interventions: (a) multifaceted interventions, which may have included intervention skill components of diet, exercise, blood glucose monitoring, as well as behavioral changes such as stress management; (b) weight management interventions, which included diet and physical activity; and (c) dietary only interventions. A majority of the included studies were multifaceted (Magee et al., 2011; Melkus, Spollett, et al., 2004; Melkus, Chyun, et al., 2010; Samuel-Hodges, Keyserling, Park et al., 2009; Skelly et al., 2009; Spencer et al., 2011; Two Feathers et al., 2005; Walker, Stevens, & Persaud, 2010; Utz, William et al., 2008). Fewer interventions focused on weight management with the use of diet and exercise (Agus-Collins et al., 1997; Mayer-Davis, Antonio, Martin et al., 2001; McNebb, Quinn, & Rosing, 1993; Rimmer et al., 2002; Mayer-Davis, D'Antonio, Smith et al., 2004; Keyserling, Samuel-Hodge et al., 2002). Finally, only three studies focused solely on improving dietary practices of AAW to improve metabolic control (Anderson-Loftin, Barnett, Sullivan et al., 2002; Anderson-Loftin, Barnett, Burn et al., 2005; Ziemer et al., 2003).

Findings-dietary improvements. The results of the intervention studies showed significant improvements in dietary habits, weight management, and health outcomes, which included lipids, blood pressure (BP), and glycemic control. Of the 18 studies, 11 studies measured the effects of an intervention on dietary changes (Agurs et al., 1997;

Anderson-Loftin, Barnett, Sullivan et al., 2002, Anderson-Loftin, Barnett, Bunn et al., 2005; Keyserling, Samuel-Hodge, Keyserling, Park et al., 2009; Magee et al., 2011; Melkus, Chyun, et al., 2010; Rimmer et al., 2002; Samuel-Hodge, Keyserling, Park et al., 2009; Spencer et al., 2011; Two Feathers et al., 2005; Ziemer et al., 2003). Ten of the 11 studies showed significant improvements in general food practices. More specifically, there were significant improvements in: (a) dietary fat intake (Anderson-Loftin, Barnett, Sullivan et al., 2002; Anderson-Loftin, Barnett, Bunn et al., 2005; Rimmer et al., 2002; Two Feathers et al., 2005; Ziemer et al., 2003); (b) overall diet (Melkus, Chyun, et al., 2010); (c) following a meal plan (Magee et al., 2011); and (d) dietary knowledge (Agurs-Collins et al., 1997; Two Feathers et al., 2005).

Findings - weight management. Eleven studies, 6 weight management studies (Agus-Collins et al., 1997; Mayer-Davis, D'Antonio, Martin et al., 2001; McNebb et al., 1993; Rimmer et al., 2002; Mayer-Davis, D'Antonio, Smith et al. 2004; Keyserling, Samuel-Hodge et al., 2002), 3 diet only studies (Anderson-Loftin, Barnett, Sullivan et al., 2002, Anderson-Loftin, Barnett, Bunn et al., 2005; Ziemer et al., 2003), and 2 multifaceted studies (Melkus, Chyun, et al., 2010; Two Feathers et al., 2005) measured intervention effects on weight loss. Five of the 11 studies showed significant improvements in weight loss for either the intervention group or both the intervention and control groups (Agurs-Collins et al., 1993; Ziemer et al., 2003; Mayer-Davis, D'Antonio, Smith et al., 2004; Mayer-Davis, D'Antonio, Martin et al., 2001; McNebb et al., 1993]. Five studies had either no change or non-significant results in weight lost following the implementation of the intervention. One study showed that all the participants gained

weight (Keyserling, Samuel-Hodge et al., 2002). The authors stated that weight loss was not a focus for the study; however, they were surprised by this unexpected result (Keyserling, Samuel-Hodge et al., 2002).

Of the 11 studies that measured weight loss, 5 studies also included effects on physical activity (Agurs-Colling et al., 1993; Rimmer et al., 2002; Keyserling, Samuel-Hodge et al., 2002; Melkus, Chyun et al., 2010; Two Feathers et al., 2005). There were significant improvements in physical activity in four out of the five studies (Agurs-Collins et al., 1993; Keyserling, Samuel-Hodge et al., 2002; Melkus, Chyun et al., 2010; Rimmer et al., 2002).

Findings - health outcomes. There were many health outcomes measured as a result of the interventions. However, for this review the three physiological health outcomes of particular interest were lipids, BP, and A1C. Outside of weight, lipids, BP, and A1C are directly related to increased risk for cardiovascular disease, which is the number one killer for those with diabetes. Lipids were measured either as: total cholesterol and/or each of the following individual components low-density lipoprotein (LDL), high-density lipoprotein (HDL); and triglycerides (TG). Of the six studies that measured cholesterol (Agurs-Collins et al., 1997; Anderson-Loftin, Barnett, Sullivan et al., 2002, Anderson-Loftin, Barnett, Bunn et al., 2003; Mayer-Davis, D'Antonio, Smith et al., 2004; Rimmer et al., 2002; Two Feathers et al., 2005) only one study (Rimmer et al., 2002) showed a statistically significant improvement in overall blood cholesterol. Three out of five studies that specifically measured LDL showed statistically significant improvements (Melkus, Chyun et al., 2010; Rimmer et al., 2002; Spencer et al., 2011).

Only two studies (Melkus, Chyun et al., 2010; Ziemer et al., 2003) showed significant improvements in HDL and one study reported an improvement in TG. Out of the nine studies that measured blood pressure only two studies showed significant changes as a result of the intervention (Melkus, Chyun et al., 2010; Samuel Hodges, Keyserling, Park et al., 2009).

In this review all of the studies measured A1C to test the effects of the intervention on metabolic control, except for one study that used fasting blood glucose levels (Mayer-Davis, D'Antonio, Martin et al., 2001). Nine studies showed significant improvements in A1C for the intervention group with A1C mean reductions ranging from 0.2 to 2.6%-age points (Agurs-Collins et al., 1997; Anderson-Loftin, Barnett, Sullivan et al., 2002; Magee et al., 2011; McNebb et al., 1993; Mayer-Davis, D'Antonio, Smith et al., 2004; Melkus, Spollett et al., 2004; Samuel-Hodges, Keyserling, Park et al., 2009; Spencer et al., 2011; Two Feathers et al., 2005). Two studies had a significant decline in A1C for both the intervention and control groups (Skelly et al., 2009; Melkus, Chyun et al., 2010). However, six studies showed no significant changes in A1C as a result of the intervention (Anderson-Loftin, Barnett, Bunn et al., 2005; Keyserling, Samuel-Hodge et al., 2002; Rimmer et al., 2002; Utz, Williams et al. 2008; Walker et al., 2010; Ziemer et al., 2003). Reasons provided for non-significant improvements in A1C included: lack of emphasis on medication adherence (Keyserling, Samuel-Hodge et al., 2002), small sample size (Rimmer et al., 2002), and a low A1C at the start of the intervention (Anderson-Loftin, Barnett, Bunn et al., 2005).

Conclusions regarding intervention studies. The literature search involved studies conducted from 1989 through 2013, a time period when there was a universal move for culturally tailored interventions in order to decrease ethnic disparities and improve health care for minorities (Resnicow et al., 1999). It is evident that over the last 25 years the AA population with T2DM has been understudied. For this review there were only 18 culturally tailored dietary intervention studies located that focused on this population and that included a description of the dietary component of the intervention. Given the fact that there is ample evidence that effective dietary modification can improve diabetes control, one would expect that there would be more dietary focused studies for this population.

AAW suffer disproportionately from the consequences of uncontrolled diabetes at alarming rates; however, there were only four studies that focused solely on AAW (McNabb et al., 1993; Melkus, Chyun et al., 2010; Skelly et al., 2009; Keyserling, Samuel-Hodge et al., 2002). Of the 13 studies that reported results on mixed gender samples, only four studies reported gender differences (Two Feathers et al., 2005; Agurs-Collins et al., 1997; Anderson-Loftin, Barnett, Bunn et al., 2005; Mayer-Davis, D'Antonio, Smith et al., 2004).

The results of studies on culturally tailored interventions showed they were effective in decreasing body weight (Agurs-Collins et al., 1997; Ziemer et al., 2003; Mayer-Davis, D'Antonio, Smith et al., 2004; Mayer-Davis, D'Antonio, Martin et al. 2001; McNebb et al., 1993), cholesterol (Melkus, Chyun et al., 2010; Rimmer et al., 2002; Spencer et al., 2011; Ziemer et al., 2003), blood pressure (Melkus, Chyun et al.,

2011; Samuel Hodges et al., 2009), and A1C (Agurs-Collins et al., 1997; Anderson-Loftin, Barnett, Sullivan et al., 2002; Magee et al., 2011; McNebb et al., 1993; Melkus, Spollett et al., 2004; Melkus, Chyun et al., 2010; Samuel-Hodges, Keyserling, Park et al., 2009; Spencer et al., 2011; Two Feathers et al., 2005). However, it was impossible to determine a consistent dosage effect of the dietary interventions in order to provide recommendations to clinicians who work with this population.

Of note, even though there were significant improvements in dietary habits and glycemic control, significant post-intervention improvements in A1C were lost over time (McNebb et al., 1993 [18 weeks]; Samuel-Hodge, Keyserling, Park et al., 2009 [8 months]). This unsustainable improvement in A1C leads to the question of the sustainability in the remaining studies that did not measure A1C longitudinally. Are significant improvements in A1C maintained following the interventions and if so, for how long? And what interventions are more likely to be associated with sustained A1C improvements, as well as with other important health outcomes.

It is evident that culturally tailored dietary interventions have the potential to improve glycemic control for the AA population. However, considering that AAW are burdened by the high rates of T2DM and its complications, there has to be more investigation and intervention studies conducted with this population. There were only four studies that focused solely on AAW. Four studies over the last quarter of a century are not enough to make consistent dietary recommendations for controlling diabetes. There is also a need for future dietary intervention studies to show sustainability of glycemic control over longer periods of time following the intervention.

CHAPTER SUMMARY

Dietary modifications can significantly improve diabetes control and decrease the risk of diabetes complications thereby reducing diabetes costs to society. A change in diet can be less expensive than other diabetes modifications, such as increases in medications, in order to control diabetes. Women are the gatekeepers to health for their family; therefore, they are the keys to changing dietary habits and the current course of the T2DM trajectory on the AA population. The review of the literature has shown that AAW with T2DM are a marginalized group in diabetes research given the limited number of studies located for both the quantitative (18 studies) and qualitative (15 studies) literature reviews conducted for this dissertation study and further research is necessary. Additional research studies regarding AAW with T2DM are required to inform those in clinical practice in order to decrease diabetes complications for this population and costs to society.

Chapter 3: Methods

The methods that were used for this dissertation study are explained in this chapter. The purpose of this descriptive ethnographic study was to describe cultural food practices of AAW with T2DM in order to translate to the health care community. In this chapter a description of the research design, setting, sample, data collection, analysis, and research rigor is provided.

DESIGN

This study was a descriptive ethnography that examined the current cultural influences on food practices of AAW with T2DM. Ethnography, as it relates to Symbolic Interactionism, is a process of learning from a group of people through their culture (Spradley, 1980). Cultural habits are what distinguish a single ethnic group from another, as well as provide people with a "lens" in order to view and interact with the world in which they live (Spradley, 1980). In order to begin to understand different groups of people a description of the cultural knowledge and patterns are needed. Through ethnographic techniques a description of a group or population can be obtained from studying their cultural knowledge (Spradley, 1980).

Ethnographic techniques involve the examination of people as they go through their daily lives (Emerson, Fretz, & Shaw, 1995). A specific group of people are examined within a context of a specific situation. For this study the population of interest was AAW with T2DM and the goal was to examine food practices within different social situations inside the context of normal daily activities. Ethnography utilizes participant observations and interviews and requires the researcher to become familiar with the

group and learn the language (Spradley, 1980). Through the use of ethnographic techniques perceived beliefs and values as well as observations of food practices can be obtained (Spradley, 1980). The specific aims for this study were to: (1) describe typical daily food practices of AAW with T2DM; and (2) identify the cultural influences on food practices of AAW with T2DM. The specific research questions that were answered include:

1. What are the day-to-day food selection, preparation, and consumption processes of AAW withT2DM?
2. What are the typical food selections and consumption practices when dining out?
3. What are the types of foods selected and consumed at social gatherings (e.g. church functions, holidays)?
4. What are the valued behaviors and beliefs that influence food practices of AAW withT2DM?
5. To what degree do social interactions with family, friends, church acquaintances, and health care providers influence food practices?

This dissertation study provides a better understanding of AAW's cultural knowledge and behaviors and how these behaviors influence food practices; therefore, the use of ethnographic techniques was the appropriate methodology to use.

SETTING

This dissertation study took place in Central Texas with participants recruited from local AA churches. Within the state of Texas 14.4% of AA adults are diagnosed

with diabetes and 8.6% are female (Texas Department of State Health Services, Diabetes data, 2011). Austin's ethnic groups consist of 48.7% Caucasian, 7.7% AA, 35.1% Hispanic; 2.2% are reported as "other" (US Census Bureau, 2010). In 2009, the median household income of Austin was $42,689 with a poverty rate of 14.4% (US Census Bureau, 2010). East Austin is heavily populated with minority ethnic groups, particularly AA along with AA churches that allowed access to the population of interest.

Churches play an important role within the AA communities. Many AA depend on their faith in God to cope with chronic illnesses such as diabetes (Samuel-Hodges, Keyserling, Headen et al., 2000). There are a number of churches within AA communities throughout Texas. There are often more women than men, some with diabetes, that attend these churches. Churches were selected as a site for recruitment for this investigation because: (1) few studies with AAW with T2DM have focused on healthy dietary modifications required for diabetes glycemic control; (2) churches are a prime avenue to access and recruit this population; (3) the investigator and other local researchers have successfully accessed AAW through the churches for research purposes in previous studies; and (4) the researcher was familiar with and had access to the community through churches.

SAMPLE

A purposeful and snowball sampling method was utilized for participant recruitment. A purposeful sampling approach chooses participants based on their specific knowledge of the phenomenon of interest, which in this case is cultural dietary practices of AAW with T2DM (Coyne, 1997). Snowball sampling is the process of obtaining

additional participants by asking study participants for referrals for other people who may fit inclusion criteria and may be willing to participate in the study (Mack, Woodsong, MacQueen, Guest, & Namey, 2005).

For this dissertation the initially enrolled participants were recruited through friends of the PI who attended different churches. They were requested to communicate with women they knew who fit study inclusion/exclusion criteria and provided them with the contact information of the researcher. Those women who were interested in participating in the study were asked to contact the researcher directly to express their willingness to participate, thereby protecting their confidentially. This study consisted of 20 AAW ages 35 to 70 years with T2DM. In qualitative research it is recommended that sampling be done until either information redundancy or theoretical saturation is achieved (Sandelowski, 1995). Redundancy or saturation is achieved once conducting additional data collection provides minimal return regarding the phenomena of interest (Rubin & Rubin, 1995). However, the quality of ethnographic-type studies, such as the one reported here, is based on time spent in the field. In order to quantify the number of participants for the purposes of this dissertation the following rationale was provided. In general, if only ethnographic interviews were being conducted, then there would be between 30 to 50 participants selected (Mason, 2010). However, if time is spent with the participants through participant observation, in addition to interviews, fewer participants are required (Mason, 2010). Other ethnographic studies have found that 15 to 20 participants were sufficient to provide a description of the phenomenon and the selected population of interest (Crist & Speaks, 2011).

Inclusion/exclusion criteria. Inclusion criteria for this study were that participants were: (1) self-identified AAW; (2) diagnosed with T2DM for at least 2 years; (3) women who shopped for meals and prepared meals for their family; (4) age 35 to 70 years; (5) church function attendees where food was served; and (6) English speaking. Exclusion criteria included: people who were unable to perform daily activities due to other disabilities and did not have access to a vehicle for self-transportation.

The reasons for the established criteria were multifaceted. First, self-identified AAW who were diagnosed with T2DM and prepared meals for their family was the population of interest for this study. Secondly, this study explored the cultural dietary behaviors of AAW with T2DM, which has been understudied in the past. A diagnosis of diabetes for at least 2 years was chosen because: (1) during this time women should have discussed dietary changes with a health care provider; and (2) women were probably more comfortable and had a stable dietary routine in relationship to having diabetes; a new diagnosis of T2DM brings about fluctuating dietary habits that were not suitable for this study.

Even though 20 to 30 years of age is the typical onset of T2DM in the AA population (CDC National Diabetes Fact Sheet, 2011), for this study the inclusion of women between the ages 35 to 70 years was chosen for several reasons: (1) the interest was in meal preparation of women with families; (2) women in this age range may have more experience living with diabetes for a longer period of time; (3) cultural influences on food preparation are usually passed from older women to the younger generation (Airhihenbuwa et al., 1996; Liburd, 2003), so older women would provide more insight

into AAW cultural habits; and (4) the pilot for this dissertation study included women who were 65 years old or older, who did not have any difficulties participating in the study and provided valuable insight into food practices of AAW with over 20 years of experience living with T2DM.

The final inclusion criterion relates to the primary language spoken by the participants. The PI's primary language is English. Ethnographic participant observation is based on the investigator's ability to speak the language of the culture being investigated (Spradley, 1980). Therefore, in order for this to be a successful study, the foundational language would have to be English layered by cultural language.

The exclusion criteria were established based on the nature of the methodology for this study. Ethnographic techniques involve observation of normal daily activities that included the phenomena of interest (Spradley, 1980). This study involved observation of normal daily food selection, preparation, and consumption; therefore, the participant could not be limited by disabilities that limit daily activities, or unable to transport herself to the grocery store.

Recruitment. Recruitment took place at local churches with the use of flyers through social contacts of the investigator. During the PI's pilot work several AAW with T2DM at a local church responded to the request for participants. These women were told about the number of participants required for the pilot study and that within one to two years a similar dissertation study would be conducted. Several respondents indicated they had contact information of individuals who could be notified once participants were needed for the dissertation study. Participants were also recruited through social contacts

that had family/church members who were women with T2DM. Following Institutional Review Board approval, previous respondents and social contacts were notified.

METHODS

The Methods section describes procedures, research protocol, privacy and confidentiality, data collection, and data analysis for the dissertation. Each of these study aspects was revised based on the pilot study conducted in preparation for this dissertation study, which also is described briefly below. Following IRB approval from the university the participants in this pilot study were recruited through social contacts.

Pilot study. The pilot study was conducted to assess feasibility and refinement of interview questions. The pilot study was extremely helpful in providing key information to refine the approach and interview questions in order to obtain information related to cultural influences on food practices of AAW with T2DM. The data from the pilot unveiled factors, such as cultural values involving food, family, holiday meals, and the belief in God, that influence dietary behaviors and practices. The findings also unveiled potential healthy dietary modifications that could be integrated into the daily dietary plan in order to improve diabetes control. However, given the limited sample of the pilot study and the interesting findings, this topic merited further investigation; hence this dissertation study.

Sample and setting. Two purposefully selected participants were used for the pilot study. The demographic characteristics of both participants included: (1) a mean age of 65 years old; (2) annual income between $35,000 and $65,000; (3) diabetes for at least 10 years; and (4) shopped and prepared meals for family members. Both

participants completed a short demographic form and signed a consent form before participation.

There were three observational settings for this pilot study: the church kitchen and dining area (gymnasium), grocery store, and the participants' homes. The church observation began with meal preparation, which started several hours before the morning worship service began and continued until the worship service ended. Following church dismissal the members and visitors entered the gymnasium, paid for their meal and waited in line in order to choose items for their meal. Once meals were received, people sat at the tables and chairs that had been set up and decorated with table cloths and flower center pieces. The church observation ended after everyone was served and most of the people dining had completed their meal.

The grocery store was chosen by each participant in order to maintain normalcy within the participant's daily routine. Meal preparation, consumption, and the interviews took place within each participant's home.

Procedure. In order to obtain information regarding cultural influences on food practices of AAW with T2DM the procedure for this pilot study was: (1) by invitation from one of the participants there was one observation of a church fellowship meal, which included meal preparation and consumption; and (2) one 3-hour session (on average) set up with each participant consisting of shopping at the participant's local grocery store, meal preparation and consumption of a meal at the participant's home; ending with a one-on-one interview.

Data analysis. The PI collected data via participant observation, fieldnotes and interviews. The interviews were professionally transcribed and reviewed by the PI for accuracy. The primary goal of the pilot was to test feasibility and refine the language of the research questions. In ethnographic interviewing the questions continually evolve based on responses given by the previous participant (Spradley, 1980). However, importance was placed on the correct language used in both communicating with and obtaining the information from the participant (Spradley, 1980).

Data analyses, as well as the overall research approach, were evaluated following the first meeting with the first participant. Based on the information gained, modifications were made in data collection and research questions before approaching the second participant. Certain vocabulary in the research questions were misunderstood by the first participant. However, the vocabulary was clarified for the second participant.

Data analyses consisted of reducing data into common phrases and sequences resulting in patterns and/or themes. Conclusions were drawn from the compressed information and verified by referring back to the original field notes and transcribed audio recordings of each participant. Data analysis resulted in preliminary thematic findings.

Pilot findings. The two participants for this pilot study held several values and beliefs that influenced their food selection, preparation and consumption behaviors. From their stories and the PI's interactions with them, it became evident that both participants valued food, especially in relationship to friends and family and particularly during social gatherings and holiday meals. Both participants also had several religious

beliefs in common. For example, they believed in God and that God takes out any impurities that may exist in foods. The other belief that they shared, like many other people with T2DM, was that there are food deprivations and sacrifices that must be made due to their disease; eating habits have to change in order to live longer.

There were also commonalities with food selection processes for both women. Grocery shopping was not something that occurred daily or even on a weekly basis. Many items were purchased on sale and then stored for later use. Both participants' freezers were packed with things like frozen chicken and fish, vegetables, and fruit, as well as ready-made foods, such as frozen French fries, pizza, and Polish sausages. Both enjoyed eating fruit but only enjoyed a few select vegetables.

Food preparation within the home had changed for both women due to diabetes. As a part of their culture it was very typical for meats and some vegetables to be fried. Since being diagnosed with diabetes, meats were either baked, boiled, or sautéed in lighter oils instead of animal fats. Vegetables and side dishes were also prepared in a healthier manner with the use of more seasonings and less fat. Both women's cooking techniques were similar in that no measuring spoons or cups were used and no particular cookware was used. Cookware was chosen based on the cooking needs.

Food consumption is highly favored in socialized situations, such as church functions, holiday meals, or just dining with people in the home. Both women enjoyed cooking for others and often looked for approval or disapproval regarding the meals that they prepared. Based on what has been witnessed with the two participants, it is believed

that cooking and eating for holiday meals will not change because of the satisfaction the women gain from family members' approval of the meal.

Pilot Summary. The goal of this pilot study was to assess feasibility and refine interview questions in preparation of the dissertation study. From this pilot study early resulting themes revealed that there were common values and beliefs that impacted food selection, preparation, and consumption processes. Thus, the dissertation study was feasible in answering research questions regarding AAW with T2DM and cultural food practices. Even though the research questions continually evolved based on the information gained from the previous participant, the language of the research questions were refined and clarified. Therefore, the two goals set for the pilot work were achieved.

DISSERTATION PROCEDURE

Following IRB approval from the university the PI began contacting individuals who showed interest in the pilot study to be participants in this dissertation study. In addition, friends at different churches were asked to provide flyers to potential participants (Appendix B). Interested women contacted the investigator and the purpose of the study was explained. Following the explanation, if the woman continued to show interest then a meeting was arranged either at the participant's home or church to complete the following: (1) description of the procedures, risks, and benefits of the study and signing of a written consent form for participation (Appendix B, form 1); and (2) a short demographic form, developed by the PI for this study, to gather age, length of time since diagnosis of diabetes, marital status, number of individuals/children living in the home, and educational level (Appendix B, form 2). The participants were given an

information form regarding the study and informed that there were no anticipated risks to participating in this study because the activities involved were those in which the individual participates on a regular basis. Any concerns of the participant were addressed at that time, and a time was scheduled for the participant to complete the rest of the study activities. Following completion of the study enrolled participants were provided with flyers and asked to distribute to other women who might be interested in participating and who met the inclusion criteria. A total of 20 participants were recruited using the snowball sampling techniques and selection based on inclusion/exclusion criteria.

RESEARCH PROTOCOL

Recruitment was an ongoing process throughout the study. In order to allow time for initial data analysis following each participant's session up to four participants were recruited at a time and scheduled for study participation. Recruitment and data collection occurred from January 2013 to February 2014. Based on dissertation pilot work, several changes were made to the research protocol. The protocol for each participant consisted of the participant being contacted 24 hours before the scheduled visit to remind her of the schedule time and the following study activities: (1) attendance of one church fellowship dinner with the participant to observe eating in social situations; (2) go shopping for food in the usual local grocery store; (3) prepare a meal in the participant's home; (4) dine with the participant and her family (if available and only upon request); and (5) end with a one-on-one interview. When there were several participants from the same church, several fellowship dinner observations were completed for that particular church. The entire contact time per participant lasted from two to five hours; not including time spent

observing the church fellowship dinner, which involved an additional one to six hours if meal preparation was part of the session. Each participant was provided with an information pamphlet called, "What I need to know about Eating and Diabetes," as well as a monetary compensation of $50 for her time. Because many of the participants had questions regarding healthier food practices and the PIs desire to conduct an ethical study, the PI segmented her role in this study. During the interviews and observations, the PI maintained the role of an objective researcher. Following the completion of the study sessions the PI switched roles to one of HCP, giving each participant the opportunity to review an educational pamphlet in detail as well as ask any additional diabetes related questions.

The final one-on-one interview was audio recorded. The audio recordings were transcribed by a professional transcriptionist. The PI reviewed the transcriptions for accuracy against the audio recordings.

PRIVACY AND CONFIDENTIALITY

The interview transcripts were de-identified to protect the participant's privacy and decrease risk of exposure of study participation. When the PI was asked by the participant to dine with her and her family the PI verbally informed family members of the research project. Adult family members were requested to give verbal agreement prior to the dining session. Verbal permission from a parent was obtained for children to participate. All parents agreed with the children participating, therefore the researcher did not have to ask for permission to have the children leave the table (or the room) and eat their meals separately. However, during the dining experience, the main focus of

interactions and observations was on the participant. Family members were de-identified and no identifying characteristics were included in the fieldnotes, transcripts, audio recordings, or any other research data. When the results of this research are published or presented at scientific meetings, the identity of the participant and family members will not be disclosed. All data were heard or viewed only by the PI, the PI's supervising professor, and transcriber. All research data including tapes were kept in a locked file cabinet at the PI's graduate student office at the University and will be stored for possibly future analysis.

DATA COLLECTION

This study included moderate participant observation, fieldwork and notes, and recorded interviews that took place in three settings: the participant's church, grocery store, and home. All three settings were utilized to obtain information regarding cultural influences on food practices. Observations at the church dinner uncovered social interactions in relation to food consumption in addition to the types of food eaten at these social events and any dietary accommodations made for diabetes. The trip to the grocery store provided information regarding the participant's food selection behaviors and processes. Meal preparation at the participant's home provided information of food preparation techniques, consumption behaviors, and processes.

Observational setting. Initial recruitment took place at local AA churches. Many AA churches consisted of a sanctuary for church services and a separate dining area with a kitchen where the meals were prepared. Three observations began in the kitchen with volunteers preparing the meal for the day. The remaining observations took

place following either a church service or some other type of fellowship program. The fellowship events included programs such as: a women's day program, a wedding, a live wax museum program in honor of black history month, and a program to celebrate Martin Luther King Jr.'s day. The meal began at the end of program at such time members and visitors entered the dining area, retrieved their meal, sat, ate, and fellowshipped with each other. The church observation ended once most of the attendees had completed their meal.

Observations of usual grocery store shopping practices were part of the data collection process in this study. There are many different types of grocery stores in Texas from big chain grocery stores to small local grocers. The variety of food selections depended on the location of the store. When the individual was from the middle to upper middle class, the food selection was more varied. However, if the store was located in a lower socioeconomic class neighborhood the selections were limited. The goal was to have the participant shop as she normally would on any given day, so the store was chosen by the participant. Meal preparation, consumption, and the one-on-one interviews took place at the participant's home.

Participant observation. In participant observation the ethnographer participates in daily routines of a social setting, develops relations with the people involved, all while observing the surroundings and happenings (Emerson et al., 1995). Participant observation serves two purposes: to observe people and physical aspects of a given situation as well as to engage in activities (Spradley, 1980). This type of observation requires explicit awareness, or becoming aware, of everything related to a situation. For

this study, moderate observation was used, which entailed balancing both observation and participation of a given situation (Spradley, 1980). Moderate observation at the church dinner included the PI assisting with meal preparation as well as sitting and eating with people and observing foods while listening and participating in conversations. In the grocery store and the participant's home, participation included gathering food items while observing how and why food practices took place.

Fieldnotes. Fieldnotes are "accounts *describing* experiences and observation the researcher has made" during participant observation (Emerson et al., 1995, p.4). Fieldnotes are details of practices (Creese, Bhatt, Bhojani, & Martin, 2008), which include things observed and heard through experiences including personal reflections (Emerson et al., 1995; Spradley, 1980). Fieldnotes were taken throughout the data collection process. There were condensed accounts throughout the meeting with the participant, which were refined and expanded following participant interaction (Spradley, 1980). Condensed accounts, also known as "jotting," can be in short hand, developed by the researcher, in order to make brief notes about actions and dialogue in the field. Fieldnotes included detailed description of things such as participant's demeanor, dress, facial expressions, the surroundings, food selections, and cookware used for preparing meals. Permission was obtained from the participant before taking notes.

Interviews. Ethnographic interviewing techniques were used to discover cultural meanings people have acquired (Spradley, 1980). The interviews were conducted by the investigator and were both informal, occurring during the course of participant observation, and formal, during a scheduled interview session (Spradley, 1980). The

formal interview sessions lasted from as few as 13 minutes up to 106 minutes. The formal questions began as descriptive in nature and involved conventional semi-structured questions to address the cultural influences of values, beliefs, and behaviors on food practices. The statements and questions were developed based on the sensitizing framework of Symbolic Interactionism and subculture, and then modified based on the pilot work. The questions began very broad in nature and evolved to more specific issues regarding food preparation and consumption practices within other settings such as dining out and holiday meals before and after the diagnosis of T2DM (Appendix C).

DATA ANALYSIS

Content analysis is a systematic way to obtain a condensed and broad description of the phenomenon of interest (Elo & Kyngas, 2007). A social anthropological approach to qualitative content analysis, as outlined by Miles and Huberman (1994) and Emerson et al. (1995), were used to analyze the data. With a social anthropological approach the interest is in describing the behavioral regularities in everyday life situations (Miles & Huberman, 1994). The data from moderate participant observation, fieldwork and notes, and recorded interviews were condensed with less emphasis on conceptual or theoretical meaning (Miles & Huberman, 1994).

Data analysis began following the first session with the first participant. This provided direction for the interaction with the next participant and verification of information, if necessary. With the use of the Atlas software the data analysis process began with data reduction, which included fieldnotes and transcribed recordings being coded, sorted and sifted for things such as common phrases, patterns of themes and

sequences. The fieldnotes were read and reread looking for: reoccurring patterns, typical situations, commonplace concerns, variations from the usual, description, and quality of interactions (Emerson et al., 1995). From the coded fieldnotes and transcribed interviews, the PI created themes by starting with a single instance and building to complex instances in order to sort out key patterns (Emerson et al., 1995).

The final two stages of data analysis are data display and drawing conclusions with verification. Data *display* is organized, compressed information that allows conclusions to be drawn (Miles & Huberman, 1994). Data display can be done in several ways; however, the goal is to organize the information in compact form so that conclusions can be made and verified. Conclusions were verified by referring back to participant's original description in the transcribed audio recording and fieldnotes in addition to reaching consensus with faculty sponsor (Miles & Huberman, 1994). Independently of the PI, the researcher's supervising professor (Brown), who has extensive experience in diabetes research with minorities and in conducting focus groups in minority communities, reviewed transcribed audio recordings and fieldnotes to verify the overall theme and categories.

RESEARCH RIGOR

Position. It is important to recognize the researcher's position as an African-American woman in conducting research with AAW with diabetes. There has been minimal research conducted with AAW withT2DM. In fact, there have been no studies located that were conducted with a population similar to the one that was conducted for this dissertation study. Banks (1998) stated that the history of research has focused on

the researcher remaining objective. However, given our diverse society this objectivity can marginalize many minority groups. Individual researchers from a particular ethnic community are more likely to exemplify the institutionalized beliefs and values reflected within that community than someone outside of that community (Banks, 1998). As an African-American woman this researcher has been taught many of the cultural food practices that were examined in this dissertation study, thus possessing an advantage over researchers of a different ethnic background conducting this same type of research. The researcher's position allowed access to this population that other researchers might not have been able to achieve, at least not to the same degree.

This unique "insider" position of the researcher can also be viewed negatively due to the potential biases that can be introduced into the research study. However, every effort was made to decrease the researcher's biases by having the participants clarify common cultural vocabulary, behaviors, and food practices in order to present the data from the perspective of the participants. The goal was to provide a voice of AAW regarding cultural food practices to the health care community in order to ultimately improve dietary recommendations for improved health outcomes.

Trustworthiness. Trustworthiness was maintained using the criteria provided by Guba and Lincoln (Qualitative Research Guidelines Project, 2008; Tucket, 2005). There are four criteria to meet in order to establish trustworthiness: credibility, transferability, conformability, and dependability.

The audit trail, purposeful sampling, and member checking contributed to the credibility of this dissertation study. The audit trail which includes notes of: code

development, broad themes, reduced themes, as well as fieldnotes, transcribed interviews, and reflections of the investigator regarding the sessions. Fieldnotes specifically provided an additional data source to triangulate (using different forms of data to corroborate findings) with the transcribed interviews in order to establish credibility (Tucket, 2005).

Purposeful sampling as well as member checking also added to credibility. Purposeful sampling was established by choosing participants based on the fact that they had firsthand knowledge of the dietary practices of AAW withT2DM. Member checking was completed by reviewing data of the previous participant and clarifying and verifying information with the participant at the next meeting or with the next research participant.

Thick description of the research settings and participants contribute to the claims of transferability. Transferability is comparable to 'generalization' in quantitative research. Transferability was achieved with fieldnotes, electronic and hard copies of demographics, and data (Tuckett, 2005). The fieldnotes included detailed descriptions of participants, churches, grocery stores, and participant's homes. There was enough information in order for others to be able to identify with the participants in the study.

The final criteria of trustworthiness, conformability and dependability were maintained by the audit trail, which also assisted in decreasing bias within the study. The audit trail could be used by an independent researcher to evaluate and/or recreate this dissertation study.

Following the steps of qualitative data analysis provided by Miles and Huberman (1994) and Emerson et al. (1995) helped to add to the creditability of this dissertation study. In addition a transcriber was hired to create the verbatim transcript adding to

accuracy and overall trustworthiness. This allowed the PI to audit the transcripts by comparing them to the original audio recordings.

CHAPTER SUMMARY

Through the use of descriptive ethnography in this dissertation study both explicit and tacit cultural knowledge and a detailed description of cultural food practices of AAW with T2DM were gathered. Using descriptive ethnographic methods enabled the researcher to increase understanding of how culture influences food practices in this understudied population.

The following chapter presents analysis and findings. The chapter includes theme and category development that answers the research questions as well as additional findings from this dissertation research study.

Chapter 4: Analysis and Presentation of Findings

This chapter presents the analysis of the data collected for this dissertation study. Data were extracted from the narratives of 20 informants interviewed across different social settings. The informants were able to express the importance of cultural daily food practices within social settings while having diabetes. The contextual details of normal every day food practices and eating within social settings for AAW with T2DM living within the Central Texas area have been described and organized by categories in this chapter.

The purpose of this study was to explicate cultural influences and symbolisms of food practices of AAW with T2DM in order to provide this culturally-based information to the health care community. This descriptive ethnography involved one-on-one interviews in addition to observations of food practices during grocery shopping, meal preparation, and food consumption processes within social settings (e.g., family dinners, church socials).

The specific aims of this study were to: (1) describe typical daily food practices of AAW with T2DM; and (2) identify the cultural influences of food practices of AAW with T2DM. The findings from this study will be used as a foundation for developing sustainable culturally-tailored dietary interventions for this population.

RESEARCH QUESTIONS

Specific research questions that were examined for this dissertation study were:

1. What are the day-to-day food selection, preparation, and consumption processes of AAW with T2DM?

2. What are the typical food selections and consumption practices when dining out?
3. What are the types of foods selected and quantities consumed at social gatherings (i.e. church functions, holidays)?
4. What are the valued behaviors and beliefs that influence food practices of AAW withT2DM?
5. To what degree do social interactions with family, friends, church acquaintances, and health care providers influence food practices?

ANALYSIS AND FINDINGS

Informants. The characteristics of the informants included in this study were: 54.5 years old on average and diagnosed with T2DM from as few as 2 years to as many as 32 years. Their marital statuses were: 35% married, 25% single, 25% divorced, and 15% widowed (Table 4.1). Education level ranged from not completing high school to graduating from college. All of the informants were born in the US and had lived in Texas from 13 years to as many as 63 years. The informants resided in Travis County or one of the surrounding counties in Central Texas. The average number of people residing within each home at the time of the study were 3, and 40% of the informants had children under the age of 18 years.

Over the 18-month duration of the study there were a total of 38 women who contacted the PI to inquire about the study, 12 of whom did not qualify for the study; 6 women qualified but did not follow up for initial scheduling of the research sessions. A total of 20 women met the inclusion criteria and were enrolled in the study.

Eighteen of the 20 informants completed all sessions of the study; however, two of the informants did not complete the church function session of the study. One of these informants had a church function that only took place once a year, which did not occur during the time frame of this study. The second informant who did not complete the church function session was contacted on several occasions but never responded to set up a day and time for the function. The data collected from these two informants during the other sessions of the study were included in the analysis. The number of informants proposed and recruited was 20; however, saturation of the data was met after 7 informants.

Table 4.1 Demographic Information of Informants

	Frequency n=20
Age (years)	
35-40	1
41-45	2
46-50	4
51-55	4
56-60	4
61-65	5
66-70	0
Marital Status	
Married	7
Single	5
Widow	3
Divorced	5
Education level*	
Some high school	2
High school grad	2
Some college	10
College graduate	4
Number of people living in home	
1-2	8
3-4	9
5-6	3
≥7	0
Children in the home ≤ 18 years old	
0	12
1	4
2	2
3	1
4	1
≥5	0

*Two informants did not provide education level

Description of a typical interview/observational session. Ethnographic research techniques include examining a specific group of people within the context of a particular situation. For this investigation food practices of AAW with T2DM performing normal daily activities within different social settings was the context in which data were collected. It is imperative to understand the context for this data collection; therefore, the details of the result of a typical session, which included observation at a church function, grocery shopping, meal preparation within the home, and an interview, are provided below. Informant names used below are fictitious and the inserted statements are representative composite examples of views commonly held by the majority of those who were interviewed.

***Church fellowship dinners*.** Church functions remain a part of the informants' social interaction and food consumption practices. However, the frequency of these events and attendance at these events varied, ranging from as few as once a year or every three to four months to as frequently as once a week. Even if the events were held weekly they were not attended weekly. Fanny (Informant #17) was able to provide some insight as to why the number of her church events where food was served was declining.

> Our pastor [is] trying to get away from food. Every time you go, eat something big and people associating church with food. He is trying to move away from that. Also you have, "who cooked what?" …everybody can't cook and it's more, our culinary, and food being wasted.

There were a total of 18 church dinner observations at 12 different churches included in this investigation, of which several of the churches were visited on more than

one occasion. About half of the church dinners followed or preceded a church service (55%) and the other half (45%) followed a church special event program such as a wedding, MLK day, women's day at the church, and an annual Christmas program.

Most (83%) of the church fellowship meals were held in a dining area located within the church facilities. The remaining fellowship meals were held at a hotel (16%) or local restaurant (11%) due to the special event program (i.e. wedding or women's day). Room set-up included long rectangular tables forming columns in the room with 15 to 20 folding chairs at each table. Decorations consistently involved decorative tablecloths and centerpieces depending if there was a special event program that preceded the meal.

The fellowship meals, not including those events that were professionally catered (four events), were often buffet style where people served themselves from a variety of prepared food dishes. Church members and visitors entered the room and located a seat before retrieving a meal. Those who participated in the meal would walk through a line (for efficacy purposes there were two lines formed with the same dishes available in each) to make food choices for their plate and returned with their plate to their chosen seats. The available food choices were provided either via potluck (six events at six different churches), where individual church members provided a dish in order to complete the meal, or the dishes were prepared by the culinary ministry (a group of church members who often prepare meals for the church, eight events at five different churches). Food choices often included several dishes for each food category. An example of a meal served at one church function included: Caesar salad and spinach

leaves, finely chopped carrots, cherry tomatoes, and largely sliced cucumbers. There were two dressings to choose, ranch or Italian. Additional side items included: peas, cold corn, roasted vegetables, mashed potatoes, macaroni and cheese, and a roll. Meat selections included either baked chicken or a big, thick piece of beef. Most church fellowship meals included desserts. For this particular function the desserts included chocolate cake, cheesecake, and apple pie. The same types of foods were observed being served at both the potluck meals and the culinary team prepared meals.

Often during the selection of foods there were no limits placed on the amount of food that a person could put on their plates. So the tendency of most informants was to fill their plates to capacity before returning to their seats. Informants consumed most, if not all, of the food on their plates as well as their dessert. Because fellowship meals often involve talking and interacting with each one another, the meal consumption portion of the church function usually lasted from 30 to 60 minutes.

Grocery shopping. The shopping sessions ranged from selecting a few items specifically for one meal, lasting about 20 minutes, to longer shopping sessions that included selecting a cart full of food items, lasting up to 95 minutes. Most of the informants (75%) shopped at their local larger grocery store chains in Central Texas. The remaining informants (25%) shopped at their smaller local neighborhood grocer. Reasons provided for shopping at the smaller local grocer were convenience and not having the hassle of larger stores, which typically had many shoppers.

Most of the large chain stores were set-up in a similar fashion with the main difference being the size of the store. All of the stores had two large canopies that

covered two entrances into the store. One canopy read "fresh foods" and individuals entered the fresh fruits and vegetables department and the second canopy had "drug store" in slightly smaller letters and individuals entered the store near the pharmacy department. Typically, inside the store on the outer perimeter were the food departments such as: fresh fruits and vegetables, dairy, meats including seafood, and pharmacy. All other food items along with paper products, cleaning supplies, etc. were located in numbered aisles throughout the store. The size of the store seemed to correspond with the quantity and quality of food choices.

A majority (70%) of the informants completed their grocery shopping session and meal preparation within the same day; therefore, many of the selected items were purchased for the next meal. For most of the informants (72%) a typical shopping pattern included a large shopping trip once a month followed by weekly visits to the grocery store for most frequently used items, such as milk, bread, fresh fruits and vegetables, or for missing required items for the meal that they were planning to prepare for the day. For the larger shopping trips the tendency was to buy food items in bulk or on sale, especially meats, and freezing excess items for later use.

During the shopping session most (72%) informants did not use a grocery list to organize their shopping selections. Fanny (Informant #17) said that she occasionally uses a grocery list, but its purpose was to indicate to her what items she absolutely needed. Otherwise, she bought what was on the list plus many more items. She stated, "I am trying to be a better meal planner but I haven't gotten there yet."

Most of the informants began their shopping by first selecting items from the fruits and vegetables department. While shopping they often discussed with the researcher food items that they and family members liked and enjoyed as well as cooking techniques. The following was Carol's (Informant #18) actions while in the vegetable section of the store:

> She walked towards the prepackaged assortment of bell peppers: red, yellow, and green. Carol said that the family enjoyed all types of bell peppers…She selected a head of cabbage mentioning that she cooks her cabbage with bacon.

Following the selection of fresh fruits and vegetables informants would next go to the meat/seafood department before shopping for additional items. Meats were examined carefully for both quality and price before a final selection was determined. After choosing their meats informants would scout the different aisles for other needed items including additional food items as well as paper and personal care products before heading to the checkout lane.

Meal preparation. All informants were observed during the preparation of a meal, which ranged from a simple meal that took a minimum amount of time to more elaborate meals that required more preparation time. Simple meals included items such as Hamburger Helper or sloppy Joe with a salad that took about 30 minutes to prepare. Larger meals, such as chicken enchiladas with salad, green beans, mixed vegetables, and black beans, could require 90 minutes of preparation time. The most popular meal prepared (7 out of 20 informants) included fish with a salad and vegetables. Observed

meat preparation techniques included mostly baking, and only two participants fried their meat. Vegetables were prepared either by sautéing or boiling.

Several food practices were articulated during meal preparation observations. For example, additional meat preparation techniques were mentioned. Patience (Informant #3) remarked, "I'll cook some type of meat. I bake and I use the slow cooker." Informants also discussed the use of different spices and seasoning to flavor foods, particularly to enhance the flavor of healthier food choices. Fanny (Informant #16) talked about seasoning the meal she was preparing during the study observation:

> She walked back toward the stove top and said that cooking is "all about the seasonings." She opened the upper left cabinet and grabbed some gumbo seasoning and shook it over the pot, and mentioned that this seasoning thickens the mixture. She turned and held up another small bottle of seasoning and stated, "And I don't measure, I just season to taste." She also added some Old Bay Seasoning and pointed out that it was 30% less salt and a couple of bay leaves to "give it a kick."

Following meal preparation 50% of the informants consumed their meals before the individual interviews were conducted.

The interview. All informants completed the interview portion of the study. The interviews took place at the informant's kitchen table and were on average 45 minutes in length, ranging from 13 minutes to 106 minutes. Topics discussed included those inquired by the investigator (Appendix C) as well as any additional information that the

informant wanted to share, all of which are the bases for the overall theme and categories identified and discussed below.

THEME AND CATEGORIES

The overarching theme that collectively represented the data is "the struggle between cultural food practices and eating healthier because of diabetes." The term 'struggle' was often used by informants to describe the conflicts between their food practices and managing their diabetes. The fact that the word 'struggle' was used so often by these study informants in this context is significant, given the historical connotation of the term 'struggle' among African Americans who have endured slavery and continue to 'struggle' for social justice and equality today. AAW in particular have been and continue to be viewed as 'inferior' not only because of their ethnicity but also because of their gender. Because of this view AAW continuously struggle to shape and live their lives on their own terms. The challenge caused by the diagnosis of diabetes is viewed as another 'struggle' that this subculture of AAW must face that creates another "burden to bear."

This subculture has had to take the overall AA cultural symbolism of food and slightly alter it in order to maintain overall health despite having a diabetes diagnosis. Food had to not only represent the history of AA but now also symbolize a healthier lifestyle in order to live longer. Given that traditional cultural meals tend to be prepared in an unhealthy manner, which includes deep frying of many foods and the use of animal fat products, eating healthier is in constant opposition to the traditional food practices of AAW.

Four categories and subsequent subcategories were identified during data analysis (Table 4.2), which generated the overarching theme: (1) striving to have healthier food practices, which included food preparation focusing on taste, portion sizes, and trying to overcome daily food challenges caused by diabetes; (2) challenges associated with dining outside the home including local restaurants, church socials, and holiday meals; (3) faulting cultural traditions and their influences on food practices, with the subcategories of valued behaviors and beliefs based on tradition; and (4) the clash of social interactions and their influences on food practices with the subcategories of HCP recommendations for healthier diets because of diabetes and the desire to please others through traditional meal preparation.

Table 4.2 Categories for Food Practices of AAW with T2DM

Categories	**Subcategories**
Striving to have healthier food practices	Food preparation focusing on taste Portion sizes Trying to overcome daily food challenges caused by diabetes
Challenges associated with dining outside the home	Local restaurants Church socials Holiday meals
Faulting cultural traditions and their influences on food practices	Valued behaviors based on tradition Beliefs based on tradition
The clash of social interactions and their influences on food practices	HCP recommendations for healthier diets because of diabetes A desire to please others through traditional meal preparation

Category #1: Striving to have healthier food practices. As with many people, the informants for this study made food selections based on foods that they liked and enjoyed, which were in turned based of food flavors and equated to foods tasting good. Despite having diabetes informants were determined to continue to choose foods that they liked and were accustomed to consuming but were aware that the foods had to be healthier. In order to partially resolve the struggle between cultural and healthier food practices, the goal of meal preparation within the home was reportedly to eat healthier foods but foods they and their families would enjoy.

Subcategory #1: Food preparation focusing on taste. When eating in any type of setting — at home, dining out, church socials, and holiday meals — the main thing that is thought of before eating is the taste of the meal. Is this going to taste good? Because of the age of the informants for this study they all had extensive experience in flavors and taste of foods from the time they were young children. In fact, as a part of their ethnic traditions flavoring and preparation of foods by the preparer was an expression of love; therefore, flavoring of foods became the focus of meal preparation. Hence, informants tended to have high expectations pertaining to the taste of foods. Informants held strong opinions about the foods that they liked and did not like and had become accustomed to ensuring that the foods they and their families consumed would be foods that would be enjoyed. As with other informants in this study the following two informants referenced the great taste of food prior to having to change their food practices because of diabetes. These references indicate that a change had occurred or was still occurring in the flavoring of foods to be healthier, but the traditional food flavors were better; hence the

struggle in changing food practices. Patrice (Informant #11) stated the following regarding the taste of food, "Food tastes good. And sometimes, I call this my fat days, it's prior to me getting [diabetes], but in my fat days I could see a food and know how it tastes." Mabel (Informant #12) concurred, "Just like when I make spaghetti. And I mean, I'm still looking for that certain taste. If I don't have that taste and I sit down and eat, I didn't enjoy that meal. Because that specific taste just wasn't there."

For many of the informants striving for good tasting healthier foods, meal preparation techniques were shifting. Informants were moving away from deep frying foods to more baking, broiling, and sautéing. There was also a decreased use in animal fats and increased use in seasoning and spices to enhance food flavors so that foods, although prepared in healthier ways, would continue to be enjoyed. Meal preparation included adding flavor to foods with spices, seasonings, oils, as well as including healthier meats and meat broths. Two informants commented on healthier food seasonings that taste good. Elvira (Informant #2) who was preparing rice for dinner stated, "And when I cook collard greens I use turkey. I have gotten away from the pork. I also use the turkey in my beans, like pinto beans." Then Elvira added something frozen from a gallon baggie to the pot in which she was preparing rice. So the investigator asked about the substance. Elvira replied, "Frozen chicken broth, which is a good way to give flavor without fat." During the observation of Apple (Informant #4) as she was preparing a meal in her kitchen, she went to the pantry and took out a box labeled, chicken broth. She said, "This (carrying the box from the pantry to the stove) is very good to cook with." She poured in about a cup into a sauce pan containing vegetables.

Then she sat the box on the island and walked to the refrigerator to take out some margarine. Apple said that she does not use much margarine, but it gives a nice flavor.

Some of the informants had lived with diabetes for over 30 years and some had had the opportunity to speak with a health care professional (HCP; either their physician, nurse, or a specialist such as a dietician) regarding food practices. Some of the informants expressed how they were continuously making small daily steps toward healthier food practices that taste good. Observing and listening to Fanny (Informant #17) as she prepared her meal revealed one of her steps to searching for good taste when eating healthier foods. Fanny walked to the pantry and came back with a plastic container with rice in it. She said,

> I have not been completely converted to the brown rice [among other foods] so what I do is I go to Sprouts and get it in bulk. I would buy a pound of parboil white rice and pound of brown rice and mix the two together. And it doesn't taste bad.

Subcategory #2: Portion sizes. A food custom with this population is to reciprocate love to the meal preparer by consuming foods in large quantities. However, even though foods were prepared healthier and flavored to taste good, informants managed to limit their portion sizes of meals prepared within the home. Portion control was specifically observed by the investigator when asked to join the informant and sometimes their family members for dinner. For example, Ethel (Informant #1) was observed preparing two plates of food, each of which included a small fish fillet, a small bake potato, and several spoonsful of okra and tomatoes, in proper food portions. At the

end of the meal she had consumed a majority of the meal that was on her plate. Elvira (Informant #2) prepared salmon, rice, and vegetables for lunch, preparing plates with 1/3 plate of salmon, 1/3 plate of rice, and a 1/3 plate of mixed vegetables.

Subcategory #3: Trying to overcome daily food challenges caused by diabetes. Based on their experiences, informants had drawn some conclusions regarding food and managing their diabetes. For most of the informants managing their diabetes and making their food practices healthier continued to be a daily struggle as the theme indicates. Upon their initial diagnosis of diabetes many of the informants went through a denial phase of having this chronic illness. Elvira (Informant #2) remembered, "I was taking those little pills. I still was not watching what I ate or trying to change my food habits in any way." Dale (Informant #5) had a similar reaction to her initial diagnosis, "Where it used to be, I don't know if I didn't care. Uh, I don't know. I just felt like, oh, I could eat what I want, ain't nothing happened yet."

However, once past this initial denial phase of having diabetes most informants realized that they had to change the way they perceived food in order to have healthier daily food practices, specifically within the home. Crystal (Informant #15) explained:

> This is hard—you know what I'm saying? Changing our food, this is—you're telling me I can't [have] no more cake? You know what I'm saying? You're telling me I can't eat no more fried chicken, you know? [laughs] I can't eat no more mashed potatoes and gravy, you know what I've saying? So, we had to change our mind frame. I had to—you have to change your mind frame. It's your

> mind frame. You have to change it. So, that's what I did. I had to change it—it's a mind frame thing.

Ethel (Informant #1) concurred:

> Well basically you just have to follow, get in your mind that this is what I have to do if I wanna live. And you think about all the possibilities of losing your vision and all the possibilities of having a stroke and you just think that I've gotta do this. I have to learn how to do it and you do it.

Dale (Informant #5) stated, "It-it doesn't even take motivation, I don't think. It's-it's a mind thing. And it's focusing your mind in the right direction, and moving forward. Bottom line." Rena (Informant #13) explains why she struggles but would like to change, "But you know, when you're so used to doing things a certain way. It's hard, but I want to –I'm willing to get un-used to it." Crystal (Informant #15) stated how she deals with the challenge of eating healthier,

> Now I'm going to try to get away from it. And it-I mean, I don't say it's easy. It's not easy. It's really not easy. I mean, you-you love that kind of stuff. But, sometimes I cheat, you know. And then, once I cheat and I say, but the next day I say I don't want to be [like] yesterday. I'm going to get back on my schedule. And that's what I do.

Category #2: Challenges dining outside the home. When dining outside the home informants had a sense of freedom when selecting and consuming foods. There was less of a struggle in food practices because the informants often chose traditionally prepared cultural foods. Therefore, they often had the tendency to adhere less to the

strategies for making healthier food choices that they were trying to implement within the home setting. In larger social settings the tendency was to revert back to cultural traditional food practices held collectively by AA. In fact, there appeared to be a direct relationship between homemade prepared meals, the number of friends and family members present at the social gathering, and the amount of cultural traditional foods that would be consumed.

Subcategory #1: Dining at local restaurants. Within informants' narratives dining at local restaurants took place with family members living within the home with the informants, that is, a smaller group setting. Restaurant selections were based on traditionally liked foods and consumed in larger amounts, which was evident in narratives from informants when asked about dining out. Patience (Informant's #3) talked about dining at the Golden Corral:

> I'm going to get some vegetables. Sometimes I'll get some green beans, a couple of spoons and I don't eat a lot of vegetables. But I think I eat too much meat when I go there. My plate will be just overfilled with meat. It's almost—mostly all meat that I get on my plate. I don't do no veggies because I can get those at home. Of course, I don't always get them at home, eating them like I should.

Patrice's (Informant #11) comment about dining out was:

> So my favorite places to go would be steakhouses, and I can get me a T-bone and a salad and a baked potato, you know, and eat a lot of meat, so that I can get full and I would be full for a long time. So I've learned how to eat protein to help me. So I do that quite a lot. I love steak, because it works really good with my body.

Subcategory #2: Church socials. Church functions were often 'pot luck' type functions where traditional flavoring of foods was very important to some informants when preparing a dish for other church members. Kacy (Informant #7) provided some insight with her narrative as to why women, even those with diabetes, still prepare dishes for church functions with the traditional flavorings and preparation techniques:

> People would make cakes, pies, and all kinds of things with all the fat and sugar. And a lot of people will not change those things because that person had been given praise and has become well known for making their best dish. So it would hurt their pride if they were to make it any other way and people did not like it. So people cook the way they were taught, whatever gave them that glory, even if they have illnesses like diabetes, because they don't want their pride hurt.

When choosing foods at church fellowship dinners informants knew that the best traditional, homemade dishes would be prepared so they anticipated the taste and selected increased portion sizes. These portion sizes would be larger than those consumed at a typical restaurant meal because the dishes were homemade by known friends and family members. The following was observed with Nan (Informant #14):

> She had the following meal and consumed most of it before leaving to help with church clean-up: two pieces of chicken, three meat balls, a very large portion of mixed fruit, an extra helping of purple cabbage with dressing, and a veggie lettuce wrap that sat on top of the pile of food. As she ate she made a comment that she thought that the chicken was teriyaki and expected it to be sweeter but she

> continued to eat the two pieces of chicken wings anyway. She topped it off with 16 ounces of strawberry banana smoothie.

Observation of Fanny (Informant #17) at her church fellowship dinner where the theme was a "Piece of Pie," and food options included a variety of pies, both meat and meal pies (dough stuffed with meat or with meat and vegetables), as well as dessert pies. Fanny's plate was piled high with the following: two pieces of quiche pie, a piece of pot pie, Jamaican meat pie, all topped with sweet potato cheese cake, Mississippi mud pie and pecan pie. After getting her plate Fanny made the following comment, "Now I am not gon' lie, I love sweets." She managed to eat all that was on her plate.

Subcategory #3: Holiday meals. Throughout the informant narratives regarding holiday meals, it was evident that traditional cultural meals were consumed in larger than usual quantities. When discussing holiday meals some informants were very verbose, and some exhibited a change in both body posture and facial expressions. Lanette (Informant #8) sat straight up in her chair and explained:

> [We have] fried chicken, fish, turnip greens, beans, they make potato salad, they make yams, cornbread, corn on the cob, & fried okra." She paused to shake her head, and continued, "Oh girl, they have peach cobbler, and they have big old black chocolate cakes and Mississippi mud cake. They still cook coconut cakes, strawberry cakes, blackberry pies. I don't see blackberry pies here, peach pies, yellow cakes with the black chocolate on them, oh girl eat yourself to death.

Beatrice (Informant #6) leaned back in her chair and waved her hand:

Oh, no. You don't want to know about that. Thanksgiving. We have a big to-do. Just me and my brothers and sisters and cousins that's around. When we have it, we have it at that little building right there (pointing out the window). Now this year we're going to Louisiana. So the meals are basically the same. My sister makes sweet potato pie, peach pies and all that. And then there's a favorite pie of mine that my mother and grandmother used to make. It's called a custard pie. And it's made with sweet dough. And not very many people can make that sweet dough. And my sister, she can make it. My mother could make it. And I mean a lot of people from way back down east, you know, they learn how to do things so that their family could have different things so she makes that for ours and hers, and we all 'be just killing it.'

And when I go to Louisiana, there's…Boudon [a type of sausage]. And we have turkey. We'll have about 3 turkeys both places, Louisiana and Texas. We have spiral hams, about 2 of those. Because I got to tell you, there will be a lot of us. And we have cornbread dressing, made Louisiana-style. Then we have dirty rice, and there are all kinds of vegetables, like mustard greens, green beans, pork and beans. And corn. The corn, you take a cob of corn, you know. And you shuck it, and this is not the frozen one. This is out of, it's the fresh ones. And you cook it with cream and cream-style corn. And a little seasonings and stuff. You know? I know it's unhealthy. But it's one of the good foods. And we have cranberries. We also have the potatoes with mushrooms on it. We have cakes galore. And any kind of cake you can think of, we have it. And then there's different families, you

know, somebody from each family, immediate family will make, they all know how to make things, you know, like, sweet salads, fruit salads, pea salads, macaroni salads. We have all that.

Category #3: Faulting cultural traditions and their influences on food practices. Informants were aware that cultural traditions play a very strong role in their current food practices. Many of the informants even fault tradition as a part of the struggle to eating healthier. Some behaviors were learned as a child and those same behaviors had been passed to the next generation. Sometimes traditional behaviors in meal preparation were followed 'blindly' without real meaning. Elvira (Informant #2) included a short story in her narrative regarding blindly following tradition:

> People would ask momma why you throw the ham bone away? And then momma would say, "I don't know, that's what my momma did." And so the person would go to the grandmother and say 'why you throw the ham bone away?' And the grandmother would say, "Why are you all doing that I just did it because the ham would not fit in the pot. Tradition!!"

Even though some traditional food practices are not healthy, Kacy (Informant #7) explained why it is so hard to change these practices, which include memories attached to these behaviors as well as the skills associated with preparing a good meal:

> But I just like the process, you know, it [cooking for others] reminded me of my mom in the kitchen and usually, you know, of course when you rise-or when you prove the yeast, the room is warm and that's one of the memories I have of her. She was always-always in the kitchen. Of course, that many kids, you're going to

be in the kitchen all the time, so I had this strong connection with-with food and love and-and my mother because of that. And so, as I, when I became an adult, that was how I-I showed love was to cook all the time. I was always creating stuff, but to me that was my way of showing my family that I loved them and even now, that's what my association with the preparation part of it is, the whole leading up to–sort of like when the peacock opens its tail feathers- the male peacock-to show off, and you know, at first-you know, he's dragging that long beautiful train, you know, you're not really aware that there's such beauty, you know, waiting to be displayed. And sort of like me when I-I'm preparing the food, that's how, you know, I'm going to become really showy and-and show off my skills.

Subcategory #1: Valued behaviors based on tradition. Many valued behaviors and beliefs associated with food are based on tradition. There were several food practice behaviors that were valued by the informants in this study. These values were expressed both verbally and nonverbally. One of the valued behaviors was learning to cook from their mothers or other women from the previous generation, which is partially seen from Karen's narrative (Informant #7) above. The following was the observed reaction from Ethel (Informant #1) when asked who taught her how to cook:

> Yes…[My mother taught me]." Then her face brightened up. She sat up in her chair and laid her fork on the side of her plate and said, "When I was about 12 years old I remember my mother teaching me how to make cornbread. And I remember when I first made the cornbread, oh my daddy just bragged on my

> cornbread. He said that it was the best cornbread. And ever since then I was always interested in what my mother cooked. So she would show me and teach me and sometimes she would cook and then sometimes I would cook."

Dale (Informant #5) had a similar response to learning how to cook:

> My granny [taught me how to cook]. Yeah, she taught me everything I know. My mom did too, she taught me a lot because my mom is—but she's one of them cooks that don't ever measure anything. Just, she just put it together and it taste, look at it and it taste good. You know, we be like how she do that? What you put in there? Girl, I don't know, a pinch of this and a pinch-but you never measure her pinches.

The second valued behavior based on tradition was the enjoyment of cooking for other people. There was a lot of emotion expressed when discussing this topic. Carol (Informant #18) was putting dishes in the sink and wiping down the counter top when asked about cooking for other people. She stopped wiping the counter top and walked over to the investigator and said:

> Yeah, I-I-I—my grandmother always had—and then I keep bringing up my grandmother. [But] she always had something out there at the house, something going on. And she was always feeding people. And-and she just seemed to get such-such joy out of it. And I was running right behind her, trying to be just like her."

Then Carol smiled, sniffed, and tilted her head upward, possibly to hide a tear, and turned to continue wiping the countertop. Then she added, "I just love it." Carol (Informant

#18) then added that this joy of cooking for others is intensified when people she cooks for love to eat. She talked about one young man who gives her great joy:

> I have a friend, his name is Jeff, he's about your height and about your build. That man, pound for pound, can eat. Oh my God, he can eat! He starts come—calling in November. Or maybe October. "You having gumbo for New Year's? You having gumbo?" "Yeah, Jeff." "We not going to watch service; we coming to your house." Yeah. We're going to have, um, he loves to eat.

Candy (Informant #20) had similar thoughts and feelings regarding cooking for others especially if they enjoy eating, "I love it when they like to eat. So, if it's somebody that's not picky on a meal—I love to cook. I love to have everybody in the kitchen together. We all just—just cooking and just having, you know a good time." Lanette (Informant #8) explained that despite not specifically inviting people to her home for Sunday dinner or holiday meals she is always prepared for other people to come to her house to eat. This is how she expressed cooking for others:

> If anybody, like on a holiday, if I cook on a holiday, anybody knock on my door, they got to knock on my door. If I think they're hungry, I'm going to tell you to come on in and get you a plate. I'm going to feed you. You can be—some kids [who gets] on my nerves. But you know what, if I got something I think they want, I'll give it to them. Food, whatever. Yeah, I cook on a Sunday, I can cook for somebody and I call all the people and say, look girl—sometimes they'll call me, mama [Lanette] what you cooking today? I ain't cooking nothing, it's all I hear, what you cooking, what you cooking. Then it's, I know you got some

greens over there, save me some of them greens. I say, yeah I got some greens. Come on and get some.

Pat (Informant #19) recalls the first time she cooked for her family when she first moved into her home:

> Oh, I love cooking for other people. Yeah, it was so funny because when I first moved in here and my dad and my stepmom came to visit…and I wanted to, you know, usually when they come in I make a meatloaf dinner. But I had just moved and I didn't have any pots and pans. And so I finally went shopping for the pots and pans and my stepmom was really nice, she's, like, "I think your dad would like to get you a housewarming gift." And I was, like, "Oh, perfect, I'm definitely making you a meal now." And so I made, like, a spaghetti dinner. And my mom came over and her sister and her brother and some family members, you know? We were tight and packed in here…but everyone enjoyed it. I made a spaghetti dinner. And we just had such a good time. And I was, like, "Wow, my first meal in my home with everyone."

Tradition also influences cooking behaviors such as the continued preparation of soul food. True soul food, a cuisine started by black people during slavery and that included items such as pig feet, chitterlings, and hog maws, is not practiced as frequently today. However, southern cooking, a subcategory of soul food cooking, continues both within the home as well as in other social settings. Of note, informants used the terms "soul food" and "southern cooking" interchangeably. The topic of soul food ignited

excitement for the informants. Carol (Informant #18) expressed the following regarding soul food:

> Soul food is food that's mm-mm good! [Laughs] And make you want to slap your mamma! That say—that make you say, "Who cooked this?! Where the recipe at?!" Smothered pork chops. Smothered chicken. Um, um, macaroni and cheese and cabbage and creamed corn off the cob. You got to take it off the cob; not out of the can. Off the cob. Um, a big pot of red beans and cornbread and rice." She stopped and formed her arms in a circle in front of her as she stood in front of the oven, to indicate a large pot.

Ethel (Informant #1) shared a similar perspective, "Soul food, I think about fried chicken, fried pork chops, greens, sweet potatoes and just a whole lotta greasy, good stuff! [Laugh]." Welda (Informant #10) concurred, "Soul food means fat stuff, fried foods, you know, the more fried the better. You know greens that are with fat, fat, fat in them."

There are some traditional food behaviors that are so imbedded that to do something different or to change it seemed almost impossible. Patience (Informant #3) talked about eating rice:

> So it's just—I guess it's something that I learned when I was really young and my Mom would put the rice there and everything else went on top of the rice on you plate. Oh, I guess behaviors that I really learned is something that I've done for so long. It's like what else do you do?

Lanette (Informant #8) talked about how she grew up and how her and her family currently practice some of the same traditional behaviors:

> People still cook fish in old pots and stuff down there [Mississippi]. We're going to [get] 2 or 3 chickens off the yard [and] Sunday morning breakfast, grandmamma had cleaned up chicken that Saturday, she had them biscuits 'stinking' next Sunday morning. Old preacher would come from church, eat up all our food first. He had to give us the last part of the – of the chicken. Oh, but them biscuits. Grandma used to make her own butter, her own milk, had a smokehouse when the winter time come they put all them meats in the smokehouse, she'd tell them to go down and get a ham, or a shoulder, pig feet and stuff like that. And back in them days, we made cakes. They make cakes from the duck eggs, them big old duck eggs. (She put her hands up in front of her to from a big circle with her thumbs and middle fingers together.) So yeah, now we all get down there and cook just like going to big mamma's. That's right, everybody get together and meet at one house and everybody cook, or everybody bring a dish or something.

Kacy (Informant #7) offered an explanation as to why trying to change traditional food practices is so difficult; women do not understand why they cannot change:

> I think that it's-it's –it might be and I think it's totally subliminal, you know, it's just an unconscious thing that, when you-you stop preparing foods the way you traditionally have in your family, it's almost like you're disregarding something that was sacred, something that was-that expressed love, tradition, family and those are really some strong components in African-American culture. In fact, you know, they were binding back in the day after-I mean, during slavery, it was an important factor of an expression of how much you loved somebody was to

> prepare them a really fabulous meal and those traditions are internalized, those– that philosophy of food and love are tied together and whether you're conscious of it or not, it's a strong force and it's hard to pull away from it. It's-I think it's hard to pull away from it. I think that's why we-we have such a hard time as a people changing the way we eat, you know, because it is so strongly tied to an expression of love.

Subcategory #2: Beliefs based on tradition. Inherent in the data was one main belief based on tradition that was held by all of the informants as they discussed traditional meals when dining at restaurants, church socials, and at holiday meals — eating and consuming large amounts of favorite foods at social gatherings was an acceptable behavior despite having diabetes. Gail (Informant #9) expressed this belief the best, "No, I still kill myself on the holidays. I have to make up for it, but I still kill myself on my holidays. That's the one time I have. I mean, nobody's taking that away." Patrice (Informant #11) also felt strongly regarding this belief:

> You don't change things like that [eating holiday or traditional foods], because that's culture. It's not something you're going to eat every day. You know, you're not going to have oxtails with gravy and rice every day. And not have it once a week, but maybe once a month. Don't go and keep deep frying the whole catfish and doing that, you know, but do it in moderation, because the stuff is good. The stuff is good. Everyone needs soul food in our lives.

Category #4: The clash of social interactions and their influences on food practices. Not only do informants' pasts/histories, such as tradition, influence food

practices but the people within their social networks also impacted these practices. People within the informants' social networks included family members, friends, church acquaintances, and to some degree a HCP who worked with the informants. The informants' network was also a potential source that contributed to the informants' struggle that they experienced between cultural and healthier food practices. On the one hand they had their HCP encouraging them to eat healthier and on the other hand they have people within their network who enjoy traditionally prepared cultural foods.

Subcategory 1: HCP recommendations for healthier diets because of diabetes.

Most of the informants (83%), through their narratives, indicated they had spoken with a HCP regarding food practices. Information obtained from HCP influenced food practices, especially if the informant found that the information was both helpful and practical. Ethel (informant #1) had this to say about speaking with a dietician, "Yes, she [the dietician] helped me a lot. And probably the most important aspect was in my fried foods because I used to fry, every day we had something fried. And now I broil a lot or bake." Dale (Informant #5) had a similar reaction in her narrative:

> And then this part right here, is where it tells me, actually it said you can eat anything anybody else eat. You just have to know how to put it together. And I didn't ever know that. And I can actually say that now because I know if I want to have a scoop of ice cream, I can have a scoop of ice cream. And it's not going to kill me.

Patience (Informant #3) was shocked after learning how to read food labels:

> And I'm like going, "Oh my God." And all the salt, reading the labels. I had pretty much started reading the labels before then, but now I'm more intense. I just grab the bag and start looking at it because I'm just shocked at how much salt, [and] how much sugar. Things I thought didn't even have sugar. It has sugar in it. And the sodium content is just so high that are in the cans. And even as opposed to those that say they don't have any salt—they still got quite a bit in it.

A few of the informants (three) found the information they received from a HCP was not helpful because they did not know how to apply the information into every day food practices. Candy's (Informant #20) experience with a HCP was as follows:

> And she [the dietician] goes, "Well, you need to go get the King's Calorie Book and read it, and at our next appointment tell me if you understand it." And I was like, "Okay." So I go get the book, and basically it's probably everything that's on the menu, at any place, at any given time it gives you how many carbs it would be. But it didn't give me a portion size, it didn't give me…It didn't really give me anything, and I was like, "And you want me to do this?" And so, she was like, "Yeah. You have to learn how to do this. Because, your doctor over here has you on insulin, and you need to learn how to do the ratio of it if you're going to eat this many carbs, this is how much insulin you give." And I'm like, "Say what?" And then I called the doctor, and I said, "Look. This is not working for me, because I still don't understand."

Apple (Informant #4) also did not find the information from her dietician helpful:

> They told me then that I have to eat according to my diabetic diet. They put me on the pills first. They put me on the pills, and I stayed on the pills for certain amount of years. But they didn't keep my blood sugar under control. And so, after they did that, and they told me about my eating habits, [and] I tried that. And it didn't seem like it helped me that much. They just [said] eat healthy. And they had a little chart to go by to what's in your grains, in your vegetable, your meats and whatever. But you're not [going] to always stick to it.

Elvira (Informant #2) articulated, "They told me to eat from the 4 food groups. I already know that. She did not give specifics."

Four informants, even though they may have had diabetes for several years, had not spoken to a HCP regarding their food practices. For example, Beatrice (Informant #6) responded to the lack of speaking with a specialist: "Never in my life. And it's over 10 years [of having diabetes]. Never, never, never." Despite the fact that this informant as well as the other informants who had not spoken with a HCP regarding food practices, they were aware that they had to eat healthier because of their diabetes.

Subcategory 2: Pleasing others through traditional meal preparation. Because most of the informants love to prepare meals for other people it was the desires, likes, and needs of the people within their social network that influenced their food practices. This influence was evident in all areas of food practices and across different social settings. Even though informants did not directly verbalize these influences it was demonstrated in their behaviors. For example, during food selection at the grocery store observation of

Beatrice's (Informant #6) behavior and verbal response while she pushed a shopping cart in the fresh vegetables department included the following:

> She leaned on the front of the cart and walked slowly to the tomatoes. She picked out about three tomatoes and said, "I can't get too many tomatoes because they will go bad at my house." Her grandkids do not like vegetables, at all! She tilted her head as if to mimic one of her grandchildren and said in a light voice, "Granny don't put the vegetables on my hamburger."

Then she added if she puts the vegetables on the hamburger anyway, they take them off. Beatrice's desire for her and her family to eat more fresh vegetables was minimized by her family's dislikes of vegetables. Rena (Informant #13) was also selecting food items while considering her husband's health. She walked by and picked up the Goya Adobo to read the label and said, "No I am going to pass because of the high salt." Her husband was recently diagnosed with high blood pressure so she said that she had to be more aware of salt content in foods. In Rena's case, in the particular instance, choosing a healthier food with less salt was easier because of the health of her husband, but the ease of choosing healthier food items was not a normal part of the food selection process.

Social influences on food practices were evident within the home when preparing meals for family members. Out of a desire to see their family members happy, informants prepared meals that family members would enjoy even if the meals were not healthy. Crystal (Informant #15), who prepares meals for her live-in grandchildren, said, "So, I'll cook them ribs, Glory greens, and then my-they love macaroni and cheese. So, I cook some of that. I know that they'll like it." If there is a dish that an informant would

like to prepare or even prepare in a certain way, but a family member opposed the dish, then the dish was not made or was changed to suit the family member wishes. Mabel (Informant #12) said, "If I ask him [my husband] do he want a pie or something, and he say, no. I don't fix it." Fanny (Informant #17) described a scene at her mother's house where she thought something tasted 'good' but her sisters disagreed and had the dish changed:

> But the older now she has gotten, mom can [cook]. But we still have, like, my baby sister's real particular. So it's like, like dressing, if my baby sister's not there or my middle sister-to me they know some of the stuff is too salty, I like bland. If to me it tastes right, they go call it 'Diabetical.' So I can't be the tester. So they have to test everything. And if their taste buds [is not tingling], they say, "Mom, something is missing in this. You need to put something in this."

Some of the informants discussed preparing dishes for school or church functions and how they would prepare a dish according to the desires of the people who were present at the function, despite the fact that the dish was prepared in an unhealthy manner. Patience (Informant #3) had previously prepared a dish for a school function and said, "Boy they tore up that corn. All seven crock pots were empty. That's what they wanted. They got exactly what they wanted, too. They got it." While preparing cornbread dressing for the church function, Elvira (Informant #2) said:

> The main goal in cooking for the church is that foods are made the traditional way. Otherwise, they won't eat it. So the ingredients include fat and a lot of sugar so that people would eat it and enjoy it.

Elvira walked to the pan containing homemade cornbread and began crumbling the bread between her fingers into a pan. She said that for dressing, "you can't use the jiffy mix you have to do it from 'scratch.' Or you can use the cornbread mix where you have to add the milk and eggs. Today I did it from scratch." Bringing joy to others through traditionally prepared meals provides the informants with great joy. This joy can be interrupted by thoughts of knowing that the informants themselves have to eat healthier because of their diabetes; hence the social interaction 'struggle' that they encounter because of their diabetes.

SECONDARY DATA

This investigation explored food practices of AAW with T2DM within social settings that included observations of dining within the home and at church functions. Interview questions included inquiry regarding dining at local restaurants and holiday meals. The one area that probably warrants further investigation is the frequency of dining out. For this dissertation study the focus of inquiry was on the types of restaurants visited and the types of foods that were consumed and enjoyed. However, informants were asked how frequently, over a one month timeframe, dining out occurred including times when meals were purchased outside the home and returned home to be consumed. Even though inquiry regarding this subject continued to evolve and became more detailed with each informant, there remained a wide range of responses not only among different informants but also from the same informant being asked the questions.

Some of the informants responded to the inquiry of dining out as rarely occurring from nearly not at all to maybe once a year. Apple's (Informant #4) response to dining

out was, “Not now. I don’t go out now. Uh-uh [negative]. I look at my bag of salad. I used to go buy salad all the time, but I don’t do it now. I get my bag of salad from the store and fix it up.” Mabel’s (Informant #12) response to dining out was, “[The last time I’ve been out to eat at a restaurant], Girl, probably in over a year.”

Other informants’ responses to the frequency of dining out were up to several times a week. Patrice (Informant #11) replied, “I would say four or five times a month.” When the frequency of dining out was broken down to specific meals throughout the day, Fanny (Informant #17) articulated:

> I don’t go out for breakfast ever. If I go out for breakfast, that may be we have a staff development day and I’m not in a rush to get to work. And that may be once every once in a while. But the last time I bought breakfast? A while, I haven’t bought it in a while. I don’t want to go out for breakfast. And for lunch, ooh. Let’s see. I’d have done twice this month because of professional development days. So it may be once every two months. And then dinner. That can be two, three times a week. It depends. But I still come home and cook. So I cook my own sides, or I have something at home that I can eat with it.

Two of the informants, Welda (Informant #10) and Carol (Informant #18), did not answer the question regarding the occurrences of dining out. Due to a wide variety of responses regarding frequency of dining out, this issue requires further investigation for clarification. Gaining a better understanding of food practices while dining out is necessary in order to properly assist and educate this population in this area of food practices as well as being able to incorporate this information into future research studies.

CHAPTER SUMMARY

Because AAW with T2DM have been an understudied population, the informants who participated in this study provided vital insights into how cultural traditions, which includes valued behaviors and beliefs, as well as social interactions, influence food practices of AAW with T2DM. The informants were able to verbalize and demonstrate the importance of maintaining cultural food practices in social settings as well as the daily challenges they face in changing their food practices to live healthier lives.

The final chapter of this dissertation will include a summary of study findings, in addition to implications for diabetes clinical care and research for this relatively underserved and under studied population.

Chapter 5 Summary, Implications, and Conclusions

The prevalence of T2DM is steadily increasing at exponential rates, specifically among AAW. One of the foundational self-management skills in controlling T2DM is dietary practices, and because these practices are uniquely tied to an individual's culture and social interactions within that culture, it is important to better understand cultural influences on food practices for AAW with T2DM. Otherwise, typical self-management interventions that target this population are doomed to failure. This chapter provides a summary of results from the dissertation research investigation as well as implications for future research.

This investigation was a descriptive ethnographic study with the purpose to examine cultural food practices of AAW with T2DM. Data collected from the informants included observations and interviews regarding cultural food practices within different social settings. The investigator met with 20 AAW over 2 to 4 sessions in order to complete a one-on-one interview and observations of food practices during grocery shopping, meal preparation, family meals, and church fellowship meals.

The informants were recruited through social contacts and flyers posted at local African-American churches. All informants were born within the US and had lived in Texas for at least 13 years. The average age of informants was 54.5 years, and marital status was: 35% married, 25% single, 25% divorced, and 15% widowed. This was a relatively educated group, with a majority of the informants having some college education or were college graduates. On average there were 3 people living within the home and 40% of the informants had children under the age of 18 years old.

THE HISTORICAL SYMBOLISM OF FOOD FOR AA

For AA in the U.S., the symbolism of food is historically embedded in food practices, which were established more than 150 years ago during the time of slavery. During this time food came to culturally represent love, caring, wealth, kinship, and the 'struggle' for justice and equality that was endured for many members of this population. Because AAW are the gatekeepers of food practices within the home they are tasked with the unspoken duty to continue this symbolism for food throughout future generations. Being able to prepare traditional soul food became a great source of pride and to a certain degree a tribute to those who were enslaved. To try and change cultural food practices was almost a dishonor to the struggle that those AA endured during slavery. Informant #7, Kacy, who was an AA historian, was able to convey during her interview some of the food symbolisms and the difficulties associated with changing food practices:

> I think that it's-it's–it might be and I think it's totally subliminal, you know, it's just an unconscious thing that, when you-you stop preparing foods the way you traditionally have in your family, it's almost like you're disregarding something that was sacred, something that was-that expressed love, tradition, family and those are really some strong components in African-American culture. In fact, you know, they were binding back in the day after-I mean, during slavery, it was an important factor of an expression of how much you loved somebody was to prepare them a really fabulous meal and those traditions are internalized, those–that philosophy of food and love are tied together and whether you're conscious of it or not, it's a strong force and it's hard to pull away from it. It's-I think it's

hard to pull away from it. I think that's why we-we have such a hard time as a people changing the way we eat, you know, because it is so strongly tied to an expression of love.

Because of the symbolism of food, which has been passed down through generations, it has become very difficult for AAW to change cultural food practices due to diabetes, perhaps more than other ethnic groups. Unlike other ethnic groups, such as Cuban Americans (Cuevas, 2013) or Mexican Americans (Benavides, 2008), AAW are not willing to do things such as avoid social gatherings in order to control their diabetes. However, this current dissertation study demonstrates that there are food practices within certain settings where AAW with T2DM are more open to change. Thus, there may be unique opportunities for HCPs and researchers to have a positive impact on dietary practices for better diabetes control for this population.

THE CURRENT SYMBOLISM OF FOOD AND FOOD PRACTICES FOR AAW WITH T2DM

Through the use of symbolic interactionism and viewing AAW with T2DM as a subculture, the purpose of this descriptive ethnographic study was to explicate cultural influences and symbolisms of food practices for this population. The study project aims were achieved by answering the research questions through the development of the overarching theme and four categories. The overarching theme was "the 'struggle' between cultural food practices and eating healthier because of diabetes." The term 'struggle' was often used by the informants possibly due to the historical connotation associated with food, which included the 'struggle' that many African Americans endured because of slavery and the continued social injustice and inequality many AAW

encounter today. The four categories and subsequent subcategories were: (1) striving to have healthier food practices, which included food preparation focusing on taste, portion sizes, and trying to overcome daily food challenges caused by diabetes; (2) challenges associated with dining outside the home including local restaurants, church socials, and holiday meals; (3) faulting cultural traditions and their influences on food practices, with the subcategories of valued behaviors and beliefs based on tradition; and (4) the clash of social interactions and their influences on food practices, mostly involving HCP recommendations for healthier diets because of diabetes and a desire to please others through traditional meal preparation.

STUDY AIMS

Aim #1. Aim #1 was to describe typical daily food practices of AAW with T2DM. This aim was achieved by answering the first three research questions, which involved descriptions of daily food practices including food practices outside the home at local restaurants, church socials, and holiday meals. Daily food practices often occurred within the home and involved grocery shopping, meal preparation that focused on food flavors, and preparing healthier meals due to diabetes. A typical grocery shopping trip entailed one big monthly trip to the grocery store with subsequent weekly smaller trips to purchase more frequently used items such as bread, milk, fresh fruits and vegetables. The food selection process, which frequently did not include the use of a grocery list, often involved the purchasing of liked food items often times at discounted prices. However, during the selection process the informants would encounter difficulties in making healthier food choices; the likes and desires of loved ones, which sometimes included

unhealthy food items, would often overrule any desire to make healthier food choices because of their diabetes.

Informants' foci during meal preparation were on enhancing the flavoring of foods. As a part of AA culture food flavoring has been the heart of meal preparation and this custom has continued for AAW despite having diabetes. Through tradition many of the informants had become accustomed to specific food flavors, which often involved meats and vegetables that were deep fried in high fat animal products. Traditional foods are deeply embedded in culture; thus, traditional meals could not, and would not, be completely abandoned. Yet, informants realized that they had to change their food practices because of their diabetes. Even though informants faced daily challenges to eat healthier within the home, they chose to prepare traditional foods in a healthier manner by focusing on the flavor of foods through the use of different seasoning and spices that may not have been used by previous generations and they also tried to decrease consumed portion sizes.

The challenges of food practices while dining outside the home. Food practices observed within the home differed from those seen when study informants dined at local restaurants and at large social gatherings (i.e. church functions and holiday celebrations). There was a tendency for food practices outside the home to follow more closely cultural traditional food practices. When eating outside of the home setting informants expressed that they felt more freedom to indulge in traditional foods, such as fried foods, as well as to eat larger portion sizes. There also appeared to be a relationship between the degree of this indulgency and the number of people involved in the social setting. Thus, when

dining at local restaurants, informants would indulge in certain preferred foods; however, there always seemed to be an underlying awareness that they should consume meals that were 'somewhat healthier' because of their diabetes. In this particular setting larger portion sizes were consumed until a point of fullness and satisfaction with the meal was reached.

In larger social settings, such as church functions and holiday celebrations, the consumption of traditional foods increased while the informants' diabetes awareness to eat healthier food items was minimized. In these social settings the informants took pride in preparing their best traditional dishes for family and friends to enjoy, observing how people enjoyed their prepared dishes. They also took liberties in consuming their favorite foods in larger quantities. Their consumptions went beyond 'just being full and satisfied' but often times were described as being overly full to a point of 'hurting' themselves.

Findings related to previous research. Compared to other ethnic groups there has been a dearth of research conducted with AAW with T2DM. During the literature search for this dissertation study there were only two ethnographic type studies located regarding AAW with T2DM and food practices; however, neither study had investigated food practices of this population across different social settings in sufficient enough depth to make comparisons with the findings of this dissertation study. The study by Popoola (2005) focused on the complications due to uncontrolled diabetes and only mentioned that food intake was observed. Analysis and findings of food intake were not discussed. The study by Schoenberg and Drungle (2002) focused on dietary adherence as an etiological factor influencing the onset of diabetes.

However, among the qualitative studies included in the literature review for this dissertation there were some findings regarding food practices within social settings that were similar to the findings reported here, confirming that a barrier to healthy eating was social events, especially special occasions such as holidays (Anderson-Loftin & Moneyham, 2000; El-Kebbi et al., 1996; Murrock, 2014; & Samuel-Hodge, Keyserlin, Headen et al., 2000). These studies simply mentioned the social setting as a barrier; further elaboration was not provided. Studies of other ethnic groups with TD2M discussed how social events, such as those held during holidays, caused difficulties in establishing and maintaining healthy eating practices and attributed the difficulties to the importance of cultural traditions (Benavides, 2008). Like these studies with other ethnic groups this dissertation study also found that cultural traditions were very important to the informants and many were reluctant to change these traditions due to diabetes, perhaps even more so than other ethnic groups.

Another barrier encountered by informants of this dissertation study, which was confirmed by other studies, was the lack of self-control, such as in the consumption of large portion sizes. Of note, consumption of large portion sizes can be viewed both as a lack of self-control, as stated by some of the participants, and/or as a freedom of choice based on individual preferences as well as on influences in the surrounding environment. This lack of self-control was based on personal food preferences (Blanchard et al., 1999), which tended to be rooted in cultural traditions. Even though this lack of self-control could occur within any type of social setting for the informants for this study, as well as the participants in other studies, it most often occurred in larger social settings such as

gatherings for holiday meals, birthdays, or other special occasions (Chlebowy et al., 2010).

Aim #2. Aim # 2 was to identify the cultural influences of food practices of AAW with T2DM. This aim was based on the answering of research question #4, "what are the valued behaviors and beliefs that influence food practices?" and research question #5, which asked, "to what degree do social interactions with family, friends, church acquaintances, and health care providers influence food practices?"

Valued behaviors and beliefs that influence food practices. Throughout their emotional narratives informants often times displayed a shift in body language when expressing cultural influences on food practices. To some degree informants even faulted cultural traditions for the struggle that they experienced with food practices and having diabetes. Food practices developed across many generations. Due to the significance placed on food and food practices and the deep embedment of these practices within cultural traditions, many AAW were unlikely to change theses valued behaviors and beliefs because of diabetes.

There were several valued behaviors expressed by the informants: learning to cook from either their mother or other women from previous generations, cooking for other people, and the continued preparation of soul food. The reasons why the informants valued these behaviors was not only the historical symbolism placed on food by AA but also because of the added symbolism placed on food due to interactions with others and how these interactions created cherishable memories. Examples of cherishable memories include the one Kacy (Informant #7) mentioned about her mother in the warmth of the

kitchen and the smell of yeast while bread dough was rising or the memory described by Candy (Informant #20) of having everyone in the kitchen prepare a meal together for others to enjoy. The joy and emotions expressed through the telling of their narratives demonstrated how important these valued behaviors were a part of their daily lives and will remain a part of their lives despite having diabetes.

The one main belief held among the informants was the acceptance of consuming increased portion sizes of traditionally prepared cultural foods at social gatherings such as church functions and holiday celebrations. For most of the informants preserving cultural practices during these events outweighed the need to maintain healthy food practices in order to control their diabetes. Informants felt that such events were infrequent, thus not harmfully impacting their health because of diabetes.

Findings related to previous research. Similar behaviors and beliefs of preserving cultural traditions during social events have been noted with other ethnic groups with T2DM. For example, some Hispanic women felt that family and obligations to culture took precedence over maintaining a diabetic diet (Benavides-Vaello, 2008). The participants of this study mentally resolved that they were going to enjoy their family and eating 'within the moment' and get back on track with their diabetic diet following the social event (Benavides-Vaello, 2008).

Social interactions, food practices, and previous related research. For the AAW with T2DM who participated in this dissertation study social interactions not only shaped the meaning of food but influenced every aspect of their food practices. Culturally, for AAW food has been a way to communicate, express love, and to bring joy to others.

Within this expression of love many of the informants were aware of not only the foods that people within their social network would enjoy but they were also cognitive of the foods that had to be avoided either due to food dislikes or health related issues. Similar to another study with AAW, the informants' food practices centered on the likes and needs of others in order to express love and such practices were founded during enslavement (Liburd, 2003).

HCPs were not necessarily a part of informants' social network; however, HCPs were people that the informants interacted with in order to gain insight regarding food practices and diabetes control. For those informants who had the opportunity to speak with a HCP the information that they received either positively impacted or had no effects on food practices. Positively received information was information that informants found helpful and applicable to their daily food practices. However, often times this positive information would clash with the strong desires of the informants to please those within their social network with cultural traditionally prepared meals.

Some of the informants found information from their HCP unhelpful and useless. This finding suggests a lack of health literacy on behalf of the HCP, particularly in the inability to translate helpful, specific dietary information into understandable terms for AAW. This could be predicated upon how the information was presented to the informant. However, similar findings were noted in other studies that included AAW with T2DM. In these studies it was also indicated that the participants tended to rely on dietary information from family and friends with T2DM rather than the HCP because the information from the HCP was either insufficient, that is, not enough information and

detail (Anderson-Loftin & Moneyham, 2000; Chlebowy et al., 2010), and/or too difficult to understand (Blanchard et al., 1999; El-Kebbi et al., 1996).

SYMBOLIC INTERACTIONISM AND SUBCULTURE AS THE SENSITIZING FRAMEWORK

Symbolic Interactionism (SI) is the meaning placed on an object (Blumer, 1969). This meaning constantly change based on social interactions and becomes embedded within social context (Blumer, 1969). SI within the context of this dissertation is that AAW with T2DM have certain food practices based on the meanings they have placed on food, which in turn are developed from social interactions within their ethnic group. The meanings placed on food can change based on the social interactions surrounding food and food practices. Within the SI framework, the meanings placed on food are viewed as being fluid and dynamic as opposed to static; meanings can vary within individuals from time to time as well as across different AA ethnic communities as well as the different locations of these communities.

SI, or the meaning placed on food and how this meaning changed from one social setting to the next for AAW with T2DM, was used as a framework for formulating research questions, designing the data collection process, analyzing the data obtained, and interpreting findings. SI was evident for this subculture during observations and narratives when transitioning from the home setting to dining outside the home in larger social settings such as restaurants, church socials, and holiday meals. During this transition it was also evident that there were different levels of receptiveness by the informants to change food practices.

For this subculture food symbolized love within all social settings and this symbolism increased in magnitude as the number of people within their social network increased at such events. The symbolism of love was displayed in both meal preparation and the portion sizes consumed within these settings. Foods were selected and prepared in the traditional manner and informants progressively consumed larger food portion sizes based on the number of people present at social events.

The level of receptiveness to changing food practices for the informants depended on: the foods that they enjoyed, which were based on cultural food practices; their awareness of having T2DM; and the number of social influences within a social setting. Informants' receptiveness to change seemed to vary according to the number of people present at a social gathering. Within the home setting, typically a smaller group setting, many of the informants were most receptive to healthier food practices because of their diabetes. In fact, many were in the stages of implementing healthier food practices on a daily basis.

When dining outside the home, such as in local restaurants, at church socials, and during holiday meals, the number of people at these gatherings would increase while the informants' level of receptiveness to change food practices decreased. Typically, dining in a local restaurant would constitute a smaller gathering and church functions and holiday meals were considered larger social gatherings. In the larger social settings informants' willingness to change food practices was almost none existent.

STUDY LIMITATIONS

Even though the informants in this study were AAW with T2DM and lived in a specific region in Texas, the intent was not to generalize the information to all AAW with T2DM. The goal of this study was to gather information to build a foundation for future intervention studies. However, there were a few limitations that may have influenced the type of information gathered here. First, a limitation was the education level of the informants since at least 50% of the informants had some level of college education. Therefore, both their understanding of what was being asked and their ability to clearly articulate their responses would differ from those with less education. Even though data comparison was not made in this study between those with higher levels of education and those with less education, there could have been a difference in informants' responses based on education level.

Another possible limitation for this study was the interviewing technique or method by which the questions were asked by the researcher. Even though the questions were pilot tested for clarity and simplicity, problems could have existed in the way in which the questions were asked and the interpretation of answers on the part of the researcher. Ethnographic type interviewing requires skills that are obtained over time. When examining normal everyday behaviors, interviewing and answer evaluation requires more than simply asking questions and evaluating answers out of context (Emerson et al., 1995). However, inferences are made of what is important to the informants within the context of normal daily activities (Emerson et al., 1995). This researcher made attempts to minimize the misinterpretation of cultural food practices by

having informants expand on the meaning of language and behaviors. These limitations could have impacted this inquiry, and suggest the need for further research investigation regarding food practices for this population.

GENERAL IMPLICATIONS

The findings from this dissertation suggest the following:

1. Valued cultural norms - the bond of 'kinship' or the importance of social interactions incorporated into food practices; the struggle that is endured in trying to change food practices due to the historical symbolism of food; cooking for others; soul food cooking; learning to cook from previous generations of women; the belief that consuming large amounts of favorite cultural traditional foods at social gatherings is an acceptable behavior.
2. HCP - influenced food practices positively or not at all.
3. Social interactions - daily food practices influenced by the desires, likes, and needs of people within the informants' social network (family members, friends, church members, and other acquaintances) and the desire to make people happy through the use of food.
4. Dining outside the home - more focus on cultural traditions and the expression of love through food; a relationship between the number of loved ones present at a social gathering and the amount of cultural traditional foods that would be consumed.

5. Meal planning - a typical grocery shopping pattern of one main trip, maybe once a month, followed by subsequent weekly trips; food items purchased in bulk and at discounted prices, without the use of a grocery list.
6. Meal preparation – importance of flavoring of foods, based on tradition.
7. Healthier food choices within the home - taking small steps (i.e. mixing ground beef with turkey meat) to consume healthier meals; encounter daily challenges that require getting 'back on track' on a regular bases.
8. The culinary ministry - prepared and coordinated pot luck meals for church events.

Nursing education. When addressing dietary recommendations for AAW with T2DM it is important to remember that it is not only the dieticians' responsibility to educate this population. Often patients only have access to a nurse due to the financial costs of meeting with a dietician. Therefore, the only person that a patient may ever see regarding all of their diabetes educational needs is a nurse. As found in this dissertation study some participants had had diabetes for many years, some more than ten years, and had never met with a dietician. For many women in this population a nurse educator will be their only point of contact in order to obtain dietary recommendations and specific guidance on dietary practices.

Nursing students must understand the necessary dietary recommendations for improving diabetes control, including cultural competency, in order to be effective educators for AAW with T2DM. It is up to schools of nursing to properly prepare future nurses in these areas. As learned from this dissertation study there must be a level of

understanding and knowledge regarding food and food practices from both the historical and present day symbolism of food for this population in order to be considered culturally aware of this ethnic group. There has to be a level of understanding that AAW are not going to abandon their cultural food practices because these practices are rooted in cultural norms, such as ethnic bonds or 'kinship.' To control their diabetes, effective strategies may differ from those designed for other ethnic groups. There must be a level of knowledge of not only the types of foods consumed by this population but also why they are consumed, as well as the 'struggle' AAW endure trying to change these food practices.

Nursing education must also be able to effectively teach nursing students the ability to sensitively inquire about ethnic customs and norms and apply learned customs into an effective dietary plan for this population. The ability to incorporate valued cultural norms, which include behaviors such as cooking for others and the continue preparation of soul food, into diabetes dietary education would be both more acceptable and more effective for AAW withT2DM. With the skills of inquiry and application of learned information future nurses educators will be more effective in assisting AAW with T2DM live healthier lives.

Nursing practice. Some of the informants from this study felt that the information they had received from a HCP was helpful and applicable to daily living. However, some of the informants continued to struggle with the information given by a HCP regarding dietary practices because they were not equipped with the necessary tools to incorporate the information into their everyday lifestyles. Because nurses may be the

only point of contact for some persons with diabetes, the nurses must learn to make dietary recommendations practical and within the context of normal daily living in order to impact the patient as well as the family members and future generations.

Some of the informants who participated in this dissertation study emphasized making practical dietary recommendations for patients, indicating that the information they had been provided was very general about changing food practices. Information such as eating from all of the food groups or eating more vegetables was knowledge that the informants already possessed but they were not given specific instructions on how to accomplish this task. Nurse diabetes educators must have the ability to be specific regarding dietary recommendations, e.g., having patients list or even keep a food diary of the foods that they normally consume and then point out areas to improve upon and how to make those changes, while maintaining cultural practices. Achieving this level of specificity is admittedly challenging but must be done.

Another area to target for nurse diabetes educators would be the ability to incorporate social networks into healthy food practices for AAW with T2DM. Because most of the informants learned to cook from women from previous generations and enjoyed cooking for others, a great starting point would be to encourage family members to attend dietary education sessions. If possible, for the greatest impact and potential positive effects, multigenerational levels of women should be encouraged to attend education sessions. The nurse diabetes educator could explain how the sessions would not only benefit the patient but also impact the family and future generations, which, as has been found in other ethnic groups, could be a major motivational factor for this

population. The impact of the dietary information learned during these types of sessions may be greater because the focus would be to educate the entire family, which could possibly decrease some the stress associated with changing food practices within the family unit.

There were also several additional valued behaviors and beliefs learned from this dissertation that nurse diabetes educators could incorporate into improving healthy food practices for this population. For example, regarding the continued desire to prepare soul food, diabetes nurse educators could suggest healthier ways to prepare some of these dishes. Taking small, healthier steps in meal preparation within the home had been started by some of the informants from this dissertation study. Some of these steps could also apply to the preparation of traditional soul food, e.g., the use of turkey meat to season food items such as greens or beans; or, when frying food items, choosing healthier oils such as olive oil as a healthier alternative. Recommending small steps to improving food practices, including soul food preparation, may be a more acceptable approach for this population.

The main valued belief by the informants was that, despite having diabetes, it was acceptable to consume large amounts of favorite foods at social gatherings. Even though consuming large amounts of food was highly valued among the informants who participated in this study, diabetes nurse educators must learn to be creative and think "outside the box" when faced with such strongly-held beliefs. The diabetes nurse educator could suggest decreasing portion sizes and if this is not acceptable, then the educator would have to be more creative. The diabetes nurse educator could ask patients

to establish new family traditions, e.g., encouraging the entire family to walk together following large meals. The educator can emphasize that by starting this new tradition the lives of their love ones will be improved and the prevalence and effects of T2DM will be decreased.

Health policy. A major reason for conducting this dissertation study was the noticeable gap in the literature regarding how to address the health challenges of AAW with T2DM and the lack of consistent dietary recommendations for this population**.** The few studies that have been done in this area have demonstrated, to a certain degree, that culturally tailored dietary interventions may be effective in changing dietary practices of AAW (Agurs Collings et al., 1997; Anderson-Loftin, Barnett, Bunn et al., 2005; Keyserling, Samuel-Hodge et al., 2002; Mayer-Davis, D'Antonio, Smith et al., 2004; Two-Feather et al., 2005; Utz, Williams et al., 2008). However, these studies varied in content and the methodologies used; therefore, a lack of consistent, clear, and detailed dietary recommendations remains for this population (Sumlin & Garcia, 2011). Thus, the following areas of exploration for healthy policy should be considered: 1) determining the consistent, culturally tailored dietary recommendations for AAW with T2DM and 2) implementing these recommendations into the professional education of all HCP who provide diabetes care.

This dissertation study has provided the beginning foundation for developing consistent dietary recommendations for this population. Culturally tailored intervention research, which incorporates cultural norms found in this dissertation study, could begin to formulate consistent dietary recommendations. Once consistency is established these

recommendations can be incorporated into the education of all HCP who will be responsible for educating those with diabetes. These recommendations can be a part of the 'Access to Quality Diabetes Education Act of 2013 (Congress.gov, 2013),' which currently focuses on making sure that all diabetes educators are equipped with the necessary tools to provide effective education consistently. This would be a great starting point in providing consistent dietary education for AAW and improving their overall health.

Nursing research. From this dissertation there were some "lessons learned" worthy of note for future similar type qualitative studies with AAW with T2DM. Because of the design of this study, which required a set number of informants as well as multiple meeting sessions with each informant, one of the issues encountered was informant follow-up to complete the study. In quantitative research studies, particularly studies that require multiple meeting sessions, follow-up or retention and attrition rates have been an issue. High attrition rates of AA with T2DM have been reported in several quantitative studies that required attendance at multiple sessions (Agurs-Collins et al., 1997; Two Feathers et al., 2005; and Spencer et al., 2011). For this dissertation study many of the informants rescheduled either their initial or subsequent visits on several occasions. There were six women who qualified for this study but never scheduled their initial visit. Due to rescheduling it took some of the informants several months to complete the study. One informant, who took the longest amount of time to complete the study, began the study in November of 2013 and finished in February 2014. Therefore, informant participation and completion of this study ranged from as few as two weeks to over three months. In

planning future qualitative studies that require a set number of participants and multiple meeting sessions the knowledge to recruit extra participants as well as knowing that some participants will require more time may be useful information.

Shaping future research. Symbolic Interactionism, which shaped the research findings from the perspective of the informants, also influenced research findings from the perspective of conducting future research. Learning the current symbolisms of food for AAW with T2DM, which tend to be incorporated into food practices, present the best opportunity to target future research on dietary changes for this population. The greatest area for potential impact on dietary practices is within the home setting. An example of a dietary research intervention study based on findings from this dissertation study and involving healthier food practice options is outlined below.

Research targeting food practices outside the home in larger social settings can also be accomplished to some degree. Food practices within larger social settings have been shown, in this study as well as other studies, to be one of the largest barriers to healthy food changes for this population. Noted in this study, the barriers were largely due to cultural ties and symbolism placed on foods so much so that many informants were not open to altering food practices within larger settings. However, there appeared to be a progressive increase in portion sizes from dining in local restaurants to dining in larger social settings. Therefore, initially targeting decreased portion sizes may be a good starting point to improve food practices outside of the home.

A dietary intervention research study that is culturally tailored and incorporates the findings from this dissertation study has an increased probability to be successful and

provide sustainable dietary skills for this population. Focusing on the home setting where participants may be more open to change and emphasizing smaller portion sizes in larger social settings may be the first steps.

Example of a dietary intervention. Another purpose for this dissertation study was to inform future dietary intervention research for AAW with T2DM. The findings from this dissertation study have provided clear guidance toward this purpose. Given the above findings and research implications there are potentially two different dietary intervention studies that could be implemented: (1) a study that focuses on the improvement of daily food practices including tips on dining outside the home and (2) a study that focuses on church culinary ministries and providing healthy alternatives at church events. The first proposed study could have two phases: (1) data would be collected through focus group interviews to refine the details of the potential pilot dietary intervention study to follow and (2) a feasibility pilot study to be implemented with AAW with T2DM focusing on dietary skills to improve diabetes control.

Design: Conducted by a trained moderator several focus groups could be held ranging from one to two hours. Each group would include four to eight participants to allow each person ample amount of time to participate in the discussion (Kitzinger, 1995). The focus groups could accomplish several goals. The primary goals being those directly related to the intervention refinement as well as acquiring key information to ensure cultural competency of the intervention. A secondary goal of the focus groups could be to establish community relationships, which could potentially enhance recruitment techniques for future intervention studies.

Sample: A purposeful sampling approach could be used for participant recruitment. Inclusion criteria would include: (1) self-identified AAW; (2) a diagnosis of T2DM for at least two years (allowing sufficient amount of time to establish dietary habits surrounding the diagnoses); (3) age ranging from young adults to older adults, preferably those with children, to also find out how to positively impact not only the potential participants' dietary habits but those of the children, i.e. future generations, as well; and (4) English speaking. Excluded would be women who would require additional dietary changes outside of diabetes, such as women who are pregnant or have other chronic conditions such as kidney failure.

Procedure: For the focus groups a structured interview guide could include topics such as: timing of the study - days of the week, time of day, frequency of classes, length of classes; the type of dietary information that is most important to the participants; intervention delivery such as didactic and/or hands-on demonstrations; and ensuring cultural competencies through inquiry related to subjects such as culturally valued behaviors that should be included in the intervention. Each group session would be audiotaped and professionally transcribed. Detailed notes would be made of non-verbal cues. Participants could be provided with healthy snacks, water, and a cash compensation for focus group participation.

The second phase of this study would be a feasibility pilot intervention study. The purpose would be to improve diabetes control through healthier food practices. The preliminary design outline and dietary information to include for such a study could resemble the following:

Design: In this experimental pilot intervention the experimental group would receive dietary focused information that includes many of the findings from this dissertation study, verses a comparison group who would receive standard diabetes self-management education. The number of participants for each group would depend on how many are needed to establish feasibility. The number and frequency of classes would be refined based on the information obtained from the focus group study; however, to give a starting reference point of offering one class per week, every other week for three months may be helpful.

This dietary intervention could include basic dietary information such as: learning about carbohydrates, portion sizes, and reading food labels. The following dietary information learned from this dissertation study would also be incorporated:

1. Meal planning - many of the informants included in this dissertation study did not plan their meals and tended to shop for food items that they may or may not need. Incorporating how to plan for a weeks' worth of meals and using weekly sales ads in addition to the use of a grocery list may help future study participants save both time and money during the grocery shopping process.

2. Cooking demonstrations - many of the dissertation informants expressed the importance of the flavoring of foods. Cooking demonstrations could be used to introduce several new ideas for healthier meals. There are some useful food seasonings and spices of which many individuals are not aware. These sessions could introduce new healthier seasonings and spices for great tasting foods. Cooking demonstrations and tastings could provide future participants the opportunity to taste unfamiliar seasonings in food items

before being asked to prepare such dishes within the home, which may be more acceptable for this population. Also, having family members at these demonstrations and food tastings would be highly encouraged.

The cooking demonstrations could also instruct participants on how to incorporate small steps to consuming healthier foods into their daily lives. Small steps mentioned by some of the informants included mixing healthier food products with currently used products such as mixing wheat with white flour or ground turkey with ground beef. Informants in this dissertation study who practiced these small steps found that slowly incorporating healthier products was easier to accept both mentally and taste wise. When drastic changes are made there may be a higher tendency to revert back to consuming unhealthy foods.

Preparing and consuming traditional soul food meals were still practiced and will probably continue among the informants who participated in this dissertation study. Therefore, the cooking demonstrations could also include tastings of healthier soul foods and instructions on preparation techniques. These tastings would again promote the acceptance of the healthier meals before trying to implement the different preparation techniques within the home setting.

3. Resilience training - implementing healthier food practices continued to be challenging for the informants who participated in this dissertation study. Based on the findings of a recent church-based diabetes self-management and resilience pilot study (Steinhardt, Mamerow, Brown, & Jolly, 2009), providing future participants with

resilience tools on how to quickly bounce back from setbacks of consuming unhealthy food items may be beneficial.

4. Dining outside the home (i.e. restaurants, church functions, and holiday meals) – from this dissertation study many informants tended to consume cultural traditional foods in larger portion sizes when dining outside the home. Many were also reluctant to change the type of foods consumed within these social gatherings. Therefore, focusing on decreasing portion sizes may be a more acceptable change in food practices in these types of settings. Also encouraging increased physical activity especially after consuming large meals may be beneficial.

Because the purpose of this feasibility study would be to improve diabetes control through healthy dietary changes the outcome measures of interest would include dietary measures such as measuring fat content both in food preparation and consumption; and diabetes measures such as glycosylated hemoglobin (A1C) and/or fasting blood glucose levels.

Culinary ministries intervention. Of particular interest during this dissertation study was the use of a culinary ministry to prepare as well as organize pot luck meals at church social events. The culinary ministries encountered in this dissertation study were comprised of a team of mostly women, with the leader being an older woman with standing in the church. This team of women was responsible for preparing complete meals, the day of the event, for church members and visitors following a church service or special program. In some cases the team of women did not prepare the entire meal but were responsible for contacting other church members to prepare and contribute a dish

for the event. Focusing on these ministries at different churches could be a unique dietary intervention that would not only impact individuals but would have a potential positive effect across entire communities and multiple generations. This intervention could include some of the food demonstrations mentioned above and also encourage healthier meals to be served at church events or at the very least provide healthy alternatives at these events for those who choose to eat healthier because of their diabetes.

CONCLUSIONS

AAW are suffering an epidemic of T2DM and its effects, which ultimately impacts society as a whole. Because AAW are the gatekeepers for food practices and the overall health of the family, they are the keys to cultural dietary modifications to improve diabetes control, and prevent or delay future diabetes for the entire AA population. Consistent dietary recommendations, which include a recognition of cultural values and beliefs of this population, must be considered and incorporated into dietary interventions in order to achieve successful, sustainable health outcomes. Even though further research is required in this area, this study provides a foundation as to the areas of food practices that AAW are willing to change and those areas that may require additional attention in order to improve their overall health. This study has begun to fill the gap in the literature regarding cultural dietary food practices of AAW, thus increasing understanding of these practices. With an increased understanding of acceptable ways in which food practices can be adjusted for this population, researchers can build upon a foundation for consistent dietary recommendations for future research and clinical practice. With this information, health care providers will be more effective in assisting AAW to improve food practices

within their unique sociocultural context and thereby improve their diabetes control and decrease morbidity, mortality, and costs of this disease in this population overburdened by diabetes.

Appendices

APPENDIX A: TABLES

Table A.1 Qualitative Research studies of Dietary Practices of AAW with T2DM (in chronological order)

Author(s)/year	Purpose of study	Study design/ Setting	Subjects (sample)	Findings-major/ themes
Murrock et al. 2013	Explore the challenge of self-mgmt of diet in AAW living w/ T2DM	• Phenomenology • 4 focus grps • Content analysis • Sessions 45-75 mins Akron, OH	• 24 • AAW • Mean age=47.7 • DM duration=8.9 yrs	• Frequent difficulties/struggles managing DM • Need for individualized guidance • Support needed • Misinfo or gaps in DM edu
Bhattachary, G. 2012	Explore underlying factors influencing the promotion of T2DM SM among adult AA	• Duration 1 month • Narrative interviews • Content analysis • Sessions 60-90 mins	• 31 • 52% AAW	• Lifestyle changes expected after T2DM dx, eating habits: limit portions potatoes, rice, red meat, & sugar; use less fat & fry food less often when they cook
Onwudiwe et al. 2011	Explore the pts perceptions about barriers to DM self-mgmt	• Duration 4 mos • Qual. descriptive • 4 focus grps • Content analysis • Sessions 60 mins Baltimore, MD	• 31 • AAW majority • Mean age=74	• Positive & negative info from HCP • Eating habits: less red meats, sweets & starchy foods, difficulty reading labels • Control DM w/ vegetables & less meat • Foods decrease BG: vinegar, lemon juice, water, vegetables, broiled chicken, turkey bacon, & fish
Pierre-Louis et al. 2011	Understand the experience of AAW living w/ DM, & envision new patterns of health by engaging women in dialogue about the meaning of their experience	• Duration 18 mos • Narrative interviews • Interpretive phenomenology + Community Based Collaborative Action Research • Sessions 45 mins -3 hrs • "Living the Sweet life"- community input MN	• 7 AAW • Mean age=51 • DM duration=5 yrs	• Extreme life stress: physical & sexual abuse, traumatic death of loved one & domestic violence • Rising & falling of BG + stress of trauma & loss • Lack of mentorship & sister friends • Connection w/HCP • Food as a source of comfort & stress: cooking for others source of pride, healthy food choices-stress & shame (managing own food choices) • Blocked energy: unfulfilled edu goals, & missing nurturance • God source of strength • Community-support from different sources

Table A.1 Qualitative Research studies of Dietary Practices of AAW with T2DM (in chronological order)

Author(s)/year	Purpose of study	Study design/ Setting	Subjects (sample)	Findings-major/ themes
Chlebowy et al. 2010	Identify facilitators & barriers to self-mgmt of T2DM among AA adults in a urban community	• Qual. descriptive • 7 focus grps (4 grps women, 3 grps men; each with 3-6 participants) • Content analysis • Sessions 60-90 mins Southeast US	• 38 AA • Female 71% • Mean age= 66 • DM duration =10 yrs • Mean Edu =82% high school & above	Perceived Facilitators: • Family support: from females w/ med adh • Knowledge: associated w/ perceived self-efficacy to DM manage • Peer support: support groups Perceived Barriers: • Time consumption of disease • Lack of self-control at social events • Memory failure in daily activities: meds, SMBG, & eating
Jones et al. 2008	Examine the impact of family & friends on the mgmt of persons w/ DM and willingness to be involved in culturally tailored program	• Mix-method: quasi-experimental & • Qual. description • 2 discussions grps family/friends, • Content analysis Rural county in VA	• 6 AA	• Family & peer involvement with DM mgmt • Battle sweets & unhealthy foods in house b/c of other family members, & own temptations • Difficulty controlling DM • Loss of control • Positive attitude & prayer coping mechanisms
Utz et al. 2006	1) ID facilitators & barriers to self-mgmt; 2) describe use of prescribed & alternative therapies; 3) Elicit DM program recommendations	• Qual. descriptive • 10 focus grps (women and men separate grps) • 8-10 participants each/ • content analysis Atlanta, GA	• 73 AA • Female 58% • Mean age=60 • DM Duration 12	• Healthy eating challenges; managing appetite & cravings, avoiding sweets, cooking food stop buying prepared foods, & drinking water • Lack of problem solving skills • Taking prescribed meds important, w/ supplements Barriers to daily self-mgmt: • Med/supplies cost, Living with DM daily • complex DM regimen & daily demands • Managing other conditions: HTN, arthritis, etc • Stress mgmt., Lack of DM edu • Stigma of DM Facilitators: • Seeking info • Religion a means of coping • Foods: avoid temptation, change whole family's eating patterns

Table A.1 Qualitative Research studies of Dietary Practices of AAW with T2DM (in chronological order)

Author(s)/year	Purpose of study	Study design/ Setting	Subjects (sample)	Findings-major/ themes
Wenzel et al. 2005	Describe facilitators & barriers to self-management for AA w/ T2DM 2)Compare experiences of men and women, & 3) Solicit program recommendations	• Qual. descriptive • 2 focus grps (separate grps for women & men) • Content analysis VA	• 5 AA • Female 60%	• DM dx a "matter of fact" • DM a betrayal by body; unpredictable • The provider-pt-family r/s: friendly, & positive yet conflicts in recommendations & pt desires • Self-mgmt : regular PA, diet, w/ will-power & planning • Difficulty getting help (financial & social), less "will-power" in self-mgmt
Nthangeni et al. 2002	Determine dietary intake, practices, knowledge & barriers to dietary compliance of Black South African T2DM	• Mix-method: survey & Qual descriptive • In-depth interviews • Content analysis Sheshego South Africa	• 25 Black South African	• Confusion regarding quantity & types of foods • Received dietary advice from multiple sources • Alternative tx • Few changed eating habits despite advice
Anderson-Loftin & Moneyham 2000	Explore the long-term disease mgmt needs of individuals w/ DM	• Qual. descriptive • 2 focus grps • Content analysis • SC	• 22 T2DM • AA Female 68% • Whites 18% • Mean age= 55 • DM duration =7ys • Mean Edu= 11 yrs	• Symptom mgmt • Making healthy choices - Changes: old eating habits, food cravings, southern AA culture & lifestyle, access to tempting foods, policing of diet or food choices by others; facilitators: positive support for changes DM program recommendations: DM cooking classes; discussion grps, meds edu, community & client DM education, culturally-sensitive services
Samuel-Hodge et al. 2000	ID culturally relevant psychosocial issues & social context variables influencing lifestyle behaviors- diet & PA of southern AAW with DM	• Qual. descriptive • 10 focus grps • Content analysis • University-based Community centers	• 70 AAW	• Spirituality/religiosity: discussing health, life satisfaction, social support, coping techniques, & stress mgmt • DM impact: physical & psychological (nervous, tired, worrying about complications & dietary deprivation • Multi-caregiver role-barrier to diet & PA • Social support-daughters & God
Blanchard et al. 1999	Explore the perspectives of AA persons regarding the impact of DM and 2) Elicit opinions about DM edu program	• Qual. descriptive • 2 focus grps • Content thematic analysis • Sessions120 min • Health care facility in MD	• 16 AA • Female 44% • Mean age=51.8 • DM duration =8.58yrs • Mean Edu=12 yrs	• Powerless over the illness • Powerless over food: frustrated about dietary restrictions; uncontrolled food preferences • Fear r/t complications • Program preferences: grp environment, easy location, no cost.

Table A.1 Qualitative Research studies of Dietary Practices of AAW with T2DM (in chronological order)

Author(s)/year	Purpose of study	Study design/ Setting	Subjects (sample)	Findings-major/ themes
El-Kebbi et al. 1996	ID potential barriers to dietary adherence among low-income, urban black pts with NIDDM	• Duration 16 wks • Qual. descriptive • 16 discussion grps & 3-5 participants each • Content analysis • 30 mins	• 45 AA • Female 62% • Mean age=52 • DM duration =7.7yrs	• Adhering to recommended DM meal plan-difficult • Habitual: difficulty to change unhealthy food habits • Economic: healthy foods expensive • Social: lack of support from family members for dietary changes; adherence at social events; time-consuming to prepare 2 different meals • Conceptual: food exchange system; reading food labels frustrating; errors made after thought to choices

AA(W)=African Americans (women); DM=diabetes; DMSC= diabetes self-care; dx= diagnoses; edu=education; grp(s)=group(s); HCP=health care provider; ID=identify; min=minute; mos=months; PA=physical activity; pts= patients; Qual.= qualitative; self-mgmt= self-management; SM=self-monitoring; SMBG=self-monitoring blood glucose; T2DM=type 2 diabetes.

Table A.2 Research studies of cultural competent, dietary based interventions for AA Adults with type 2 diabetes (1989-2012)

Nutrition

Author(s)-(year)	Purpose of study	Study design/ Setting	Subjects (sample)	Description of intervention	Measures	Major Findings
Anderson-Loftin, et al. (2005)	Test effect of a dietary self-mgmt intervention on physiological outcomes & dietary behaviors for AA	Quasi-experimental, pretest-posttest control grp; 3 primary care practice in SC	97-AA, Female 78%, Mean age 58.9, Mean A1C 7.8, BMI>25	4-wkly: 1½ hr classes focused on planning, purchasing, preparing healthy low-fat meals, healthy choices eating out; grp discussions, & f/u by RN-case manager	A1C, wt, ht, BMI, FHQ (25-items scale measuring food intake), chol	SS changes achieved in lower BMI (P=.009 decr. of .81kg/mm^2), & FHQ (P=.005 decr. to 2.4), no difference in A1C P=.518 (started low), wt (women lost 1.5lbs; men gained 5.4lbs), & chol P=.731
Ziemer,et al. (2003)	Compare a simple meal plan of healthy food choices with transitional exchange-based meal plan reducing A1C in AA	RCT; The Grady Health System diabetes clinic in Atlanta, GA	648 , 90% AA, Female 65% Mean age 52y.o., yrs of DM 4.8, Mean A1C 9.4	6 mos: dietary counseling: RD- initial visit (1hr) & 30min subsequent clinic visit(3); planning menus, preparing foods, interpreting food labels, healthy food choices	FFQ, 24hr recall, Kristal fat screener (fat-containing foods), A1C, changes in wt, lipids & BP	Both gr(s): decr. fat intake (P=.07), sugar-containing foods (P=.09), wt lost (P=.02); lower triglycerides; No changes: in LDL (both gr P=.15), or BP; HDL incr. (P<.001 both gr), A1C (decr. 9.7 to 7.8, P=.12 b/t gr). No difference b/t grs
Anderson-Loftin et al. (2002)	Dietary self-mgmt interv to improve physiological outcomes, DM self-mgmt, & cost of care for AA with T2DM	Quasi-experimental, 1-group pretest-posttest. Medically underserved rural county in SC	23-high-risk AA Female 73%, Middle age, yrs of DM= 10,	9 mos: 4-low-fat dietary ed classes- from food pyramid by RD & RN; followed by 30min-1hr peer discussion grps, mthly until end of interv. F/u phone calls/home visits-RN case manager	FBS, A1C, lipid profile, BMI, BP, adopted FHQ: food habits questionnaire	Decr. A1C (P=.0106), FBS (P=.0176), wt loss (mean loss of 5% body wt) & decr. chol. (reduction of 17%), & BP non-SS; Significant improvement in dietary habits (P=.005)
Mayer-Davis, et al. (2004)	Develop, implement, & evaluate a 1-yr primary care–based lifestyle intervention for wt mgmt to improved metabolic control	RTC; 2 health centers in SC	152: 82% AA, Female 80% , Mean age= 60, yrs of DM 11, Mean BMI= 36.7	12-mth: nutritionist led 2 interv grps: ILI (lifestyle interv) 4-1hr sessions + 3 grp sessions +1 individual session RLI (reimbursable-lifestyle interv)-grp counseling sessions meet wkly - 4 mos nutrition; 2 mths biwkly, & 6 mos (1x/mth)- behavioral strategies (diet-modification)	At 3, 6, 12 months: wt loss, ht, BMI Secondary: A1C, lipid profile (total chol, HDL, LDL, TG), BP	Wt loss @6 mos ILI gr (p<.0001). other grps no SD Wt. loss @12 mos ILI gr loss 2.2kg (P<.003); UC (usual care) 0.3kg (P=.005) No SD b/t RLI & UC grs @12 mos A1C decr: UC gr 1.1 (P<.01), ILI gr 1.6 (P<.01), & RLI grp 0.8 (P<.05) Secondary measures: No SD b/t IL & UC grps or b/t RLI & UC grps- all grs improved

Table A.2 Research studies of cultural competent, dietary based interventions for AA Adults with type 2 diabetes (1989-2012) *cont.*

Weight Management						
Author(s)-(year)	**Purpose of study**	**Study design/ Setting**	**Subjects (sample)**	**Description of intervention**	**Measures**	**Major Findings**
Rimmer, et al. (2002)	To determine if a gr of low-income, low-education AAW could improve health outcomes with a carefully structured health promotion intervention	Quasi-experi-mental single-group, pretest-posttest design, in Chicago, IL	30-AA Female 80% , Mean age 54.9, Ed= 47%<high school	12 wks: 3-days/wk, for 3 hrs;. Exercise, health education-by RN, and nutrition, by RD, each for 1 hr.	A1C, total chol, lipid panel, exercise (physical), strength, nutrition (dietary fat intake, 7-day FFQ, nutrition knowledge, self-efficacy for eating a low-fat diet).	Decr. in total chol (P<.03), LDL (P<.005); no significant changes: HDL, triglycerides, FBS, wt. or A1C. Incr. in cardiovascular fitness (P<.01), and muscular strength (P<.0001); nutrition-SS in Rate your plate (P<.01) scale (P<.01), self-efficacy (P<.001), and percent fat intake (P<.05)
Keyserling, et al. (2000 and 2002)	To improve dietary and physical activity behaviors of AAW with T2DM	RCT; clinic (B) vs. clinic +community (A) vs. control (C); seven practices in central NC.	200-AAW, Mean age 59 years, yrs of DM 10.5, Mean A1c 11.1	6 mos: 4 clinic-based visits, 12 telephone contacts and 3 group sessions focusing on diet (provided by nutritionist), physical activity, and diabetes care ed. With 1 yr f/u	DRA, and PAA, PA with Caltrac accelerometer, A1C, lipids, wt	Gr comparison: PA @ 12mos A vs. C P=.019, @ 6 mos B vs. C P=.036; no SS A vs. B; Decr. in all grs, but not SS, for intake of saturated fat , chol, & total energy intake ((P=.98, P=.18, P=.85); All participants gained wt (gr P=.52), little effect: A1C, and HDL (P values of 0.73, .51, & .15, respectively)
Mayer-Davis, et al. (2001)	To confirm feasibility, and the effects of a research-based wt loss intervention	RCT; rural medically under-served community, SC	33 -96% AA, Female 82%, Mean age 64.03, Mean BMI=37.9	8-wk: 2-individual & 6-group sessions by interventionist discussing low-calories/low-fat diet, moderate physical activity	Wt, ht, BMI, FBS	Wt loss 78% at 8 wks (both gr P<.05). BMI (-.44+/-.71,P=.01). Significant improvements in the FBS (-24.23 +/-48.24mg/dl P=.05).
Agurs-collins, et al. (1997)	To evaluate a culturally appropriate wt loss and exercise program designed to improve DM in older AA.	RCT; urban hospital in Washington, DC.	64-AA, Female majority, A1C>10%	6 mos:12-wkly group sessions, 60 minutes nutrition education by RD, 30minutes of PA by exercise physiologist; 1 individual diet counseling session	A1C, lipid levels, BP, wt, and ht; 1-wk FFQ & nutrition knowledge questionnaire, PA scale for elderly,	At 6 mos- decr. in wt (women P=.007, and men P=.026), A1C (women P<.001, and men P<.01). Chol, and HDL no SD. BP (P<.10); Inc. in PA (P=0.001 overall, & women P=.001) significant improvement in nutritional knowledge and nutrient intake at 3 mos but decrease to non-significant at 6-mos.

Table A.2 Research studies of cultural competent, dietary based interventions for AA Adults with type 2 diabetes (1989-2012) *cont.*

Weight Management *cont.*

Author(s)-(year)	Purpose of study	Study design	Subjects (sample)	Description of intervention	Measures	Major Findings
McNabb et al. (1993)	Test a culturally appropriate long term wt loss program for AAW.	Qusi-experimental	13-AAW, Mean age 57 yrs of DM 9, Mean BMI 34.2	12-wkly: session on nutrition, and encourage 20-30min PA a week, follow by 6 group sessions.	Wt, A1C, nonFBS	At 1 yr. follow-up. Decr. wt (from 205.7lbs to 195.9lbs, P<.008) , BMI (P<.001). Decr. in A1C at end of study (from 12.8% to 10.2%, P<.001), incr at 1 yr f/u
Magee et al (2011)	Examine feasibility & impact of a concise community-based DSME program on the frequency of ED visits & knowledge of, prescriptions for, & control of A1C, BP, & LDL	Quesi-exp: pre/posttest design	272- AA 92%, Female 82% Mean age 59.9 yrs of DM ≥6yrs HS /GED or higher 93%	6 mos: 2.5 hr interactive gr sessions ABC's of DM (class 1-A1C & BG, meds, BP mgmt, preventing vascular complications, MD communication, appts; class 2-chol, diet, PA, wt mgmt, smoking cessation, meal planning, cut fat, portion size)	At baseline & 6 mos postinterv. Meds, ER utilization, DM knowledge questionnaire & MI DM training Centers DM Empowerment Scale-shot form, BP, A1C, LDL	A1C (p<.001), BP (P<.001), LDL (P<.001), following meal plan/diet (P<.001), PA not SS, DM self-efficacy (P<.001), taking chol-lowing drugs (P=.03), no SS in DM oral, insulin, BP/aspirin medis, ER visits (P=.0043).
Spencer et al. (2011)	Test a culturally tailored CHW (community health worker) for DM self-mgmt	RCT-Detroit, MI	164-57% AA, Female 70%,	11 -2hr gr sessions every 2 wks: DM, stress, stress reduction, & depression; PA, increasing fruits/vegetables, decrease dietary fat & sugar intake, behavioral changes; delivery by community workers	A1C, LDL, cholesterol, BP, SDSCA (adherence to healthy eating, BRFSS (PA, fruits & vegetables intake, soda intake, fruit drinks	A1C: change score from baseline to 6mos -0.8%-age points (P<.01), LDL: (P<.05); BP not SS; PA both grps SS (P<.05 and P<.01 c-grps), no difference b/t grps. SS increase vegetable intake for control grp, not the intervention grp Change scores - fried/ fatty foods, fruity/soda drinks no SS.
Melkus et al. (2010)	Evaluate effective of a culturally relevant PC nurse-led intervention gr DSMT, CST, and DM care for black women with T2DM	Prospective RCT; & repeated measures; primary care center & adjacent school of nursing	109-AAW, Mean age 49.5, Mean A1C 8.15± 2.15,	Intervention: 11 wkly grp sessions; 1st 6-2hrs sessions DSMT: DM, complications for AAW, cultural support & barriers; last 5 wks 1hr gr session coping skills training: stress, problem solving, & communications	A1C, BP, LDL, HDL, TG, wt	Both gr: A1C p<.0001, LDL p=.04, TG p=.007, SBP p=.009, increase in HDL p<.0001, FBG p=.10 & unchanged wt; family support both gr p=.05, self-management efficacy time #1 p=.04, time #2 not SS, exercise p<.0001, diet p<.0001

Table A.2 Research studies of cultural competent, dietary based interventions for African Americans Adults with type 2 diabetes (1989-2012) *cont.*

Nutrition plus multifaceted care skills *cont.*						
Author(s)-(year)	**Purpose of study**	**Study design**	**Subjects (sample)**	**Description of intervention**	**Measures**	**Major Findings**
Walker et al. (2010)	To assess the effectiveness of a DM educational intervention aimed at incr. self-management behaviors	Quasi-experimental; self-selection to intervention and comparison grp Prince George's county, Wash. DC	195 -AA inter grp 145: Female 80% Mean age 61.86, control grp: 50: Female 80% Mean age 58.3	3-2hr intervention sessions-session 1-info on diabetes session 2-diet and exercise session 3-medication	Exercise, benefits/barriers scale; socio-psychological; biological; BMI, A1C, frequency of exercise, stages of change	Significant incr. in DM-KQ scores (p=0.00) for intervention gr from baseline to 6mnth f/u. but no SS b/t grp for baseline to f/u score. Intervention gr: decr. in % A1C that was >7% (41.9 to 39.4%). No diff b/t groups on high to moderate level of self-efficacy; no diff. b/t grps. Perceived problems r/t DM; barriers 2/5 of intervention grp. perceived many barriers
Skelly et al. (2009)	To test effectiveness of the symptom-focused DM intervention, compared to a control grp focused on mgmt and diet skills training	RTC-3 grs experimental design; five rural counties in the southeast	180 -AAW, mean age 67,yrs of DM 12, Mean A1C 8.3%, 8.2% experienced DM symptoms	9 mos: 4-60mins. counseling sessions; bi-monthly HV by nurse. address sxs: Hyper/hypoglycemia, numbness/tingling, & prevention of cardio-symptoms. 4-phone booster calls 15mins/2-3 mos for 12wks. *Attentional control condition gr*: wt & diet program; 60 min x4. modifying fat & Na, counting carbs, reading labels, portion sizes, healthy fats, ↓ saturated fat w/ exercises, shopping list, & recipes	A1C, DMSC practices questionnaire	No SD b/t grs in any area. However, entire sample had significant improvement in A1C P=0.01, DMSC practices (SMBG, DIET, MED ADH, PA, FOOT CARE) no SS effect

Table A.2 Research studies of cultural competent, dietary based interventions for African Americans Adults with type 2 diabetes (1989-2010) *cont.*

Nutrition plus multifaceted care skills cont.						
Author(s)-(year)	**Purpose of study**	**Study design**	**Subjects (sample)**	**Description of intervention**	**Measures**	**Major Findings**
Two Feathers et al. (2005)	Is there a significant diabetes-related knowledge and behavioral changes, and glycemic control in AA and Latinos	1 gr pre/posttest design; in Detroit, MI	111-participants 64% AA, 80% female, mean age 59, mean A1C8.4%	6/02-10/02; 5-2 hr gr meetings Q-4 wks on DM, stress, stress reduction, & depression. PA, increasing fruits/vegetables, decrease dietary fat and sugar intake, behavioral changes; delivery by community workers	A1C, BP, total chol, wt, ht KQ(s) on diet, exercise; Behavioral Risk Factor Surveillance survey. Summary of DMSC activities questionnaire.	Healthy eating & DM knowledge incr. DM (P=.013), vegetable intake incr. (P=.001), pouring fat off meats (P=.001), decr. Soda/fruit beverage (P<.001), healthy eating plan (P=.004). PA: No significant change; A1C (P<.0001 AA). BP, wt, & chol: no SS changes
Samuel-Hodge et al. (2009)	Promote changes in dietary, PA, meds adherence, SMBG. Support for self-mgmt behaviors. Build church' capacity to incre DM awareness.	Group RCT; of 24 AA churches in NC	201 AA:- Female 2/3, Completed HS- most, yrs of DM 9 Mean A1C 7.8	12 biwkly grp sessions 90-120mins, + 15 min PA, and taste testing of recipes. 1hr counseling visit with RD for each participant CDA (church DM advisor) conducted mthly phone calls	Data collected at 8 & 12 mos A1C, wt, BP, PA (acti-graph), FFQ, DM knowledge	8 mths-A1C SD b/t grps (P=0.009) but non-significant difference at 12 mos (P=.33); no SD b/t grps with dietary except in % of calories from trans fats (P=.05); PA at 12 mos little change in light and moderate PA; SD in DBP (P<.001); DM knowledge (P=.003); no SD in general health status; mental wellbeing (P=.004)
Utz et al. (2008)	Evaluate a tailored intervention for rural AA, Group verses individual DSME.	Quasi-experimental design; randomly assigned to grp or Individual DSME. Community center in VA	22 AA - 81% female, mean age 60, ed 6th-PhD, yrs of DM 9	Group DSME held weekly, for 2 hrs over 8 weeks. Individual DSME meet 3 times over 8 weeks by CDE. DSME had 7area covered-healthy eating, being active, monitoring, taking meds, problem solving, reducing risks, and healthy coping.	At baseline & 10wks; A1C, self-mgmt actions, self-efficacy, goal achievement-7 self-mgmt behavior tracking	No SS grp differences in outcome, but clinical improvement in following: grp DSME (A1C -.32, improved PA, and carb spacing +2.27) vs. individual (A1C -.24, decr. in carb spacing ->-.14).

Table A.2 Research studies of cultural competent, dietary based interventions for African Americans Adults with type 2 diabetes (1989-2010) *cont.*

Nutrition plus multifaceted care skills cont.

Melkus et al. (2004)	To test the feasibility of a culturally competent intervention of education and care for black women with type 2 DM	Quasi-experimental pretest/ post test.In General Clinical Research Center	25 AAW , average age 52 y.o., yrs of DM 5.4, mean A1C 8%,	6 wk–wkly grp meetings included proper BG meter use, DM ed., PA, goal attainment, macronutrient composition of food grs, cultural barriers to dietary change and wt control; diet behaviors -recipes, calories, reading food labels, meaning of food. Mthly visits by Advanced practice registered nurses to reinforce content.	At baseline, 3 mos post intervention. DM knowledge, self-efficacy outcome expectancies, Distress using-Problem areas in DM (PAID). Ht , wt, BMI, A1C	Significant improvement of A1C from 8% to 6.9%(P=.002); SD in BMI (P=.005); non-SD in DM knowledge; SD in DM emotional distress (P=.01)

A1C=glycosylated hemoglobin; AA(W)=African Americans (women); BG=blood glucose; BMI=body mass index; b/t=between; chol=cholesterol; decr.=decrease; DRA=dietary risk - assessment; DM=diabetes; DMSC= diabetes self-care; DSME=diabetes self-management education; ed=education; FBG=fasting blood glucose; FFQ=food frequency questionnaire; grp=group; HV=home visits; incr=increase; interv=intervention; min=minute; mos=months; info=information; KQ=knowledge questionnaire; PA(A)=physical activity(assessment); Q=every; RD=registered dietitian; SD=significant difference; SS=statistically significant.

APPENDIX B: FLYER AND FORMS

African-American Women with Type 2 Diabetes and Food Habits

This is an investigation in order to describe cultural food selection, preparation, and eating habits of African American women with type 2 diabetes.

If you are:

- African-American woman with type 2 diabetes for at least 2 years
- Age of 35-70 years
- Cook for your family
- Able to drive

Participation include:

- Accompanied to a church dinner
- Grocery shopping
- Cooking a meal
- Interview
- $$ for your time

Please email or call me and I will explain more !

All information is confidential!

Contact Lisa Sumlin, RN, ACNS-BC

The University of Texas at Austin School of Nursing

1710 Red River

Austin, TX 78701

512-791-1174

Email: Lisal59@hotmail.com

Consent Form

Title: Culture and Food Practices of African-American Women with Type 2 Diabetes

Conducted By:

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You are being asked to participate in a research study. This form provides you with information about the study. The person in charge of this research will also describe this study to you and answer all of your questions. Please read the information below and ask any questions you might have before deciding whether or not to take part. Your participation is entirely voluntary. You can refuse to participate or stop participating at any time without penalty or loss of benefits to which you are otherwise entitled. You can stop your participation at any time and your refusal will not impact current or future relationships with UT Austin or participating sites. To do so simply tell the researcher you wish to stop participation. The researcher will provide you with a copy of this consent for your records.

The purpose of this study: The current state of the literature lacks the understanding of what it is like to have to balance diabetes, cultural beliefs, and food practices for African American women with type 2 diabetes. Therefore the purpose of this dissertation research project is to begin to better understand food practices and how these practices are impacted by common values, beliefs and behaviors. There will only be 20 participants for this study**.**

If you agree to be in this study, we will ask you to do the following things:

- Fill out a short demographic form that will include information such as age, marital status, number of persons living in the home, etc.
- The first session, which will include an observation session at the participant's church fellowship dinner, will be included if less than 2 observations have been completed at that particular church.

- The second session will include meeting at the grocery store followed by a meal preparation in your home.
- The second session will end with an interview that will be tape recorded and may last for 15 minutes to one hour.

Total estimated time to participate in study is approximately ten hours. Grocery shopping and meal preparation could range from 1-4 hours. The interview will following each session and could range from 15 minutes to one hour. If the church observation is included the time spent could range from 2-5 hours.

Risks of being in the study are minimal. You may become tired or uncomfortable from PI observation or participation in grocery shopping and meal preparation. You may choose to end or re-schedule the interview if you become too tired or uncomfortable at any time. If an "unanticipated problem" should occur, such as a medical emergency, the emergency department will be immediately notified at your expense.

A benefit of being in the study is that you will be given the opportunity to talk about your feelings and any issues you may have about controlling your diabetes with diet. You will be adding to the body of knowledge in order to help other African-American women that may be having difficulty with controlling their diabetes with diet.

Compensation:
- Each participant will receive literature on living with type 2 diabetes and nutrition and $50 cash.

Confidentiality and Privacy Protections:
- The dinner, if the PI is invited and family members are not present, then interviews will be audio taped;
- All research data including tapes will be coded so that no personally identifying information is visible on them;
- Tapes will be kept in a locked cabinet and locked computer at the University of Texas at Austin in the PI's office.
- Tapes and documents will be heard or viewed only for research purposes by the investigator and his or her associates, and transcriber.
- If the results of this research are published or presented at scientific meetings, your identity will not be disclosed.
- For possible future analysis the investigator will retain the recordings for up to 3 year.

The records of this study will be stored securely and kept confidential. Authorized persons from The University of Texas at Austin, members of the Institutional Review Board, and (study sponsors, if any) have the legal right to review your research records and will protect the confidentiality of those records to the extent permitted by law. All publications will exclude any information that will make it possible to identify you as a participant. Throughout the study, the researchers will notify you of new information that may become available and that might affect your decision to remain in the study.

Contacts and Questions:
If you have any questions about the study please ask now. If you have questions later, want additional information, or wish to withdraw your participation call the researchers conducting the study. Their names, phone numbers, and e-mail addresses are at the top of this page. If you would like to obtain information about the research study, have questions, concerns, complaints or wish to discuss problems about a research study with someone unaffiliated with the study, please contact the IRB Office at (512) 471-8871 or The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects at (512) 232-2685. Anonymity, if desired, will be protected to the extent possible. As an alternative method of contact, an email may be sent to orsc@uts.cc.utexas.edu or a letter sent to IRB Administrator, P.O. Box 7426, Mail Code A 3200, Austin, TX 78713.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read the above information and have sufficient information to make a decision about participating in this study. I consent to participate in the study.

Signature:_____ Date: _____

_____ Date: _____
Signature of Person Obtaining Consent

Signature of Investigator:_____ Date: _____

Demographic Form

1. How old are you? _____

2. How many years have you had diabetes? _____

3. What is your race/ethnic background? _____

   For example: Born in US, Africa, Haitian, or Nigeria

4. How long have you lived in the US? _____

5. How long have you lived in Texas? _____

6. Marital status
   a. Single
   b. Single but living with someone
   c. Married
   d. Divorced
   e. Widowed

7. How many people are living in your home? _____

8. How many persons in the home are younger than 18?
   a. 1
   b. 2
   c. 3
   d. 4
   e. ≥5
   f. 0

9. Educational level
   a. Up to high school
   b. High school graduate/GED
   c. Some college
   d. College graduate

APPENDIX C: SAMPLE STATEMENTS & QUESTIONS TO GUIDE INITIAL INTERVIEW

1. Tell me about a typical day beginning when you wake up in the morning until bedtime.
2. Tell me about a meal you and/or family members would cook for a holiday such as Christmas.
3. What does soul food mean to you?
4. Tell me about comfort foods, foods that make you feel better if unhappy or upset.
5. When did you learn you had diabetes?
6. As an AAW do you feel your food choices changed because of your diabetes?
7. What type of food changes were you told to make because you have diabetes?
8. After your diagnosis of diabetes how did your eating habits change at family gatherings or holidays?
9. How do you prepare daily meals differently since your diagnosis?
10. What types of foods do you chose to eat at church fellowship dinners?
11. What types of foods do you chose to eat at or from restaurants?
12. Who taught you how to cook?
13. What was your favorite meal to prepare?
14. Is it important to you that people you cook for enjoy your cooking?
15. Do you get enjoyment from eating?
16. Do you get enjoyment for seeing others eat your cooking?
17. When you learned you had diabetes, did you lose enjoyment for eating/ cooking?

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Vita

Lisa L. Sumlin was born and raised in Detroit, Michigan. After graduating from a local High School she went on to receive her Bachelor of Science degree in Physiology from Michigan State University in 1991. While working on a Master degree in education she taught for the Detroit Board of Education at an elementary school. In 1997 she relocated to Austin Texas and continued as an educator for two years before returning to her passion for the health care field. In 2003 she received her RN degree from Austin Community College and took a staff nurse position on a medical surgical unit at St. David's Medical Center. As a staff nurse her nursing interest became more focused on diabetes thus leading her to receiving her Master's degree in Nursing from the University of Texas at Austin, School of Nursing. In 2008 she took a position as a Board Certified Adult Clinical Nurse Specialist (ACNS-BC) at Austin Diagnostic Clinic in the Endocrinology department providing care to patients with diabetes. During this position an opportunity developed leading her to pursue her doctoral studies at the University of Texas at Austin, School of Nursing. Lisa continues to volunteer at a local clinic as an ACNS-BC providing care to patients with diabetes as well as providing diabetes education classes at the Reflection of Christ's Kingdom (The R.O.C.K) church in Round Rock, Texas.

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