

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF BIOBEHAVIORAL HEALTH

DIABETES KNOWLEDGE, MANAGEMENT, AND PREVENTION IN HAITIANS: A
MIXED METHODS EXAMINATION

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SPRING 2015

A thesis
submitted in partial fulfillment
of the requirements
for a baccalaureate degree in Biobehavioral Health
with honors in Biobehavioral Health

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ABSTRACT

Chronic disease is becoming an increasing public health problem in the United States, disproportionately affecting minorities at higher rates. Blacks have increased risk; however, there is limited research exploring the similarities and differences in outcomes within large racial classifications such as 'Black'. It is imperative to disaggregate large racial-ethnic groups in order to optimize health outcomes in populations associated with the African Diaspora (Huffman et al., 2011). Through focus groups, this research aims to generate culturally framed insight into diabetes knowledge, management, and prevention among Haitian immigrants. These messages will be grounded in the cultural context of local family structures. This study recruited 20 Haitian participants who were at-risk/diagnosed with diabetes through a Philadelphia church-based population; the mean age was 64 (SD=14.1). A cross-sectional survey and two focus group interviews were employed; surveys were analyzed using SPSS and interviews were recorded and transcribed verbatim. Of the 20 participants, 16 were diagnosed with diabetes, 11 were diagnosed with hypertension, and 10 were diagnosed with both diabetes and hypertension. Guided by the PEN-3 Cultural Model, content analysis revealed these emergent themes: sense of imminent diagnosis (perceptions), culturally competent health educators (enablers), and familial support (nurturers). Findings suggest the utilization of Community Health Workers; health education should be targeted within familial and religious constructs. Future research should explore cultural sensitivity and competence in health information provided by doctors/nurses for effective diabetes management and prevention.

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ACKNOWLEDGEMENTS

The author would like to acknowledge funding from the Schreyer Honors College which supported this work. The author would also like to acknowledge the leader of the Philadelphia Haitian Baptist congregation, Pastor Fontenelle Philogene, for his open approval of this research as well as thank the research subjects for their participation. Author Rhoda Moise would also like to acknowledge Drs. Lori Francis and Rhonda BeLue for their guidance and support as honors advisors. Additionally, Dr. Rhonda BeLue played an integral role in Moise's research interest development during her research experience abroad, which provided Moise with firsthand exposure into the escalating, worldwide prevalence of chronic disease. Specifically, Moise accompanied Dr. Rhonda BeLue on a trip to Senegal, West Africa where she helped conduct 50 home visits to learn about nutrition and exercise habits among community members with diabetes in MBour, Senegal. This experience helped frame Moise's vision to generate culturally-framed data that will inform diabetes management and prevention in Haitian adults. Author Moise would also like to thank Dr. Joseph Gyekis who provided guidance in support of the methodological portion of this paper.

Chapter 1

Background

The demographics of the United States of America, a nation of immigrants, trend towards an older and more racially diverse population. By 2050, minorities are projected to comprise more than half of the U.S. population (U.S. Census Bureau, 2014). Over the last 50 years, the U.S. immigrant population has more than quadrupled; moreover, the most recent calculations report immigrants as 13% of the U.S. population (Nwosu, Batalova, & Auclair, 2014). Immigrants migrate to the U.S. for social, political, and economic reasons. Unexpectedly, many unexpectedly display better health outcomes than U.S. born individuals. This phenomenon, referred to as the “immigrant paradox”, suggests immigrant families exhibit cultural health behaviors, which may protect against undesirable health outcomes (Mendoza, 2009). However, as their length of time in the U.S. increases, immigrant health worsens and begins to mimic those of U.S.-born citizens; moreover these trends may be attributable to immigrants adopting U.S. behaviors such as smoking and poor dietary habits. Additionally, many immigrants live in urban neighborhoods with limited access to health care, physical activity, and fresh produce (Hamilton, 2012).

From the 20th to the 21st century, causes of death in the United States have shifted from infectious diseases, such as tuberculosis and influenza, to more lifestyle-related chronic diseases. Sedentary lifestyles, paired with poor diets and an aging population, contribute to the U.S. growth in chronic disease prevalence. The baby boomers of the 1950s directly contribute to the shift towards an older U.S. population. Although the immigrant population and U.S. born population have similar proportions of people age 65 and older, the immigrant population is older overall (Nwosu, Batalova, & Auclair, 2014). A 2012 study utilizing data from The Bogalusa Heart Study confirmed previous findings that the onset of diabetes increased in age (Nguyen, Xu, Chen, Srinivasan, & Berenson, 2012). However,

the overall upward-bound trend in chronic disease is not isolated to the U.S. In fact, current estimations for the growing type 2 diabetes epidemic total at 387 million worldwide with exponential increase projected by 2050 (International Diabetes Federation, 2014; Boyle, Thompson, Gregg, Barker, Williamson, 2010). However, the distribution of diabetes and cardiovascular disease disproportionately affects underserved populations at higher rates than their non-Hispanic white counterparts (Frieden, 2013).

Economic Burden of Health Inequities

A 2009 study commissioned by the Joint Center for Political and Economic Studies illustrated the economic burden of health inequities in minority populations. Over a four year-span, excess expenditures totaled at more than \$1.24 trillion as direct and indirect medical costs for minorities (LaVeist, Gaskin, & Richard, 2009). Issues such as limited healthcare access, provider mistrust, food deserts, and lack of physical activity promoting environments partially account for the discrepancies in health outcomes. Proactively addressing these issues may drastically diminish the burden on U.S. health economy in return.

Research Rationale- Diasporic Discrepancies

While chronic diseases, such as diabetes, affect populations at different rates, there is limited research exploring the similarities and differences between African Americans and other populations affected by the African Diaspora; namely Caribbean/African immigrants. Recent studies have demonstrated salient differences in diabetes prevalence and management between African Americans and Haitian Americans. Meanwhile, according to the U.S. Census Bureau, the demographic of individuals with Haitian ancestry has been increasing exponentially since the 1980s (2010). The U.S. Haitian population, the second largest Caribbean immigrant group in the U.S., virtually quadrupled between 1980

and 2005 (Kent, 2007). The most recent estimates suggest foreign-born, undocumented, and/or first-generation immigrants living in the U.S. are upwards of 980,000 in total (Camarota, 2010). This study aims to generate culturally-framed insight into diabetes knowledge, management, and prevention among Haitian immigrants. Targeting subsets of vulnerable populations may provide insight to diminishing overall chronic disease health disparities.

Chapter 2

Conceptual Framework

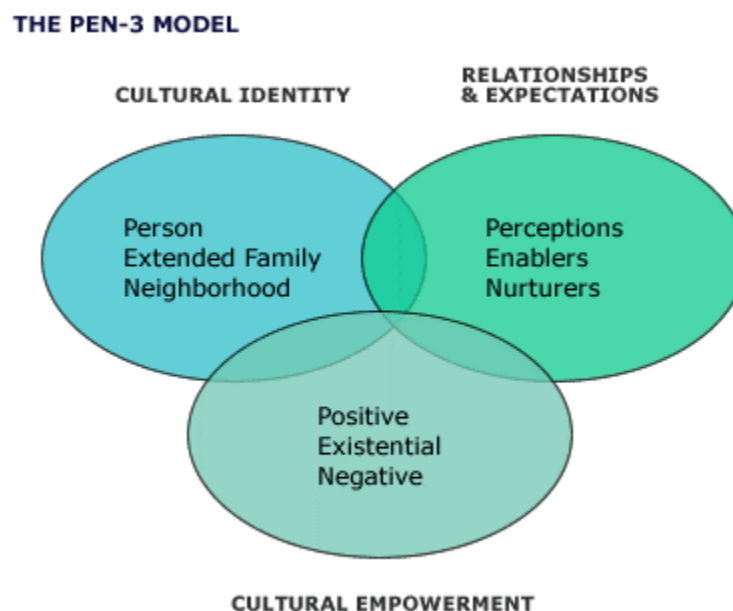


Figure 1. PEN-3 Cultural Model

Used with permission from <http://bbh.hhdev.psu.edu/lab/global-health-culture>

The PEN-3 Cultural Model, developed by Collins Airhihenbuwa, which provides a framework for this study, is a theoretically-based approach which focuses on positive contexts of culture and behaviors. Rather than exploring the negative aspects of culture and behavior, this study utilizes the PEN-3 Cultural Model to inform intervention development and implementation in an effort to eliminate health disparities among ethnic populations (retrieved from <http://bbh.hhdev.psu.edu/lab/global-health-culture>). Specifically, the PEN-3 Cultural Model identifies three realms of focus (1) **cultural identity**, (2) **relationships and expectations**, and (3) **cultural empowerment**. This model posits that **cultural identity** is formed through an interaction of personal, extended familial, and neighborhood contexts.

Relationships and expectations are fostered through perception, enablers, and nurturers. **Cultural empowerment** may be facilitated through promotion of positive behaviors; on the contrary, interventions may attempt to modify negative behaviors in the schema of cultural empowerment in order to augment desired health outcomes (Airhihenbuwa, 1990). Overall, given the increasing numbers of health educators in industrial nations with interest in designing health education programs for developing nations, the PEN-3 Cultural Model provides the theoretical framework to deliver programming with cultural sensitivity and appropriateness (Airhihenbuwa, 1990).

Chapter 3

Research Review

The U.S. population continues to grow in diversity, and research agendas must reflect the racial/ethnic demographic of the nation. In order to enhance overall health, research with underserved populations must examine distinct ethnic groups within large racial groupings. Within the African Diaspora, Caribbean/African populations may require specific attention. The scarcity of research tailored to the Haitian population, paired with their trouble with diabetes management, highlights the need for attention. Findings may inform care and diminish health disparities through promoting optimal health status among Haitian immigrants.

Haitians and Diabetes Control

Hemoglobin A1C, a common marker of diabetes diagnoses and management, indicates an individual's average level of blood sugar over the past two-three months. Particularly, the test, also referred to as A1C, HbA1c, glycosylated hemoglobin, and glycated hemoglobin, determines the percentage of sugar coating hemoglobin, a protein that carries oxygen throughout the body; moreover, higher A1C levels reflect poorer control of blood sugar and increased probability for diabetes complications (Mayo Clinic, 2015). Haitian-Americans appear to have higher blood glucose sensitivity in relation to detecting diabetes onset than suggested by the American Diabetes Association (ADA, 2014). A study found that 6.26% cutoff point serves as an optimum value to detect type 2 diabetes in Haitians, rather than the 6.50% suggested by the ADA (Exebio, Zarini, Vaccaro, Exebio, C., & Huffman, 2012). Prolonged high A1C and LDL cholesterol levels lead to hyperglycemia, dermatological complications, eye complications and potential blindness, neuropathy, ketoacidosis and potential comas, kidney disease, and mental health issues (ADA, 2014). Methods to improve glycemic control in Haitians are important given the associated increase in risk of complications.

Scientists have also found that Haitians have the lowest levels of healthcare utilization when compared to African-Americans and non-Hispanic Whites and are least likely to have health insurance (Huffman, Vaccaro, Ajabshir, Zarini, Exebio, & Dixon, 2013). However, healthcare systems provide an ideal setting for health knowledge, prevention, and management measures. Healthcare providers may utilize these settings to facilitate glucose control in patients with type 2 diabetes which may reduce the progression of diabetes complications (Duckworth, Abaira, Moritz, Reda, Emanuele, Reaven, ... & Huang, 2009). On the contrary, Haitians report higher rates of perceived health status than African Americans and Whites and they also display a lower overall Body Mass Index [BMI] (Huffman et al., 2013). Thus, diabetes and its correlates are complex; multiple factors influence diabetes outcomes.

Haitian Immigrants and DM Risk Factors

A study explored dietary intake differences between Haitian American and African American ethnic groups with and without diabetes. Although the study found that Haitian Americans consume significantly higher rates of fruits and vegetables than African American populations, Haitian American diets also contain higher carbohydrate, saturated fat, sodium, and SoFAS (calories from solid fats, and added sugars) content which negatively affect diabetes outcomes (Huffman, De La Cera, Vaccaro, Zarini, Exebio, Gundupalli, & Shaban, 2011). Furthermore, a retrospective study of 250 Haitian children age 2-18 found that Haitian-born children were less likely to be as overweight as other minority children in the U.S.; however, BMI in the Haitian-born children increased by 3.7% for each year of U.S. residency rendering them more susceptible for health risks correlated with obesity (Strickman-Stein, Gervais, Ludwig, Messiah, Lipshultz & Miller 2010). Given the paradox in immigrant health, these populations must have access to culturally attuned strategies, programs, and resources which help deal with health issues; moreover, it is imperative to disaggregate large racial-ethnic groups in order to optimize health outcomes in populations associated with the African Diaspora (Huffman et al., 2011).

Through semi-structured group interviews, this study may produce knowledge that will help address disparities in diabetes management and prevention. Previous studies have shown that health messages and interventions that are grounded in local culture or are culture-centric are often more effective in producing positive behavior change as compared to interventions that are not culturally rooted (Larkey et al., 2010). Narrative health messages may provide a promising new strategy for health message design and a novel approach to diabetes management. Focus Group Interviews are an underutilized research technique for improving theory and practice in health education (Basch, 1987). The absence of research tailored to the Haitian population prompts examination on the subject. Whether genetic, cultural, or structural, we must focus our attention on the systematic differences among populations in order tend to at risk groups; moreover, we may use findings to inform care which will promote optimal health status in the United States. This study may advance theoretical framework for delivering culturally competent health approaches in populations within the African Diaspora. Results generated from focus groups may help inform future health interventions, which may assist families in providing support for effective diabetes management and prevention.

Chapter 4

Methodology

Participants and Procedures

Participants were recruited from a Haitian Baptist church in Philadelphia given the high religious ties found in Haitian culture (Mooney, 2009). Directly following an afternoon service, the leader of the congregation, Pastor Fontenelle Philogene, made an announcement for church members to stay behind for an opportunity to learn more about their health; the remaining individuals were verbally consented. Although the consent form remained in English, investigator Moise verbally translated it into Creole given that Creole is a spoken rather than written language and Creole is the predominant language utilized in the church-based populations. Even participants who have not had the opportunity to attend school have verbal knowledge of Creole. In order to participate in this study, participants must be at least 18 years of age and at risk for diabetes or diagnosed with diabetes.

Study Design

This study employed a cross-sectional survey and focus group interview approach to understanding diabetes management in a Haitian immigrant population in Philadelphia. Surveys were analyzed using SPSS and interviews were recorded and transcribed verbatim in preparation for mixed methods analysis. Data collection and interviews used an interview guide developed by BeLue and colleagues; furthermore, interviews with participants began with general events that were likely to be told in narrative form (e.g., tell me about your morning; tell me what you ate in the past 24 hours). Once narrative form had been engaged we focused on stories of how the individual exists with diabetes in their familial context (e.g. what is your role in the family? Who lives with you? Does anyone in your family

have diabetes?), using prompts where necessary to elicit descriptions of the narrative message features (character, setting, actions, problem or challenge, influence of culture, and solutions) of diabetes management processes.

Participants were encouraged to comment on anything they found compelling and that motivated them to participate in positive diabetes management behaviors or reasons they did not. Those with success in diabetes management were asked to further elaborate on how they achieved success. Focus groups with individuals who have yet to overcome challenges in support for diabetes management were analyzed to uncover barriers. Participants were also given a survey which covered general information (age, sex, waist circumference, weight, height, place of birth, length of time in U.S.), religion, education, household, and health. While individuals received \$5.00 for their contribution to the research project, there were no costs to participate in this study. This pilot study will be used to help guide future research.

Measures

A cross sectional survey included general information on the participants such as age, sex, waist circumference, weight, height, place of birth, length time in U.S. Height and weight measures were used to calculate BMI ($=\text{lbs} * 703/\text{inches}^2$). We further categorized participants' weight as underweight = <18.5 , normal weight = $18.5\text{--}24.9$, overweight = $25\text{--}29.9$, and obese = BMI of 30 or greater. The survey also explored religion, education, household, and health.

Analysis

Coding of emergent themes was conducted by Moise. Content analysis was used to evaluate initial coded themes. First, general themes related to overall perceptions of the burden of diabetes in

Haitian populations were examined. Moise used three forms of coding (descriptive, topic, and analytical). Descriptive coding involved creating summary descriptors of each paragraph of text. Topic coding involved organizing the text into sections by sorting text segments into groups and providing a label. For analytical coding, Moise created codes that expressed new ideas about the data by considering the meanings in context. BeLue reviewed the newly generated codes for corroboration. Next, codes were categorized through the framework of Airhihenbuwa's PEN-3 Cultural Model in an effort to shape culturally-based insight into diabetes control in Haitian immigrants.

Chapter 5

Results

Sample Characteristics

The study included 20 participants ranging from age 41 to 91, with an average age of 65. The sample was predominantly female (15/20). All participants were born in Haiti ranging from 0 to 57 years with an average of 20 years spent living in the U.S. Although the majority of the participants (16/20) were in the US for more than 10 years, they all reported speaking Creole as the primary language at home. Furthermore, only 25% and 30% of the participants also reported speaking French and English at home, respectively. Reasons for coming to the U.S. centered on better living and familial ties. Of the 19 responses regarding marriage, 8 of the subjects noted that they were not married. Participants over the age of 65 were not employed and 5 of the 13 participants under 65 were not employed. All but one participant noted religion as being very important to them. In regards to communication outlets (radio, TV, newspaper, internet), participants noted radio as the most commonly used. It is important to note that the majority (75%) of the participants specified languages (French and/or Creole) other than English as the tongue of communication via radio while all of the participants specified English as the language transmitted via television. Responses regarding communication via newspaper and internet did not produce any salient trends.

Participants recorded their weight and height for BMI calculations. Of the 18 computable BMIs, 4 of participants had a normal measurement, 6 were overweight, and 8 were obese. (Underweight = <18.5, normal weight = 18.5–24.9, overweight = 25–29.9, and obese = BMI of 30 or greater) 3 of the 4 participants with normal weight had diabetes and hypertension. 1 of the 6 participants in the overweight category and 2 of the 8 participants in the obese category did not report having diabetes or hypertension.

These results demonstrate the complexity of diabetes; moreover, BMI may not always be perfect in predicting health outcomes. Of the 20 participants, 16 were diagnosed with diabetes, 11 were diagnosed with hypertension, and 10 were diagnosed with both diabetes and hypertension. The average length of time for the diabetes diagnosis was 14 years and hypertension diagnosis was 13. No one in the population reported a history of smoking. When asked if they believed exercise was important for diabetes management, 17 participants responded yes. Of all the possible resources to receive diabetes information the participants reported receiving the most information from a doctor/nurse.

PEN-3 Examination

This study utilizes The PEN-3 Cultural Model in order to structure intervention development and implementation to address diabetes and hypertension disparities. Three realms of focus, cultural identity, relationships and expectations, and cultural empowerment, guided the qualitative analysis. Aliases are used to protect the identity of the participants.

Cultural Identity

This domain examines the role of person, extended family, and neighborhood on management of diabetes. Adherence to a prescribed diabetic diet has previously been identified as a significant barrier to proper diabetes management in African and African Diasporic populations (BeLue, Diaw, Ndao, Okoror, Degboe, & Abiero, 2013). Cultural dietary staples are not conducive to maintaining healthy blood glucose levels, and adhering to a diet that limits foods such as rice may be impractical or impossible. When asked “can you tell me how you think culture may affect diabetes?”, participants responded:

Anne- *“Well according to the doctor don’t drink sugar products. Secondly, natural food they tell you not to eat is rice.”*

Jean- *“Haitians eat rice, beans.”*

Participants reported familial ties as a major source of support in diabetes management. When asked “how does your family play a role in how you manage (direct) your diabetes?”, participants responded:

Melyssa- *“They [keep surveillance] over what kind of foods. I have the type of kids at my house, my kids, whenever I take something I am not supposed to eat they run after me. They always encourage me. What I should eat, what I shouldn’t eat. That I take my medication normally. I take insulin in the morning and at night. And I take glucophage. I take pills too. They do their best with me...”*

Patricia- *“They always look after me. When I have something I am eating they watch that I don’t eat it. And they always control... they help me control it... Mom did you control (your blood sugar) already? Mom did you do this? Mom did you do that? They always help me.”*

Relationships and Expectations

This domain categorizes participant responses into perceptions, enablers, and nurturers.

Perceptions

Perceptions include knowledge, attitudes, and beliefs expressed by patients related to their management of diabetes. Although participants reported high familial support in diabetes management, many demonstrated signs of poor diabetes management.

How is your diabetes?

David- *“Not good at all.”*

Marie- *“It’s always up and down, I have... since 1993 I’ve been diabetic”*

How does diabetes affect (bother) your life? What impact has it had on you?

Anne- *“It diminishes my vision and it makes me pee a lot...”*

David- *“Well, when my feet are swollen it imposes me in doing everything I want to do...”*

Melyssa- *“It always makes me tired... There’s some weeks where I don’t work.”*

Qualitative content analysis of the data revealed a high heredity of diabetes which may lead to a sense of fatalism. When asked if “there is anyone else in the family who is diabetic besides you?”, participants responded:

Jean- *“Yes... my wife is the mother of diabetes... all of my kids are diabetic.”*

Yveline- *“Yes. Yes. It’s because there are people in my family with it, is why I am diabetic. But, a lot of them have died, you understand?”*

Marie- *“All of the rest of the family... My mom is diabetic. My father is diabetic.”*

Perceptions of fatalism continually emerged in questions regarding general culture in relation to diabetes and suggestions for avoiding diabetes diagnoses.

Anette- *“I think it’s something more hereditary. It comes from your family... It’s not us only. Americans are diabetic too... just like us too. But as long as it is in your family you’ll have more of a tendency to get like there are big [overweight] people who aren’t diabetic... but if it is in your family, you’ll get it anyway.”*

Miracia- *“Help yourself because... because once diabetes comes your way, it’s going to come, you understand? You have to watch yourself. There’s a series of things you should not eat. There’s a series of things you cannot let yourself get too involved in. That’s not to say it will keep the diabetes from coming, you know? It’s a disease.”*

Jeanette- *“Anybody can get it, but it’s the food that you eat or sometime even if you don’t eat you still got it.”*

However, when asked “do you think culture may affect diabetes?”, some participants explained:

David- *“I don’t think so. I was diabetic since I was in Haiti, myself... diabetes was one of my sickness since Haiti.”*

Stacey- *“No, because we were already diabetic already... I had diabetes already. Its in having kids I became hypertensive too.”*

Although the majority of participants noted exercise as important in the survey (17/20), exercise lacked precedence over diet and medication in the focus group interview. For instance, participants were told to “share a history with us that when people are listening here is what you should do to avoid diabetes, what would you tell them?”

Carmel- *“I would suggest they watched the food that they are eating. If they know their parents are diabetics... you understand? And don't be too heavy. If you have too much weight it can develop quickly... avoid things that give you bad temper because those kinds of thing agitate your health like hypertension and diabetes. Take more precautions in your life.”*

Fredline- *“Well... no one knows when you will become diabetic. It can be stress. It could be the food you are eating. It could be in your family. Something like that which produces the diabetes [causes the onset]. There is no one who can tell you... if you are diabetic you can advise someone to take your medicine. Follow the doctor[’s orders] and the food you eat. And do exercise. And that’s it.”*

Because adhering to a diabetic diet is challenging within the cultural context of Haiti, adhering to a physical activity regimen is particularly important in terms of managing diabetes. Participants reported exercise habits such as “*landscaping outside, gym sometimes, machine that you pull with hands, exercise machine in my house, walk up and down the steps, walking, and work around the house daily*” in the survey.

Enablers

Enablers are community/society-based systems or structures that have positive and negative influences on diabetes management. One participant noted age related barriers to exercise: “*Can't walk a lot, knee issues.*” (62 year-old-female survey response). As previously mentioned, availability and access to food that fits within a diabetic diet is a significant structural barrier related to diabetes management (BeLue, 2013). Many participants noted financial strain in the survey selecting comments such as “*...have money*”

for food and clothes, but short on many other things". However, participants noted receiving significant health information from doctors.

Annette- *"Well... with instruction... the instruction [the doctor] gives you... how to comport yourself... how to... there's some things you should not drink... that facet is equal to taking care of yourself... that is what I think."*

Patricia- *"The doctors gave me a series of information that showed me how to manage diabetes, you understand? That means like I know what level it should be, when you wake up what should your sugar be, you understand? Also with the help of god, I maneuver it."*

Miracia- *"I go to the doctor office for a routine check... Just a follow up... just take blood... things like that"*

Nurturers

Nurturers are negative or positive influences that encourage or discourage proper diabetes management. As previously mentioned, many participants detailed familial support as a major source for diabetes management. One participant detailed,

Marie- *"If you have stress... you can't have diabetes... your diabetes will not be controlled. My family stays together. We don't have stress... so we can control the diabetes"*

Cultural Empowerment

The cultural empowerment domain of the PEN-3 model categorizes the perceptions, enablers, and nurturers from the Relationships and Expectations domain as positive, negative, or existential. Positive values and negative values promote and inhibit successful management of diabetes, respectfully. For example extended family in close proximity may represent support for diabetes management; however, family members may also inhibit diabetes management through preparing inappropriate food. Existential or local values are practiced but do not affect the success of diabetes management. Cultural empowerment may be facilitated through promotion of positive behaviors. Interventions may attempt to modify negative

behaviors in the schema of cultural empowerment in order to augment desired health outcomes

(Airhihenbuwa, 1990).

Table 1. Cross Reference of Perceptions, Enablers, and Nurturers as Positive, Negative and Existential Values Involving Proper Diabetes Management

	Positive	Negative	Existential
Perceptions	Acknowledge importance of treating diabetes, universal awareness of value of proper diet	Sense of inevitable/normal diagnosis	Disease burden of non-communicable disease is high in Haitian populations
Enablers	Culturally competent educators (doctor/nurse information)	Financial strain	Household work common source of movement
Nurtures	Family support in maintaining healthy behaviors	Effects of stress	Local culture values familial ties

Chapter 6

Discussion

Overall, this study highlights the need for more research on populations within large racial classifications such as Black. This research shed light into the troubling diabetes outcomes in Haitian populations. Specifically, participants had poor diabetes control as depicted through high prevalence of diabetes as well as insulin use. Given Haitians' strong familial and religious connections, health education should be targeted within those constructs. Future research should explore differences in biomarkers for risk factors related to chronic disease such as A1c. Additionally, future research should explore cultural sensitivity and competence in health information provided by doctors/nurses as Haitians rely on these professionals. These professionals may collaborate with Community Health Workers in order to provide culturally sensitive diet and exercise recommendations in the context of Haitian customs and traditions. More research on this subject matter may be used to develop recommendations for diabetes prevention and management in Haitian populations.

Survey

It is important to note that in the recruitment message shared by Pastor Fontenelle Philogene, he did not specify diabetes or hypertension as the main diseases of interest; moreover, the announcement to the church members was generalized in nature as an 'opportunity to learn more about their health'. Given this information, the high rates of diabetes (16/20) and hypertension (11/20) in the sample demonstrate the alarming presence of chronic disease in Haitian populations. The survey highlighted Creole as the predominant language used in the population, which suggests a need for Community Health Workers (CHWs). These individuals may bridge cultural gaps in patient-provider care through improving communication within health care delivery systems (Witmer, Seifer, Finocchio, Leslie, & O'Neil, 1995).

Additionally, the familial structure and religious setting hold high value in Haitian populations, which may provide two channels within the mesosystem for targeted educational support. Although smoking has been linked to poor diabetes management, survey data illustrated that Haitian populations do not partake in that specific negative health behavior. Obesity, defined as ($BMI \geq 30 \text{ kg/m}^2$), has been linked to diabetes, but it is not always an accurate predictor of outcomes. As previously mentioned, studies have also corroborated the need for race/ethnicity specific guidelines within largely aggregated racial classifications (Exebio et al., 2012). A 2011 study found that black subjects developed diabetes at a higher rate, at an earlier age, and at lower ranges of BMI than their white counterparts which highlight the need for designing ethnically tailored prevention strategies as well as lowering current targets for ideal body weight for nonwhite populations (Chiu, Austin, Manuel, Shah, & Tu, 2011). It is important to note that given the population's age, some participants noted an inability to engage in physical activity due to knee issues even though the majority (17/20) participants responded yes when questioned if they believed exercise was important for diabetes management. Health professionals should recommend culturally and age appropriate guidelines for exercise in diabetic patients.

Focus Group Interviews

Exercise and Diet

Although the majority of subjects noted exercise as important in diabetes prevention and management, exercise lacked precedence in the content analysis of the focus group interviews. However, subjects significantly noted diet as a salient factor in diabetes prevention and management. Future research should intimately explore the degree to which subjects understand and abide by food recommendations for diabetes prevention and management. Particularly, previous research has found that Haitians consume diets higher in carbohydrate, saturated fat, sodium, and SoFAS content. Thus, health

educators must provide culturally sensitive food recommendations for Haitian populations (Huffman et al., 2011).

Family

Although subjects demonstrated high insulin use and diabetes complications such as fatigue, retinopathy, and neuropathy, signs of poor management, many reported high amounts of familial support regarding food intake, medicine regimens, and blood sugar recordings. This finding underscores the opportunity to utilize the familial structure to target positive health behaviors.

Diabetes

Qualitative content analysis of the data revealed a high familial aggregation of diabetes, which may lead to a sense of genetic fatalism. Although culture was not perceived as a major influence in diabetes diagnosis, trends in diabetes outcomes suggest otherwise. Participants reported receiving information from a doctor/nurse as the main resource for diabetes information in both the survey and information interview, which underscores the importance for culturally competent dissemination of health information.

Acculturation

Cultural diets and heightened perceptions of stress may contribute to differences in Haitian-American and African-American diabetes health outcomes. A study found LDL cholesterol and blood pressure were more likely to be elevated in Haitian populations than African American and non-Hispanic whites; furthermore, within the Haitian population, Creole or French speaking Haitians displayed LDL cholesterol control compared to English speaking Haitians (Vimalananda, Rosenzweig, Cabral, David, & Lasser, 2011). These findings suggest acculturation—individual or group-level change that occurs as a result of first-hand contact with another culture—may affect diabetic outcomes. Acculturation measures include language, length of time in the U.S., generation status/parents' place of birth, ethnicity of

past/current friends, ethnic composition of past/current neighborhood, behaviors, and preferences such as music, radio, television, movies, books/newspapers, celebrating occasions, and diet/food (Snipes, 2014). In the multidimensional process of acculturation, biculturalism, fluidity in the contexts and practices of both cultures, may serve as the most adaptive form of the acculturation process (Schwartz & Unger, 2010). Studies have shown complications in adaptive acculturation from self-identification to institutionalized discrimination may lead to increased levels of stress; furthermore, stress may trigger the onset of diabetes as well as exacerbate difficulties with diabetes control (Schwartz, Unger, Zamboanga, & Szapocznik, 2010; Bradley, 1988). In fact, Huffman et al.'s 2013 study found that Haitian Americans even report higher rates of perceived stress than African Americans. In relation to diabetes and cardiovascular disease, stress has been shown to undermine health through increasing blood sugar, increasing resistance to insulin, and increasing cholesterol (McCall, 2007).

Strength and Limitations

The sample included 20 Haitian immigrants predominantly residing in limits of the Philadelphia area. Undoubtedly, demographics influence results and future studies should examine Haitian immigrants in other locations in the U.S., such as Miami and New York in order to corroborate results. The setting for confidential disclosure of information added to the strength of this study. However, the participants enrolled in the study immediately following an afternoon church service, which may have been inconvenient leaving a limited amount of available participants. Additionally, this may have made the participants irritable. Many participants also did not speak English or had health ailments (e.g. poor vision, previous stroke) and needed Moise's assistance in order to complete the survey. It is important to note that one of the study participants was visiting, not living in the U.S. However, through focus groups, subjects may have gained more understanding on how to better take care of their health. The subjects'

participation helped us to gain important understanding of how people live with diabetes and hypertension and how to improve support for them. Participation in this study provided subjects with an opportunity for self-exploration, a potentially interesting and beneficial occurrence. In order to strengthen this study further, one may consider analyzing a control group of African-American diabetics for comparison.

Public Health Implications and Future Research

Results generated from our focus groups may inform future health interventions for diabetes comprehension, management, and prevention. Specifically, interviews may be used to create diabetes support messages. These messages should be grounded in the cultural context of local family structures. With more culturally framed insight, health educators will be able to optimize diabetes outcomes in populations within the African Diaspora. The results of this study may be used to create culturally appropriate interventions for the current and future populations. Moise will share the study results with the Philadelphia church location in order to provide an educational presentation to conclude the study after data analysis.

Appendix A
IRB Protocol

EXEMPTION DETERMINATION

Date: October 10, 2014

From: Jodi Mathieu, IRB Analyst

To: Rhoda Moise

Type of Submission:	Initial Study
Title of Study:	Focus Group Interviews among Haitian Diabetic Immigrants
Principal Investigator:	Rhoda Moise
Study ID:	STUDY00000962
Submission ID:	STUDY00000962
Funding:	Not Applicable
Documents Approved:	<ul style="list-style-type: none"> • Philly Letter of Approval (1), Category: Collaborating Approval Materials • Protocol (5), Category: IRB Protocol • Survey (1), Category: Collaborating Approval Materials • Focus Group Interview Qs (1), Category: Collaborating Approval Materials

The [Office for Research Protections](#) determined that the proposed activity, as described in the above-referenced submission, does not require formal IRB review because the research met the criteria for exempt research according to the policies of this institution and the provisions of applicable federal regulations.

Continuing Progress Reports are **not** required for exempt research. Record of this research determined to be exempt will be maintained for five years from the date of this notification. If your research will continue beyond five years, please contact the [Office for Research Protections](#) closer to the determination end date.

Changes to exempt research only need to be submitted to the [Office for Research Protections](#) in limited circumstances described in the below-referenced Investigator Manual. If changes are being considered and there are questions about whether IRB review is needed, please contact the [Office for Research Protections](#).

Penn State researchers are required to follow the requirements listed in the Investigator Manual ([HRP-103](#)), which can be found by navigating to the IRB Library within CATS IRB (<http://irb.psu.edu>).

This correspondence should be maintained with your records.

Appendix B**Survey Questions**

GENERAL INFORMATION

- 1 What is your age?
- 2 Sex of the respondent (please circle one): Male or Female
- 3 Waist circumference:
- 4 Weight:
- 5 Height:
- 6 What is your ethnic group:
- 7 Where were you born?
 - a. How long did you live there?
- 8 How long have you been living in the United States?
- 9 Please name the places you have lived in the past 15 years:
- 10 Please name the area where you currently live:
- 11 Why did you come to the United States?
- 12 What language(s) do you mainly speak at home?

RELIGION

- 13 Are you a member of any faith or religious groupings? (Please circle one): Yes or No
- 14 Check off all denominations that have had an impact on you
 - Christian
 - Evangelist
 - Baptist
 - Catholic
 - Protestant

- Islam
- African traditional
- Other specify

15 How important is religion to you?

- a. Very important
- b. Important
- c. Somewhat important
- d. Unimportant
- e. Very unimportant
- f. Not applicable (e.g. atheist)

EDUCATION

16 Have you gone to formal school (including from grade school and college)?

- a. Yes
- b. No
- c. I don't know

17 How many years did you attend school? _____

18 What age did you stop/finish? _____

19 Have you received any other type of education or training (e.g. religious, mechanic, tailoring)

- a. Yes
- b. No

HOUSEHOLD

20 Do you have radio in your household?

- a. Yes
 - i. If yes, what are the languages spoken on the radio? _____
- b. No

- 21 Do you have television in your household?
- a. Yes
 - i. If yes, what are the languages spoken on the television? _____
 - b. No
- 22 Do you read newspapers in this household?
- a. Yes
 - i. If yes, what are the languages written in the newspaper? _____
 - b. No
- 23 Do you read on the internet?
- a. Yes
 - i. If yes, what are the websites you use? _____
 - b. No
- 24 Which selections best describe your household situation? (Check all that apply)
- Not enough money for basic things like food and clothes
 - Have money for food and clothes, but short on many other things
 - We have most of the important things, but few luxury goods
 - Some money for extra things such as going away for holidays and luxury goods
 - I don't know
 - No response
- 25 Are you married?
- a. Yes
 - i. If yes, are you living with your spouse?
 - 1. Yes
 - 2. No
 - b. No

26 How many children do you have? _____

27 Do you currently work outside the home?

a. Yes

i. If yes: what type of work? _____

b. No

HEALTH

28 Do you have diabetes?

a. Yes

i. If yes, how long have you had diabetes? _____

ii. If yes, what do you think is/are the most important thing(s) in managing your diabetes?

b. No

29 Do you have high blood pressure (hypertension)?

a. Yes

i. If yes, how long have you had hypertension? _____

b. No

c. I don't know

30 Do you smoke?

a. Yes, I currently smoke

b. I used to smoke _____ (how many months or years ago?)

c. No

EXERCISE

31 Do you believe that exercise is important to managing diabetes?

- a. Yes
- b. No
- c. I don't know

Please explain your response to question 31:

Please tell us a bit about your physical activity habits

RESOURCES

32 Where have you received information about diabetes in the last 6 months? (Check all that apply)

- | | |
|---|--|
| <input type="checkbox"/> Doctor/Nurse | <input type="checkbox"/> Teachers or School officials |
| <input type="checkbox"/> Family | <input type="checkbox"/> Health education/campaign promotion |
| <input type="checkbox"/> Friends | <input type="checkbox"/> Government Officials or Organizations |
| <input type="checkbox"/> Your place of work | <input type="checkbox"/> Community Organizations |
| <input type="checkbox"/> TV | <input type="checkbox"/> Religious Organization |
| <input type="checkbox"/> Newspapers | <input type="checkbox"/> Environmental group |
| <input type="checkbox"/> Radio | <input type="checkbox"/> Pamphlets or Brochures |
| <input type="checkbox"/> Internet | <input type="checkbox"/> Street performance |
| <input type="checkbox"/> Older woman | <input type="checkbox"/> Billboards |
| <input type="checkbox"/> Drama | <input type="checkbox"/> Other |

33 Which of these sources gave you the **most** information about Diabetes? (Choose ONE)

- | | |
|---|--|
| <input type="checkbox"/> Doctor/Nurse | <input type="checkbox"/> Teachers or School officials |
| <input type="checkbox"/> Family | <input type="checkbox"/> Health education/campaign promotion |
| <input type="checkbox"/> Friends | <input type="checkbox"/> Government Officials or Organizations |
| <input type="checkbox"/> Your place of work | <input type="checkbox"/> Community Organizations |

____TV

____Newspapers

____Radio

____Internet

____Older woman

____Drama

____Religious Organization

____Environmental group

____Pamphlets or Brochures

____Street performance

____Billboards

____Other

Appendix C

Focus Group Interview Questions

GROUP WITH DIABETES

1. Tell me about your life before the diabetes diagnosis
2. Tell me what diabetes mean to you
3. Can you tell me about how diabetes has impacted on your life? Your family's life?
4. Can you tell me about managing your diabetes on a daily basis?
5. Can you think about the role of your family in managing diabetes?
6. Can you tell me how you think culture may affects your diabetes?
7. Can you think of a family member who has impacted your diabetes positively? How about a family member who has impacted it negatively?
8. Can you tell me things and people that would help you manage your diabetes better?
9. Can you tell me about your experience with diabetes when you visit health facilities?
10. If you had to share your story to help people avoid diabetes what would you say?

AT-RISK GROUP

1. Tell me what diabetes mean to you
2. Can you tell me key ways to reduce your risk of getting type 2 diabetes?
3. How often do you exercise?
4. Can you tell me how you think culture may affects diabetes?
5. Can you tell me things and people that would help you manage diabetes if you were diagnosed?
6. Can you tell me about your experience with diabetes information when you visit health facilities?

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ACADEMIC VITA

Rhoda K. Moise
111 Kern Building, University Park, PA, 16801/rkm5133@psu.edu

EDUCATION

Bachelor of Science, Biobehavioral Health May 2015
The Pennsylvania State University, University Park, PA
Health Policy and Administration Minor
Biology Minor

RESEARCH INTERESTS

- Health disparities affecting the underrepresented populations
- Determinants of chronic diseases among minority and low-income populations
- Community Based Participatory Research (CBPR) or culturally sensitive ways to implement community/family interventions for exercise, diet quality, and behavior improvement
- Quantitative and qualitative methodology

INDEPENDENT RESEARCH EXPERIENCE

The Pennsylvania State Schreyer Honors Thesis Fall 2014 – Present
Focus group interviews among Haitian diabetic immigrants

- Generate culturally framed insight into diabetes comprehension, management, and prevention among Haitian immigrants under the advising of Dr. Rhonda BeLue
- Examine the role of acculturation in diabetes outcomes in a Philadelphia sample of Haitian adults

Summer Research Abroad with Dr. Rhonda BeLue June – July 2014
Culturally grounded narratives for diabetes management and prevention

- Guided culturally-grounded narratives regarding diabetes management and prevention focused on exercise utilizing qualitative and quantitative methodology among diabetic patients in MBour, Senegal.

The Family and Child Project September 2013
Home Visit Assistant

- Aided in preparation of food for research under the supervision of Dr. Lori Francis in the Family Health and Well-Being Lab at Penn State
- Implemented and recorded responses to surveys and biometrical data for nine hours of clinical experience

The Pennsylvania State University Ronald E. McNair Scholars Program Summer 2013
Exploring the relationship of participation and connectedness in afterschool programs to problem behavior

- Executed independent quantitative research under the guidance of Dr. Emilie P. Smith and Dr. Yookyung Oh
- Investigated whether participation and connectedness in afterschool serve as beneficial public health strategies against delinquency, alcohol, tobacco, and marijuana use using SPSS

The Health Educational Research Opportunities Program

Summer 2012

Investigating the HCN channel gene in the S4-S5 linker

- Executed independent quantitative research under the supervision of Dr. Lei Zhou at the Virginia Commonwealth University
- Examined the role of the subdomains in hyperpolarization-activated, cyclic nucleotide-regulated (HCN) channels to help gain understanding of the channel biophysics as well as cellular functions
- Methodology included a two process based PCR, ligation, transformation, and DNA sequencing confirmation; products were used for further research

HONORS AND AWARDS

Spring 2015	Ralph Dorn Hetzel Memorial Student Achievement Award
Spring 2015	S.T.A.R.T Diversity Contest Award
Spring 2015	Student Leader Scholarship
Spring 2015	2015 National Pan-Hellenic Council Scholarship
Fall 2014	Pattishall Undergraduate Research Endowment
Spring 2014	FOBA Fannie Lou Hamer-W.E.B. DuBois Service Scholarship
Spring 2014	Target Case Competition 2 nd Place
Spring 2014	NAAAS Research Paper Competition Award
Fall 2013	PLEN Scholarship
Fall 2013	Most Likely to Succeed
Fall 2013	Einstein Award for Scholar of the Year
Fall 2013 – Present	Schreyer Honors College
Spring 2013 – Present	Ronald E. McNair Post-Baccalaureate Achievement Program
Spring 2013	Miss Black and Gold Scholarship
Fall 2012	ABRCMS Outstanding Research Award
Spring 2011-Present	National Society for Collegiate Scholars
Fall 2011 – Present	Dean's List

PUBLICATIONS, PRESENTATIONS, & CONFERENCES

Publications

Moise, R. K. (December, 2014). Exploring the relationship of participation and connectedness in afterschool programs to problem behavior? *The Pennsylvania State University McNair Scholars Journal* 19.

Presentations

- “Focus group interviews among Haitian diabetics.” The 7th Annual Health Disparities Conference, New York NY. (March 6th, 2015)
- “Afterschool programs: The Role of Capacity in Physical Activity.” The 2nd Annual Black Doctoral Network Conference, Philadelphia, PA (October 25th, 2014).
- “Participation, connectedness, and behavior in afterschool” The Africana Research Center Undergraduate Research Exhibition University Park, PA (October 4th, 2014).

- “Participation, connectedness, and behavior in afterschool” *The 2014 PPHA and PORH Annual Conference, University Park, PA (October 2nd, 2014).*
- “Participation, connectedness, and behavior in afterschool” *The Undergraduate Research Exhibition University Park, PA (April, 2014).*
- “Exploring the relationship of participation and connectedness in afterschool programs to problem behavior.” *The National Association of African American Studies & Affiliates Conference Baton Rouge, Louisiana (February, 2014).*
- “Exploring the relationship of participation and connectedness in afterschool programs to problem behavior.” *The Pennsylvania State McNair Summer Research Conference University Park, PA (August, 2013).*
- “Investigating the HCN channel gene in the S4-S5 linker.” *The Undergraduate Research Exhibition University Park, PA (April, 2013).*
- “Investigating the HCN channel gene in the S4-S5 linker.” *A Biomedical Research Conference for Minority Students San Jose, CA (November, 2012).*

Conferences

The 7th Annual Health Disparities Conference

March 2015

- The Seventh Annual Health Disparities Conference at Teachers College, Columbia University provides an opportunity for varied professionals to gain exposure to evidence-based and state-of-the-art approaches to reducing/eliminating health disparities and moving society toward equity in health for all.

The American Public Health Association 142nd Annual Meeting & Exposition

November 2014

- The Annual Meeting & Exposition serves as the home for public health professionals to convene, learn, network and engage with peers. With the Annual Meeting, we strengthen the profession of public health, share the latest research and information, promote best practices and advocate for public health issues and policies grounded in research.

The 2nd Annual Black Doctoral Network Conference

October 2014

- The Black Doctoral Network Conference brings together world renowned and emergent scholars and professionals from the Social Sciences, STEM and humanities to function as a resource, support system, space of intellectual exchange, and a place to create connections/develop collaborations through this year’s “Making the Connection” theme

The 2014 PPHA and PORH Annual Conference

October 2014

- The Pennsylvania Public Health Association (PPHA) and the Pennsylvania Office of Rural Health (PORH) collaborate to offer a one-day conference, A View to the Future: Policy and Practice Impacts on Community and Public Health, on October 2, 2014 at The Penn Stater Conference Hotel in State College Pennsylvania

The National Association of African American Studies & Affiliates

February 2014

- This conference is held annually during the second full week of February. An average of 400 speakers and 2,000 attendees participate in this program to provide faculty and students an opportunity to engage in scholarly endeavors

The Public Leadership and Education Network (PLEN)

January 2014

- Science and Health Policy: Critical Issues Seminar offers college women a valuable opportunity to hear firsthand from women scientists, leading health experts, medical researchers, and pharmaceutical representatives who shape our nation’s agenda in this critical policy arena from government, nonprofits, and the private sector

A Biomedical Research Conference for Minority Students

November 2012

- The Annual Biomedical Research Conference for Minority Students, the largest professional conference of its kind in the nation, is designed to encourage underrepresented minority students to pursue advanced in STEM disciplines. Received a physiology award amid 1,700 presentations in 12 sub-disciplines for outstanding research

Student Leadership Development Institute 2011

January 2013

- The theme for this institute was when I attended was “Overcoming Obstacles: The Right Choices for a Successful Future”. The conference is sponsored by the Pennsylvania Black Conference on Higher Education, Inc. and is designed to address topics essential to developing leadership skills for all college students in particular those from underrepresented ethnic backgrounds

GRANTS

Spring 2015	\$900 Health Disparities Conference Travel supported by the Office of Undergraduate Education, College of Health and Human Development, and Department of Biobehavioral Health
Fall 2014	\$300 Black Doctoral Network Conference Travel supported by the Schreyer Honors College
Fall 2014	\$300 Schreyer Honors College Thesis used to defray a portion of Scholars’ thesis research expenses.
Spring 2014	\$600 James and Alberta Stith Fund given to the Multicultural Resource Center to support students of color in STEM research.
Spring 2014	\$500 HHD Small Project Grant created by The Health and Human Development Alumni Society to provide research funding.
Spring 2014	\$2,000 Africana Research Center Grant monetary support for scholars whose primary research centers on the African Diaspora
Fall 2013	\$1,200 NAAAS Conference Travel supported by the Schreyer Honors College, Office of Undergraduate Education, College of Health and Human Development, and Department of Biobehavioral Health
Fall 2012	\$900 ABRCMS Conference Travel supported by the Office of Undergraduate Education, College of Health and Human Development, and Department of Biobehavioral Health

UNIVERSITY INVOLVEMENT

30th MLK Service, Evening Celebration Director & Ambassador Fall 2014 – Present

- Organize annual anniversary celebration securing a keynote speaker and accompanying performances; secure reservations, promotion, meetings, and ticketing
- Serve as undergrad ambassador for the annual dinner hosted by Forum on Black Affairs

Teaching Assistant in Biobehavioral Health Fall 2014 – Present

- BBH 432: Biobehavioral Aspects of Stress with over 100 students
 - Generate exam questions, develop leadership, productive teamwork, and facilitate others’ education growth
- BBH 411W: Research and Applications in Biobehavioral Health
 - Create lab assignments, utilize SPSS to analyze datasets, outline IRB process

The Ronald E. McNair Scholars Program

Fall 2012 – Present

- Participated in a nine-week internship during the summer in performing active graduate level research under the direction of a faculty research advisor
- Excelled in a research methodology course
- Engaged in retreats, seminars, visitations, social and cultural activities
- Presented research findings at the Penn State McNair Summer Research Conference

Peer Health Education

Fall 2013 – Present

- Leadership role: HIV Counselor and Alcohol Workshop Team Leader
- Serve as a peer educator for Health Promotion and Wellness (HPW) housed under the University Health Services (UHS)
- Promote health among Penn State community through several objectives which include spreading awareness and knowledge of health issues including sexual health, nutrition and fitness, stress, sleep, alcohol, tobacco and other drugs, body image and eating disorders, and wellness

Treasurer of the National Council of Negro Women, Incorporated

Fall 2013 – Present

- Lead, develop, and advocate for women through research, advocacy, community service and community programs
- Promote the three Ps: philanthropy, prosperity, and promotion of educational values

Student Support Services Tutor

Spring 2012 – Present

- Assisted SSSP in providing the best academic support possible to ensure students' success thorough planned and prepared lessons, clarified expectations, and shared learning experiences.
- Tutored Biology 141: Anatomy and Physiology; CAS 100: Public Speaking; Nutrition 251: Introductory Principles of Nutrition; and English 202A: Writing in the Social Sciences

Scholar Advancement Team

- Serve as an ambassador of the Schreyer Honors College for student recruitment at various functions such as student orientation, alumni and parent receptions, commencement ceremonies, luncheons, and open houses.
- Represent the College in a responsible, ethical and professional manner, while working closely with Dean of the SHC, various Directors and Coordinators on staff.

Club Kreyol/Project Haiti

Fall 2011 – Present

- This club's goal is to further support the effort of achieving Penn State's understanding and appreciation of diversity on campus. Club Kreyol exposes the Penn State community to what it means to be Haitian, placing much emphasis on the country's motto, "L'union fait la force" (unity makes strength) and celebrating our rich and unique culture.
- Assisted in Creole lessons to interested students

NAACP

Fall 2011 – Spring 2013

- The mission of the National Association for the Advancement of Colored People is to ensure the political, educational, social, and economic equality of rights of all persons and to eliminate race-based discrimination.
- Appointed THON Chair (Fall 2012) and Health Co-Chair (Spring 2013). Organized events and fundraisers for the largest student ran philanthropy in the world to create awareness and revenue to fight against Pediatric Cancer and advocate for health.

IM Soccer Fall 2011 – Spring 2013

- Extracurricular sports organization; achieved two “runner up” titles in the championship (Spring 2013 & Fall 2013) through teamwork and communication.

Student Minority Advisory and Recruitment Team Fall 2011– Spring 2012

- The Student Minority Advisory and Recruitment Team aims to recruit and retain minorities at PSU in order to foster a diverse environment

SELF-EXPRESSION AND CULTURAL AWARENESS

Ambitions Dance Organization Spring 2012 – Spring 2013

- Choreographed culturally rooted dance piece
- Cultivated artistic talents through music and dance performances

Cultural Shows Spring 2012 – Spring 2015

- Educated the PSU community alongside the Caribbean Student Association and African Student Association through three visual shows incorporation fashion, food, and music

Vagina and Body Monologues Spring 2012 – Spring 2013

- Educated the PSU community about plight of women regarding issues such as sex, relationships, and violence against women as well as body image through monologues

COMMUNITY SERVICE

Steps towards Safety 5K Fall 2013

- Lead and encouraged runners throughout the event

Penn State Career Days Fall 2011 – Spring 2012

- Assisted in the university wide event by helping employers set up and directing students visiting the career fair

Martin Luther King Day Fall 2009 – Present

- Served the community on this holiday through day-long service. Projects included: arboretum maintenance for the PSU community and cleaning homes of the disabled

RELEVANT SKILLS

SPSS	HIPPA Training
Limited Working Proficiency Spanish & French	CITI Training
Bilingual Proficiency Haitian Creole	Biosafety Training
Microsoft Word, PowerPoint & Publisher	Survey Monkey