2016

An Obesity Needs Assessment with African American Adults in Central Virginia

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This is to certify that the doctoral study by

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Walden University
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Abstract

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

Walden University
May 12, 2016

Abstract

The risk for obesity is especially prevalent among African American adults in Central Virginia, who have one of the highest rates of obesity in the nation. Efforts to address obesity in African American adults through diet, weight reduction, and increased physical activity in settings such as schools, worksites, healthcare organizations, churches, and communities, are among the initiatives of Healthy People 2020. The objective of this project, conducted with 91 African American adults (33 females and 58 males) in central Virginia, was to complete a community needs assessment that related to obesity among members of an African American church. The needs assessment was an 8-question voluntary quantitative survey that collected data on 4 independent variables (age, income, access to fruits and vegetables, and visiting a doctor in the past year for health concerns) and 2 dependent variables (concern about obesity and willingness to attend health education classes at local church). The Health Belief Model and the Health Promotion Model were both utilized in this project. The Spearman's rho and Chi-square statistics were used to analyze the data. Age was significantly associated with concern about obesity: As age increased, concern about obesity decreased. Income was significantly associated with willingness to attend health education classes at the local church: As income level increased, willingness to attend health education classes increased. Ten out of 11 adults who reported a lack of access to fruits and vegetables reported not being concerned about obesity. The results of the needs assessment may result in a positive social change in the church community through program development and implementation to target identified needs.

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Acknowledgements

I would like to thank my family, my coworkers, and the faculty of Walden University School of Nursing for their support. I do not believe I could have completed this program without you. I also want to thank God for blessing me with this opportunity. I would like to give a special acknowledgment to Dr. Rebecca Branch-Griffin, Dr. Audrey Jones, and Dr. Bridgette Wilson from Virginia State University Student Health Services Department. I could not have done this project without your guidance. I want to thank you for mentoring and assisting me in accomplishing my professional and educational goals in nursing. Dr. Branch-Griffin, Dr. Wilson, and Dr. Jones have been an asset in assisting with my health newsletters, needs assessment, and encouraging me to pursue a nursing leadership role. I would like to thank the three of you for all you have done for me and your contributions to this project. May God continue to bless the three of you.

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Section 1: Nature of the Project

Introduction

The Petersburg Wellness Consortium in Virginia has initiated a program to encourage all churches and the community centers to increase participation in programs to reduce or prevent obesity in African American adults. In 2010, more than 78 million U.S. adults and roughly 12.5 million children and adolescents were obese, according to the Centers for Disease Control and Prevention (Zamosky, 2014). Few health problems pose a greater threat to patients than obesity and its related ailments (Zamosky, 2014).The Doctor of Nursing Practice (DNP) student assisted two churches in Central Virginia to develop and implement a needs assessment survey for a health and wellness program that would focus on reduction or prevention of obesity in the AA community. African-American populations have strong ties to include the nature and functions of church-based support networks (Chatters et al., 2011). With both churches, the DNP student worked with the church nurses. With the DNP student, the preceptors were Dr. Branch-Griffin, Director of Health Services at Virginia State University and Dr. Jones, Health Educator at Virginia State University. Both individuals were pastors of churches in Petersburg, Virginia and supported the DNP student to spearhead a health and wellness assessment survey focused on the reduction or prevention of obesity at their respective churches. Church members are mostly ready to participate in health research and that pastor characteristics have meaningful associations with individual decisions about research participation (Odulana et al., 2014).

At the time of this study the DNP student, was a nursing faculty member at Virginia State University, but I did not work in health services on the Virginia State University campus. Also, the DNP student was not a member or had ever attended either church. The health and wellness pilot

project discussed in this study could lead to a program that would be initiated by all 104 churches in the local Petersburg area to help decrease obesity. The DNP student worked directly with the church nurse community at both churches. There's room to be creative with health education as a faith community nurse (Donnelly, 2014). Many church nurses do blood pressure screening or provide health information once a month after Sunday worships (Donnelly, 2014). Dr. Jones and the DNP student collaborated to develop and implement a group of health and wellness programs for Virginia State University students and employees, which will be modified, and an implementation plan will be developed based on feedback from a needs assessment from two religious institutions. Churches in the AA community can provide tangible and useful resources from church-based networks directly address material needs such as food, shelter, and clothing that are relevant for health and well-being (Chatters et al., 2011). While pastors serve in a number of capacities, as leaders and gatekeepers of their congregations, as well as change agents, the insight they provided gave credence to what should be duly considered for program development (Williams et al., 2012).

Oak Street AME Zion (OS AMEZ) and Greater Faith AME Zion (GF AMEZ) were the two churches interested in a new approach to decreasing obesity among their church community members. Minorities can pose a challenge for health education and promotion, but churches can provide an entrée (Cowart et al., 2010). The pastor's encouragement can attribute with higher participation scores related to the church organization and leadership that health researchers should consider in engaging the African-American churchgoing community for research participation (Odulana et al., 2014). This health and wellness assessment survey will focus on obesity prevention and reduction as a church-driven setting project.

Background

The churches that participated in the health and wellness assessment surveys were sister churches with similar missions and vision statements. Young and educated pastors were significantly associated with congregant attitudes about participation preparedness, a finding that highlights the importance of the pastor regarding congregant research participation decisions (Odulana et al., 2014). The mission and vision statements of the churches aligned with the implementation of a health and wellness program. The African-American church has been the foremost stable institution in the African-American community (Samuels, 2012). The goals of both churches were to enable their nurse board members to serve in the health and wellness ministry. The objectives of the churches included having healthy members to help accomplish the mission and vision of the churches. The strategic plans were to continue to strive to improve the health of their members and the communities they serve. The missions, visions, goals, and strategic plans of the churches were to incorporate programs to improve the health and welfare of the church and community members. Consequently, they confront a health care system that is either inaccessible or not responsive to their needs (Samuels, 2012). Unfortunately, the African- American church has not seized the opportunity to access available resources to pursue a strategy of healthcare services for the underserved aged (Samuels, 2012). A needs assessment survey could help the churches to focus on what are the health and wellness issues related to their local community church members.

A few quantitative studies have compared the role of the nurse board with the issue of obesity in an African American community. There is a gap regarding the role of the church nurse and the fight against obesity in African-American communities. There is a need to have more studies that focus on how nurses can influence a community in a positive manner. Nurses are natural educators and the largest healthcare group in the world. Anecdotal evidence from pastors

and congregants suggests that many African- Americans do not take health risks seriously or change their behaviors until they receive a doctor's warning or diagnosis of illness when it is often too late to prevent disease (Cowart et al., 2010). General knowledge that excess weight raises health risks is not sufficient to alter their lifestyle habits; there is a need to increase motivation, plus specific information on how to improve health practices and support to help them persist in their efforts (Cowart et al., 2010).

Another issue is the lack of opportunities to seek healthcare information. African-American churches have and will continue to provide safety net health services for the underserved community (Samuels, 2012). African-Americans, especially males sometimes do not have a regular annual checkup. Statistics shows that 75% of the AA population will attend church, at least, two to four times annually (Samuels, 2012). Culturally relevant education about how to make healthier food choices, use better cooking methods, and follow an exercise routine is essential (Cowart et al., 2010).

Problem Statement

Obesity is considered to be a worldwide epidemic with little evidence that its incidence is declining or that it has even reached a plateau (Brisbois, 2011).The problem was high levels of obesity in African-American adults in Central Virginia. Virginia has had one of the highest obesity rates in the nation among African American adults. Among Virginia's regions, the Central region had one of the highest obesity rates at 25% in 2011 (Council on Virginia's Future, 2012). There is no doubt that obesity has become a major health-care crisis in America, but in Central Virginia, it has become an urgent concern. Obesity is due, in part, to the fact that there is a direct association with three of the five most costly diseases in the United States; heart disease, hypertension, and

diabetes (Levine & Koepp, 2011). Several risk factors linked to the issue of obesity. These include low-income, racial health disparities, and regional health disparities. The average total amount spent on adults for health expenditures related to obesity was almost $40 billion in 2006, including $7 billion in Medicare prescription drug costs (Centers of Disease Control and Prevention [CDC], 2010).

Obesity raises the risk for many chronic diseases and poor health outcomes (Cowart et al., 2014). There is a need for a medical or nursing intervention that will help decrease obesity among African-American adults in Central Virginia. Also, any plans must include identification of the population's risk factors and development of interventions to promote healthier lifestyle choices that will result in improving individual and community health and wellness. In recent years, efforts have been made to develop more culturally sensitive programs, including faith-based and community-designed interventions (Cowart et al., 2014).The goal of this project was to develop and implement a needs assessment survey to identify significant health care disparities of obesity among African-American adults living in Central Virginia. Meeting the goal of decreasing obesity with nursing interventions could save lives and economically help this state and the nation.

The needs assessment could be the missing link to finding the gap with church nurses and health education for AA in church settings. This gap could solve the problem of obesity and the co-morbidity issues that affect the AA community in a negative way. The church is a natural venue for getting health-related knowledge (Stewart, 2014). Because a church is like a hospital; it's like a place where people can come and get well and get knowledge, so they're not ignorant (Stewart, 2014). Church nurses could be the liaison for health care to the African-American Community.

The Purpose of the Study

Several objectives that were applied to this project:

- Identify risk factors, barriers, and unhealthy lifestyles that place African American adults in this area of the nation at an increased risk for obesity.
- Utilize evidenced-based information to decrease obesity rates in Central Virginia by implementing a needs assessment, educational sessions, newsletters, nurse moments in church services (an opportunity to share information during services), and food diaries.
- Identify community members, major stakeholders, educators, and health care professionals who can aid in determining interventions to help decrease obesity in Central Virginia.
- Plan activities and projects to lower the obesity rates in rural Central Virginia with mentors and church health educators.
- Develop monthly newsletters to communicate new exercise activities, healthy snack options, and meetings to reinforce health and wellness education.
- Identify gaps in health education and obesity prevention could have a positive effect on church nurses and the community.

The short-term outcomes of the project would be as follows:

- Identify obesity issues with the needs assessment survey.

The long-term outcomes of the project would be as follows:

- People in the community or church settings will have increased knowledge of obesity prevention learned from the survey.

- Persons in the community or church settings will implement health-promoting behaviors on their own which were gained from the study.
- People in the community or church settings will be able to identify conditions that can occur during extended periods of obesity from the survey.

Research Question(s) and Hypotheses

The research question for this study is the following: Is there is a significant difference in the independent variables (IV) demographic variables (age, income, location and education), concern with obesity and attending health education classes at the church (DV). The null hypothesis could be that there is no significant difference in the (IV) on the outcomes (DV).

- **Research Question 1.** Is the demographic factor of age significantly associated with concern about obesity (yes/no) among African American adults in Central Virginia?
- **Research Question 2.** Is the demographic factor of age significantly associated with willingness to attend health education classes at the local church (yes/no) among African American adults in Central Virginia?
- **Research Question 3.** Is the social class indicator of income significantly associated with concern about obesity (yes/no) among African American adults in Central Virginia?
- **Research Question 4.** Is the social class indicator of income significantly associated with willingness to attend health education classes at the local church (yes/no) among African American adults in Central Virginia?

- **Research Question 5**. Do African American adults in Central Virginia who do or do not have access to fresh fruits and vegetables significantly differ with regard to concern (yes/no) about obesity?
- **Research Question 6.** Do African American adults in Central Virginia who do or do not have access to fresh fruits and vegetables significantly differ with regard to willingness to attend health education classes at the local church (yes/no)?
- **Research Question 7**. Do African American adults in Central Virginia who have or have not visited a doctor's office for a health concern in the past year significantly differ with regard to concern (yes/no) about obesity?
- **Research Question 8.** Do African American adults in Central Virginia who have or have not visited a doctor's office for a health concern in the past year significantly differ with regard to willingness to attend health education classes at the local church (yes/no)?

Interdisciplinary Team

Changing the church organization, financing, and incorporating priorities of the new health and wellness program needed strong interdisciplinary teamwork. The needs assessment project involved building a partnership with the churches and community sponsors, assessing the health needs and program interests of church members, and participants' input (Cowart et al., 2014). Well-coordinated collaboration among professions has the potential to allow comprehensive, population-based, cost-effective patient care, and a new emphasis on health promotion and disease prevention. Collaborating with stakeholders is essential with meeting contemporary health care challenges

(Baldwin, 1994). The interdisciplinary team members included the church nurse board members, the mentors, the church health educators, and the DND student.

The interdisciplinary team members came from a variety of nursing backgrounds and education levels, from licensed practical nurses to advanced practice nurses. There were five tasks that were addressed by the health and interdisciplinary teams:

1. Describe the interdisciplinary team approach to health care (Long, 2012). The DNP student spearheaded the needs assessment survey in collaboration with the nursing mentors and the nurse boards at each church.
2. Understand and appreciate the professional roles of team members (Long, 2012). The mentors were both nurses who pastor churches. Both church nurse boards had a total of five members with various backgrounds in nursing; some members continued to work in nursing, and some were retired.
3. Identify the tasks and activities of the interdisciplinary team (Long, 2012). The interdisciplinary team would assist in the development and implementation of the needs assessment survey. Both teams would have the opportunity to evaluate and change the health education information. The nurse board members were to bring knowledge from other sources to the health information programs. Each nurse board member was encouraged to sign up and attend basic computer education training sessions at the library or the employment office. These services are offered free to the general public.
4. Participate in collaboration and conflict management (Long, 2012). The interdisciplinary team would work together to resolve issues regarding the

information and methods of the health and wellness needs assessment survey. In consultation with the nurse mentors, the DNP student would be the person to resolve conflict in the issues related to the health and wellness needs assessment survey.

5. Participate in the maintenance of cross-professional teamwork (Long, 2012). The interdisciplinary teams would be encouraged to attend community meetings regarding the issue of obesity.

Implications for Social Impact in Practice

Faith community nursing programs draw on the community outreach model and have grown as a response to the inequity of health care delivery (Monay et al., 2010). The needs assessment survey can have an impact on the local community and their thoughts on the issue of obesity. Such programs can provide the culturally relevant context, personal motivation, and social support needed for African Americans to change their health behaviors for the longer term (Cowart et al., 2014). The Petersburg Wellness Consortium, with a focus on obesity, contributes to nursing, health, and related sciences to improve the care of individuals and groups. Educating church and community members on health and wellness can empower participants' self-care and self-management of obesity-related issues. A nurse can utilize key elements of the social impact model such as informing potential volunteers of risks before enrollment, standardizing data collection methods at social impact events, and reviewing and following up on reported social impact events.

Faith community nursing programs provide outreach to community members and extend their services beyond just the church community (Monay et al., 2010). A nurse can assist participants by informing them of the availability of free testing, implementing broad-based and targeted community education programs for achieving community support, communicating with

scientific and health care communities, and working with government agencies, nongovernment organizations, and the business community (Allen & Lau, 2008). As patients are educated about their specific disease processes related to obesity, they might consistently comply with obesity prevention activities and improve dietary behaviors. Complying with obesity prevention and reduction behaviors can lead to a longer and higher quality of life for the residents of Central Virginia. Also, the Petersburg Wellness Consortium will continue to have a social impact with a focus on obesity and contribute to culturally related educational programs for African American adults. Also, the needs assessment can be utilized to find out what the church African American community feels are the needs to address with obesity.

Nursing Impact

The nursing impact on the issue of obesity can be great in the future. There are many changes related to nursing by the role as a nurse leader. Faith community nurses represent a new method of supporting self-management for low-income individuals with a chronic condition who may otherwise have limited access to health services (Monay et al., 2010). Nurses can receive requests to lead presentations and serve on local boards on the topics of health, wellness, and obesity. Also, other churches may require a needs assessment or health and wellness program with an emphasis on obesity education in their church. Because the Black church is so important in the African-American community, the ministers could have the power "to significantly affect knowledge, attitudes, beliefs, and behaviors within their congregations (Cowart et al., 2014). People in the church and community will be able to see the opportunities and services nurses can bring to a community. Therefore, Florence Nightingale's conception of nursing as a secular, educated profession cannot be overemphasized as a benchmark in the development of the importance of

women in the social system (Selanders, 2010). There is a need for further documentation on how nurses have implemented studies and increased positive health-related outcomes for church communities.

Needs Assessment

In recent years, a large volume of research has focused on identifying early determinants or 'warning signs' of future development of obesity (Brisbois, 2012). An initial needs assessment was required to determine the communities' perceptions of the most important needs related to obesity management. A needs assessment is a systematic process in which health centers collect information about the community they serve or are planning to serve (Bogue, 2011). In consultation with the nurse board members, the project mentors, and the church health educators, the DNP student developed a needs assessment survey to collect data for the church community members. Church-based partnerships represent an innovative approach that will not only have the potential to reach great numbers of the target population but may also promote sustainability and integration of EBIs into the cultural framework of the African American church community (Stewart, 2014).

Depending on the information targeted, a needs assessment is a useful tool to determine the following: size and demographic characteristics of the population, percentage accessing health care services, type of health services accessed, and unmet health care needs of the community (Bogue, 2011). A needs assessment is also useful to determine if a health center is accessible, if services provided are meeting the needs of the target population, what percentage of the population is satisfied with the services offered in the community, and if there is a need for adjustment to the services being provided (i.e. hours of operation) to increase access (Bogue, 2011). The needs

assessment addresses and focuses on what the community members felt were methods to decrease or prevent obesity in the Central Virginia community.

A needs assessment can determine the project outcomes related to the needs and priorities of the target community. The selected problem for the DNP project was obesity in African American adults in the Central Virginia area. The African American adults ranged from 18 to 99 years of age in the target community. The Central Virginia area has been labeled a food desert due to limited resources (Abell et al., 2011). The significant problem is because food deserts are short on whole food providers, especially in fresh fruits and vegetables, and they are heavy on local quickie marts that provide processed sugar and fat-laden foods that are known contributors to the United States' obesity epidemic (Nutrition Digest, 2011). The African American adult community member who has limited transportation does not have access to grocery stores or farmer's markets within a 1 to 5-mile radius are located in a food desert.

To effectively impact the health outcomes of the local population, there must be consistency in the project. The use of consistent methods and common health outcome measures enables valid comparison of the potential impact of interventions when the strength of the evidence used is taken into account (Haby et al., 2006). The African American adult community needs would be included in the education on the preventable nature of obesity.

Assumptions and Limitations

There were several challenges the DNP student expected to encounter during data collection for the project. One of the greatest challenges could have been low participation and completion of the needs assessment surveys. Another challenge could have been the collection of data from the African American adult population members. The DNP student had minimal involvement in the

AA community to develop a trusting relationship to ensure interest and participation in the needs assessment surveys for the project. Also, there could have been cultural barriers. The DNP student had to be prepared to address cultural differences and provide culturally competent care for the community and the participants.

Process evaluation implemented in the beginning of the research program. The process evaluation's purpose is to learn whether the program is serving the target population as planned and whether the number of people being served is more or less than expected (Friss & Sellers, 2009). The needs assessment can identify health and wellness education needs for African American adults has been shown to be effective in previous studies. Most African American adults will gather often or weekly in the church setting and will be receptive to health education in a familiar environment program (Butler-Ajibade et al., 2012). The church is a place where people learn values and attitudes regarding the "good" life or, to use a biblical phrase, "the abundant life," making it an ideal setting for health promotion to take root and flourish., such as their religious setting, when their leader is a stakeholder in the program (Butler-Ajibade et al., 2012). Thus, African American adults could be open to receiving the health and wellness education focused on obesity prevention information program (Butler-Ajibade et al., 2012). However, to be successful will take the involvement of the leaders of the church and the community to encourage the members to participate in the needs assessment.

Definition of Terms

For the purpose of the study the following operational definitions were used:

African Americans – Persons who have African descendants.

Baby Boomers - persons who are older than 65 years of age.

Central Virginia area – Geographic middle location in the state of Virginia.

Church - a place where people learn values and attitudes regarding religious practices.

Church Nurse – a nurse who provides health services or information in a church setting.

Data Usage Agreement - A consent form outlines data usage, responsibilities and storage for the surveys by a leader of the participants of a study.

Faith Educator - people who volunteer to provide health information in a church setting.

Food Desert - community location with people who have limited transportation, and there is no access to grocery stores or farmer's markets within a 1 to 5-mile radius.

Health Belief Model – motivates persons with the perception and belief of good health.

Health Promotion Model - educates, motivates and inspired participants to improve their health status by making healthy lifestyle choices.

National Medical Library – is world's largest biomedical library.

Obese – a person who has a weight and BMI above the normal limits.

Petersburg Wellness Consortium – a group, developed with grant funding in Petersburg, VA to meet with leaders in the community to implement solutions to health-related issues.

Summary

The purpose of this DNP needs assessment project was to assess the community needs of Central Virginia related to the diagnosis of obesity. To achieve the outcome of the needs assessment project, an interdisciplinary team worked together to access the needs of the community. The needs assessment determined what the community needed as identified by the community members. The needs assessment reviewed the basic knowledge of the local community members regarding obesity prevention, physical activity, and dietary issues. The needs assessment would provide the basis for

nursing interventions in the two churches in rural Central Virginia in the future. The review of assumptions and limitations for the project include the understanding that the success of the study was based on the support of the religious leaders. This support was assured because the mentors were ministers of the two churches. Section 2 of this study provides a review of the literature that supported the implementation of the needs assessment project.

Section 2: Review of Literature and Theoretical and Conceptual Framework

The purpose of this literature review was to examine the topics of obesity prevention, health education, church nurses and the African American adult community. According to a recent analysis by Gallup-Healthways, the adult obesity rate in 2013 was 27.2%, up from 26.2% in 2012, and it is on pace to surpass all annual average obesity rates since Gallup-Healthways began tracking it in 2008 (Zamosky, 2014). The literature revealed that health education in a church setting in African American adult communities has been an effective method of changing health behaviors. The religious institution is a major resource in the African American adult community and the

implementation of health information in this setting is expected to lead to positive outcomes. Minorities can pose a challenge for health education and promotion, but churches can provide an entrée (Cowart et al., 2010). Winning support from pastors is key; they can inspire trust in a health program and serve as role models for healthier habits (Cowart et al., 2010). The needs assessment literature review is a vital part of the prevention plan for obesity.

Why is Obesity a Concern?

The growing problem of obesity is that it is a leading risk factor associated with multiple morbidities (Ahima, 2011). Obesity is one of the main causes of mortality among African American adults. African Americans have the highest rates of excess weight in the nation, and standard weight management programs have not worked well with this population (Cowart et al., 2010). The primary intervention for providing education is crucial to decrease or prevent obesity and its associated chronic diseases. In Healthy People 2020 (2011), the primary focus for obesity prevention is providing education on nutrition and weight control. According to Healthy People 2020 (2011), the goal is to reduce risk factors associated with obesity by improving consumption of healthful diets and the achievement and maintenance of healthy body weights. The nurse plays a vital role in educating communities about how to decrease their risk factors. In recent years, efforts have been made to develop more culturally sensitive programs, including faith-based and community-designed interventions (Cowart et al., 2010). Nurses can provide community resources that aid African American adults to reach the Healthy People 2020's goals (2011).

Many factors could lead to reasons for high incidences of obesity in the African American adult community. One factor is that poor, underserved African American adult populations have limited access to fresh fruits and vegetables. In many quality improvements (QI) projects, people

living in low-income or minority communities were reported to be a distance from high quality, full-service supermarkets and from grocery stores selling healthful foods (Aggarwal et al., 2012). A second factor is that an African American adult with a family history of obesity is at a greater risk of obesity. Having obese parents and grandparents was correlated with obesity in childhood (Noble, 1997). A third factor is a sedentary lifestyle. A sedentary lifestyle is a life with limited physical activity such as walking, running and exercise. There are several reasons for a sedentary lifestyle such as unsafe neighborhoods, no sidewalks, and inclement weather (Noble, 1997).

Another major factor related to obesity is a food desert. For more than two decades, researchers have been gathering evidence to determine whether there are connections between access to healthy food and decreased obesity rates and other diet-related diseases (Robert Wood Johnson Foundation, 2013). Central Virginia was labeled as a "food desert" (Abell et al., 2011). A food desert is defined as an area lacking access to healthy food within a 1 to 5-mile radius by persons who have a lack of reliable transportation. However, improving access to healthy foods, especially in lower-income communities and communities of color in both rural and urban settings, goes beyond improving diet and health outcomes. Bringing new food outlets into underserved areas also, can provide an economic stimulus in communities that may need it most (Robert Wood Johnson Foundation, 2013). Nurses must be concerned with increasing access to healthy food for the people of the local community.

Family history plays a significant role in the issue of obesity. Many times chronic health concerns can be traced back from generation to generation, especially obesity. Many times families just accept the factor of their size and do not attribute their weight to diet, habits, and family history. Community-based studies have suggested a multigenerational pattern of obesity affecting

the children's risk of becoming overweight (Davis et al., 2007). The local community could benefit from visualizing trends in their families. Among children with obese parents (BMI >/=30), 31.9% were overweight, and if grandparents (BMI >/=30) were obese, then the prevalence of a child being overweight was 17.4% (Davis et al., 2007). Also, research has shown overweight parents and grandparents could equate to overweight children (Huffman et al., 2010). Childhood obesity could decrease with a reduction in adult obesity. The parent would monitor his or her diet and lifestyle and teach the children to do the same. Health educators have to start with the parents and grandparents to have an impact on the children's health and wellness.

Clinical efforts should be aimed at promoting desirable body weight and regular exercise as a high priority in prevention (Keller et al., 2003). The majority of the African American adults located in low socioeconomic communities may be unaware of the risk factors, lifestyles, and barriers that lead to obesity. Small changes regarding eating a healthy diet and incorporating weekly exercise will decrease or prevent obesity. The goals of Healthy People 2020 (2011) are to minimize or prevent health disparities so that individuals may live longer lives, prevent disability or injury, improve the health of all groups, and promote healthy behaviors across all life stages.

Researchers have attributed a sedentary lifestyle to the issue of obesity in the African American adult culture. Programs implemented through churches can reach large numbers of individuals in the community and provide a significant source of sustainable efforts to improve the health of African Americans, especially in regard to the prevention of cardiovascular disease (Ford, 2013). The high number of individuals with hypertension from a "sedentary lifestyle," as well as the complexity of human responses, give rise to the need of effective interventions that are needed that can influence behaviors aimed to promote the practice of physical activities (Guedes et al.,

2011). Many times people are unaware of the resources in the community such as free exercise classes. Health and wellness education must have an exercise component to explain the importance of an activity level plan. Evidence showed that a regular routine of physical exercise decreased arterial pressure and reduced cardiovascular mortality rates up to 30% (Guedes et al., 2011). Research has shown persons who live a sedentary lifestyle are prone to diseases such as diabetes and hypertension. Some of these studies were implemented in partnership with local churches, which continue to play a fundamental role in the development, support, and implementation of health education and promotion programs (Dodani et al., 2011). Local AA community members have to be encouraged to get moving and increase their activity levels, which could decrease obesity.

What are the Cost Factors for Obesity?

Beyond the detrimental impacts for individuals, families, and communities, we all bear the financial burden of escalating health care costs for chronic illnesses (Cowart et al., 2010). The cost of hospital stays for obese patients has increased in various forms. Hospitals have implemented lift teams or hired orderlies to assist with morbidly obese persons. The hospital has to hire people to focus on the needs of the overweight, such as diabetes, dialysis, and nutritionists, to educate the patient and their families. Type-2 diabetes, linked to obesity and physical inactivity, accounts for 90% to 95% of diabetes cases for people over 40 (Alliance for Health Reform, 2013). Those who are morbidly obese need special equipment. Some examples of equipment for morbidly obese persons are big boy beds and scales that hold persons over 450 pounds.

Also, obesity has effects on insurance and surgical cost. The evidence is unfolding, everyone is beginning to associate obesity, and excess body weights are driving medical conditions

and costs up (Zamosky, 2014). Medical expensives cannot be controlled as long as we have these rising rates of obesity (Zamosky, 2014). Persons who are obese and are hired by a company could elevate the insurance premiums for the company. This will affect the cost of insurance for everyone affiliated with an organization. Those persons without health insurance place the burden of their hospital stay on the hospital and society. Individuals are seeking surgical alternatives instead of, or in addition to, managing their diet and eating habits. Some insurance policies cover gastric bypass surgery or people have to pay out of pocket. Bariatric surgery could be utilized as a method to decrease or treat obesity in the African American adult community (Kissler & Settmacher, 2013). There are medical practices (e.g., doctors and clinics) that focus on decreased obesity through medications or surgical intervention. Beyond achieving substantial and permanent weight loss, bariatric surgery improves metabolism far beyond lifestyle modifications and medical treatment alone (Kissler & Settmacher, 2013). These are just some of the many costs that are associated with the obese population.

If the trend toward obesity continues, these expenditures will reach up to 16-18% of total U.S. healthcare costs by 2030, equaling $861-957 billion dollars (Duncan et al., 2011). In addition, to surgery options, persons who are obese are more likely to be on more medications than persons of average weight. Cost-related medication nonadherence is ultimately associated with increased health care resource utilization and poor patient outcomes (Wilbur, 2008). Obese individuals are more likely to have chronic disease such as hypertension, cholesterol issues, and diabetes. People with chronic illness are likely to be on several medications to help with their diagnosis. This will be a problem issue, especially if this person is uninsured. Physicians are often unaware of the costs associated with their prescribed therapy, but little is documented regarding familiarity of hospital

pharmacists with out-of-pocket medication expenses borne by patients in the community setting (Wilbur, 2008). Persons who are uninsured may have problems with medication compliance. Drugs for chronic diseases are costly to individuals, especially those without insurance. However, the treatments for obesity that have been proven to work present some barriers including cost, access, and large-scale implementation (Duncan et al., 2011).

There are still many cost factors connected with the issue of obesity. The American people will have to pay for the cost of obesity prevention or the chronic issues related to obesity. Chronic long-term effects of obesity can be costly to state and federal governments. Also, hospitals have to bear the burden of obesity costs. Costs associated with diabetes exceeded $174 billion in 2007 (Alliance for Health Reform, 2013). Hospitals have less money available for new equipment, will have to add new additions to the hospital, and to hire more nurses or other hospital personnel for obese patients.

Why Nurses Should Be Concerned?

There are many reasons for nurses concern with the issue of obesity. One major area of concern is the correlation of nurses with back pain. According to the US Bureau of Labor Statistics (2002), registered nurses ranked as the sixth highest in lost working days related to musculoskeletal disorders (including days lost because of back pain) among 126 occupations (June & Cho, 2011). Nurses who have worked with obese patients have increased complaints of back pain and workmen's compensation claims. The hospital has to compensate nurses who were injured as a result of moving obese persons. Back pain has been attributed to time off work and nurses leaving the nursing profession (June & Cho, 2011). Nurse health directly affects their job satisfaction, quality of life and desire to change careers, but also the quality of patient care and safety (June &

Cho, 2011). A decrease in obese patients could lead to increase job satisfaction and less back pain for nurses.

Nurses was concerned with the long-term outcomes of obesity. Obesity was linked to an early death rate, especially in the African American adult community. In research that counters previous studies of the effect of obesity on American life spans, being overweight or obese was associated with 18.2% of all deaths among adults from 1986 through 2006 in the United States (Medscape, 2013). Persons who are obese die from the complications and chronic diseases associated with obesity. African American adults have an increase in death rates from the complications of obesity. In Medscape (2013), obesity had an especially strong effect on black women, with 26.8% (95% confidence interval [CI], 7.3%-47.4%) of deaths associated with a body mass index (BMI) of 25 kg/m^2 or higher. In white women, 21.7% (95% CI, 14.4%-29.3%) of deaths were associated with being overweight or obese (Medscape, 2013). Among black and white men, 5.0% (95% CI, 6.8-18.3%) and 15.6% (95% CI, 8.6 - 22.9) of deaths were associated with being overweight or obese, respectively (Medscape, 2013). Nurses could educate the local population about the consequences of long-term effects of obesity. Over time, the education of the effects of long-term obesity could lead to the local population implementing behavior changes to decrease obesity.

Nurses were concerned with the health and wellness of the local community. Faith-community nursing programs may represent a new way to promote self-care
behavior and deliver health services to individuals with poorly controlled hypertension in these communities (Monay et al., 2010). Minorities are often viewed as "difficult to reach" on health issues, but in reality, we need new strategies to engage effectively (Cowart et al., 2010). And we

need to prepare health practitioners to do this critical work—by strengthening cultural competency training, designing culturally sensitive interventions, and marshaling community resources (Cowart et al., 2010). Obesity prevention or health and wellness programs would educate the local community on the long-term effects of obesity. Every faith community nurse functions differently, addressing the health needs of individuals and groups according to the needs of the congregation they serve (Donnelly, 2014). Over time, obesity prevention programs would have a lower cost for the local government to implement. Some provisions in the health reform law are aimed directly at improving population health by addressing conditions where Americans live, learn, work, and play (Kaiser Family Foundation, 2013). Nurses could find career opportunities for implementing programs as Health and Wellness Coaches. Communities and churches could seek out nurses to provide education and resources related to health.

Implementing the goals of the Healthy People 2020, the African American adult community must be assessed to determine if knowlegde about to lifestyle changes necessary for positive outcomes in obesity is required. Previous QI projects have shown that nurses in African American churches can educate the African American adult community members on the topic of obesity (Smith et al., 1997). The educational outreach demonstration study was initiated to prepare a cadre of registered nurses as church health educators, provide education as needed, and actively support programs in African American churches (Smith et al., 1997). Research has shown that the church is an important meeting place for African American adult individuals and their community (Smith et al., 1997).

Research and QI Project

Discovery research has identified genetic risk factors (Belsky et al., 2013). Research has identified many disease processes related to obesity such as diabetes, hypertension, cancer, coronary artery disease, hyperlipidemia, stroke, sleep apnea, osteoarthritis, and death (Mehta & Henry-Tillman, 2008). It is estimated that 14 million Americans had diabetes in 1995, and the number is expected to increase to 22 million by 2025 (El-Kebbi, 2003). Health services research is needed to determine how screening for these types of diseases can be best deployed to meet ethical and cost-effectiveness criteria (Belsky et al., 2013). There has been a concurrent increase in the incidence of diabetes that correlates with obesity (Tilghman, 2003). Research demonstrates that it is vital for nurses to be at the forefront of initiating research studies by developing strategies for use in practice and providing education to the public about the potentially deadly consequences of obesity (Tilghman, 2003). Nurses are often the leaders and the first to evaluate the outcomes of various educational strategies implemented to manage disease processes and facilitate patient care.

Major QI projects have shown that there is a major ingredient that is often missing when implementing change in local populations. Establishing a sense of urgency is the most important step because it requires tackling inertia (Shirley, 2011). The establishment of a sense of urgency is also the most difficult aspect to accomplish with initiating the change process. In QI projects, there are required steps to achieving goals that provide consistency, interest, and motivation to make behavioral changes (Shirley, 2011). The research has identified four tactics needed to establish a sense of urgency: (1) bring the outside in, (2) behave with urgency every day, (3) find opportunities in crisis, and (4) how to deal with no-nos (Shirley, 2011). These four tactics have been applied to the obesity issue as they relate to current conditions, address the issue of obesity daily, relate

obesity to current chronic health problems, and review inappropriate behaviors regarding obesity. The project leader must be prepared to address each tactic before beginning the project to implement the change if it is to be effective.

A Review of the Literature That Supports the Needs Assessment

There is literature that supports a needs assessment for the nurse, church and health programs:

- Winning support from the pastor is key: they can inspire trust in a health program and serve as role models for healthier habits (Cowart et al, 2010).
- Benefits of the community-based practice program include gaining insight into the social context of health, engaging in real life mutual learning experiences, interacting with professionals and clients, and community-based research projects (Mudarikwa et al., 2010).
- The key strategy is drawing on the valuable, long-standing relationships between the community people and church health educators, and to integrate these relationships with local health services and nursing education (Proctor, 2005).
- The measure of effect can strengthen evidence-based practice in nursing (Terry, 2012).

The measure of effect can be use to evaluate interventions in evidence-based practice. In public health, there is an opportunity to utilize the measure of effect. This action exhibits a somewhat higher yet still moderate association between body fat and disease risk than estimates based simply on stature and body mass (Wallner-Liebmann et al., 2013**)**. The two primary uses of measures of effect are absolute and relative effects. Epidemiologists are known to utilize rates and

risks interchangeably, but both have their definitions (Friis & Sellers, 2009). Before implementing the QI project on obesity, a needs assessment was developed and delivered to two local AA community churches. The needs assessment identified the essential characteristics and educational requests of the local participants. Using members input also creates targets to their needs and preferences – and give them ownership and pride in their church designed health intervention (Cowart et al., 2010).

There are limitations to not using the measure of effect for the outcome of this QI project. As BMI increases throughout the range of moderate and severe overweight, so also does risk increase for cardiovascular complication, certain cancers, diabetes, Alzheimer's disease, gallstones, sleep apnea, osteoarthritis and renal disease (Wallner-Liebmann et al., 2013**)**. Without showing the measure of effect, it is hard to demonstrate a decrease in the population issues related to obesity. One of the simplest ways to compare the obesity burden in two groups is to calculate the absolute difference in obesity frequency (Friis & Sellers, 2009). Therefore, as a DNP-prepared nurse, the focus on obesity would be to compare each church individually and then compare both churches findings.

Models

The models most appropriate to address the issue of obesity in the African American adult community of Central Virginia are the Health Belief Model (HBM) and the Health Promotion Model (HPM). Both the HBM and HPM can be utilized to implement effectively changes in the African American adult communities. Each model has a component aimed at improving the health and wellness that can be used to decrease or reduce obesity in the African American adult local population.

Health Belief Model and the Health Promotion Model were both utilized in An Obesity Needs Assessment Program with African American Adults in Central Virginia. There were weekly nurse education moments on Sunday before the survey. The nurses at both churches were teaching the participants about issues related to obesity and having exercise classes weekly.

Health Belief Model (HBM)

Developments in health psychology have enabled a better understanding of the reasons some individuals adhere to their treatment regime, and others not (Jones et al., 2014). Health Belief Model has several parts that are incorporated into the survey. Perceived severity is relayed by educating the individuals about serious health problem because they are more likely to initiate prevention activities. An example of a perceived severity is when members would give examples of how they would shop for fresh fruit and vegetables instead of canned items. Perceived susceptibility is when the participants were aware of the risk of developing health issues. An example of perceived vulnerability was educating them on how a sedentary lifestyle leads to obesity. Perceived Benefits are reviewed as the positive aspects of health education.

Some of theories of health behavior exist, and there are subtle differences between them (Sutton, 2011). An example is the participant seemed to look forward to the nurse's education moment each week during church service and verbalized that changes they wanted to make. Perceived Barriers are related assessing any obstacles to change health behavior. An example of perceived barriers could be not taking blood pressure medications due to side effects of blood pressure medications. Modifying variables are reviewed as options that can be implemented to change the outcome of a health related issue. An example of a modifying variable is including exercise 2-3 times a week. Cues to Action were activities that can create or remind people of health

problem. An example of cue in action is the nurse's moment was focused on the health-related topic on each month. Self-Efficacy is can refer to the participant is aware of the success of the health issue is to perform a behavior over time. An example of Self-efficacy is long-term behavior change such as a diet low in fat, increased exercise, and stopping smoking. The HBM one of the most widely used and well-tested models for predicting the behaviors of health. From the HBM, perceived severity and perceived barriers were found to be significantly correlated with adherence to self-care behaviors (Jones et al., 2014).

The HBM is an interpersonal theory based on a person's perception. The HBM was one of the first models that adapted methods from the behavioral sciences to predict health behaviors (McEwen & Willis, 2011). Therefore, by changing an individuals' perceptions, the likelihood of those individuals acting on the health behavior recommendation increases (Hodges & Videto, 2011). The HBM has four essential concepts, which are: (1) perceived susceptibility, (2) perceived severity, (3) perceived benefits, and (4) perceived barriers (Hodges & Videto, 2011). The HBM works as a foundation for the obesity prevention and educational program approach of this project. The Nursing Board members at the church can utilize the HBM's central concepts to implement changes in individuals as follows:

- Perceived susceptibility to obesity – An African American adult perceives, he is at risk for and can prevent obesity by making simple lifestyle changes.
- Perceived severity for obesity – An African American adult believes, he is at risk for obesity and that obesity could change their life drastically.
- Perceived benefits for obesity – An African American adult knows that making simple lifestyle changes can reduce the chances of obesity.

- Perceived barriers for obesity – An African American adult may be embarrassed to attend weight watcher or healthy living programs.
- Cues to action – An African American adult may be more likely to attend a sponsored healthy lifestyle class offered in their local community or church on health problems associated with obesity.
- Self-efficacy – An African American adult decides to implement lifestyle changes such as a low-fat diet and increasing activity.

The HBM focuses on programs related to health problems rather than social or economic issues. The HBM is utilized in health prevention or promotion education to implement healthy changes in individuals. The educational programs can affect individuals and groups and, therefore, have an impact on the community (Deavenport et al., 2010). The HBM has been used as a framework on various studies to promote mammogram screening (Deavenport et al., 2010). The HBM was applied to additional health issues through social psychology research on topics such as smoking cessation, flu immunizations, diabetes control, and sexually transmitted disease prevention (Deavenport et al., 2010). The HBM has a proven track record as the basis for initiatives to promote positive behavioral changes in subjects (Deavenport et al., 2010).

The HBM is one of the earliest models implemented to evaluate the health behaviors of individuals, groups, and cultures. The theory developed in the 1950's with the focus on enhancing people's compliance with preventive services such as chest x-rays for tuberculosis screening (Nieuwenhuijsen et al., 2006). The HBM's focus is on motivating people to make positive changes through education on the adverse effects of an action or condition if left untreated. The earlier discussion of the HBM was on individual perceptions, modifying factors, and the likelihood of

action (Janz & Becker, 1984). The person must believe that s/he can overcome the situation that has caused the problem to address the obstacle. Recently, the variable of self-efficacy has been added to HBM to reflect a shift from early detection and treatment to primary prevention (Nieuwenhuijsen et al., 2006). The revised HBM focuses on the subjects' background, perceptions, and actions (Rosenstock, 1990). The revised model addresses the issue of socio-demographic factors such as education, sex, race, and ethnicity. The HBM can help identify ways to provide information, and promote an understanding of the rationale or reasons that a person seeks help and complies or becomes noncompliant with the prescribed plan of action for the subject (Janz & Becker, 1984).

Health Promoting Model (HPM)

Health Promotion Model (HPM) has several parts that were incorporated into the survey. The Health Promotion Model educates motivates and inspired participants to improve their health status by making healthy lifestyle choices. At the heart of this model is the acknowledgement that a person's negative habits (e.g., lack of exercise, poor nutrition) and his or her deepest values and beliefs (e.g., faith, health, family) are often misaligned, or disconnected (Anshel, 2010). The nurse board members implemented a nurses' educator moment every week and encouraged the participants to attend the weekly exercise classes offered. Accomplishing the HPM, health strategies should focus on patient health education and counseling support for members. Examples of health promotion programs include education and counseling initiatives that promote exercise and low-fat &low sugar diets. Health promotion and access to services may play a role in facilitating longevity, particularly in underserved populations (Sinasac, 2012).

The HPM was developed by Nola Pender 1982 and revised in 1996. The HPM works to complement other health models and works well with the HBM. The HPM model focuses on

following three areas: (1) individual characteristics and experiences, (2) behavior-specific cognitions and affect, and (3) behavioral outcomes (Pender, 2013). Pender noted that each person has unique personal characteristics and experiences that affect subsequent actions. The DNP student and church nurses could utilize this information to modify an obesity prevention program to address individual differences and needs in the future.

The HPM is an important aspect of the Health and Wellness Project with a focus on obesity reduction or prevention. Development of a health promotion plan that takes into consideration location and convenience to the client, even in rural areas, has the potential to be attended by more individuals, thus leading to increased success (Sinasac, 2012). The education the participants gain from the health and wellness information sessions could empower them to implement self-actualization and self-management of their health. Empowerment is a client's ability to be responsible for his or her life by having adequate knowledge to make rational decisions, implement their decisions, use resources appropriately, and evaluate the effectiveness of their choices (Sinasac, 2012). HPM encourages health professionals to offer specific resources to assist participants to develop specific behaviors to improve the outcome of health.

There is a need for more studies on health promotion models to inspire communities to make better health decisions for themselves and their families. Health promotion focuses on increasing the personal responsibility of individuals and groups for their behaviors (Padden et al., 2013). This model contends that positive motivators, such as feeling better or looking better, may offer the better explanation for long-term health-promoting behaviors than avoidance-oriented motivators (Arras et al., 2008). Health behaviors play a significant role role in the health and well-being on a person and the community. According to the HPM, personal characteristics such as age,

gender, or education interact with behavior-specific cognitions like self-efficacy, perceived benefits, or barriers to the behavior to influence an individual's commitment to engage in health promoting behaviors (Arras et al., 2006). Health promotion not only benefits individuals concerning disease prevention, but it also promotes a sense of general well-being and improved quality of life (Padden et al., 2012).

Historically, the black churches play a central role in the AA community (Butler-Ajibade et al., 2012). The religious leader's role is to provide the client with faith-based incentives to initiate and maintain changes in their health behaviors, and perhaps to provide resources for the individual to pursue an action plan (Anshel, 2010). Some examples of services offered have included substance abuse assistance, health screenings, education, and social support. Numerous studies have found that churches provided multiple preventions and treatment-oriented programs that contributed to the physical as well as the psychological well-being of their congregants (Butler-Ajibade et al., 2012).

Summary

The purpose of this DNP project was to assess the community needs of Central Virginia related to the diagnosis of obesity. To achieve the outcomes of the project, an interdisciplinary team from both churches worked to create the needs assessment survey. The findings of the needs assessment determine what is necessary for the community as identified by the community members. The HBP and the HPM can be utilized to implement changes in the community or church setting. The needs assessment provided the basis for nursing interventions in the two churches in rural Central Virginia under the leadership the DNP student. The success of the needs assessment study was based on having support from the religious leaders and the trust of the African American

adult community. This support was assured since my mentors are ministers of the two churches. Letters of support from the church leaders are included as appendices. Section 3 provides a review of the approach or mythology that supports project implementation.

Section 3: Methodology

The Intervention

A needs assessment survey determined the direction of this QI project. A standard needs assessment survey was used to evaluate the significant issues related to obesity for the members of the two churches. The specific intervention was determined by the findings derived from the needs assessment and priorities for participant change. The future potentials in obesity research aim at adding to our understanding of the complex system of the mechanism of obesity (Holm, 2013). The DNP student recruited church health educator volunteers to assist with the project. The DNP student met with the church health educator volunteers on several occasions to lay out the implementation plan for the program.

The interdisciplinary team was encouraged to review the health and wellness literature. The interdisciplinary team would meet twice a week for four weeks to discuss the information for the newsletters and bulletins to the church members. The multidisciplinary team reviewed the National Medical Library for resources on health and wellness-related issues. The nursing board members and the DNP student discussed National Medical Library resources at the local library once a week on a particular topic. Also, the DNP student discussed health, medical, and nursing databases, such as CINAHL and Medline, at the Petersburg Library. The information collected in the databases was utilized in the newsletters and health education. There are many places to access online resources for the health and wellness project focused on obesity. Dr. Jones and the DNP student were the designated content experts for the obesity project at both churches and reviewed all materials before they was published.

The church health educator volunteers and pastors recruited the church members to complete the needs assessment study. They needed to create a sense of urgency for the subjects to participate in the survey. Faith community nurses or church health educators are not home care nurses or public health nurses, but they work with these and other specialties in a collaborative way to advocate for their faith communities (Donnelly, 2014). Through the church mentors' and pastor's leadership efforts, the DNP student expected that most church members would want to be a part of the identification of needs. The date the survey would be completed was announced weeks in advance via the health information moments during church services and in the church announcement section of the bulletin before the start of the program by the pastors of the churches.

An Outline for the Needs Assessment

1. Discuss needs assessment with mentors/pastors and church health educators of the churches.
2. The research literature on sample needs assessments.
3. Met weekly with both church groups to review a needs assessment.
4. Develop a needs assessment for both churches with nurse church board.
5. Have needs assessment approved by both churches.
6. Agree on dates to expedite a needs assessment.
7. Announce to church body, the dates of the needs assessment is to be administered.
8. Administer the survey to the nurse board and collect data from needs assessment survey.
9. Disseminate the results of the needs assessment to the church members.

10. Develop the intervention(s) based on the needs assessment.

The DNP student priority was to initiate accountability for the success of the obesity project so that interest would continue for obesity education in the future. The nurse board members and the DNP student maintained documentation of the changes that occurred or did not take place during the project. Church health nurses are the educators, the volunteer trainers, and the health counselors, the referral agents in the church (Donnelly, 2014). This was representing accountability for managing and leading the nurse board to provide effective obesity prevention strategies for life.

The needs assessment was a survey utilized to collect data from local stakeholders and the members of the two churches in Central Virginia (see Appendix A). The local population members and the DNP student worked together during the project (Laureate, 2011). The project included churches as a major stakeholder in any community, especially the African American adult community. The DNP student reviewed assets and resources, and not just the needs of the community (Laureate, 2011). The schools, churches, and community centers was viewed as assets in the African American adult community.

Various interventions could be developed for the project. The participants were asked to indicate how often each week, and for how long, they engaged in physical activity or exercise of at least moderate intensity, which was defined as activities that make one breathe somewhat harder than normal (e.g., brisk walking, cycling at a regular pace, heavy gardening) (Wang & Coups, 2010). If lack of exercise emerged as a need and a community priority, a plan to develop monthly newsletters on the topic of training, new exercise activities, and meetings to reinforce physical activity could be developed.

The needs assessment survey used a cross-sectional method. The approach is a cross-sectional study was appropriate for obtaining information on the problem of obesity in this particular Central Virginia community (Terry, 2012). This survey included questions on relationship to behaviors and lifestyle issues of African American adults in the targeted community. The demographic variables used in this analysis include ethnicity, age, gender, marital status, education, and family income (Chatters et al., 2011). The needs assessment reviewed the basic knowledge of the local community members regarding obesity, physical activity, and diet.

The project took place in two churches. The focus was on long-time members of the church, which could increase the chance of higher participation in the survey. The DNP student, provided copies of the needs assessment survey at the designated project churches to the nurse church board members. Faith health educators have trusted professionals who bridge the gap between the congregant and the health care system (Donnelly, 2014). At Greater Faith, the surveys were placed in the church programs and given out by the church nurse board. At Oak Street, the surveys were handed out by the pastor herself to each member. The needs assessment survey day was announced in advance by the pastors of the churches to increase the number of persons available to complete the survey. The members of the church were told the results of the survey would be utilized in reach and as such their submitting the survey would be considered permission for their survey to be included as research. Social support from church members is just one of several aspects associated with attending religious services (Chatters, et al, 2011). The church members were interested in the results and plan to make obesity education accessible to the church members in the future.

The Foundation of the Needs Assessment Survey

There were several surveys sampled to utilize for the Needs Assessmnet for this project:

- Congregational Health Assessment Survey (10 Questions)
- Congregational Health Ministry Survey (5 Questions)
- Demographic Questions: Sample Survey (5 Questions)
- Health-Promoting Lifestyles Profile II (HPLP) (52 Questions)
- Health Promotion Participant Interest Questionnaire (10 Questions)
- NACCHO Health Promotion Survey (20 Questions)

The survey questions that were sampled were already proven to be valid and reliable for survey purposes.

Summary

In conclusion, obesity continues to be an important health epidemic in the United States. Overweight and obese populations are faced with many health issues that include heart disease, diabetes, hypertension, and sleep apnea (CDC, 2012). Overweight and obese populations can be affected in various areas of their lives. Obesity is a rapidly growing public health challenge heading to be one of the main health problems in the world with high societal and individual costs (Holms, 2013). Healthy options can play a role in helping to reduce risk factors and improve health among the African American population in Central Virginia. Healthy options for African American populations could reduce the risk factors associated with being overweight and obesity. Importantly, nurses can provide education, interventions, and prevention programs to help combat the epidemic of being overweight and obese that are culturally appropriate, cost-effective, and located in the community where the target population resides. The DNP student developed a needs assessment survey to determine how the AA community and church members can help in reducing obesity. Nurses and pastors of both of the churches publicized and administered the needs

assessment to the African American adult population of two Central Virginia churches on the issues of obesity and how to best help them to make improvements in their lives. In the next section of this paper, the DNP student reviewed the findings of the needs assessment; outline the proposed intervention(s) based on the needs assessment, and the community priorities for change. The DNP student will also, discuss the implications this scholarly project will have on AA lives for improved lifestyle management practices to decrease and or prevent obesity.

Section 4: Findings, Discussion, and Implications

Introduction

The project is titled, "An Obesity Needs Assessment Program with African American Adults in Central Virginia." The purpose of the needs assessment program survey was to determine if there was a need for nurses to conduct health education in the church. The needs assessment surveys was administrated to two groups of 100 persons in two African American churches in Central Virginia. The churches utilized in the African American community in Central Virginia were OS AMEZ and GF AMEZ. Both pastors of the church agreed to have their churches participate in the needs assessment.

Discussion of Findings

Obesity was described as the leading cause of most health disparities. Also, research has shown that obesity could lead to cancers, hypertension, diabetes, and early death rates (Calle & Kaaks, 2004). Furthermore, the Central Virginia area has the highest health disparity issues in the state of Virginia. Therefore, African American communities would receive and could implement information distributed from the church or school events in a groups setting. The church population will fulfill the following by the end of the program survey:

1. Identify health promotion behaviors.
2. Identify chronic conditions associated with obesity.
3. Identify methods of finding health information.

Analysis of Data

The purpose of this study was to utilize the results of the needs assessment to determine whether or not the African American community in Petersburg, Virginia would use the health

resources provided by church nurses on the topic of obesity. The surveys were implemented at two churches in Central Virginia. Both churches were given 100 surveys each to complete. A total of 118 questionnaires were received back from the participants of both churches and included in the project. GF AMEZ Church returned 69 surveys out of 100. GF AMEZ Church had 22 surveys that were incomplete and not included in the results. A total of 47 surveys were completed successfully from GF AMEZ Church. OS AMEZ Church returned 49 surveys out of 100. There were five surveys from OS AMEZ Church that were incomplete and not included in the results. A total of 44 surveys were completed and listed in the survey from OS AMEZ Church. From both churches, the results of a total of 91 participants were gathered and analyzed. There were 27 surveys from GF AMEZ Church that were incomplete and removed from the study. There was a total of 91 completed surveys from both churches.

The following statistical tables and figures display the results of the needs assessment study from both churches combined. They are presented in tabular form to assist the reader in comparing the data.

Individual Tables and Figures

Table 1a

Frequency of Rating of Interest in Knowledge of Health Topics (OS 44)

Rating	4	3	2	1	0
Blood Pressure	16	22	4	2	0
Cancer	16	12	10	2	4
Cholesterol	13	18	10	1	2
Obesity	14	20	7	1	2
Stroke	13	17	9	1	4
Diabetes/Sugar	16	18	5	4	1

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

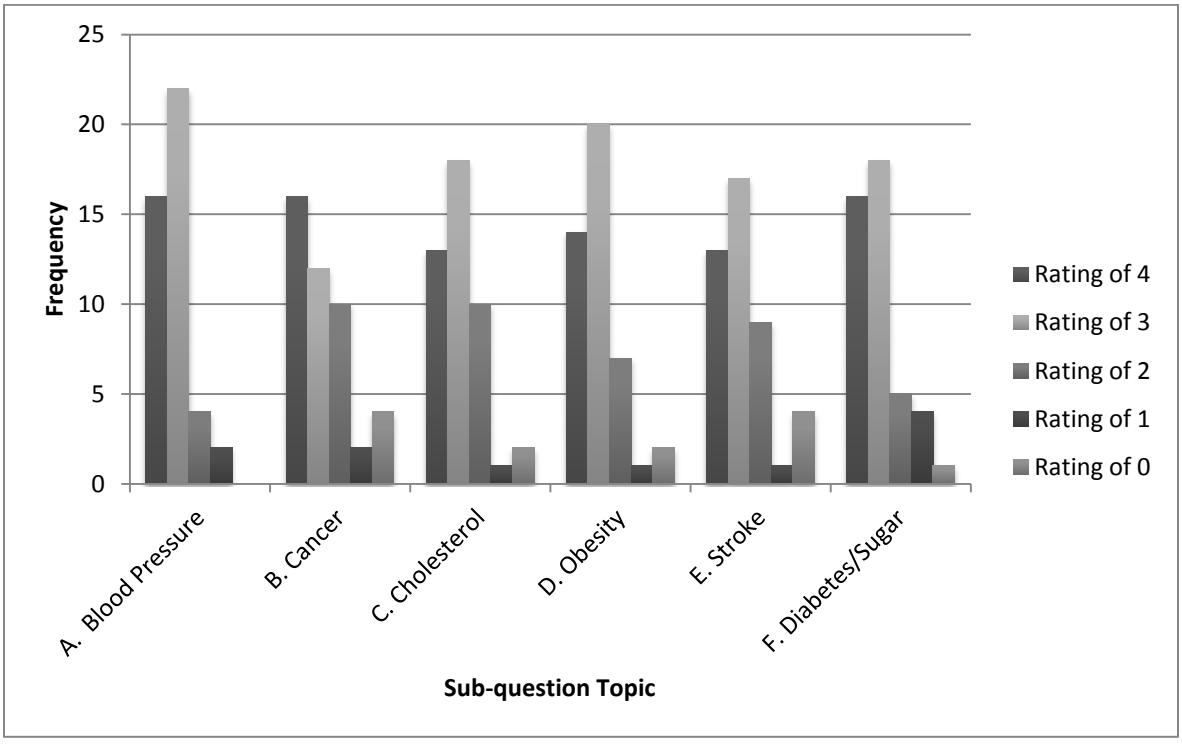

Figure 1a. Part A: Topics for health education rating of interest in knowledge in health topics Question 1 (OS AMEZ).

As shown, for all categories, blood pressure, cancer, cholesterol, obesity, stroke, and diabetes, the rate of knowledge was *excellent* or *good* for most people present. For interest in knowledge about blood pressure, 36.4% of participants gave a rating of 4, 50.0% gave a rating of 3, 9.1% gave a rating of 2, 4.5% gave a rating of 1, and 0% gave a rating of 0. Rating their interest in knowledge about cancer, 36.4% gave a rating of 4, 27.3% gave a rating of 3, 22.7% gave a rating of 2, 4.5% gave a rating of 1, and 9.1% gave a rating of 0. The ratings of cholesterol were the following: 29.5% gave a rating of 4, 40.9% gave a rating of 3, 22.7% gave a rating of 2, 2.3% gave a rating of 1, and 4.5% gave a rating of 0. Rating their interest in knowledge about obesity, 31.8% gave the rating of 4, 45.5% gave the rating of 3, 15.9% of participants chose the rating of 2, 2.3% of participants chose the rating of 1, and 4.5% of participants gave a rating of 0. For rating of interest in knowledge about stroke, participant responses were as follows. Out of the responses to this question, 29.5% gave a rating of 4, 38.6% gave a rating of 3, 20.5% gave a rating of 2, 2.3% gave a rating of 1, and 9.1% gave a rating of 0. The rated interest in knowledge about diabetes/sugar were 36.4% of participants selecting a rating of 4, 40.9% of participants selecting 3, and the ratings of 2, 1, and 0 were selected by 11.4%, 9.1%, and 2.3% percent of respondents, respectively.

Table 1b

Frequency of Rating of Interest in Knowledge of Health Topics (GF 47)

Rating	4	3	2	1	0
Blood Pressure	30	15	1	1	0
Cancer	28	15	2	0	2
Cholesterol	25	20	2	0	0
Obesity	25	20	1	0	1
Stroke	26	16	2	2	1
Diabetes/Sugar	29	18	0	0	0

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

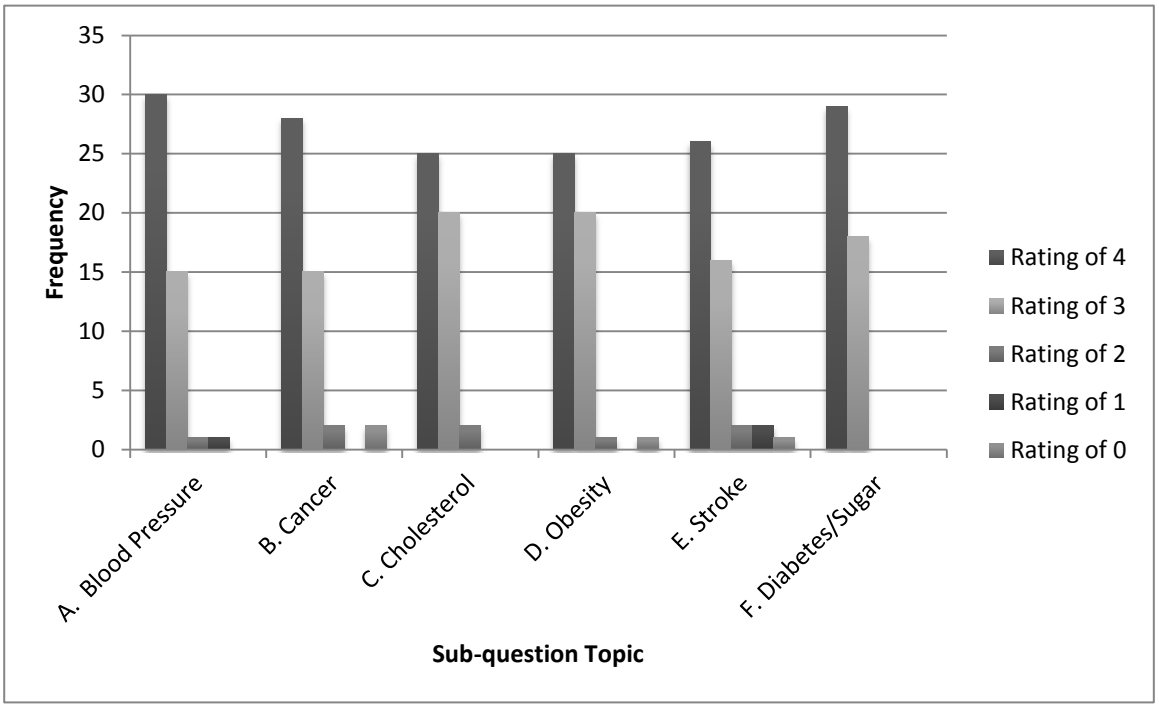

Figure 1b. Part A: Topics for health education rating of interest in knowledge in health topics Question 1 (GF AMEZ).

As shown, for all categories, blood pressure, cancer, cholesterol, obesity, stroke, and diabetes, the rate the interest of knowledge is excellent or good for most people present. The participants were asked to rate their interest in knowledge about blood pressure, of which 63.8% gave a rating of 4, 31.9 % gave a rating of 3, 2.1 % gave a rating of 2, 2.1 % gave a rating of 1, and 0 % gave a rating of 0. Of the participants who rated their interest in knowledge about cancer, 59.6% gave a rating of 4, 31.9% gave a rating of 3, 4.3% gave a rating of 2, 0% gave a rating of 1, and 4.3% gave a rating of 0. The ratings of cholesterol were as follows, 53.2%gave a rating of 4, 42.6% gave a rating of 3, 4.3% gave a rating of 2, 0% gave a rating of 1, and 0% gave a rating of 0. Of the participants who rated their interest in knowledge about obesity, 53.2% gave the rating of 4, 42.6% gave the rating of 3, 2.1% of participants gave the rating of 2, 0% gave the rating of 1, and 2.1% gave a rating of 0. The participants for rating of interest in knowledge about stroke are as follows. Out of the responses to this question, 55.3% gave a rating of 4, 34.0% gave a rating of 3, 4.3% gave a rating of 2, 4.3% gave a rating of 1, and 2.1% gave a rating of 0. The rated interest in knowledge about diabetes/sugar were 61.7% of participants selecting a rating of 4, 38.3% of participants selecting 3, and the ratings of 2, 1, and 0 were selected by 0%.

The combined result for all 91 participants to rate their interest in knowledge of various health topics was the following. Of the participants who rated their interest in knowledge about blood pressure, 50.6 % gave a rating of 4, 40.7% gave a rating of 3, 5.5% gave a rating of 2, and 3.2% gave a rating of 1, and 0% gave a rating of 0. Rated their interest in knowledge about cancer, 48.4% gave a rating of 4, 29.7% gave a rating of 3, 13.2% gave a rating of 2, 2.2% gave a rating of 1, and 6.5% gave a rating of 0. The ratings

of cholesterol were the following. For cholesterol, the ratings of 3 and 4 were each selected by 41.8% of participants, the rating of 2 was selected by 13.2%, the rating of 1 selected by 1.1% of respondents, and a rating of 0 by 2.1% of respondents. Of the participants who rated their interest in knowledge about obesity, 42.9% gave the rating of 4, 44.0% gave the rating of 3, 8.8% of participants chose the rating of 2, 1.1% of participants chose the rating of 1, and 3.2% of participants gave a rating of 0. Of the participants who rated their interest in knowledge about stroke, 42.9% gave a rating of 4, 36.3% gave a rating of 3, 12.1% gave a rating of 2, 3.3% gave a rating of 1, and 5.5% gave a rating of 0. Of the participants who rated their interest in knowledge about diabetes/sugar, 49.5% gave the rating of 4, 39.6% gave the rating of 3, and the ratings of 2, 1, and 0 were selected by 5.4, 4.4, and 1.1%of respondents, respectively.

Table 2a

Frequency of Rating of Interest in Topics for Exercise in Your Community (OS 44)

Rating	4	3	2	1	0
Walking	18	15	6	4	1
Running	12	13	10	7	2
Types of Exercise	17	20	5	1	1
Exercise Classes	16	14	10	4	0

Note: Rating of =Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

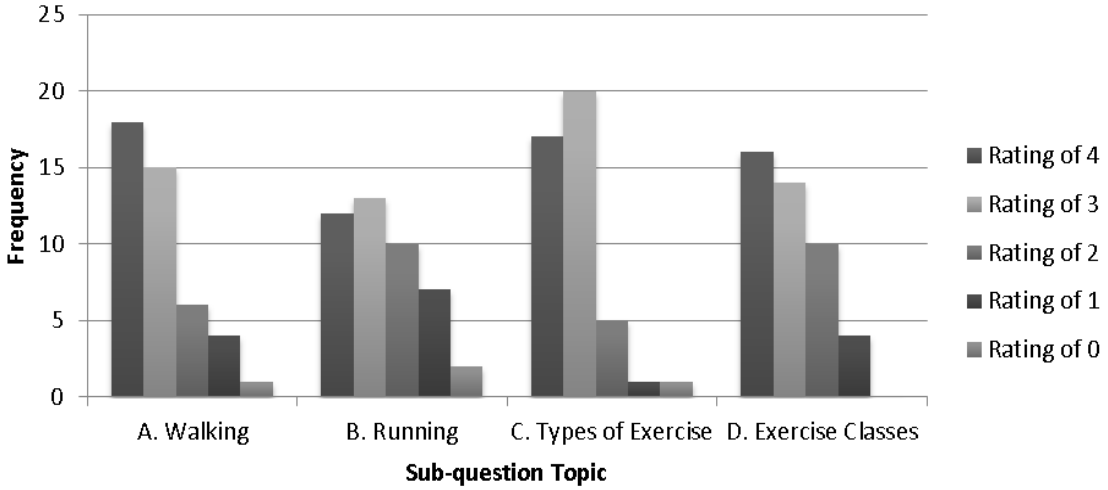

Figure 2a. Part B: Topics for exercise rating of interest in topics for exercise Question 2 (OS AMEZ).

As shown, the interest in topics of exercise that rated excellent is types exercise and exercise classes. Table 2a and Figure 2a summarize the data for part B of question 2 which asked participants to rate their interest in topics for exercise in their community. Of the participants who rated their interest in walking, 40.9% gave a rating of 4, 34.1% gave a rating of 3, 13.6% gave a rating of 2, and 9.1% gave a rating of 1, and 2.3% gave a rating of 0. Of the participants who rated their interest in running, 27.3% gave a rating of 4, 29.5% gave a rating of 3, 22.7% gave a rating of 2, 15.9% gave a rating of 1, and 4.5% gave a rating of 0. Sub-question 2C was rating interest in learning about types of exercise. Of the participants, 38.6 % gave a rating of 4, 45.5% gave a rating of 3, 11.4% gave a rating of 2, and 2.3% gave a rating of 1, and 2.3% gave a rating of 0. Question 2D collected ratings about interest in exercise classes and the rating of 4 was given by 36.4% of participants; the rating of 3 was given by 31.8% of participants, the rating of 2 was given by 22.7% of

participants, the rating of 1 was given by 9.1% of participants, and 0% of participants gave a rating of 0.

Table 2b

Frequency of Rating of Interest in Topics for Exercise in Your Community (GF 47)

Rating	4	3	2	1	0
Walking	23	21	2	1	0
Running	18	17	10	2	0
Types of Exercise	28	14	3	1	1
Exercise Classes	29	13	3	1	1

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

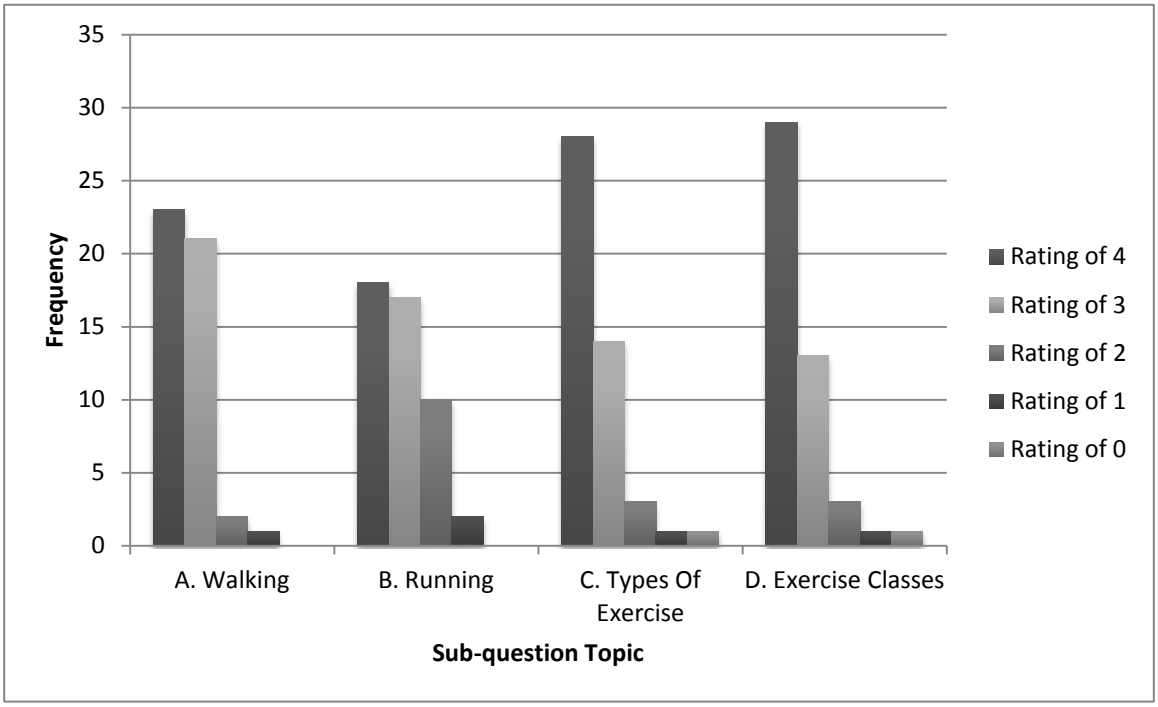

Figure 2b. Part B: Topics for exercise rating of interest in topics for exercise Question 2 (GF AMEZ).

Table 2b and Figure 2b summarize the data for part B question 2 which asked participants to rate their interest in topics for exercise in their community. Of the participants who rated their interest in walking, 48.9% gave a rating of 4, 44.7% gave a rating of 3, 4.3% gave a rating of 2, and 2.1% gave a rating of 1, and 0% gave a rating of 0. For question 2B, of the participants who rated their interest in running, 38.3% gave a rating of 4, 36.2% gave a rating of 3, 21.3% gave a rating of 2, 4.3% gave a rating of 1, and 0% gave a rating of 0. Sub-question 2C was used to rate interest in learning about types of exercise. Of the participants, 59.6% gave a rating of 4, 29.8% gave a rating of 3, 6.4% gave a rating of 2, and 2.1% gave a rating of 1 and 0.Question 2D collected ratings about interest in exercise classes and 61.7% gave a rating of 4, 27.7% gave a rating of 3, 6.4% gave a rating of 2, and 2.1% gave a rating of 1 and 0.

The combined result for all 91 participants regarding their rated interest in topics for exercise in their community. In general, of the participants who rated their interest in walking, 45.1% gave a rating of 4, 39.6% gave a rating of 3, 8.8% gave a rating of 2, 5.4% gave a rating of 1, and 1.1% gave a rating of 0. Of the participants who rated their interest in running, 33.0% gave a rating of 4, 33.0% gave a rating of 3, 23.0% gave a rating of 2, 9.9% gave a rating of 1, and 1.1% gave a rating of 0. Sub-question 2C was implemented to rate the participants' interest in learning about types of exercise. Of the participants, 49.4% gave a rating of 4, 37.4% gave a rating of 3, 8.8% gave a rating of 2, and 2.2% gave a rating of 1, and 2.2% gave a rating of 0. Question 2D collected ratings about interest in exercise classes, of which the rating of 4 was given by 49.4% of participants; the rating of 3 was chosen by

29.7% of participants, the rating of 2 was chosen by 14.3% of participants, the rating of 1 was chosen by 5.4% of participants, and the rating of 0 was chosen by 1.1% of participants.

Table 3a

Frequency of Willingness to Practice New Exercises (OS 44)

YES	NO
40	4

Table 3b

Frequency of Willingness to Practice New Exercises (GF 47)

YES	NO
42	5

Tables 3a and 3b summarizes the data for question 3 which asked participants whether or not they were willing to practice new exercises in their daily routines. The mode response for this question was yes. There were a total of 40 responses from OS AMEZ, of which 90.1% responded yes and 9.0% responded no. There were a total of 47 responses from GF AMEZ, of which 89.3% responded yes and 10.6% responded no. In comparison, the majority of respondents from both churches would be willing to practice new exercises.

Table 4a

Frequency of Rating of Best Method for Learning New Exercises (OS 44)

Rating	4	3	2	1	0
Internet	9	11	6	6	12
Radio	1	7	8	14	14
Face to Face	25	14	5	0	0
Handouts	10	20	6	5	3
Magazines	11	14	12	4	3

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

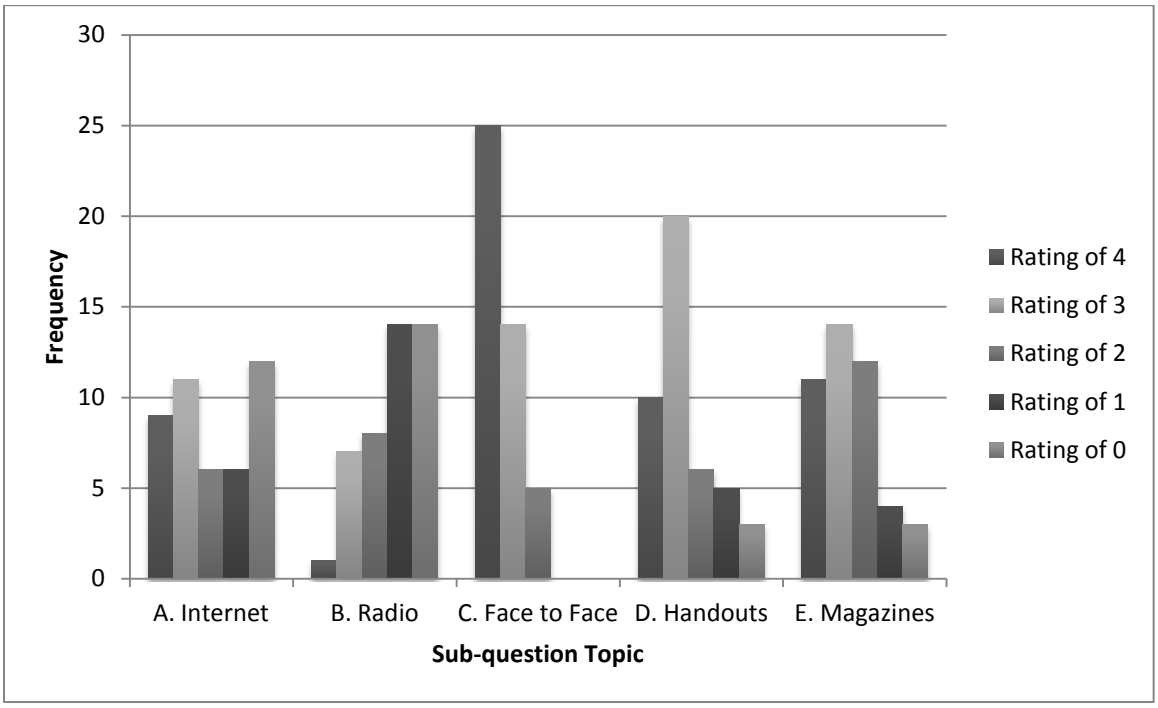

Figure 4a. Part B: Topics for exercise best method for learning new exercise Question 4 (OS AMEZ).

As shown, the best method for learning new exercises is face-to-face. The following is a breakdown for Table 4a and Figure 4a. For question 4Aasked participants to rate the Internet as their preferred method, 20.5% gave a rating of 4, 18.2% gave a rating of 3, 13.6% gave a rating of 2 and 1, and 27.3% gave a rating of 0. For question 4B asked participants to rate the radio as their preferred method, 2.3% gave a rating of 4, 15.9% gave a rating of 3, 18.5% gave a rating of 2, and 31.8% gave a rating of 1 and 0. For question 4C asked participants to rate face-to-face as the preferred method of learning new exercises and the rating of 4 was selected by 56.8% of participants, the rating of 3 was chosen by 31.8% of participants, the rating of 2 was selected by 11.4%, and the rating of 1 and 0 selected by 0% of participants. Question 4D collected ratings about handouts being the preferred learning method of new exercises and 22.7% gave a rating of 4, 45.5% gave a rating of 3, 13.6% gave a rating of 2, 11.4% gave a rating of 1, and 6.4% gave a rating of 0.. Question 4E collected ratings of magazines as the preferred method of learning new exercises and 25% gave a rating of 4, 31.8% gave a rating of 3, 27.3% gave a rating of 2, 9.1% gave a rating of 1, and 6.4% gave a rating of 0.

Table 4b

Frequency of Rating of Best Method for Learning New Exercises (GF 47)

Rating	4	3	2	1	0
Internet	15	15	3	4	10
Radio	6	10	15	2	14
Face to Face	40	4	1	1	1
Handouts	20	20	5	0	2
Magazines	13	21	12	0	1

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

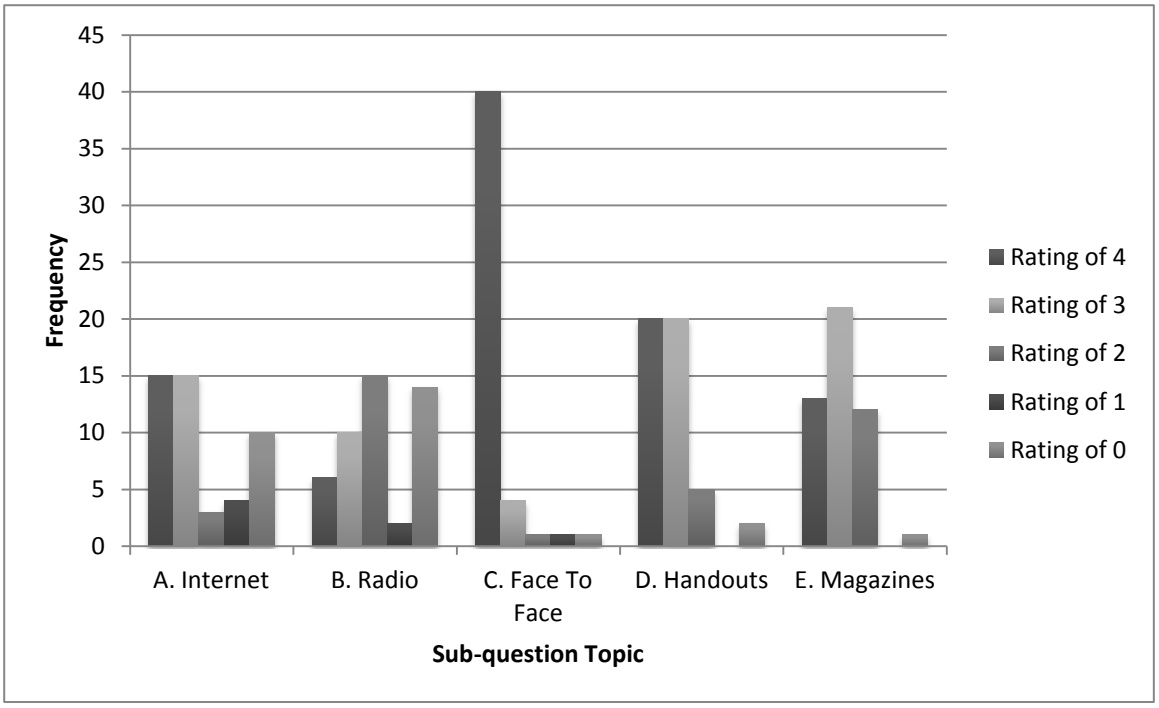

Figure 4b. Part B: Topics for exercise best method for learning new exercise Question 4 (GF AMEZ).

The best method for learning new exercise is face-to-face, which was the same result from the first group. The following is breakdown for Table 4b and Figure 4b. For question 4A, which asked participants to rate the Internet as their preferred method of learning a new exercise, 31.9% gave a rating of 4 and 3, 6.4% gave a rating of 2, 8.5% gave a rating of 1, and 21.3% gave a rating of 0. For question 4B asking participants to rate the radio as their preferred method of learning a new exercise, 12.8% gave a rating of 4, 21.3% gave a rating of 3, 31.9% gave a rating of 2, 4.3% gave a rating of 1, and 29.8% gave a rating 0. For question 4C asking participants to rate face to face interaction as the preferred method of learning new exercises, 85.1% gave a rating of 4, 8.5% gave a rating of 3, 2.1% gave a rating of 2 and 1, and 0% gave a rating of 0. For question 4D asking participants about handouts being the preferred method of learning new exercise, 42.6% gave a rating of 4 and 3, 10.6% gave a rating of 2, 0% gave a rating of 1, and 4.3% gave a rating of 4.3%.. For question 4E asking participants about magazines as the preferred method of learning new exercise, 27.7% gave a rating of 4, 44.7% gave a rating of 3, 25.5% gave a rating of 2, 0% gave a rating of 1, and 2.1% gave a rating of 0.

The combined result for all 91 participants to rating their best methods for learning new exercises is as follows. For question 4A which asked participants to rate the Internet as their preferred method of learning new exercises, 26.4 % gave a rating of 4, 28.9% gave a rating of 3, 9.8% gave a rating of 2, 10.8% gave a rating of 1, and 24.1% gave a rating of 0. For question 4B which asked participants to rate the radio as their preferred method of learning new exercises, 7.7% gave a rating of 4, 18.7% gave a rating of 3, 25.3% gave a rating of 2, 17.6% gave a rating of 1, and 30.7% gave a rating of 0. For question 4C which

asked participants to rate face-to-face interaction as the preferred method of learning new exercises, 71.4% gave a rating of 4, 19.8% gave a rating of 3, 6.6% gave a rating of 2, and 1.1% gave a rating of 1 and 0. For question 4D which asked participants to rate handouts as being the preferred method of learning new exercises, 33.0% gave a rating of 4, 44.0% gave a rating of 3, 12.0% gave a rating of 2, 5.5% gave a rating of 1, and 5.5% gave a rating of 0. For question 4E which asked participants to rate magazines as the preferred method of learning new exercises, 26.4% gave a rating of 4, 38.4% gave a rating of 3, 26.4% gave a rating of 2, 4.4% gave a rating of 1, and 4.4% gave a rating of 0. The overall method of learning new exercises by the majority of participants was the face-to-face method.

Table 5a

Frequency of Rating of Interest in Topics of Nutrition (OS 44)

Rating	4	3	2	1	0
Counting Calories	11	10	15	5	3
Food Journals	6	14	15	5	4
Reading Food Labels	17	13	12	0	2
Nutrition Content	17	12	13	0	2
Water Intake	19	17	7	1	0

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

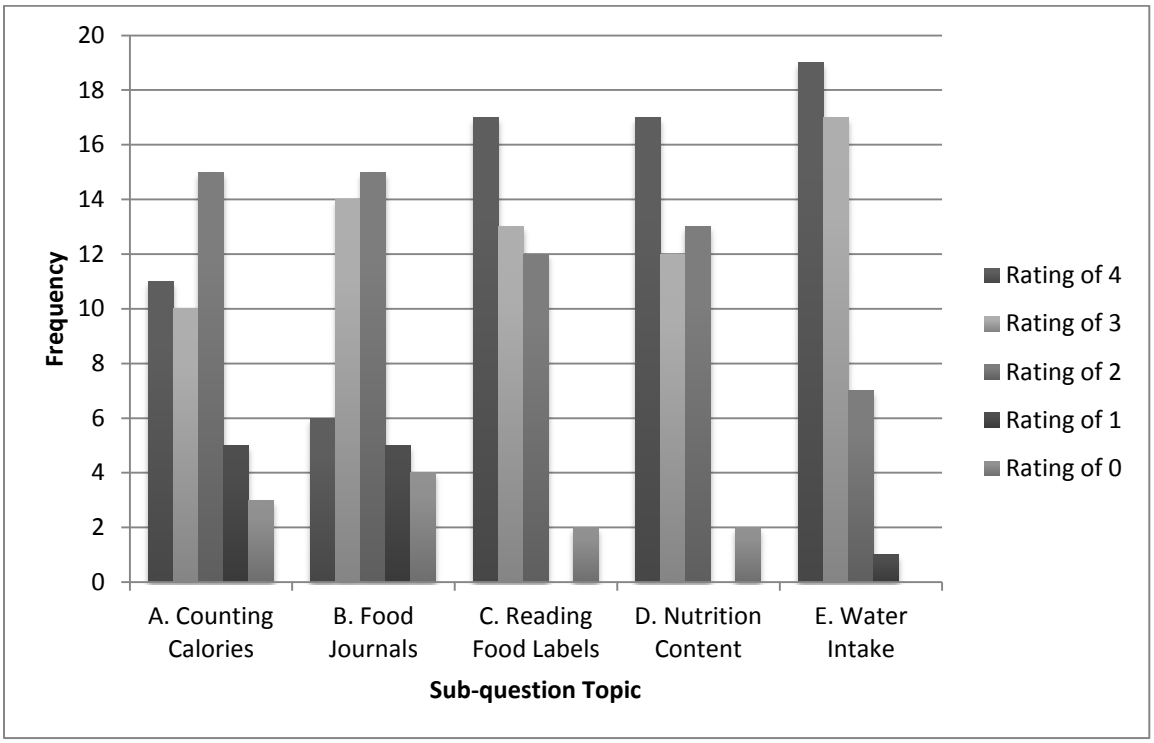

Figure 5a. Part C: Topics for nutrition rating interest in topics for nutrition Question 5 (OS AMEZ).

As shown, the most interested topic in nutrition is water intake. The following is breakdown for Table 5a and Figure 5a. Question 5A asked participants to rate counting calories. Of the responses, 25% gave a rating of 4, 22.7% gave a rating of 3, 34.1% gave a rating of 2, and 11.4% gave a rating of 1, and 6.8% gave a rating of 0. For question 5B asking participants to rate their interest in food journals, 13.6% gave a rating of 4, 31.8% gave a rating of 3, 34.1% gave a rating of 2, 11.4% gave a rating of 1, and 9.1% gave a rating of 0. For question 5C asking participants to rate their interest in reading food labels, 38.6% gave a rating of 4, 29.5% gave a rating of 3, 27.3% gave a rating of 2, 0% gave a rating of 1, and 4.5% gave a rating of 0. For question 5D asking participants to rate their interest in nutrition content, 38.6% gave a rating of 4, 27.3% gave a rating of 3, 29.5% gave

a rating of 2, 0% gave a rating of 1, and 4.5% gave a rating 0. For question 5E asking participants to rate their interest in water intake, 43.2% gave a rating of 4, 38.6% gave a rating of 3, 15.9% gave a rating of 2, 2.3% gave a rating of 1, and 0% gave a rating of 0.

Table 5b

Frequency of Rating of Interest in Topics of Nutrition (GF 47)

Rating	4	3	2	1	0
Counting Calories	19	23	3	1	1
Food Journals	16	26	3	1	1
Reading Food Labels	20	22	3	1	1
Nutrition Content	20	22	3	1	1
Water Intake	28	15	2	1	1

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

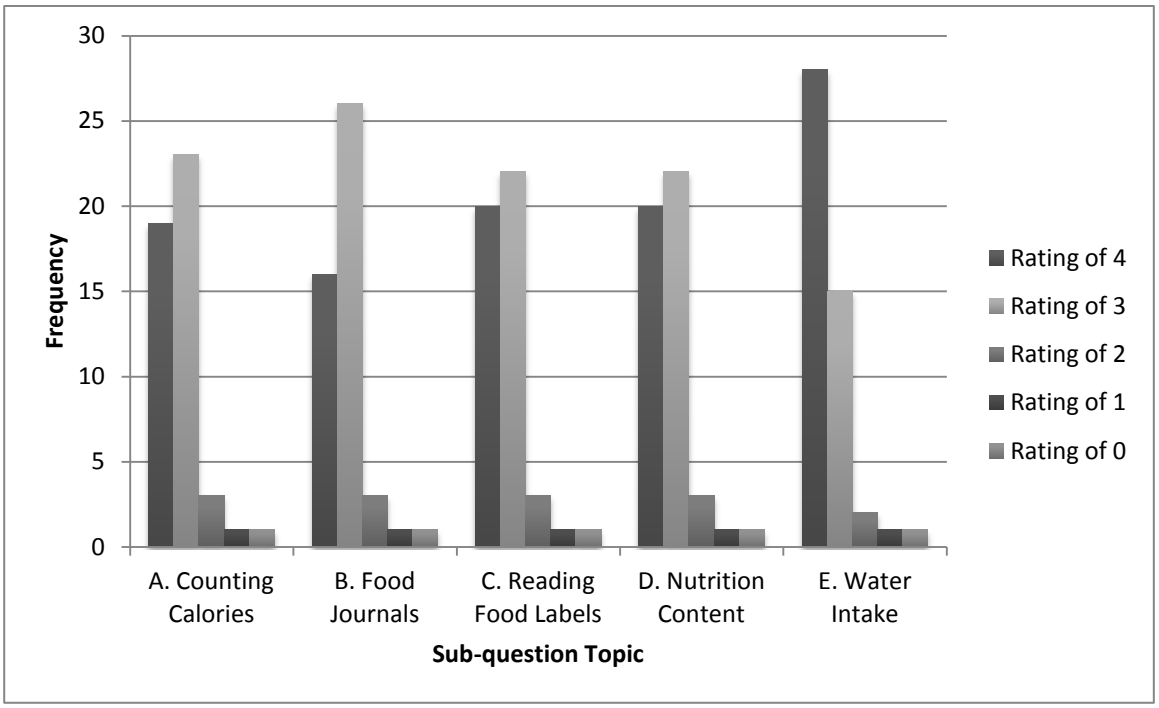

Figure 5b. Part C: Topics for nutrition rating interest in topics for nutrition Question 5 (GF

AMEZ).

The most interested topic in nutrition is water intake which was the same in the other group. The following is a breakdown for Table 5b and Figure 5b. For question 5A which asked participants to rate counting calories, 40.4% gave a rating of 4, 48.9% gave a rating of 3, 6.4% gave a rating of 2, and 2.1% gave a rating of 1 and 0. For question 5B asking participants to rate their interest in food journals, 34% gave a rating of 4, 55.3% gave a rating of 3, 6.4% gave a rating of 2, 2.1% gave a rating of 1 and 0. For question 5C asking participants to rate their interest in reading food labels, 42.6% gave a rating of 4, 46.8% gave a rating of 3, 6.4% gave a rating of 2, and 2.1% gave a rating of 1 and 0. For question 5D asking participants to rate their interest in nutrition content, 42.6% gave a rating of 4, 46.8% gave a rating of 3, 6.4% gave a rating of 2, and 2.1% gave a rating of 1 and 0. For question 5E asking participants to rate their interest in water intake, 59.6% gave a rating of 4, 31.9% gave a rating of 3, 4.3% gave a rating of 2, 2.1% gave a rating of 1 and 0.

Regarding the combined result for all 91 participants that rated their interest on topics of nutrition question 5A asked participants to rate counting calories, of which, 32.9% gave a rating of 4, 36.3% gave a rating of 3, 19.8% gave a rating of 2, and 6.6% gave a rating of 1, and 4.4% gave a rating of 0. For question 5B asking participants to rate their interest in food journals, 24.2% gave a rating of 4, 44% gave a rating of 3, 19.8% gave a rating of 2, 6.6% gave a rating of 1, and 5.4% gave a rating of 0. For question 5C asking participants to rate their interest in reading food labels, 40.7% gave a rating of 4, 38.5% gave a rating of 3, 16.4% gave a rating of 2, 1.1% gave a rating of 1, and 3.3% gave a rating of 0. For question 1D asking participants to rate their interest in nutrition content, 40.6%

gave a rating of 4, 37.4% gave a rating of 3, 17.6% gave a rating of 2, 1.1% gave a rating of 1, and 3.3% gave a rating of 0. For question 1E asking participants to rate interest in water intake, 51.7% gave a rating of 4, 35.2% gave a rating of 3, 9.8% gave a rating of 2, 2.2% gave a rating of 1, and 1.1% gave a rating of 0.

Table 6a

Frequency of Willingness to Buy Fresh Fruits and Vegetables (OS 44)

YES	NO
44	0

Table 6b

Frequency of Willingness to Buy Fresh Fruits and Vegetables (GF 47)

YES	NO
47	0

Table 6a and 6b summarizes the data for question 6 which asked participants whether or not they were willing to buy fresh fruits and vegetables, if they were made affordable and accessible. The mode response for this question was yes. There were a total of 44 responses from OS AMEZ, of which 100% responded yes and 0% responded no. There were a total of 47 responses from GF AMEZ, of which 100% responded yes and 0% responded no. In comparison, the majority of respondents from both churches were willing to buy fresh fruits and vegetables.

Table 7a

Frequency of Grocery Store Proximity (OS 44)

YES	NO
44	0

Table 7b

Frequency of Grocery Store Proximity (GF 47)

YES	NO
40	7

Table 7a and 7b summarizes the data for question 7 that asked participants whether or not there is a grocery store within 1 to 5 miles of their home. The mode response for this question was yes. There were a total of 44 responses from OS AMEZ, of which 100% responded yes and 0% responded no. There were a total of 47 responses from GF AMEZ, of which 85% responded yes and 15% responded no. In comparison, the majority of respondents from both churches have a grocery store in close proximity.

Table 8a

Frequency of Availability of Transportation (OS 44)

YES	NO
42	2

Table 8b

Frequency of Availability of Transportation (GF 47)

YES	NO
42	5

Table 8a and 8b summarizes the data for question 8 that asked participants whether or not they had available transportation to a grocery store. The mode response for this question was yes. There were a total of 44 responses from OS AMEZ, of which 95.5% responded yes and 4.5% responded no. There were a total of 47 responses from GF AMEZ, of which 89.4% responded yes and 10.6% responded no. In comparison, the majority of respondents from both churches have transportation available to them.

Table 9a

Frequency of Ration of Best Location to Discuss Health Concerns (OS 44)

Rating	4	3	2	1	0
Doctor's Office	27	12	3	0	2
Website	12	14	12	4	2
Television	3	12	15	4	10
Spouse	5	8	9	8	14
Church	4	12	11	7	10

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

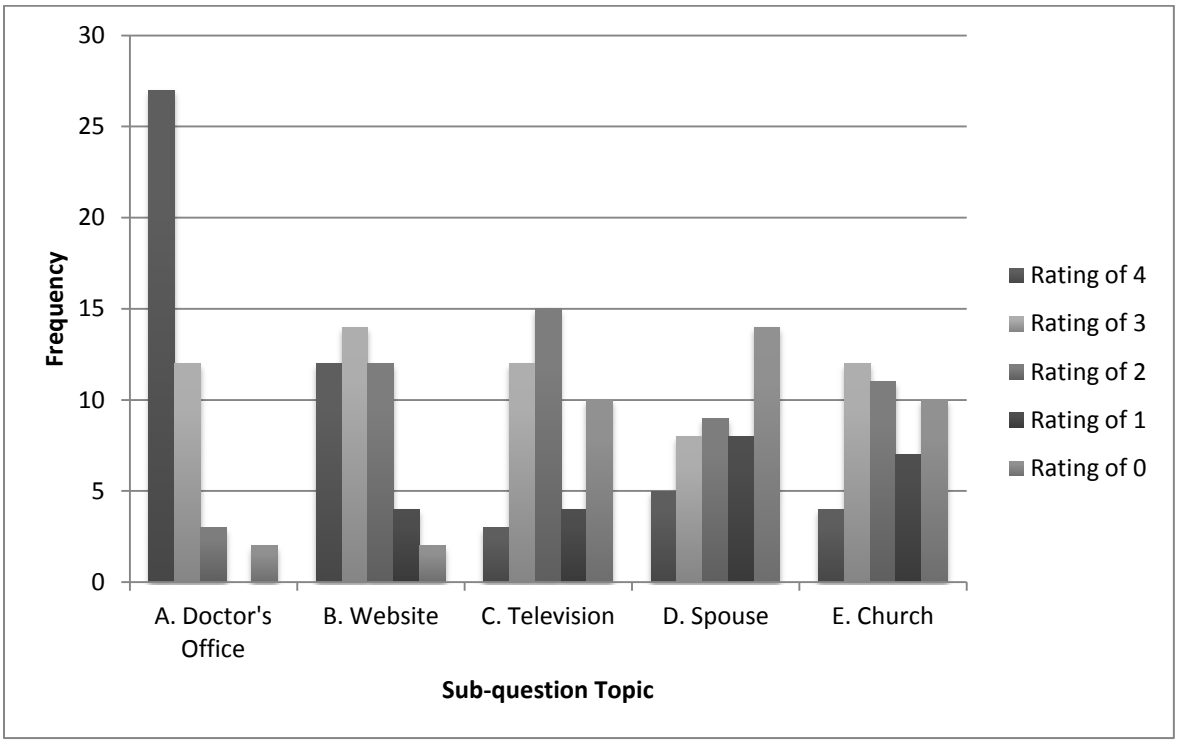

Figure 9a. Part D: Health education location rating location for health discussion Question 9 (OS AMEZ).

Table 9a and Figure 9a summarize the data for question 9 which asked participants to rate their preferred locations for health education. Most preferred the doctor's office for health education. More specifically, in the doctor's office preference, 61.4% gave a rating of 4, 27.3% gave a rating of 3, 6.8% gave a rating of 2, and 0% gave a rating of 1, and 4.5% gave a rating of 0. Participants were asked to rate websites as their preferred location where 27.3% gave a rating of 4, 31.8% gave a rating of 3, 27.3% gave a rating of 2, 9.1% gave a rating of 1, and 4.5% gave a rating of 0. For question 9C asking participants if television was their preferred location, 6.8% gave a rating of 4, 27.3% gave a rating of 3, 34.1% gave a rating of 2, 9.1% gave a rating of 1, and 22.7% gave a rating of 0. For question 9D asking participants if their spouses were the preferred method for health discussion, 11.4% gave a

rating of 4, 18.2% gave a rating of 3, 20.5% gave a rating of 2, 18.2% gave a rating of 1, and 31.8% gave a rating of 0. For question 9E asking participants if church was the preferred location for health education, 9.1% gave a rating of 4, 27.3% gave a rating of 3, 25% gave a rating of 2, 15.9% gave a rating of 1, and 22.7% gave a rating of 0.

Table 9b

Frequency of Rating of Best Location to Discuss Health Concerns (GF 47)

Rating	4	3	2	1	0
Doctor's Office	32	12	2	1	0
Website	19	20	6	2	0
Television	19	20	7	0	1
Spouse	12	19	10	2	4
Church	18	15	11	2	1

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

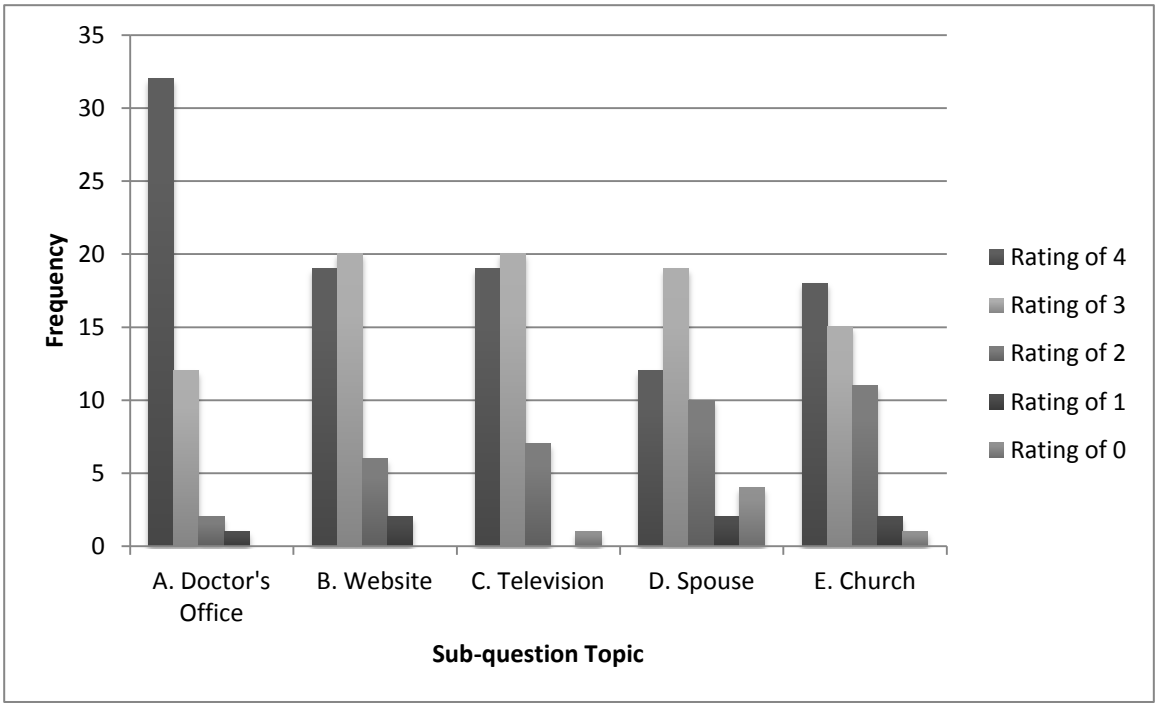

Figure 9b. Part D: Health education location rating location for health discussion Question 9

(GF AMEZ).

Table 9b and Figure 9b summarize the data for question 9 which asked participants to rate their preferred locations for health education. Most preferred the doctor's office for health education. The breakdown of this group is as follows. In the doctor's office preference, 68.1% gave a rating of 4, 25.5% gave a rating of 3, 4.3% gave a rating of 2, and 2.1% gave a rating of 1, and 0% gave a rating of 0. Participants were asked to rate websites as their preferred location the following is the breakdown and 40.4% gave a rating of 4, 42.6% gave a rating of 3, 12.8% gave a rating of 2, 4.3% gave a rating of 1, and 0% gave a rating of 0. For question 9C asking participants if television was their preferred location, 40.4% gave a rating of 4, 42.6% gave a rating of 3, 14.9% gave a rating of 2, 0% gave a rating of 1, and 2.1% gave a rating of 0. For question 9D asking participants if their spouses are the preferred method for health discussion, 25.5% gave a rating of 4, 40.4% gave the rating of 3, 21.3% gave a rating of 2, 4.3% gave a rating of 1, and 8.5% gave a rating of 0. For question 9E asking participants if church was the preferred location for health education, 38.3% gave a rating of 4, 31.9% gave a rating of 3, 32.4% gave a rating of 2, 4.3% gave a rating of 1, and 2.1% gave a rating of 0.

The combined data for question 9, asked participants to rate preferred locations for health education. For question 9A which asked participants to rate their doctor's office as the preferred location, 64.8% gave a rating of 4, 26.4% gave a rating of 3, 5.5% gave a rating of 2, 1.1% gave a rating of 1, and 2.2% gave a rating of 0. For question 5B asking participants to rate websites as their preferred location the following is the breakdown, 34.1% gave a rating of 4, 37.4% gave a rating of 3, 19.7% gave a rating of 2, 6.6% gave a

rating of 1, and 2.2% gave a rating of 0. Regarding the question of which participants were asked to rate television as their preferred location, 24.2% gave a rating of 4, 35.2% gave a rating of 3, 24.2% gave a rating of 2, 4.4% gave a rating of 1, and 12.0% gave a rating of 0. Regarding the question of which participants were asked to rate their spouses as being their preferred method of health discussion, 18.7% gave a rating of 4, 29.7% gave a rating of 3, 20.9% gave a rating of 2, 10.9% gave a rating of 1, and 19.8% gave a rating of 0. Regarding the question of which participants were asked to rate their church as being the preferred location for health education, 24.2% gave a rating of 4, 29.7% gave a rating of 3, 24.2% gave a rating of 2, 9.9% gave a rating of 1, and 12.0% gave a rating of 0.

Table 10a

Frequency of Willingness to Attend Health Education Classes (OS 44)

YES	NO
43	1

Table 10b

Frequency of Willingness to Attend Health Education Classes (GF 47)

YES	NO
43	4

Tables 10a and 10b summarize the response of the participants regarding whether or not they would be willing to attend health education classes at their local church. There were a total of 44 responses from OS AMEZ, of which 97.7% responded yes and 02.3% responded no. There were a total of 47 responses from GF AMEZ, of which 91.5%

responded yes and 08.5% responded no. In comparison, the majority of participants from both churches would be willing to attend health education classes.

Table 11a

Frequency of Willingness to Have a Nurse Provide Health Education (OS 44)

YES	NO
42	2

Table 11b

Frequency of Willingness to Have a Nurse Provide Health Education (GF 47)

YES	NO
33	14

Table 11a and 11b the responses of the participants when asked whether or not they would be willing to seek out a nurse to provide them with health education. There were a total of 44 responses from OS AMEZ, of which 95.5% responded yes and 4.5% responded no. There were a total of 47 responses from GF AMEZ, of which 70.2% responded yes and 29.8% responded no. In comparison, the majority of participants from both groups would be willing to attend health education classes provided by a nurse.

Table 12a

Frequency of Willingness to Access Health Websites (OS 47)

YES	NO
43	1

Table 12b

Frequency of Willingness to Access Health Websites (GF 47)

YES	NO
34	13

Table 12a and 12b summarizes the data of responses when asked participants whether or not they would be willing to access health websites to seek answers to health questions. There were a total of 44 responses from OS AMEZ, of which 97.7% responded yes and 02.3% responded no. There were a total of 47 responses from GF AMEZ, of which 72.3% responded yes and 27.7% responded no. In comparison, the majority of participants from both groups would be willing to access health websites.

Table 13a

Frequency of Doctor's Office Visits (OS 44)

YES	NO
43	1

Table 13b

Frequency of Doctor's Office Visits (GF 47)

YES	NO
37	10

Table13a and 13b summarize the data of responses of participants when asked whether or not they had visited a doctor's office this year for a health concern. There were a total of 44 responses from OS AMEZ, of which 97.7% responded yes and 02.3% responded

no. There were a total of 47 responses from GF AMEZ, of which 78.8% responded yes and 21.2% responded no. In comparison, the majority of participants from both groups show that they visited the doctor's office this year.

Table 14a

Frequency of Willingness to Meet Health Educators (OS 44)

YES	NO
23	21

Table 14b

Frequency of Willingness to Meet Health Educators (GF 47)

YES	NO
45	2

Table 14a and 14b summary the responses which asked participants whether or not they or their family would meet with health educators at the library to assist with health education questions. There were a total of 44 responses from OS AMEZ, of which 52.3% responded yes and 47.7% responded no. There were a total of 47 responses from GF AMEZ, of which 95.7% responded yes and 04.3% responded no. In comparison, the majority of participants from both churches would be willing to meet with health educators.

Table 15a

Frequency of Rating of Best Method to Access Health Education (OS 44)

Rating	4	3	2	1	0
Internet	16	12	6	5	5
Radio	1	8	15	7	13
Face to Face	24	16	1	1	2
Handouts	9	20	8	3	4
Magazines	6	13	15	4	6

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

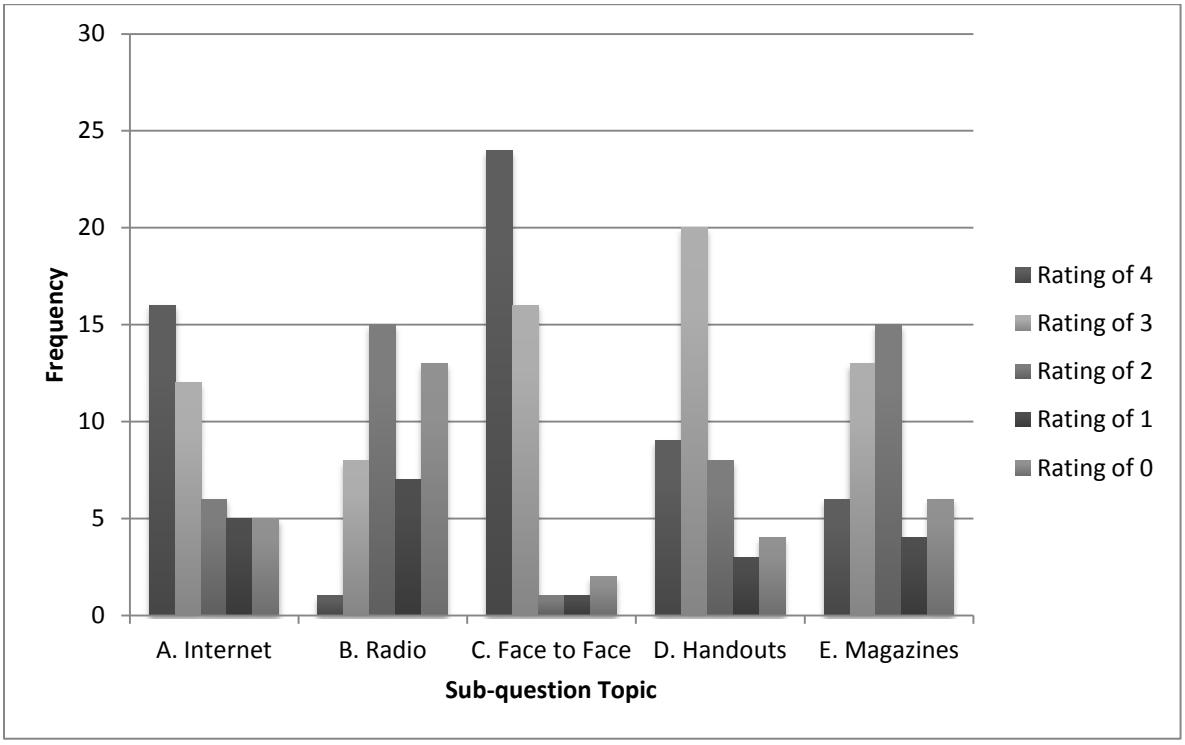

Figure 15a. Part D: Health education access rating access for health education Question 15

(OS AMEZ).

Table 15a and Figure 15a summarize the data for question 15 that asked participants to rate their best methods for accessing health education. The preference in this group to this question is face-to-face interaction in accessing health education. Furthermore, question 15A asked participants to rate the Internet as their preferred method and of the responses, 36.4% gave a rating of 4, 27.3% gave a rating of 3, 13.6% gave a rating of 2, and 11.4% gave a rating of 1 and 0. Regarding the question which asked participants to rate the radio as their preferred method, 2.3% gave a rating of 4, 18.2% gave a rating of 3, 34.1% gave a rating of 2, 15.9% gave a rating of 1, and 29.5% gave a rating of 0. Regarding the question which asked if face-to-face interaction was the preferred method, 54.5% gave a rating of 4, 36.4% gave a rating of 3, 2.3% gave a rating of 2 and 1, and 4.5% gave a rating of 0. For question 15D asking participants to rate handouts as their preferred method, 20.5% gave a rating of 4, 45.5% gave a rating of 3, 18.2% gave a rating of 2, 6.8% gave a rating of 1, and 9.1% gave a rating of 0. For question 15E asking participants to rate magazines as the preferred method for accessing health education, 13.6% gave a rating of 4, 29.5% gave a rating of 3, 34.1% gave a rating of 2, 9.1% gave a rating of 1, and 13.6% gave a rating of 0.

Table 15b

Frequency of Rating of Best Method to Access Health Education (GF 47)

Rating	4	3	2	1	0
Internet	23	18	5	0	1
Radio	10	17	17	1	2
Face to Face	23	13	8	2	1
Handouts	18	16	13	0	0

Magazines	16	18	10	2	1

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

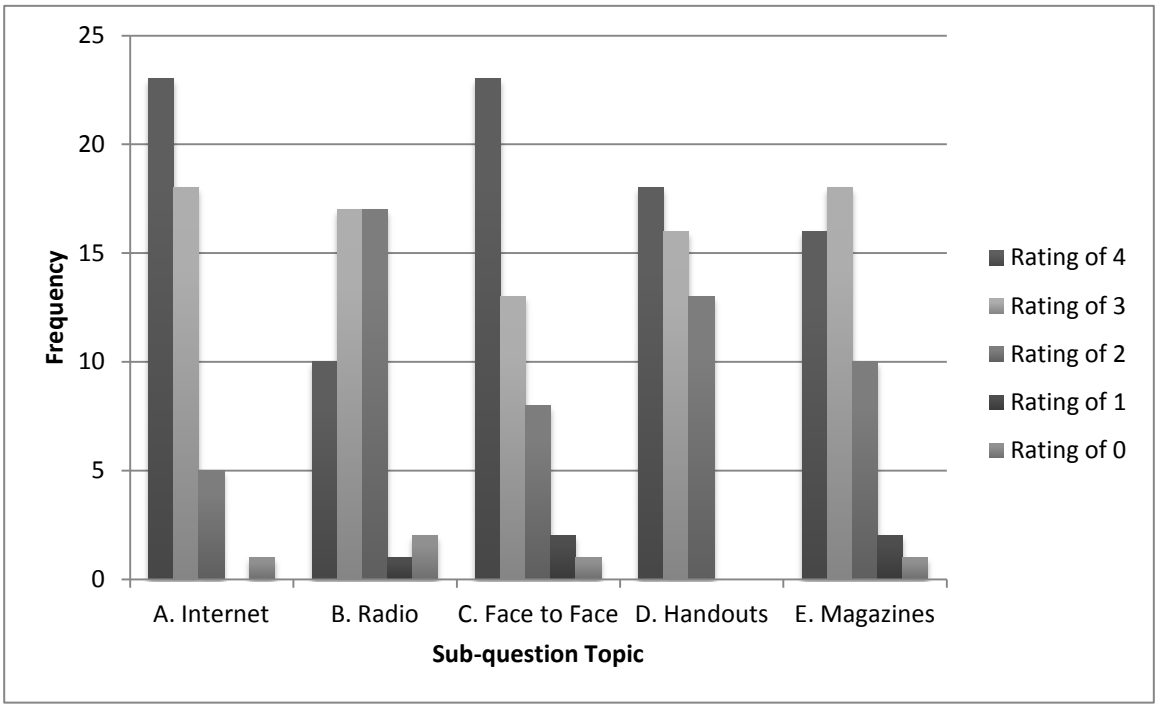

Figure 15b. Part D: Health education access rating access for health education Question 15 (GF AMEZ).

Table 15b and Figure 15b summarize the data for question 15 which asked participants to rate their best methods for accessing health education. The preference in this group was face-to-face interaction and the Internet to accessing health education. Furthermore, for question 15A which asked participants to rate the Internet as their preferred method, 48.9% gave a rating of 4, 38.3% gave a rating of 3, 10.6% gave a rating of 2, 0% gave a rating of 1, and 2.1% gave a rating of 0. Regarding the question which asked participants to rate the radio as their preferred method, 21.3% gave a rating of 4, 36.2% gave a rating of 3 and 2, 4.3% gave a rating of 1, and 2.1% gave a rating of 0. Regarding the

question which asked participants to rate face-to-face interaction as the preferred method of accessing health education, 48.9% gave a rating of 4, 27.7% gave a rating of 3, 17.0% gave a rating of 2, 4.3% gave a rating of 1, and 2.1% gave a rating of 0. Regarding question 15D asking participants if handouts are the preferred access method, 38.3% gave a rating of 4, 34.0% gave a rating of 3, 27.7% gave a rating of 2, and 0% gave a rating of 1 and 0. Regarding question 15E asking participants if magazines are the preferred method for accessing health education, 34.0% gave a rating of 4, 38.3% gave a rating of 3, 21.3% gave a rating of 2, 4.3% gave a rating of 1, and 2.1% gave a rating of 0.

Both groups rated accessing health education face-to-face as high. The OS AMEZ group rated the Internet to access health education was lower than the GF AMEZ group. Furthermore, for question 15A which asked participants to rate the Internet as their preferred method, 42.9 % gave a rating of 4, 33.0% gave a rating of 3, 12.1% gave a rating of 2, and 5.4% gave a rating of 1, and 6.6% gave a rating of 0. For question 15B asking participants to rate the radio as their preferred method, 12.1% gave a rating of 4, 27.5% gave a rating of 3, 35.2% gave a rating of 2, 8.8% gave a rating of 1, and 16.4% gave a rating of 0. For question 15C asking participants if face-to-face interaction was their preferred method of accessing health education, 51.6% gave a rating of 4, 31.9% gave a rating of 3, 9.9% gave a rating of 2, and 3.3% gave a rating of 1 and 0. For question 15D asking participants if handouts were the preferred access method, 29.6% gave a rating of 4, 39.6% gave a rating of 3, 23.1% gave a rating of 2, 3.3% gave a rating of 1, and 4.4% gave a rating of 0. For question 15E asking participants if magazines were the preferred method for accessing

health education, 24.2% gave a rating of 4, 34.1% gave a rating of 3, 27.4% gave a rating of 2, 6.6% gave a rating of 1, and 7.7% gave a rating of 0.

Table 16a

Frequency of Access to Health Education (OS 44)

YES	NO
37	7

Table 16b

Frequency of Access to Health Education (GF 47)

YES	NO
40	7

Table 16a and 16b summarize the participant's response to whether or not they or their family have easy access to health education. The mode response for this question was yes. There were a total of 44 responses from OS AMEZ, of which 84.1% responded yes and 15.9% responded no. There were a total of 47 responses from GF AMEZ, of which 85% responded yes and 15% responded no. In comparison, the majority of participants from both churches would have access to health education.

Table 17a

Frequency of Access to Fresh Fruits and Vegetables (OS 44)

YES	NO
40	4

Table 17b

Frequency of Access to Fresh Fruits and Vegetables (GF 47)

YES	NO
40	7

Tables 17a and 17b summarize the participant's response to whether or not they or their family have easy access to fresh fruits and vegetables. The mode response for this question was yes. There were a total of 44 responses from OS AMEZ, of which 90.9% responded yes and 09.1% responded no. There were a total of 47 responses from GF AMEZ, of which 85% responded yes and 15% responded no. In comparison, the majority of participants from both groups have access to fresh fruits and vegetables.

Table 18a

Frequency of Access to Exercise Programs (OS 44)

YES	NO
36	8

Table 18b

Frequency of Access to Exercise Programs (GF 47)

YES	NO
31	16

Tables 18a and 18b summarize the participant's response to whether or not they or their family have easy access to exercise programs. There were a total of 44 responses from OS AMEZ, of which 81.8% responded yes and 18.2% responded no. There were a total of

47 responses from GF AMEZ, of which 66% responded yes and 34% responded no. In comparison, the majority of participants from both churches would access exercise programs.

Table 19a

Frequency of Gym Membership (OS 44)

YES	NO
20	24

Table 19b

Frequency of Gym Membership (GF 47)

YES	NO
6	41

Tables 19a and 19b summarize the participant's response to whether or not they or their family have a gym membership. The mode response for this question was no. There were a total of 44 responses from OS AMEZ, of which 45.5% responded yes and 54.5% responded no. There were a total of 47 responses from GF AMEZ, of which 12.8% responded yes and 87.2% responded no. In comparison, the majority of participants from both churches do not have access to the gym or membership.

Table 20a

Frequency of Concern About Obesity (OS 44)

YES	NO

25	19

Table 20b

Frequency of Concern About Obesity (GF 47)

YES	NO
27	20

Tables 20a and 20b summarize the participant's response to whether or not they or their family are concerned with the issue of obesity. The mode response for this question was yes. There were a total of 44 responses from OS AMEZ, of which 56.8% responded yes and 43.2% responded no. There were a total of 47 responses from GF AMEZ, of which 57.4% responded yes and 42.6% responded no. In comparison, the majority of participants from both churches are concerned with the issue of obesity.

Table 21a

Frequency of Availability of Internet Access (OS 44)

YES	NO
42	2

Table 21b

Frequency of Availability of Internet Access (GF 47)

YES	NO
37	10

Tables 21a and 21b summarize the participant's response to whether or not they or their family have access to the Internet. The mode response for this question was yes. There were a total of 44 responses from OS AMEZ, of which 95.5% responded yes and 4.5% responded no. There were a total of 47 responses from GF AMEZ, of which 78.8% responded yes and 21.2% responded no. In comparison, the majority of participants from both churches have access to the Internet.

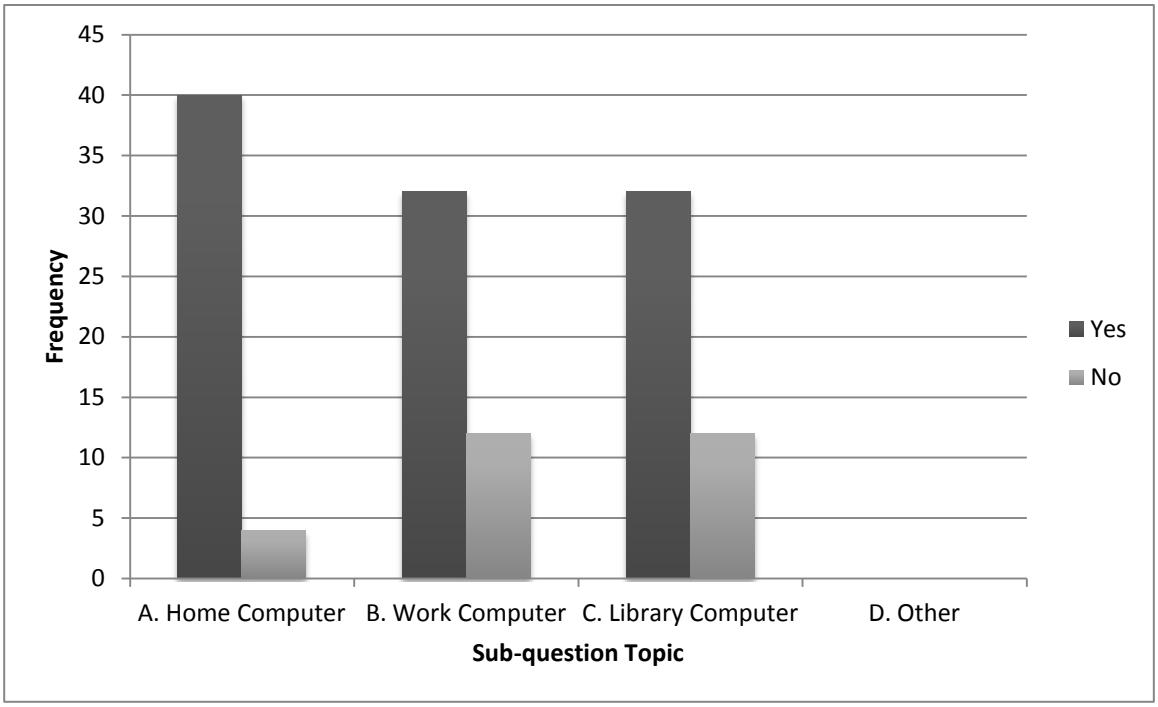

Figure 21a. Part E: Accessibility of health and wellness topics Question 21 (OS AMEZ).

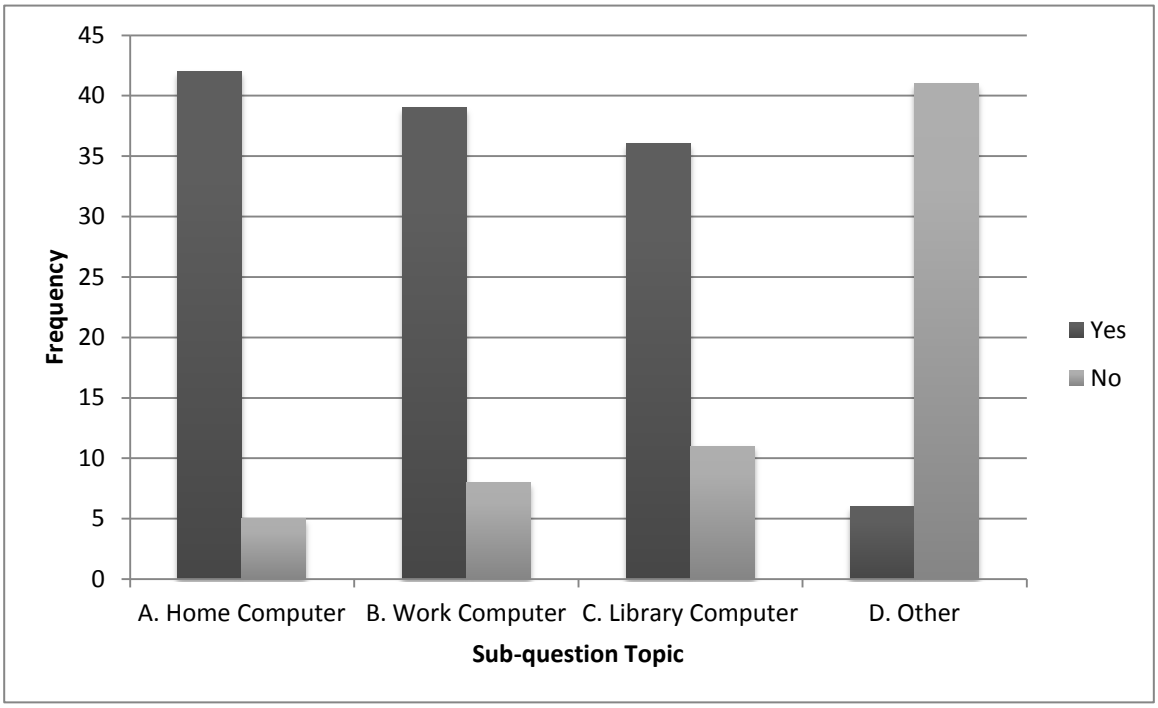

Figure 21b. Part E: Accessibility of health and wellness topics Question 21 (GF AMEZ).

Figures 21a and 21b summarize the data for part E question 21, subtopics A – D, which asked participants whether or not they or their family access the Internet through various modes. Question 21A asked if participants accessed the Internet by home computer. The majority response for this question was yes. There were a total of 91 responses, of which 90.1% responded yes and 9.9% responded no. Question 21B asked if participants accessed the Internet by work computer. The majority response for this question was yes. There were a total of 91 responses, of which 78.0% responded yes and 22.0% responded no. Question 21C asked if participants accessed the internet by library computer. The majority response for this question was yes. There were a total of 91 responses, of which 74.7% responded yes and 25.3% responded no. Question 21D asked if participants accessed the Internet by other methods. The majority response for this question was no. There were a total of 91 responses, of which 11% responded yes and 89% responded no.

Table 22a

Frequency of Gender (OS 44)

Female	Male
19	25

Table 22b

Frequency of Gender (GF 47)

Female	Male
14	33

Tables 22a and 22b summarize the participant's response to their gender. The majority response for this question was Female. There were a total of 44 responses from OS AMEZ, of which 43.3% responded female and 56.7% responded male. There were a total of 47 responses from GF AMEZ, of which 30% responded female and 70% responded male. In comparison, the majority of participants from both churches were male.

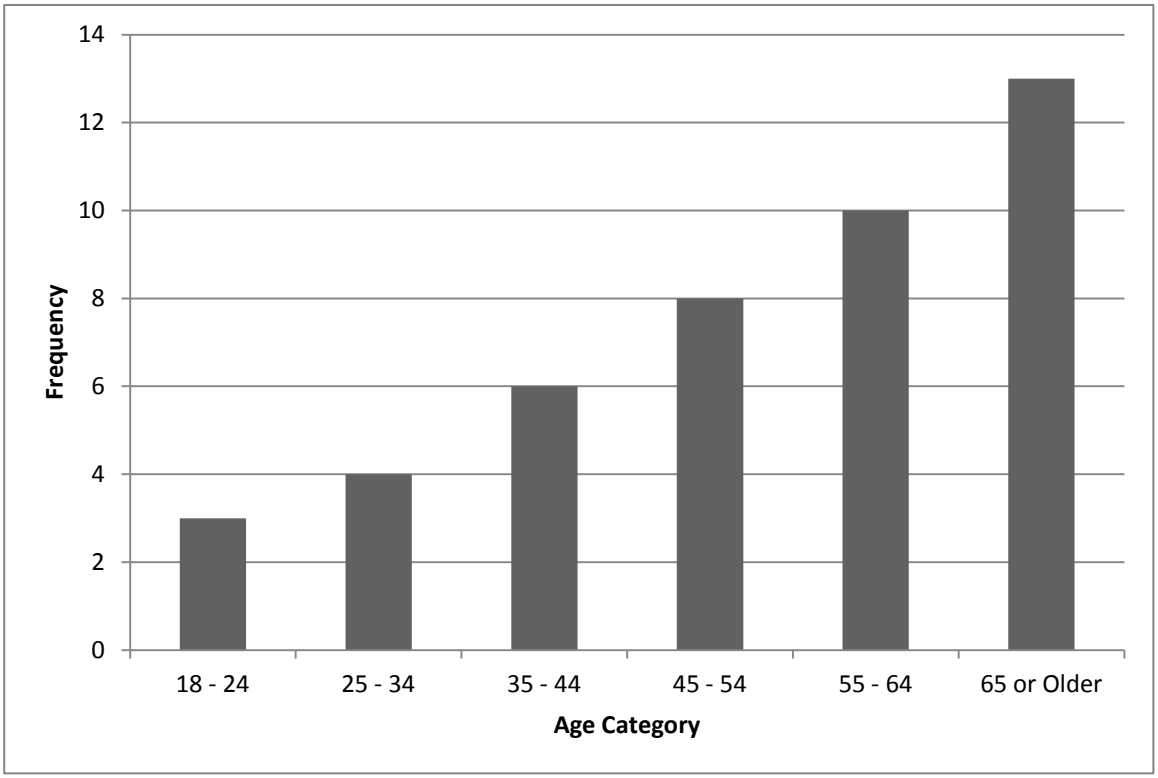

Figure 23a. Part E: Background Question 18 (OS AMEZ).

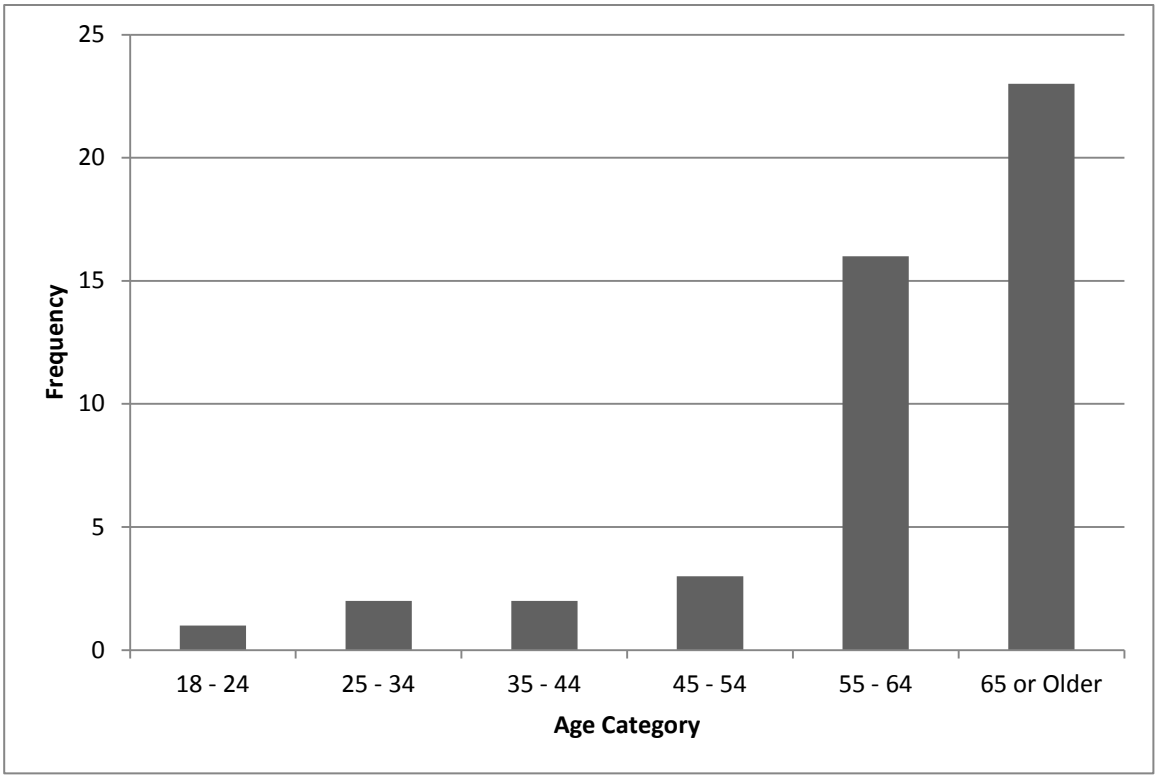

Figure 23b Part E: Background Question 18 (GF AMEZ).

Figures 23a and 23b summarize the participant's age at time of response. The mode age group was 65 or older. There were a total of 91 participants, of which 4.4% were 18-24, 6.6% were 25-34, 8.8% were 35-44, 12.1% were 45-54, 28.5% were 55-64, and 39.6% were 65 or older.

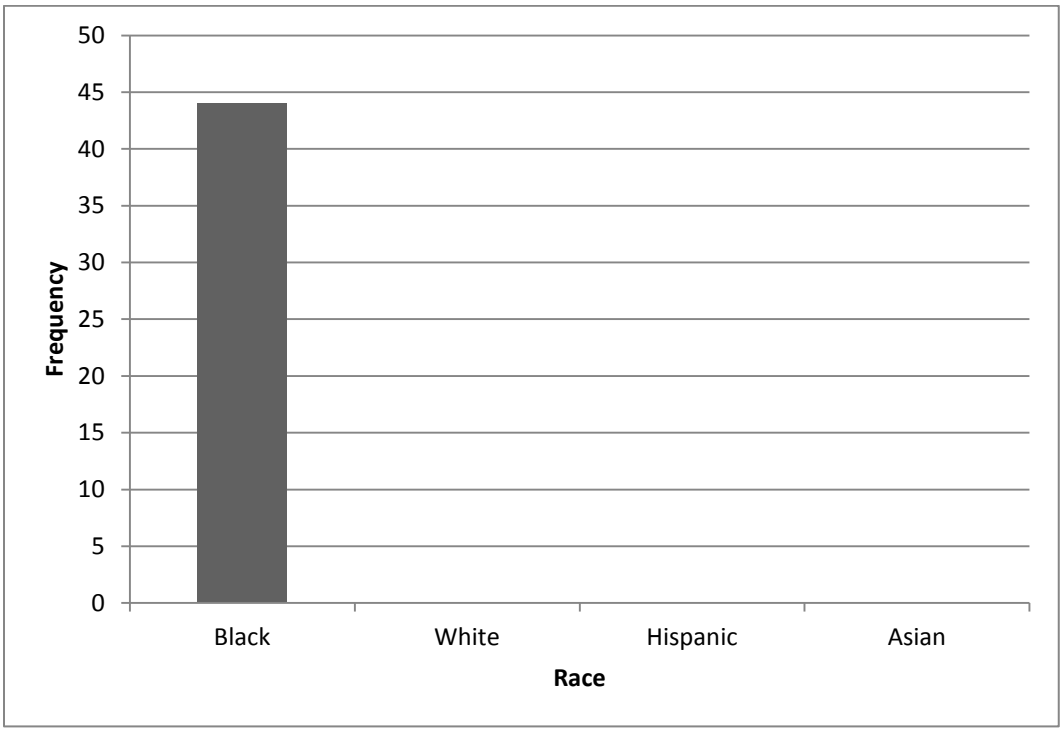

Figure 24a. Part E: Background Question 19 (OS AMEZ).

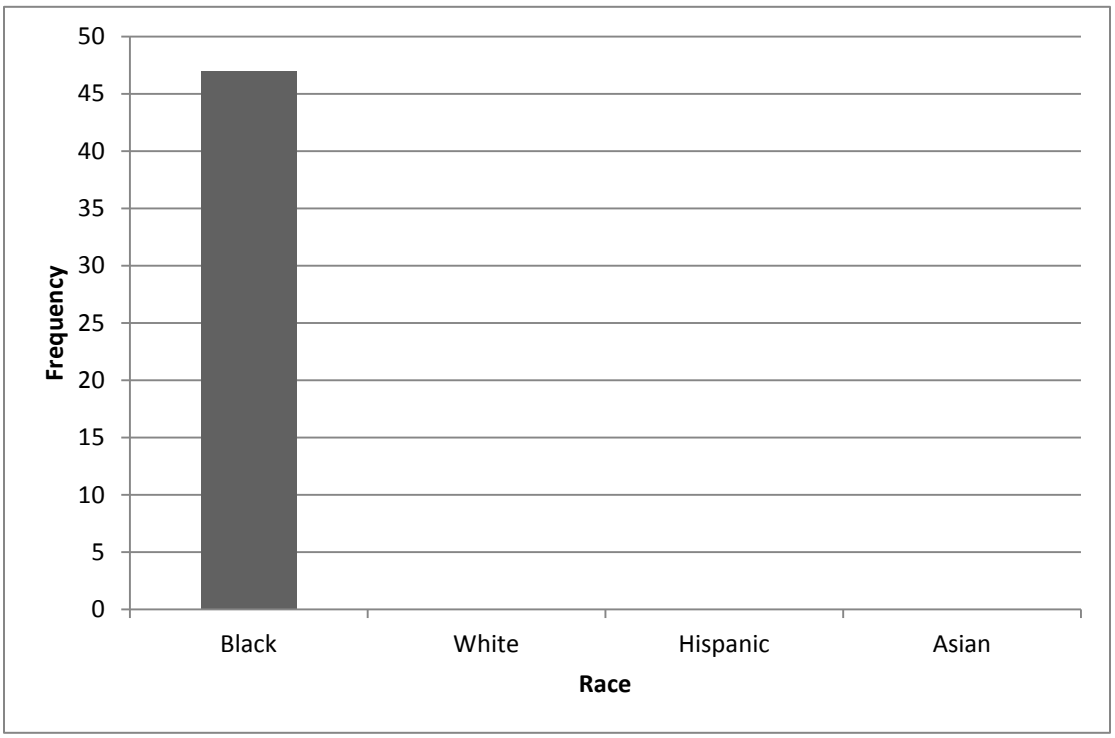

Figure 24b Part E: Background Question 19 (GF AMEZ).

Figures 24a and 24b summarize the participant's response based on race. The mode race group was Black. There were a total of 91 participants and 100% were Black. OS AMEZ has 44 participants that were Black and GF AMEZ had 47 participants that were Black.

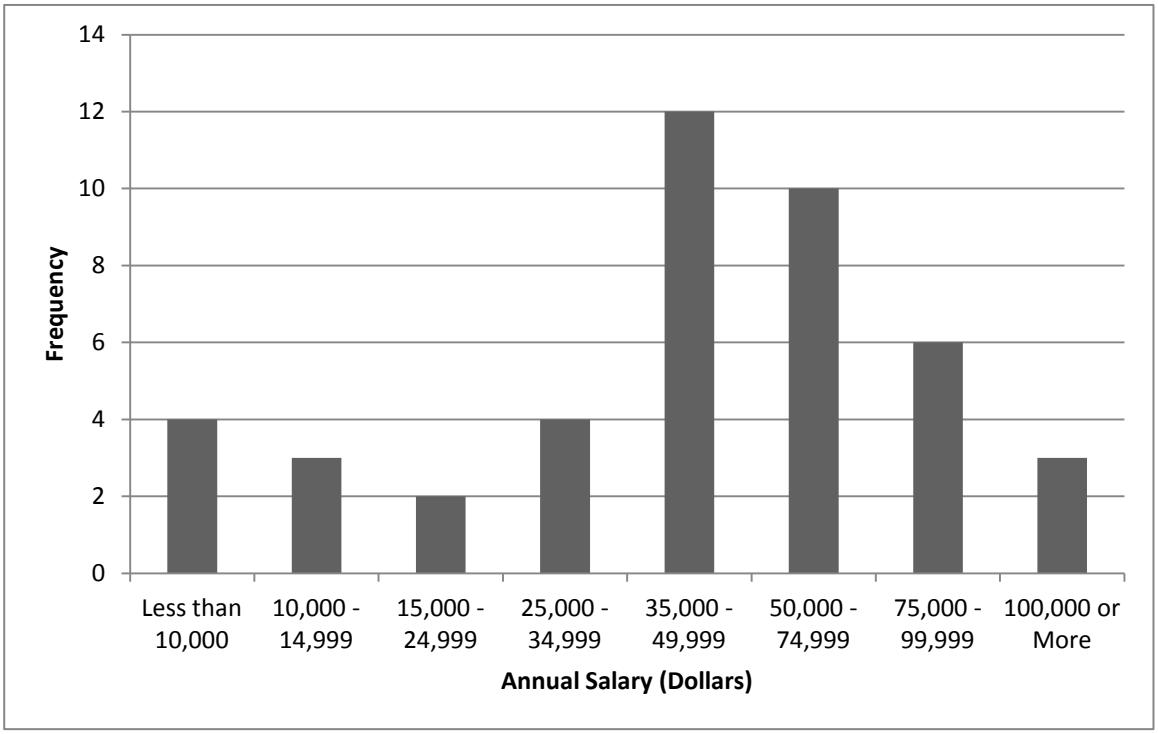

Figure 25a. Part E: Background Question 24 (OS AMEZ).

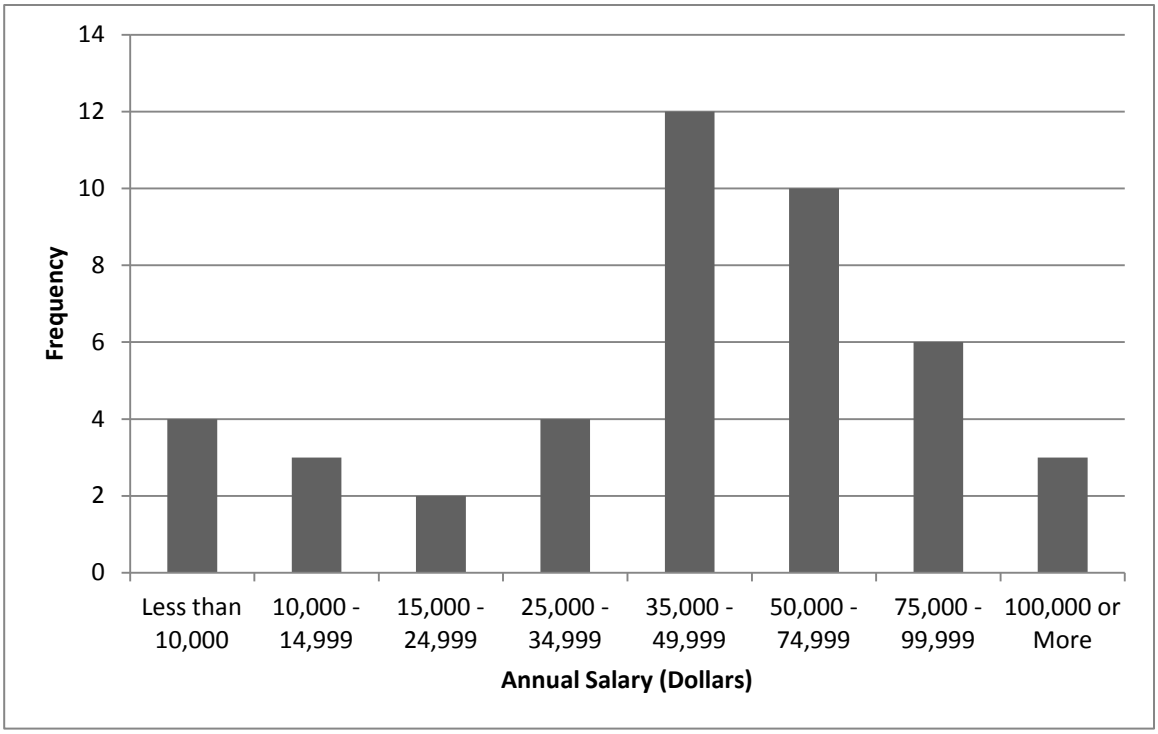

Figure 25b. Part E: Background Question 24 (GF AMEZ).

Figures 25 and 25b summarize the participant's response to the gross income of the participants during the last year. Of the 91 participants, 9.9% had income that was less than $10,000, 8.8% had income between $10,000 and $14,999, 9.9% had income between $15,000 and $24,999, and 22.0% had income between $25,000 and $34,999. Furthermore, 20.9% had income between $35,000 and $49,999, 15.4% had income between $50,000 and $74,999, 8.8% had income between $75,000 and $99,000, and 4.4% had income of $100,000 or more.

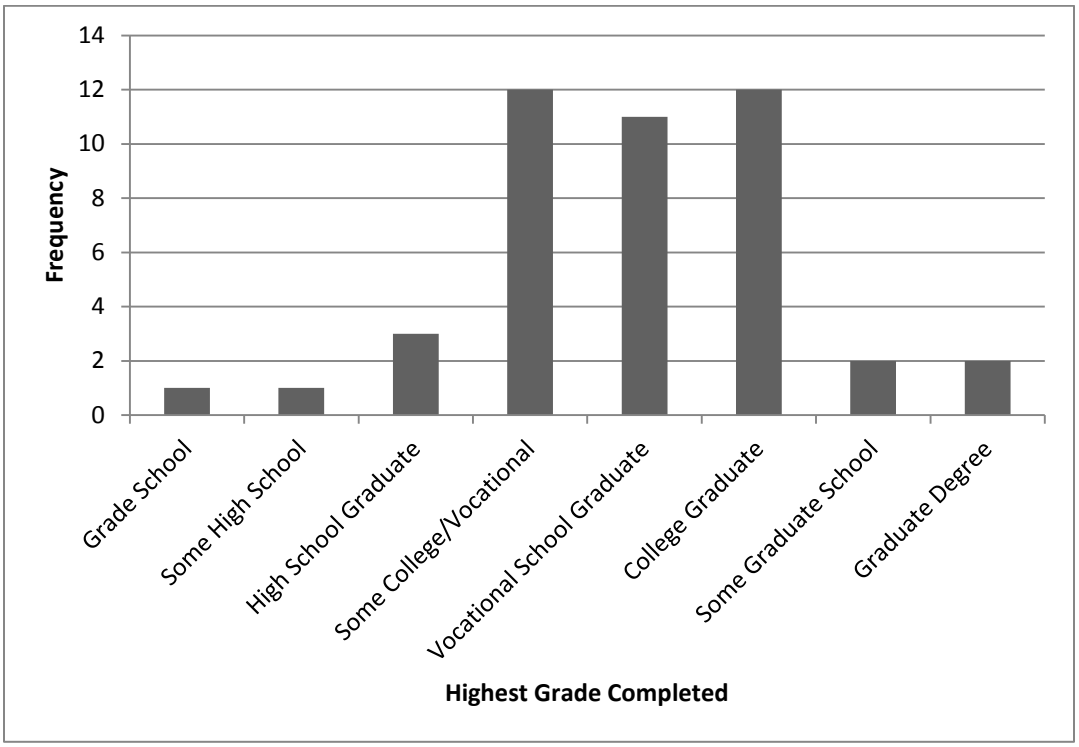

Figure 26a. Part E: Background Question 25 (OS AMEZ).

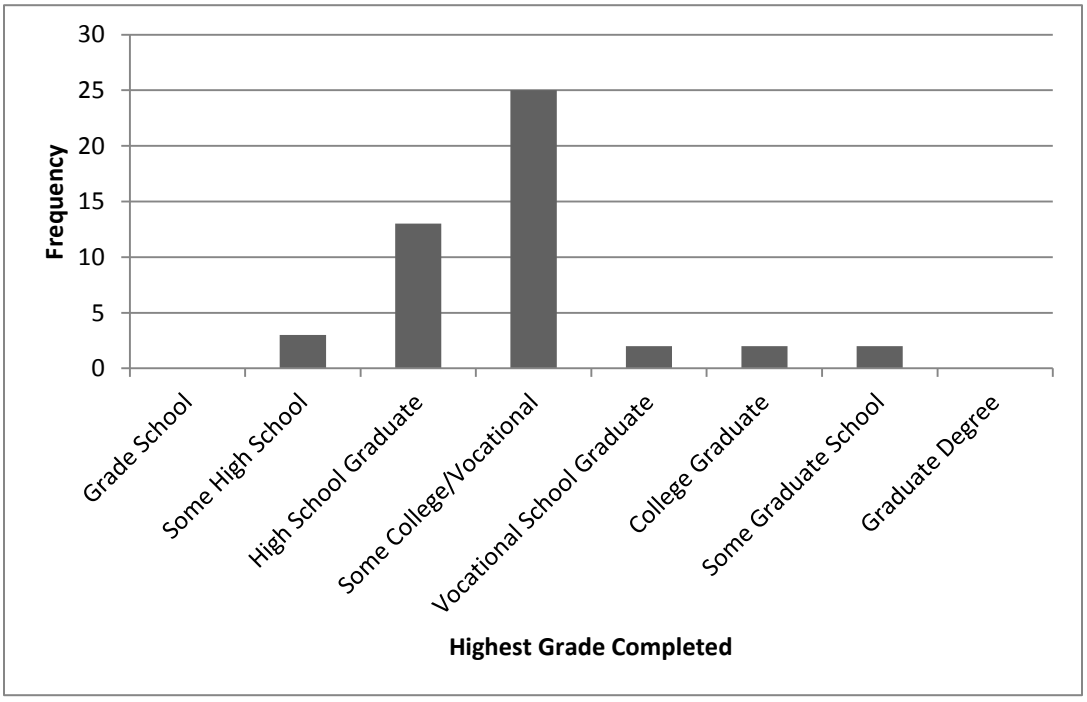

Figure 26b. Part E: Background Question 25 (GF AMEZ).

Figures 26a and 26b summarize the participant's response to their highest grade completed in school. Of the 91 participants, 1.1% listed grade school as the highest grade completed, 4.4% listed some high school as the highest grade completed, 17.6% listed high school graduate, and 40.7% listed some college or vocational school as the highest level. In addition, 14.3% listed vocational school graduate as the highest level completed, 15.4% listed college graduate, 4.4% listed some graduate school, and 2.2% listed graduate degree as their highest level of education.

Combined Tables and Figures

Table 1c

Frequency of Rating of Interest in Health Topics (Combined 91)

Rating	4	3	2	1	0
Blood Pressure	46	37	5	3	0
Cancer	44	27	12	2	6
Cholesterol	38	38	12	1	2
Obesity	39	40	8	1	3
Stroke	39	33	11	3	5
Diabetes/Sugar	45	36	5	4	1

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

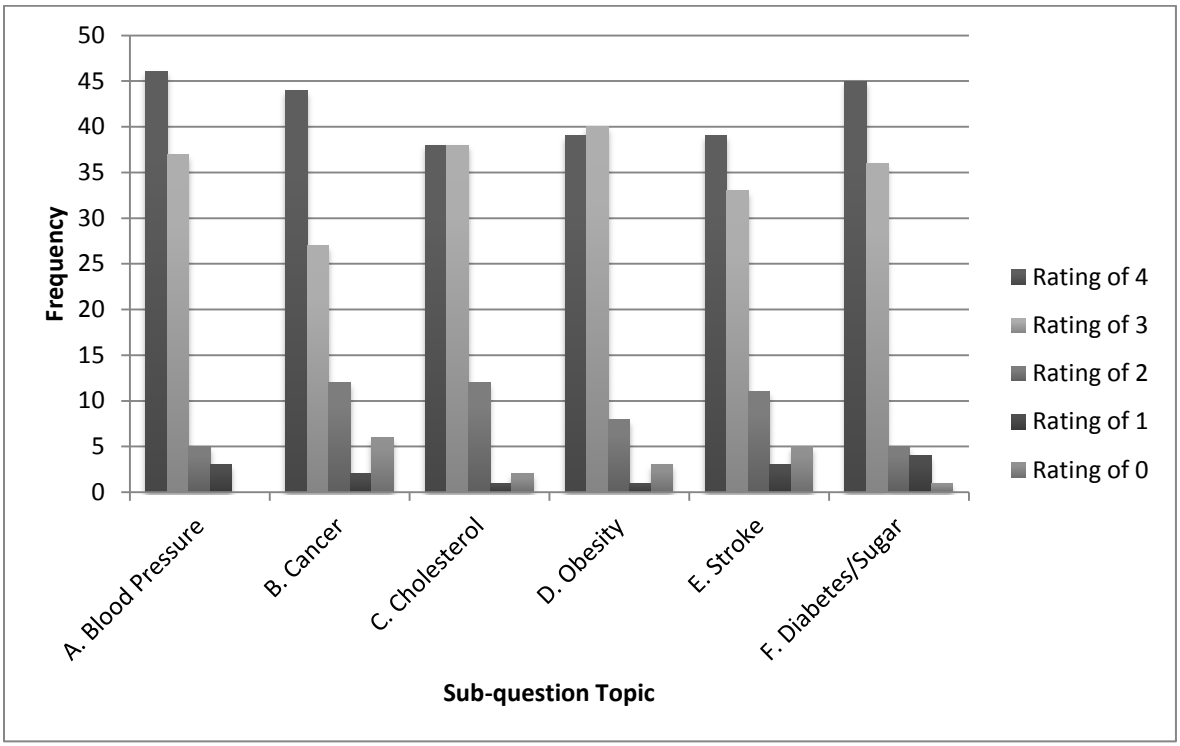

Figure 1c. Part A: Topics for health education rating of interest in knowledge in health topics Question 1.

Table 1c and Figure 1c summarize the data for Part A Question 1. It asked participants to rate their interest in knowledge of various health topics. For Question 1A, participants were asked to rate their interest in knowledge about blood pressure and a rating of 4 was the mode response. There were a total of 91 responses, of which 50.6 % gave a rating of 4, 40.7 % gave a rating of 3, 5.5 % gave a rating of 2, and 3.2 % gave a rating of 1, and 0 % gave a rating of 0. For Question 1B, participants were asked to rate their interest in knowledge about cancer and the mode response rating was 4. Out of the responses to this question, 48.4% gave a rating of 4, 29.7% gave a rating of 3, 13.2% gave a rating of 2, 2.2% gave a rating of 1, and 6.5% gave a rating of 0. Sub-question 1C was implemented to rate interest in cholesterol and the ratings of 3 and 4 were the mode responses. The ratings of 3 and 4 were each selected by 41.8% of participants. The rating of 2 was selected by 13.2%, the rating of 1 selected by 1.1% of participants, and a rating of 0 by 2.1% of participants. Question 1D collected ratings about interest in knowledge about obesity and the mode rating for this question was 3. The rating of 4 was given by 42.9% of participants, the rating of 3 was chosen by 44.0% of respondents, 8.8% of participants chose the rating of 2, 1.1% of participants chose the rating of 1, and 3.2% of participants gave a rating of 0. Question 1E asked for rating of interest in knowledge about stroke and the mode response was 4. Out of the responses to this question, 42.9% gave a rating of 4, 36.3% gave a rating of 3, 12.1% gave a rating of 2, 3.3% gave a rating of 1, and 5.5% gave a rating of 0. Question 1E asked about the interest in knowledge about diabetes/sugar. The mode response was 4 with 49.5% of participants gave a rating of 4, 39.6% gave a rating of 3, 5.4% gave a rating of 2, 4.4% gave a rating of 1, and 1.1% gave a rating of 0.

Table 2c

Frequency of Rating of Interest in Topics for Exercise in Your Community (Combined 91)

Rating	4	3	2	1	0
Walking	41	36	8	5	1
Running	30	30	20	9	2
Types of Exercise	45	34	8	2	2
Exercise Classes	45	27	13	5	1

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

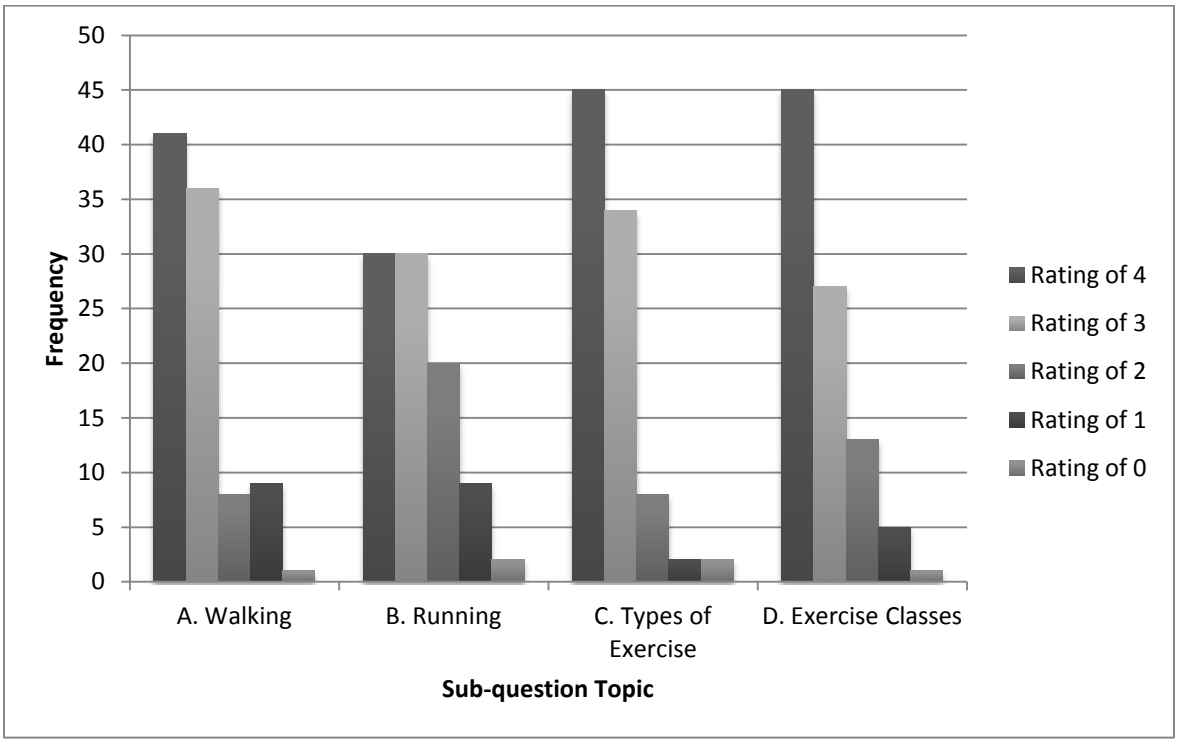

Figure 2c. Part B: Topics for exercise rating of interest in topics for exercise Question 2.

Table 2c and Figure 2c summarize the data for part B question 2 which asked participants to rate their interest in topics for exercise in their community. For question 2A which asked participants to rate their interest in walking, a rating of 4 was the mode

response. There were a total of 91 responses, of which 45.1% gave a rating of 4, 39.6% gave a rating of 3, 8.8% gave a rating of 2, and 5.4% gave a rating of 1, and 1.1% gave a rating of 0. For Question 2B which asked participants to rate their interest in running, the mode response ratings were 3 and 4. Out of the responses to this question, 33.0% gave a rating of 4, 33.0% gave a rating of 3, 23.0% gave a rating of 2, 9.9% gave a rating of 1, and 1.1% gave a rating of 0. Sub-question 2C was implemented to rate interest in learning about types of exercise and the rating of 4 was the mode response. Of the participants, 49.4% gave a rating of 4, 37.4% gave a rating of 3, 8.8% gave a rating of 2, 2.2% gave a rating of 1, and 2.2% gave a rating of 0. For question 2D, participants were asked to rate their interest in exercise classes and the mode response was 4. More specifically, 48.4% gave a rating of 4, 29.7% gave a rating of 3, 14.3% gave a rating of 2, 5.4% gave a rating of 1, and 1.1% gave a rating of 0.

Table 3c

Frequency of Willingness to Practice New Exercises (Combined 91)

YES	NO
82	9

Table 3c summarizes the data for part B question 3 which asked participants whether or not they were willing to practice new exercises in their daily routines. The mode response for this question was yes. There were a total of 91 responses, of which 90.1% responded yes and 9.9% responded no.

Table 4c

Frequency of Rating of Best Method for Learning New Exercises (Combined 91)

Rating	4	3	2	1	0
Internet	24	26	9	10	22
Radio	7	17	23	16	28
Face to Face	65	18	6	1	1
Handouts	30	40	11	5	5
Magazines	24	35	24	4	4

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

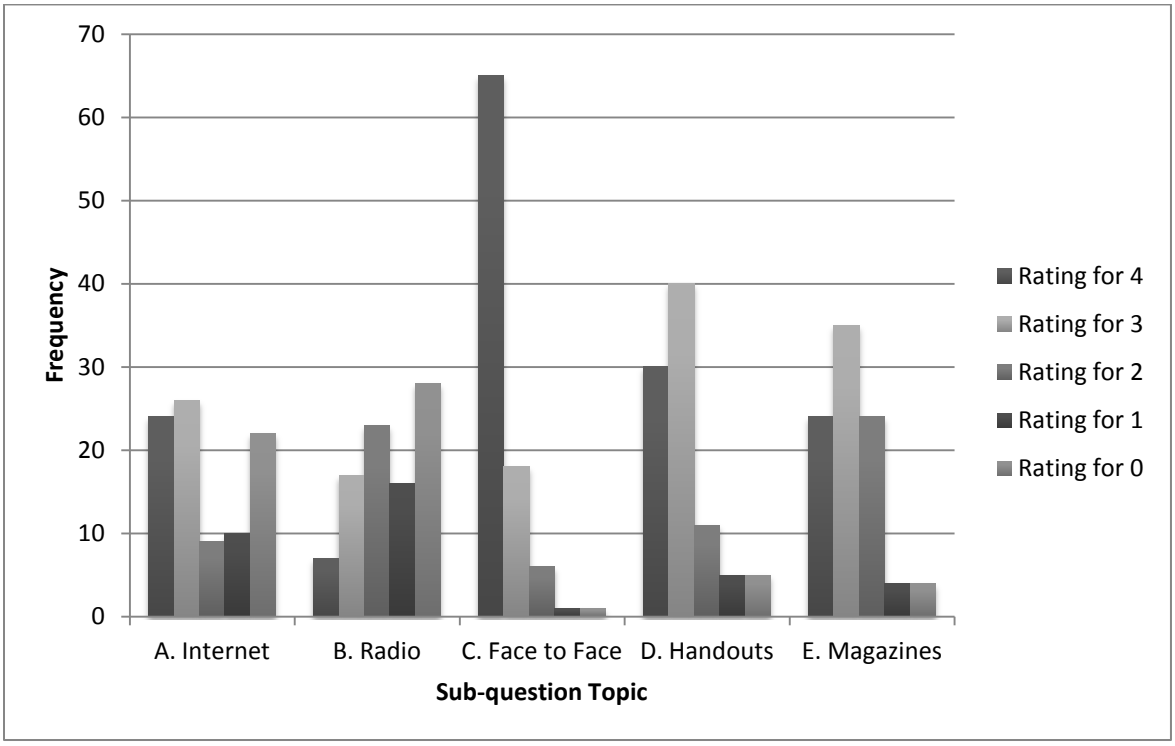

Figure 4c. Part B: Topics for exercise best method for leaning new exercise Question 4.

Table 4c and Figure 4c summarize the data for part B question 4 that asked participants to rate their best methods for learning new exercises. Question 4A asked participants to rate the Internet as a preferred method of learning. It produced a rating of 3 as the mode response. Of the responses, 26.4 % gave a rating of 4, 28.9% gave a rating of 3, 9.8% gave a rating of 2, and 10.8% gave a rating of 1, and 24.1% gave a rating of 0. For question 4B asking participants to rate the radio as their preferred method, the mode response rating was 0. Out of the responses to this question, 7.7% gave a rating of 4, 18.7% gave a rating of 3, 25.3% gave a rating of 2, 17.6% gave a rating of 1, and 30.7% gave a rating of 0. Sub-question 4C rated face-to-face interaction as the preferred method of learning new exercises and the rating of 4 was the mode response. The rating of 4 was selected by 71.4% of participants, the rating of 3 was chosen by 19.8% of participants, the rating of 2 was selected by 6.6% of participants, the rating of 1 selected by 1.1% of respondents, and a rating of 0 by 1.1% of participants. Question 4D collected ratings about handouts being the preferred learning method and the mode rating for this question was 3. For this question, 33.0% gave a rating of 4, 44.0% gave a rating of 3, 12.0% gave a rating of 2, and 5.5% gave a rating of 1and 0. Question 4E collected ratings for magazines as the preferred method of learning new exercises and the mode response was 3. Out of the responses to this question, 26.4% gave a rating of 4, 38.4% gave a rating of 3, 26.4% gave a rating of 2, 4.4% gave a rating of 1, and 4.4% gave a rating of 0.

Table 5c

Frequency of Rating of Interest in Topics of Nutrition (Combined 91)

Rating	4	3	2	1	0
Counting Calories	30	33	18	6	4
Food Journals	22	40	18	6	5
Reading Food Labels	37	35	15	1	3
Nutrition Content	37	34	16	1	3
Water Intake	47	32	9	2	1

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

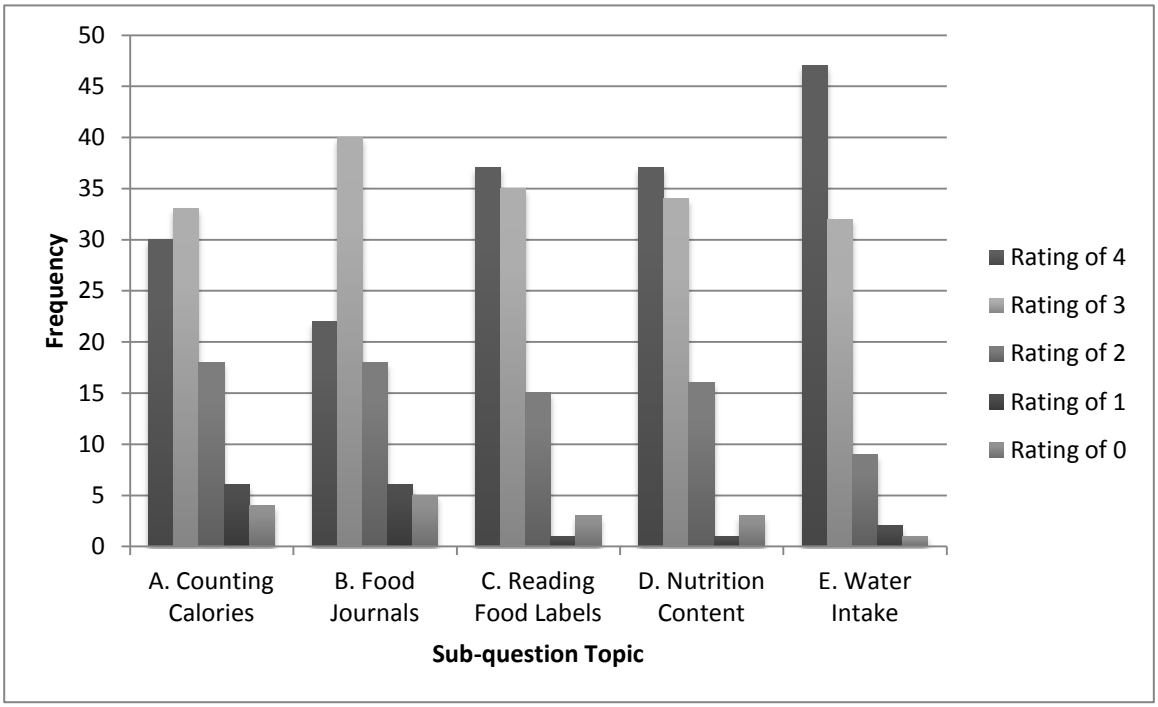

Figure 5c. Part C: Topics for nutrition rating interest in topics for nutrition Question 1.

Table 5c and Figure 5c summarize the data for part C question 1 which asked participants to rate their interest in topics of nutrition. For question 1A which asked participants to rate counting calories, a rating of 3 was the mode response. Of the responses, 32.9% gave a rating of 4, 36.3% gave a rating of 3, 19.8% gave a rating of 2, and 6.6% gave a rating of 1, and 4.4% gave a rating of 0. For Question 1B asking participants to rate their interest in food journals, the mode response rating was 3. Out of the responses to this question, 24.2% gave a rating of 4, 44.0% gave a rating of 3, 19.8% gave a rating of 2, 6.6% gave a rating of 1, and 5.4% gave a rating of 0. Sub-question 1C rated participant's interest in reading food labels and the rating of 4 was the mode response. For this sub-question, 40.7% gave a rating of 4, 38.5% gave a rating of 3, 16.4% gave a rating of 2, 1.1% gave a rating of 1, and 3.3% gave a rating of 0. For question 1D asking participants to rate their interest in nutrition content, a rating of 4 was the mode response. For this question, 40.6% gave the rating of 4, 37.4% gave the rating of 3, 17.6% gave the rating of 2, 1.1% gave the rating of 1, and 3.3% gave the rating of 0. Question 1E asked for rating interest in water intake and the mode response was 4. Out of the responses to this question, 51.7% gave a rating of 4, 35.2% gave a rating of 3, 9.8% gave a rating of 2, 2.2% gave a rating of 1, and 1.1% gave a rating of 0.

Table 6c

Frequency of Willingness to Buy Fresh Fruits and Vegetables (Combined 91)

YES	NO
91	0

Table 6c summarizes the data for part C question 2 that asked participants whether or not they were willing to buy fresh fruits and vegetables, if they were made affordable and accessible. The mode response for this question was yes. There were a total of 91 responses, of which 100% responded yes and 0% responded no.

Table 7c

Frequency of Grocery Store Proximity (Combined 91)

YES	NO
84	7

Table 7c summarizes the data for part C question 3 that asked participants whether or not there was a grocery store within 1 to 5 miles of their home. The mode response for this question was yes. There were a total of 91 responses, of which 92.3% responded yes and 7.7% responded no.

Table 8c

Frequency of Availability of Transportation (Combined 91)

YES	NO
84	7

Table 8c summarizes the data for part C question 4 which asked participants whether or not they had available transportation to a grocery store. The mode response for this question was yes. There were a total of 91 responses, of which 92.3% responded yes and 7.7% responded no.

Table 9c

Frequency of Rating of Best Location to Discuss Health Concerns (Combined 91)

Rating	4	3	2	1	0
Doctor's Office	59	24	5	1	2
Website	31	34	18	6	2
Television	22	32	22	4	11
Spouse	17	27	19	10	18
Church	22	27	22	9	11

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

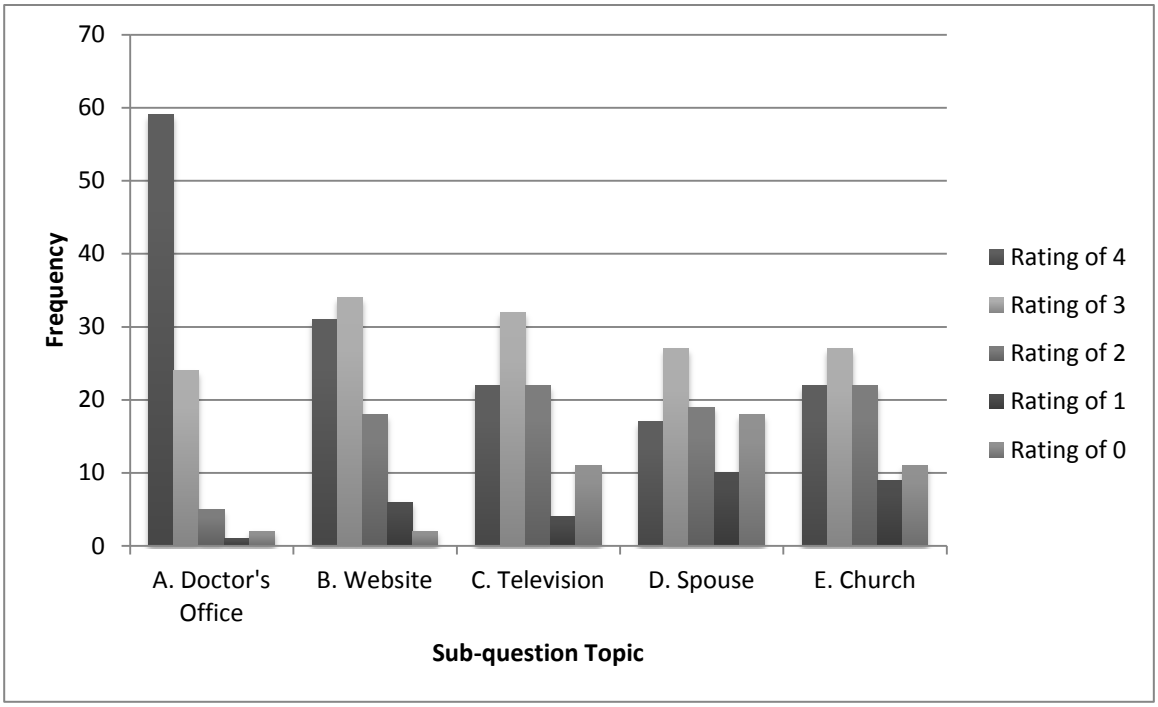

Figure 9c. Part D: Health education location rating location for health discussion Question 9.

Table 9c and Figure 9c summarize the data for part D question 5 which asked participants to rate their preferred locations for health education. For question 5A which asked participants to rate their doctor's office as the preferred location, a rating of 4 was the mode response. Of the responses, 64.8% gave a rating of 4, 26.4% gave a rating of 3, 5.5% gave a rating of 2, and 1.1% gave a rating of 1, and 2.2% gave a rating of 0. Question 5B asked participants to rate websites as their preferred location and the mode response rating was 3. Out of the responses to this question, 34.1% gave a rating of 4, 37.4% gave a rating of 3, 19.7% gave a rating of 2, 6.6% gave a rating of 1, and 2.2% gave a rating of 0. Sub-question 5C was implemented to rate television as their preferred location and the rating of 3 was the mode response. For this question, 24.2% gave a rating of 4, 35.2% gave a rating

of 3, 24.2% gave a rating of 2, 4.4% gave a rating of 1, and 12.0% gave a rating of 0. For question 5D which collected ratings about participants' spouses being the preferred method for health discussion, the mode was 3. For this question, 18.7% gave a rating of 4, 29.7% gave a rating of 3, 20.9% gave a rating of 2, 10.9% gave a rating of 1, and 19.8% gave a rating of 0. For question 5E, participants were asked to see if the church was the preferred location for health education and the mode response was 3. Out of the responses to this question, 24.2% gave a rating of 4, 29.7% gave a rating of 3, 24.2% gave a rating of 2, 9.9% gave a rating of 1, and 12.0% gave a rating of 0.

Table 10c

Frequency of Willingness to Attend Health Education Classes (Combined 91)

YES	NO
86	5

Table 10c summarizes the data for part D question 6 which asked participants whether or not they would be willing to attend health education classes at their local church. The mode response for this question was yes. There were a total of 91 responses, of which 94.5% responded yes and 5.5% responded no.

Table 11c

Frequency of Willingness to Have a Nurse Provide Health Education (Combined 91)

YES	NO
75	16

Table 11c summarizes the data for part D question 7 that asked participants whether or not they would be willing to seek out a Nurse to provide them with health education. The mode response for this question was yes. There were a total of 91 responses, of which 82.4% responded yes and 17.6% responded no.

Table 12c

Frequency of Willingness to Access Health Websites (Combined 91)

YES	NO
77	14

Table 12c summarizes the data for part D question 8 which asked participants whether or not they would be willing to access health websites to seek answers to health questions. The mode response for this question was yes. There were a total of 91 responses, of which 84.6% responded yes and 15.4% responded no.

Table 13c

Frequency of Doctor's Office Visits (Combined 91)

YES	NO
80	11

Table 13c summarizes the data for part D question 9 which asked participants whether or not they had visited a doctor's office this year for a health concern. The mode response for this question was yes. There were a total of 91 responses, of which 87.9% responded yes and 12.1% responded no.

Table 14c

Frequency of Willingness to Meet Health Educators (Combined 91)

YES	NO
68	23

Table 14c summarizes the data for part D question 10 that asked participants whether or not they or their family would meet with health educators at the Library to assist with health education questions. The mode response for this question was yes. There were a total of 91 responses, of which 74.7% responded yes and 25.3% responded no.

Table 15c

Frequency of Rating of Best Method to Access Health Education (Combined 91)

Rating	4	3	2	1	0
Internet	39	30	11	5	6
Radio	11	25	32	8	15
Face to Face	47	29	9	3	3
Handouts	27	36	21	3	4
Magazines	22	31	25	6	7

Note: Rating of 4 = Excellent, 3=Good, 2=Fair, 1=Poor, 0=Don't Know

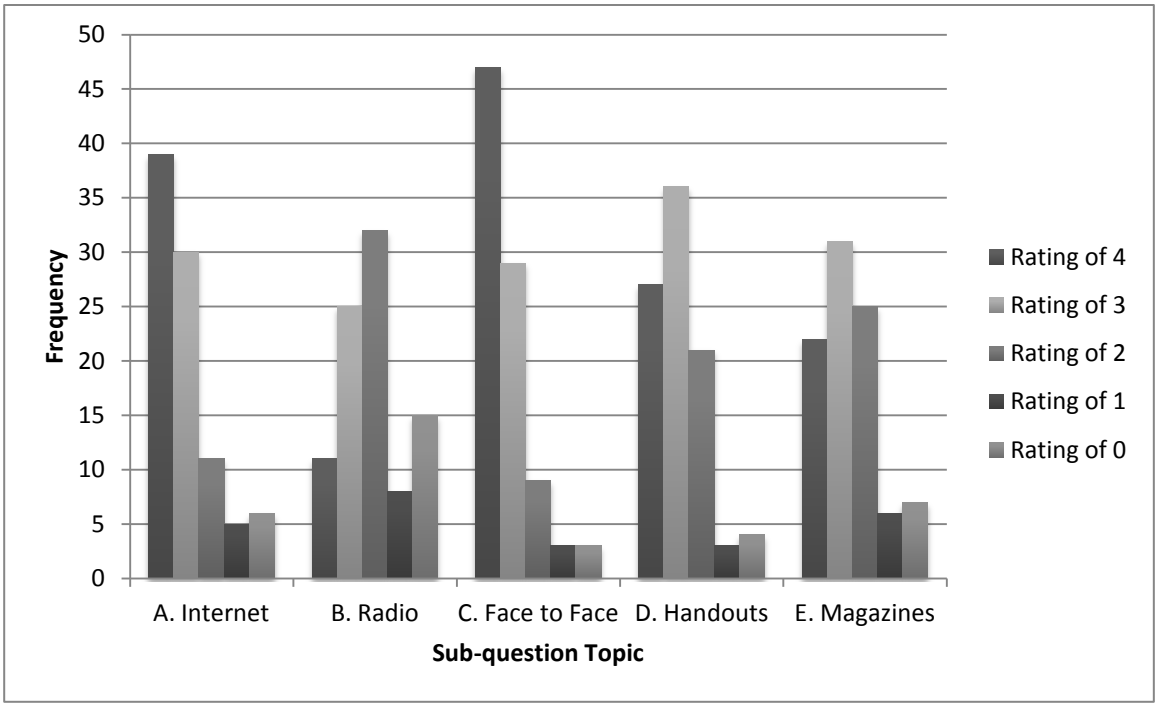

Figure 15c. Part D: Health education access rating access for health education Question 15.

Table 15c and Figure 15c summarize the data for part D question 15 that asked participants to rate their best methods for accessing health education. Question 15A asked participants to rate the Internet as their preferred method. This received a rating of 4 as the mode response. Of the responses, 42.9 % gave a rating of 4, 33.0% gave a rating of 3, 12.1% gave a rating of 2, and 5.4% gave a rating of 1, and 6.6% gave a rating of 0. Question 15B asked participants to rate the radio as a preferred method and the mode was. Out of the responses to this question, 12.1% gave a rating of 4, 27.5% gave a rating of 3, 35.2% gave a rating of 2, 8.8% gave a rating of 1, and 16.4% gave a rating of 0. Sub-question 15C was implemented to rate if face-to-face interaction was the preferred method of accessing health education. The rating of 4 was the mode response. For this question, 51.6% gave a rating of

4, 31.9% gave a rating of 3, 9.9% gave a rating of 2, and 3.3% gave a rating of 1 and 0. For question 15D, participants were asked if handouts were the preferred access method and the mode was 3. For this question, 29.6% gave a rating of 4, 39.6% gave a rating of 3, 23.1% gave a rating of 2, 3.3% gave a rating of 1, and 4.4% gave a rating of 0. Question 15E asked for ratings about magazines as the preferred method for accessing health education. The mode response was 3. Out of the responses to this question, 24.2% gave a rating of 4, 34.1% gave a rating of 3, 27.4% gave a rating of 2, 6.6% gave a rating of 1, and 7.7% gave a rating of 0.

Table 16c

Frequency of Access to Health Education (Combined 91)

YES	NO
77	14

Table 16c summarizes the data for part E question 11 which asked participants whether or not they or their family have easy access to health education. The mode response for this question was yes. There were a total of 91 responses, of which 84.6% responded yes and 15.4% responded no.

Table 17c

Frequency of Access to Fresh Fruits and Vegetables (Combined 91)

YES	NO
80	11

Table 17c summarizes the data for part E question 12 which asked participants whether or not they or their family have easy access to fresh fruits and vegetables. The mode response for this question was yes. There were a total of 91 responses, of which 87.9% responded yes and 12.1% responded no.

Table 18c

Frequency of Access to Exercises Programs (Combined 91)

YES	NO
67	24

Table 18c summarizes the data for part E question 13 which asked participants whether or not they or their family have easy access to exercise programs. The mode response for this question was yes. There were a total of 91 responses, of which 73.6% responded yes and 26.4% responded no.

Table 19c

Frequency of Gym Membership (Combined 91)

YES	NO
26	65

Table 19c summarizes the data for part E question 15 which asked participants whether or not they or their family have a gym membership. The mode response for this question was no. There were a total of 91 responses, of which 28.6% responded yes and 71.4% responded no.

Table 20c

Frequency of Concern About Obesity (Combined 91)

YES	NO
52	39

Table 20c summarizes the data for part E question 16 which asked participants whether or not they or their family are concerned with the issue of obesity. The mode response for this question was yes. There were a total of 91 responses, of which 57.1% responded yes and 42.9% responded no.

Table 21

Frequency of Availability of Internet Access (Combined 91)

YES	NO
79	12

Table 21 summarizes the data for part E question 21 which asked participants whether or not they or their family have access to the Internet. The mode response for this question was yes. There were a total of 91 responses, of which 86.9% responded yes and 13.1% responded no.

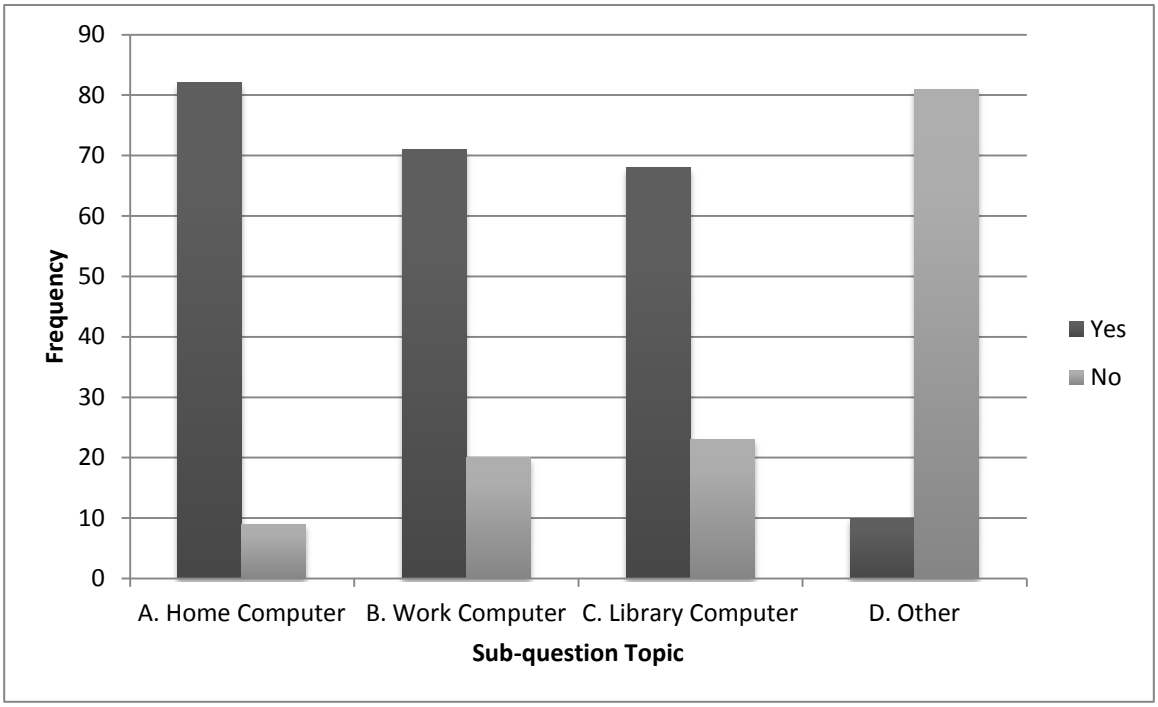

Figure 21c Part E: Accessibility of health and wellness topics Question 21.

Figure 21c summarizes the data for part E question 21, subtopics A-D, which asked participants whether or not they or their family access the Internet through various modes. Question 21A asked if participants accessed the Internet by home computer. The mode response for this question was yes. There were a total of 91 responses, of which 90.1% responded yes and 9.9% responded no. Question 21B asked if participants accessed the Internet by work computer. The mode response for this question was yes. There were a total of 91 responses, of which 78.0% responded yes and 22.0% responded no. Question 21C asked if participants accessed the Internet by library computer. The mode response for this question was yes. There were a total of 91 responses, of which 74.7% responded yes and 25.3% responded no. Question 21D asked if participants accessed the Internet by other methods. The mode response for this question was no. There were a total of 91 responses, of

which 11% responded yes and 89% responded no.

Table 22c

Frequency of Gender (Combined 91)

Female	Male
33	58

Table 22c summarizes the data for part E question 22 which asked the gender of the participants. The mode response for this question was Female. There were a total of 91 participants, of which 36.3% were female and 63.7% were male.

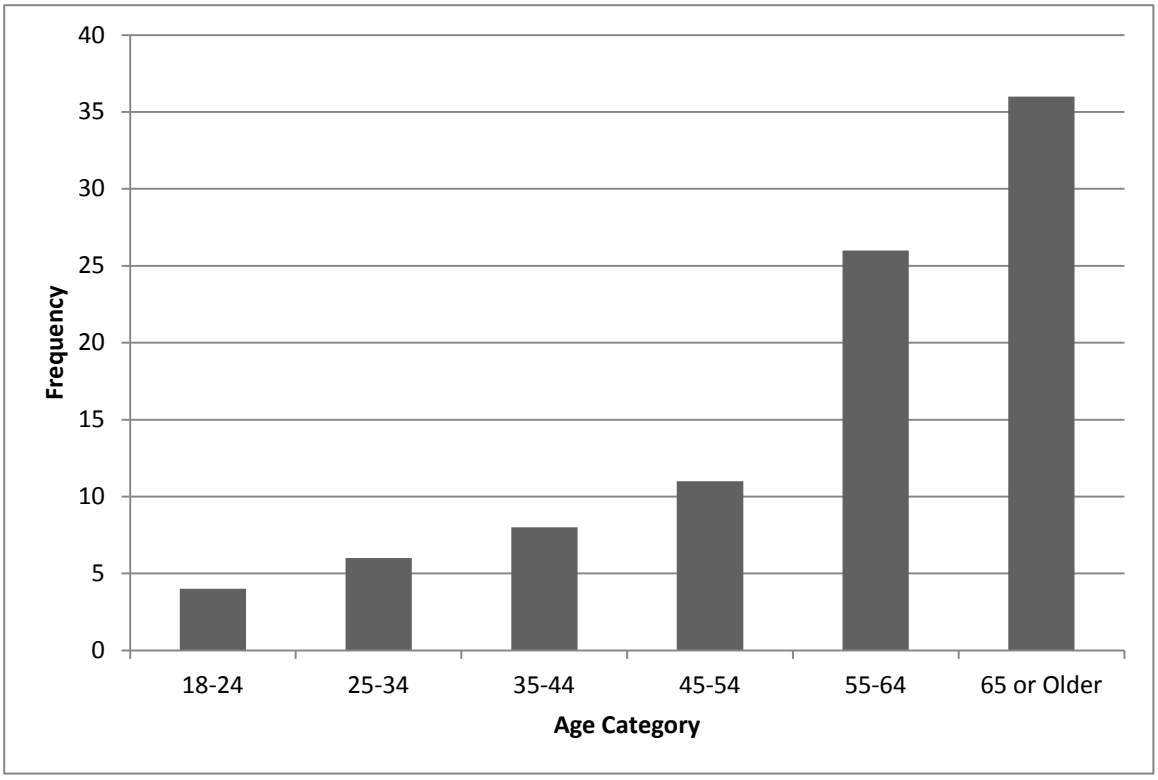

Figure 23c. Part E: Background Question 23.

Figure 23c summarizes the data for part E question 23 which asked the age group of the participants. The mode age group was 65 or older. There were a total of 91 participants,

of which 4.4% were 18-24, 6.6% were 25-34, 8.8% were 35-44, 12.1% were 45-54, 28.5% were 55-64, and 39.6% were 65 or older.

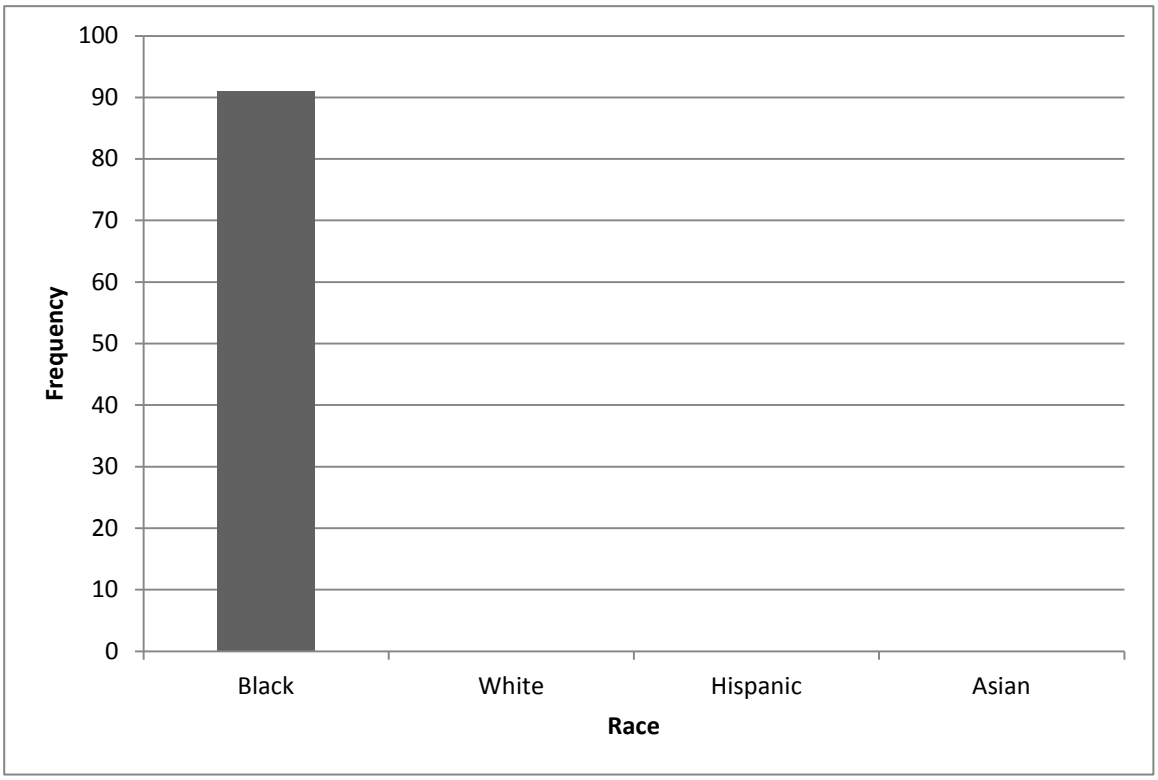

Figure 24c. Part E: Background Question 24.

Figure 24c summarizes the data for part E question 24 which asked the race of the participants. The mode race group was Black. There were a total of 91 participants, of which all (100%) were Black.

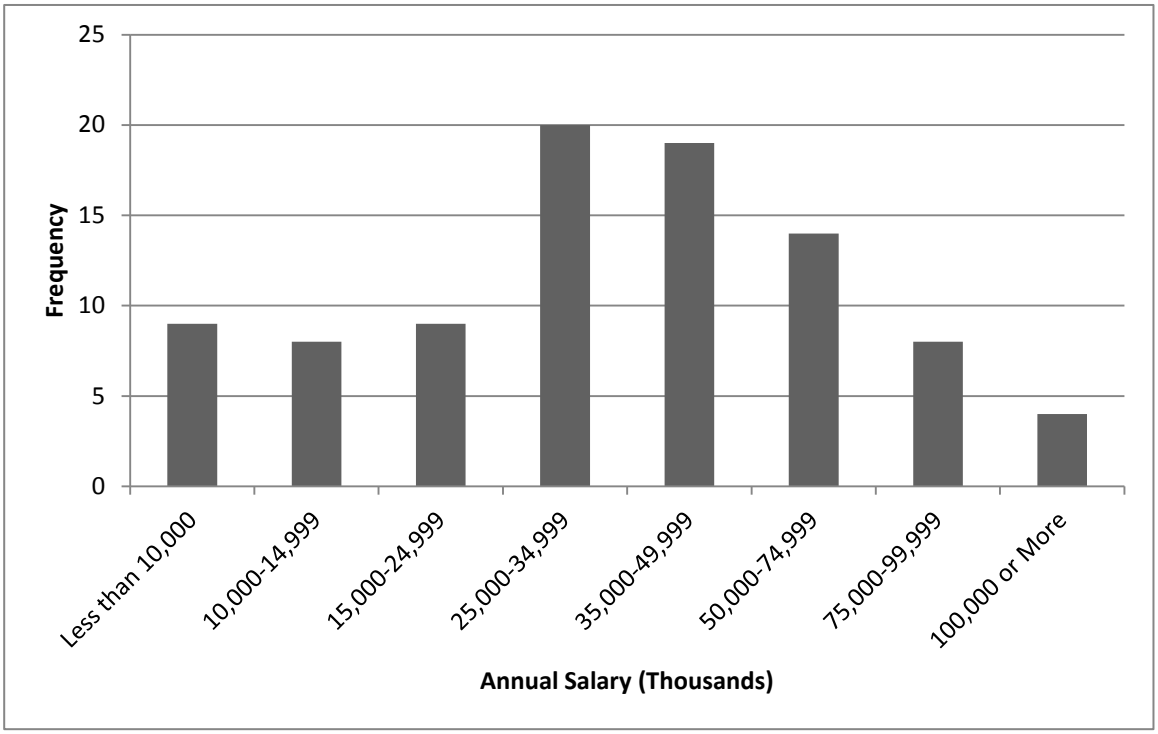

Figure 25c. Part E: Background Question 25c.

Figure 25c summarizes the data for part E question 25 which asked the gross income of the participants during the last year. Of the 91 participants, 9.9% had income that was less than $10,000, 8.8% had income between $10,000 and $14,999, 9.9% had income between $15,000 and $24,999, and 22.0% had income between $25,000 and $34,999. Furthermore, 20.9% had income between $35,000 and $49,999, 15.4% had income between $50,000 and $74,999, 8.8% had income between $75,000 and $99,000, and 4.4% had income of $100,000 or more.

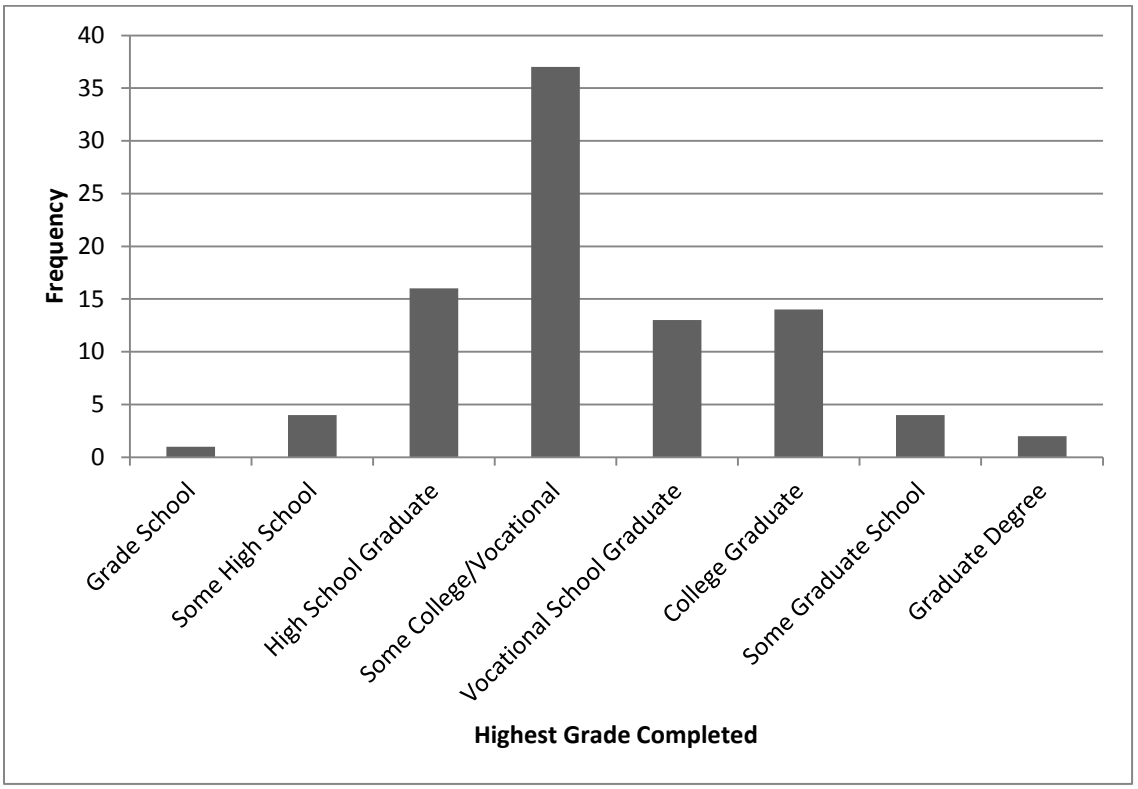

Figure 26c. Part E: Background Question 26.

Figure 26c summarizes the data for part E question 26 which asked the participants' highest grade completed. Of the 91 participants, 1.1% listed grade school as the highest grade completed, 4.4% listed some high school as the highest grade completed, 17.6% listed high school graduate, and 40.7% listed some college or vocational school as the highest level. In addition, 14.3% listed vocational school graduate as the highest level completed, 15.4% listed college graduate, 4.4% listed some graduate school, and 2.2% listed graduate degree as their highest level of education completed.

Summary of Data Findings

Inferential Statistics: Study Research Questions

This study had eight research questions. The first four research questions examined relationships and were answered using a Spearman's rho correlation analysis. The last four research questions examined differences. Because the variables were categorical, chi-square tests of independence were conducted for hypothesis testing.

Research questions 1 through 4. The first research question was**, "**Is the demographic factor of age significantly associated with concern about obesity (yes/no) among African American adults in Central Virginia?" There was a significant association between age and concern about obesity, $r_s(91) = -.22$, p = .033. As age decreased, concern about obesity increased. Based on the significant finding, the null hypothesis was rejected.

The second research question was, "Is the demographic factor of age significantly associated with willingness to attend health education classes at the local church (yes/no) among African American adults in Central Virginia?" There was not a significant association between age and willingness to attend health education classes at the local church, $r_s(91) = .03$, $p = .791$. Based on the no significant finding, the null hypothesis was retained**.**

The third research question was, "Is the social class indicator of income significantly associated with concern about obesity (yes/no) among African American adults in Central Virginia?" Income was not significantly associated with concern about obesity, $r_s(91) = .13$, $p = .235$. Based on lack of significance, the null hypothesis was retained.

The fourth research question was, "Is the social class indicator of income significantly associated with willingness to attend health education classes at the local church (yes/no) among African American adults in Central Virginia?" Income was significantly associated with willingness to attend health education classes at the local church, $r_s(91) = .22$, $p = .037$. As income level *increased*, willingness to attend health education classes at the local church *increased*. Based on significant findings, the null hypothesis was rejected.

Research questions 5 through 8. The fifth research question was, "Do African American adults in Central Virginia who do or do not have access to fresh fruits and vegetables significantly differ with regard to concern (yes/no) about obesity?" Results were significant, $\chi^2(1) = 11.80$, $p = .001$. Ten out of 11 (90.9%) adults without access to fresh fruits and vegetables were not concerned about obesity. In contrast, 51 out of 80 (63.7%) of adults with access to fresh fruits and vegetables were concerned about obesity. Based on significant findings, the null hypothesis was rejected.

Table V

Chi-square Test of Independence: Access to Fruits and Vegetables and Concern about Obesity (N = 91)

		Concerned about Obesity	
Access to Fruits and Vegetables		No	Yes
	No	10 (90.9%)	1 (9.1%)
	Yes	29 (36.7%)	51 (63.7%)

The sixth research question was, "Do African American adults in Central Virginia who do or do not have access to fresh fruits and vegetables significantly differ with regard to willingness to attend health education classes at the local church (yes/no)?" Results were not significant, $\chi^2(1) = 0.43$, $p = .514$. The percentage of participants who did not have access was not significantly different from the percentage who did have access and willingness to attend health education classes at the local church. As the results were not significant, the null hypothesis was retained.

Table VI

Chi-square Test of Independence: Access to Fruits and Vegetables and Willingness to Attend Health Education Classes at Church (N = 91)

		Health Education Classes	
Access to Fruits and Vegetables		No	Yes
	No	4 (36.3%)	7 (63.7%)
	Yes	40 (46.5%)	46 (53.5%)

The seventh research question was, "Do African American adults in Central Virginia who have or have not visited a doctor's office for a health concern in the past year significantly differ with regard to concern (yes/no) about obesity?" There were no significant differences between the percentage of participants who did or did not visit a doctor's office and concern about obesity, $\chi^2(1) = 0.35$, $p = .557$. Based on no significant findings, the null hypothesis was retained.

Table VII

Chi-square Test of Independence: Visited a Doctor's Office and Concern about Obesity (N = 91)

		Concern about Obesity	
Visited a Doctor's Office		No	Yes
	No	6 (54.5%)	5 (45.5%)
	Yes	33 (41.2%)	47 (58.8%)

The eighth question was, "Do African American adults in Central Virginia who have or have not visited a doctor's office for a health concern in the past year significantly differ with regard to willingness to attend health education classes at the local church (yes/no)? " There were no significant differences between the percentage of participants who did or did not visit a doctor's office and willingness to attend health education classes at a local church, $\chi^2(1) = 0.35$, $p = .557$. Based on no significant findings, the null hypothesis was retained.

Table VIII

Chi-square Test of Independence: Visited a Doctors' Office and Willingness to Attend Health Education Classes at Local Church (N = 91)

		Health Education Classes	
Visited a Doctor's Office		No	Yes
	No	5 (45.5%)	6 (54.5%)

	Yes	47 (58.8%)	33 (41.2%)

There were several needs identified by the Needs Assessment Survey. There is a need for research studies with a focus on combating obesity. The Needs Assessment Survey will be expanded and answered with the following questions:

Did men and women have different educational interests and needs?

More men completed the survey than women. The males' top three interests were blood pressure, cancer and diabetes topics. Women rated stroke, cholesterol, and obesity related health issues as their major concerns. Obesity plays a significant role in all of the listed items for the African American community. There were major differences in health needs, yet they both selected exercise and nutrition as an important common need. Obesity plays a significant role in all of the listed topics for the African American community.

Were there differences in the interests and needs based on age?

There were no differences in interests and needs based on age. There were more members in the 55 and older range. Yes, one of the differences in age range was the younger participants voted to have health information via computer and Internet radio.

How would these differences, if any, change or modify education plans?

There were differences noted in the participants related to learning styles. The findings could change the educational needs by increased scheduled face-to-face contact, handouts, and magazines for information sessions on health education for the older participants. Also, the church nurses could have computers with Internet access and radio for health information for the younger generation. Also, the church nurses can provide health resources via apps on phones for the younger generation.

The participants' average income is below, but near, the national average. What does this mean?

Most of the participants who volunteered for the survey were near the average income levels. The findings for income illustrated that 28 participants were below poverty level, 40 participants were within normal income and 25 were over the national income levels. The income of particular participants in the survey were not in the lowest income levels. The questionnaire did not require the participants to be in a certain income bracket to complete the survey.

Are there differences in program needs based on the income category of your participants?

Yes. Program requirement could differ due to income group of the members. Those participants with access to money could have access to fresh fruits, vegetables, gym memberships and health care. This factor can hurt the outcome of the survey results. Those participants with less income would not have access to fresh fruits and vegetables and gym memberships. In the survey, 11 participants said they did not have access to fresh fruits and vegetables in their community. The low socioeconomic participants could benefit from the increase of free health information and counseling from the church nurses. These health fairs will focus on addressing the needs of persons in low-income areas and provide them with access to health information. Only 26 participants had access to gym memberships, and 67 participants had access to an exercise programs.

Some of these findings are different from what the literature reports.

One issue related to the fact that the majority of the participants still preferred to obtain health education in a face-to-face format in a doctor’s office. This preference may be because the participants were over the age of 55 and have not experienced health education presented at church services. Parrish nurses and nurse boards are a new concept, and the more church members are

exposed to health information classes taught by nurses in the church, the more they may be willing to receive the information in a face-to-face health fair format. Another issue is most of the participants have access to some form of a grocery store and are willing to purchase fresh fruits and vegetables. The participants do not consider themselves as living in a food desert. Some of the people who participated in the needs assessment survey were not living within the five to ten-mile radius near the church area labeled as a food dessert. There were no living restrictions of those who were able to complete the survey. There is still a need and a request for health education knowledge for the church members who were surveyed. Thus, the information on how to improve one's health needs to be readily available to all church members.

How was Health Belief Model and Health Promotion Model used in the program?

Health Belief Model and the Health Promotion Model were both utilized in An Obesity Needs Assessment Program with African American Adults in Central Virginia. There were weekly nurse education moments on each Sunday before the survey. The nurses at both churches were teaching the participants about issues related to obesity and having exercise classes weekly.

Health Belief Model has several parts incorporated into the survey. Perceived severity was relayed by educating the individuals about serious health problem because they are more likely to initiate prevention activities. An example of a perceived severity was when participants would give examples of how they would shop for fresh fruit and vegetables instead of canned items. Perceived susceptibility is when the participants were aware of a risk of developing health issues. An example of perceived susceptibility was educating them on how a sedentary lifestyle leads to obesity. Perceived Benefits are reviewed as the positive aspects of

health education. An example is the participants seemed to look forward to the nurse's education moment each week during church service and verbalized that changes they wanted to make. Perceived Barriers are related assessing any obstacles to change health behavior. An example of perceived barriers could be not taking blood pressure medications due to side effects of blood pressure medications. Modifying Variables are reviewed as options that can be implemented to change the outcome of a health related issue. An example of a modifying variable is including exercise 2-3 times a week. Cues to Action are activities that can create or remind people of health problems. An example of a cue in action is the nurse's moment was focused on the health-related topic on each month. Self-Efficacy can refer to the participant, who is aware of the success of implementing a healthy activity is directly related to them performing the behavior over time. An example of self-efficacy is long-term behavior change such as a diet low in fat, increased exercise, and stopping smoking. The HBM one of the most widely used and well-tested models for predicting the behaviors of health.

Health Promotion Model (HPM) has several parts that was incorporated into the survey. The Health Promotion Model educates, motivates and inspired participants to improve their health status by making healthy lifestyle choices. The nurse board members implemented a nurse's educator moment every week and encouraged the participants to attend the weekly exercise classes offered. To accomplish the HPM, the health strategies focused on patient health education and counseling support for participants. Examples of health promotion programs include education and counseling initiatives that promote exercise and low-fat &low sugar diets. HPM encourages health professionals to offer complete resources to assist

participants to develop specific behaviors to improve outcomes of health that could decrease obesity rates.

What was the reading level of the materials given to the participants?

The obesity needs assessment survey was provided at an 8th-grade reading level. The normal adult in the U.S. reads at the 8th and 9th-grade level (Kirsch et al., 1993). Normally, survey materials are developed at an eighth-grade reading level. Indeed, questionnaires remain the most common method for needs assessment, widely used and perennially popular in health prevention education (Mann, 2012). Survey takers should be able to understand and grasp the reading materials with minimal or assistance from others. The DNP student stayed on site during the survey for any questions or concerns the nurse board members or pastor may have. There was a nurse board member designated and adequate lighting available to assist with reading or visual issues of the participants at both churches during the implementation of the survey.

Where consent forms utilized before the survey was implemented?

Informed consent was represented in various forms. The Obesity Needs Assessment Program with African American Adults is located in Central Virginia. A consent form for the Data Usage Agreement was made and signed by both of the pastors of each church and the DNP student. The form outlines data usage, responsibilities, and storage for the surveys. The pastors of both churches consulted with the church leaders and board members of their churches before signing the Data Usage Agreement form, with the Walden DNP student.

In conclusion, most of the people who took the survey prefer to get their health information through some type of face-to-face contact and handouts. The younger generations were open to accessing health information via the Internet and online radio. The various methods for people to

access health information have to be readily available and in a place for them to obtain the knowledge. Church nurses could set-up workshops for their church members to educate them about obesity. Community centers can get involved by setting up public meetings for the community, and local libraries can distribute pamphlets about community health events.

Implications for the Practice of Nursing and Social Change

There can be many explanations for the health and wellness outcomes for the needs assessment project that focused on obesity reduction and prevention. There can be positive and negative health outcomes for the issue of obesity and its ramifications. To have a direct impact on the health and wellness outcomes of the subjects, there has to be consistency in the obesity study. The use of consistent methods and standard health outcome measures enables valid comparison of the potential impact of interventions. Comparisons should take into account the strength of the evidence used in the surveys (Haby et al., 2006).

There are several positive health outcomes related to a needs assessment project on health and wellness education that focuses on obesity reduction. An individual can benefit from exposure to health literature in various ways. The subject can learn new methods to reduce or prevent obesity-related issues by incorporating various interventions into their lifestyle. The real impact on the problem will only occur if clinical approaches are complemented by public health prevention approaches that focus on the whole population with the aim of changing social norms and moving the entire distribution of BMI to the left (Haby et al., 2006). The subjects was educated on how a low BMI number would equal a decrease in the issues related to obesity. The subjects can self-implement the strong skills and knowledge learned from the research study on obesity.

Also, a positive social implication of the needs assessment will include the increase of health educators in the low social, economic areas. There can be an increase in persons interested in becoming church or community health educators who could help to educate the African American adult community members. Regarding the increase of instructors, there will be more people trained and someone available to continue the health education sessions on a weekly, monthly, and yearly base. The social impact of consistent and focused health education can lead to decreased health disparities from obesity related issues in the Central Virginia area within a 1-2 year time span.

With positives comes some form of adverse outcomes from the health challenges experienced by the participants. There are many adverse health outcomes related to the needs assessment from the obesity study. The individual can have unpleasant experiences from the study. There can be participants who refuse to comply with the health recommendations and not attend all the classes for the study. The members could attend all the education classes and yet, never implement any new lifestyle changes. Participants indicated how often each week, and for how long, they engaged in physical activity or exercise of at least moderate intensity, which was defined as activities that make you breathe somewhat harder than normal (e.g., brisk walking, cycling at a regular pace, heavy gardening) (Wang & Coups, 2010). The subject can become increasingly depressed and gain more weight due to the guilt of not implementing the new lifestyle strategies or deal with the amount of time needed to see adequately any changes at all. Previous noncompliant issues can lead to negative outcomes for the study.

Implications for Social Change

Regarding future health care changes, this project has shown that a needs assessment can be utilized to survey and determine what a target population wants/needs to hear in regards to

educational offerings related to the topic of obesity and other health related issues. Using church nurses as one delivery method to educate African American adults on topics related to obesity, since the church is a common gathering location for many in that community, can help impact the numbers of people who are obese or morbidly obese. Nurses educating the community on issues related to obesity may help lead to local social changes.

Helping to educate people on the issue related to obesity may contributing to reduce the 26.8 billion dollars spent each year on chronic obesity issues (CDC, 2007). Nurses educating the African American adult community to develop self-care and self-management behaviors will help to reduce or prevent the possibility of obesity and the chronic illnesses related to it. This will bring a high reduction in state and federal funding used for the care of obesity-related diseases.

This DNP project just scratches the surface of the educational potential for church nurses in their local communities. This project, while focusing on obesity, can be used and applied to many of the chronic illnesses those African American adults have suffered due to the consequences of obesity. Nurses can utilize the survey as a tool to develop self-care and self-management behaviors in patients with obesity, diabetes, kidney failure, hypertension and other chronic diseases. The information collected on the surveys can be a precursor to the way nurses educate their communities about living with their chronic illness.

Baby boomers who are older than 65 years of age are the central players in the issue of obesity. Baby boomers are becoming increasingly involved in their personal care and may communicate with nurses to have their health related concerns addressed. Nurses must maintain an active role in the lives of their aging community members, which can then improve their quality of life. The academic medical centers (i.e., universities and clinics) have an excellent opportunity to

influence policy and health care reform by conducting research. This can help bring about the infusion of new technology, evidence-based practices, changes in environments of care, and the new episodic care model. This reform will also help to make certain that our patients are getting the best care possible (Schmitz & Tull, 2012). Nurses can collect future data to build an evidence-based practice and make positive health care changes based on the needs of the local aging population.

Project Strengths, Limitations, and Recommendations

There are several limitations and strengths noted with the health and wellness project related to a needs assessment to decrease obesity in the African American adult population and church organization. There are significant limitations and strengths to the health and wellness project focused on a needs assessment of obesity with this project:

Limitations

1. The health and wellness project was limited to a needs assessment. The needs assessment can be utilized in the future as a basis to formulate a health and wellness program for the Central Virginia African American adult community.
2. Sometimes African American churches have less access to computers and the Internet. The health and wellness education information materials for the project are to be developed before arrival to the church location. There is limited resources and health information systems available at both church sites. As the research educator, there is a need to plan in advance for any copies or research material to be utilized by the subjects. The need for increased access to the Internet with the churches was discussed with their leadership. There are financial issues regarding the availability of the health information system on the Internet.

3. The church members have limited access to health information in general. There is a need for additional information to address obesity and related chronic issues that affect the African American adult community.
4. Many nurse church board members have limited experience with computer information systems. The older nurses will need computer skills and training.
5. No pilot – study done. The Church nurse board voted to present one survey for the church members only one time. The survey was justified by utilizing questions from several valid and reliable surveys.
6. Small, purposive sample. There is a need for a random larger sample to be analyzed. Could have chosen a neutral location in Petersburg VA.
7. People who live outside of Petersburg VA should not complete the survey. The study should be limited to those in the 5-10 mile radius for residents located in Petersburg Va.

Strengths

1. The stakeholders and nurse church boards are interested in implementing a health and wellness program that is focused on the reduction of obesity based on the findings of the needs assessment.
2. The stakeholders and nurse church boards are aware of the need to increase computer access to the Internet within the churches. There is a plan in motion to address the financial issues regarding the lack of onsite Internet access by the general church membership at the church. The church leaders support the

development of a fund for onsite computer and Internet services and computer training.

3. The information and education on obesity was accessible at the local library. The DNP student scheduled hours to assist the local population with health information at the library. In addition, church members are encouraged to seek health information at the library via the Medical Library Association. The National Library of Medicine contains over 17 million references to journal articles and provides free health information to libraries, health professionals, and consumers around the world (National Library of Medicine, 2012).
4. Another strength is the willingness of the church nurse board and participants to have access to the Internet in the church. The nurse board could benefit from the resources of a computer lab and Internet access in the church. Most of the nurse church board members are 60 and older. Having a computer and access to the Internet could facilitate an increase in the health information available to the African American church members. Subjects can access the computer and review their health diagnoses to improve their health care (Leohardt, 2009).

Recommendations

The DNP nurse has several recommendations for the success of the obesity project. Both churches can focus on the membership's desire for a health and wellness program; finding resources or have fundraisers to buy computers for the churches; and review options for Internet access to the church. Churches should continue to refer members to the local library for health information until they can obtain computers. The DNP nurse should encourage both churches to

develop and have members participate in the weeklong health and wellness classes in the future. DNP nurses can notify church members of computer training classes in the future to increase computer skills of nurse board members and participants, alike. They can also initiate a health education board with the Church nurses to reflect monthly health topics.

Additional, recommendations would be as follows:

1. Stress the need to begin a pilot survey study before the project survey.
2. Offer a random survey to other churches in the Petersburg area.
3. Provide the survey at various times and have over 120 participants.
4. Limit the survey to people who live in the Petersburg area.

Analysis of Self

I performed a self-analysis at the conclusion of the project to assess what I have learned and how I have grown professionally. A self-analysis is a major step in personal and professional growth.

Scholar-Practitioner

The DNP student grew as a nurse leader during the development of this project. In the community, the DNP student was viewed as an expert in the field of nursing and health education. The DNP student has learned to give a presentation and how to control a classroom environment. The mentor was impressed with the suggestions to self-publish the needs assessment work in a book, blog and magazine formats. This method could be utilized at later dates and will be combined with future speaking engagements. Having nurses who think at a system's level, and employ clinical leadership in the practice setting are innovative strategies that hold the promise of

improving health care on a global level (Baernholdt & Cottingham, 2011). The possibilities to educate the community as a DNP nurse are endless.

Project Developer

The DNP student has organized the process of developing a QI project by implementing a needs assessment survey. To develop a well-constructed needs assessment project, the DNP student followed the steps of the process. Further, the DNP student utilized education and practical experience to assemble the organizational and community standards necessary to increase participation and satisfaction of the stakeholders and participants for the success of the project.

Conclusion

As the nurse leader of the project, the DNP student priority is to initiate accountability for the success of the obesity needs assessment project and to maintain interest to continue an obesity education program in the future. The nurse board members, the church health educators, and the DNP student kept documentation of the changes that occurred or did not take place during the project. This represents accountability for managing and leading the nurse board to provide life-long effective obesity prevention strategies. Also, the DNP student successfully developed and implemented the needs assessment survey. After the Institutional Review Board's approval, the DNP student implemented the needs assessment survey with the church nurses, then collected and analyzed the data. After graduating, the DNP student has plans to initiate the obesity reduction program in the future at both churches. The project has elevated the DNP student understanding for a needs assessment program to become a successful nursing scholar, practitioner, and project developer.

Section 5: Scholarly Product

Executive Summary

Further research is needed to understand the effect of faith-community nurse interventions for improving chronic disease health outcomes in these communities (Monay et al., 2014). Obesity continues to be an important health epidemic in the United States. Overweight and obese populations were faced with many health issues that include heart disease, diabetes, hypertension, and sleep apnea (CDC, 2012). Overweight and obese populations can be affected in various areas of their life. Healthy intervention options can play a role in helping to reduce risk factors and improve health among the African American population in Central Virginia. Effectively treating obese patients means addressing a wide array of clinical issues and lifestyle modifications: diet, exercise, cultural, and psychological issues (Zamosky, 2014). Healthy options for African American populations could reduce the risk factors associated with overweight and obesity. More importantly, nurses can provide education, interventions, and prevention programs to help combat the factors related to overweight and obesity. Therefore, maintaining a healthier lifestyle among African Americans would reduce the risk factor associated with ill health. Nurses can educate the African American population of Central Virginia on issues of obesity to make improvements in their lives.

The reasons African American community members are overweight or obese can be complicated and are multifactorial. One factor is the lack of education. Churches have emerged as an important site for community health nursing through the establishment of faith-community nursing programs (Monay et al., 2010). With better education, the African American community can understand the importance of implementing a healthy lifestyle. Another reason is the lack of resources. Providing African American communities with the resources and

options can decrease or prevent obesity. The church was identified, throughout the interviews, as a primary source of strength and support for community members (Ford, 2013). When a community was provided with education and resources, the implications and consequences of overweight and obesity may help them to accept and implement self-care and self-management techniques to decrease or prevent obesity.

Project Outcomes

With the increase of obesity in African American communities and reduced resources for underserved communities, there is a tremendous need for obesity reduction and prevention education by church nurse educators. Using surveys can help community nurse educators to focus on topics the African American adult community are interested in learning to decrease or prevent obesity.

Recommendations

There are several suggestions to help reduce the limitations of this project.

- Use a larger sample size of African American adults in multiple African American churches in disadvantaged communities.
- Further research using the African American churches as a venue for obesity education.
- Explore alternative methods for the dissemination of obesity education to include other media formats other than printed material should be reviewed for their effectiveness in obesity education from the African American churches.

The Evaluation

The formative evaluation was implemented at the beginning of the program. Formative evaluation is a way of making sure the program, plans, and procedures, activities, materials, and modifications will work as planned (Friis & Sellers, 2009). Therefore, the researcher has to plan properly for the success of the obesity needs assessment project. Perhaps, the researcher has to involve several resources before the project was implemented. The formative evaluation has to be written and modified before implementation. The formative plan was researched and could be successful after implementation. Thus, African Americans can be open to receiving the obesity prevention information. However, the researcher has to involve the leaders of the church and community to encourage the members to implement the healthy options suggested by the needs survey. However, the impact of the needs survey can help African Americans to change their attitudes and behaviors with activities and food choices. The African American populations who attend church was offered a needs assessment, which gave them an opportunity to learn to improve their health. Also, the African-American communities would make healthier lifestyle choices to improve their health by active involvement in an obesity needs assessment survey.

Evaluation of Objectives of Project

Several objectives was completed, and some were scheduled for the future regarding this project:

- The data collected from the needs assessment identified risk factors, barriers, and unhealthy lifestyles that place African American adults in this area of the nation at an increased risk for obesity.

- A needs assessment, newsletters and nurse moments in church services (an opportunity to share information during services) were utilized to bring awareness to obesity. In the future, Central Virginia will decrease obesity rates by the utilization of evidenced-based information educational sessions and food dairies would be implemented.
- There were community members, major stakeholders, educators, and health care professionals identified, who can aid in determining interventions to help decrease obesity in Central Virginia.
- There were planned activities and projects to decrease the obesity rates in rural Central Virginia with mentors and church health educators such as newsletters, nurse moments in church services (an opportunity to share information during services), educational sessions and food diaries.
- There were monthly newsletters developed to communicate new exercise activities, healthy snack options, and meetings plans are for the future to reinforce health and wellness education.

Implications for the Practice of Nursing

Obesity was described as the leading cause of most health disparities. According to the Centers for Disease Control and Prevention, the medical costs for people who are obese are at least $1,400 higher than those of people with normal weight (Zamosky, 2014). Also, research has shown that obesity could lead to cancers, hypertension, diabetes, and early death rates. Furthermore, the Central Virginia area has the highest health disparity issues in the state of Virginia. Nurse educators can educate African American adults in Central Virginia on the consequences of obesity and can

help reduce and prevent the epidemic of increased obesity rates in the local community. Today we spend about $190 billion each year in the United States on obesity and its related health problems (Zamosky, 2014). Perhaps, churches and nurse boards can be the target site for the educational purposes of this research study. Research has shown that the church is one of the primary gathering locations for the African American population to receive information. Therefore, African American communities can receive and implement information distributed from the church or nurse educators' in group settings. Nurse educators can provide services to decrease and reduce the rates of obesity in the underserved communities.

Plans for Dissemination Publications

The plans for dissemination of the obesity needs assessment program include publishing the information in a scholarly nursing journal. The first type of journal appropriate for this dissemination is the National Black Nurses Association (NBNA) *Journal for African American Nurses*. The NBNA is an international nursing association made up of African American nurses numbering as high as 150,000 members. This scholarly journal is the best fit for the dissemination of my findings for educating African Americans in the church. By communicating initiatives and innovations in clinical practice; the results of research studies and evidence-based practice projects and new ideas; the nurse can direct the future of their practice and advance the development of the profession (Oermann & Hays, 2011). The needs assessment survey can narrow the focus of nurse educators and improve their impact on obesity awareness in the African American adult community.

The second journal appropriate for dissemination of information can be a nursing education journal. The highlight of a health and wellness program was focus on obesity prevention.

Publishing in a nursing education journal can help other nursing educators and church nurses to develop programs in their church communities to facilitate positive community outcomes through quality improvement interventions. There are five main reasons for publication: (1) to share ideas and expertise with other nurses, (2) to disseminate evidence and the findings of nursing research studies, (3) for promotion, tenure, and other personal decisions, (4) for development of their own knowledge and skills, and (5) for personal satisfaction (Oermann & Hays, 2011). Also, other advanced prepared nurses can provide guidance in the evidence-based practice and assist with the needed nursing support to facilitate quality improvement activities in their area of concern.

Presentations

There are several opportunities for advanced practice nurses to provide presentations on quality improvement projects. There are many options for local, state and national levels to demonstrate presentations in various forms.

There is an opportunity for presentation at the faculty level at local colleges every year. The local hospital can provide some opportunities for presenting a project. Since the project deals with churches and nurses, the local church will be the ideal forum to share the survey results of my project. The presentation will be accomplished in a power point presentation or poster presentation, and will be able to be shared with my co-workers and nurse church board members.

The American Nurses Association is available at the state level in Virginia. This organization was broken into sections that represent nurses in the State of Virginia. The Virginia Nurses Association (VNA) annual conference is made-up of all nursing providers from across the State of Virginia. This is an adequate forum for dissemination; due to the fact many different nurses

with various backgrounds that are attending the state conference. The method of presentation at the state level can be done in a formal setting or through a poster presentation.

The NBNA is a national nursing organization. The opportunity here will be to present the project in a formal setting or a poster board presentation. Awards were given to the best methods of the formal setting and poster board by voting at the national conference. The annual convention is one of the best options for presentations on information for improvements in the African American community since the conference is made up of African American nurses from all over the country. The advanced practice nurse has strong clinical knowledge, leadership skills, ability to coordinate, manage and evaluate care for groups of patients in complex health systems across the continuum of care, and the ability to think at a system level are competencies that can be incorporated into new or existing nurse education models worldwide (Baernholdt & Cottingham, 2011).

Advanced practice nurses must disseminate their quality improvement projects to inspire other nurses to continue or follow the results. DNP students spend time and energy to implement and calculate data for research projects to distribute to others, which may be working on similar educational interventions. Implementing methods of sharing results is part of the research process. The results of quality improvement projects can have positive impacts on the profession of nursing and the community.

Conclusion

In conclusion, the needs assessment could lead to future health and wellness programs, which have a focus on obesity in a church or community setting. The DNP student will publish the needs assessment via various venues, i.e. local, state and national publications. The DNP student has plans to implement an obesity intervention in churches in the future. The local African

American adult communities located in both churches are open to an obesity intervention plan. The presentations and publications of the project will inspire other nurses and churches to implement health and wellness programs that focus on reducing obesity in African American communities.

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Appendix A: Needs Assessment

CENTRAL VIRGINIA COMMUNITY SURVEY 2013

This survey is sponsored by the Central Virginia Health and Wellness Committee. We appreciate your help. To preserve your confidentiality do not put your name on the survey. Please circle the number that corresponds to your answer.

PART A: TOPICS FOR HEALTH EDUCATION

1. How would you rate your interest in knowledge of each of the following health topics? [EXCELLENT-4, GOOD-3, FAIR-2, POOR-1, DON'T KNOW-0)

a. Blood pressure…….....4 3 2 1 0
b. Cancer……..... 4 3 2 1 0
c. Cholesterol…….. ……...4 3 2 1 0
d. Obesity……..... 4 3 2 1 0
e. Stoke…….. .4 3 2 1 0
f. Diabetes/sugar…….....4 3 2 1 0
h. other_____

PART B: TOPICS FOR EXERCISE

2. How would you rate your interest in topics for exercise in your community? [EXCELLENT-4, GOOD-3, FAIR-2, POOR-1, DON'T KNOW-0)

a. Walking……... 4 3 2 1 0
b. Running……... 4 3 2 1 0
c. Types of exercise.…… 4 3 2 1 0
d. Exercise classes……4 3 2 1 0
e. Other_____

3. Would you practice new exercises in your daily or weekly routine? Y N

4. Which is the best method for you to learn new exercises? [EXCELLENT-4, GOOD-3, FAIR-2, POOR-1, DON'T KNOW-0)

a. Internet……..... 4 3 2 1 0
b. Radio…..…….. 4 3 2 1 0
c. Face to face……...……4 3 2 1 0
d. Handouts……..……4 3 2 1 0
e. Magazines……..4 3 2 1 0
f. Other_____

PART C: TOPICS FOR NUTITION

5. How would you rate your interest in topics of nutrition? [EXCELLENT-4, GOOD-3, FAIR-2, POOR-1, DON'T KNOW-0)

a. Counting calories….....4 32 1 0
b. Food Journals……..... 4 3 2 1 0
c. Reading food labels…….4 3 2 1 0
d. Nutrition content….. ……. 4 3 2 1 0
e. Water intake……..……..4 3 2 1 0

f. Other_____

6. Would you buy fresh fruits and vegetables, if affordable and accessible to you?

   Y N

7. Is there a grocery store within 1 to 5 miles of your home? Y N

8. Do you have transportation to a grocery store? Y N

PART D: HEALTH EDUCATION LOCATION

9. Which is the best location for you to have your health concerns answered? [EXCELLENT-4, GOOD-3, FAIR-2, POOR-1, DON'T KNOW-0)

a. Doctor's Office……... ……4 3 2 1 0
b. Website..…….....4 3 2 1 0
c. TV……..…….....4 3 2 1 0
d. Spouse…….……..…….....4 3 2 1 0
e. Church…..…….4 3 2 1 0
f. Other_____

10. Would you attend health education classes at your local church? Y N

11. Would you seek out a nurse to provide you with health education? Y N

12. Would you access health websites to seek answers to health questions? Y N

13. Have you visited a doctor's office this year for a health concern? Y N

14. Would you or your family meet with health educators at the library to assist you with health education questions? Y N

15. Which is the best method for you to excess health education? [EXCELLENT-4, GOOD-3, FAIR-2, POOR-1, DON'T KNOW-0)

a. Internet……... 4 3 2 1 0
b. Radio…..…… 4 3 2 1 0
c. Face to face……...……. 4 3 2 1 0

d. Handouts……..……..4 3 2 1 0
e. Magazines……4 3 2 1 0
f. Other_____

PART E: Accessibility of the Health and Wellness Topics

16. Do you or your family have easy access health education? Y N

17. Do you or your family have easy access to fresh fruits and vegetables? Y N

18. Do you or your family have easy access to exercise programs? Y N

19. Do you or your family have a gym membership? Y N

20. Are you or your family concerned with the issue of obesity? Y N

21. Do you or your family have access to the Internet? YES NO

IF YES, do you access the internet through:
a. a computer in your home..... Yes No
b. a computer at your work..... Yes No
c. a computer at the library..... Yes No
d. other (_____) Yes No

PART E: BACKGROUND

As this survey is confidential, please do not put your name on this survey.

22. Are you: [Circle number] 1. MALE 2. FEMALE

23. Which category best represents your age? [Circle number]
1. 18-24
2. 25-34
3. 35-44
4. 45-54
5. 55-64
6. 65 OR OLDER

24. Which category best represents your background? [Circle number]

1. Black 2.White 3. Hispanic 4. Asian

25. Which of the following categories best describes your gross total family income during the last year? [Circle number]

1. LESS THAN $10,000
2. $10,000 - $14,999
3. $15,000 - $24,999
4. $25,000 - $34,999
5. $35,000 - $49,999
6. $50,000 - $74,999
7. $75,000 - $99,999
8. $100,000 OR MORE ___

26. What was the last year or grade in school you completed? [Circle number]

1. GRADE SCHOOL
2. SOME HIGH SCHOOL
3. HIGH SCHOOL GRADUATE
4. SOME COLLEGE/VOCATIONAL
5. VOCATIONAL SCHOOL GRADUATE
6. COLLEGE GRADUATE
7. SOME GRADUATE SCHOOL
8. GRADUATE DEGREE

Thank you for completing our survey. If you have additional comments and/or ideas to assist the Health and Wellness needs assessment in serving you better, please feel free to add them here.

Appendix B: IRB Approval Number

12-31-13-0330306

Curriculum Vitae

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PROFESSIONAL EXPERIENCE

Nursing Instructor 2011–present
Virginia State University, Petersburg, VA
Nursing Instructor 2010–2011
Medical Career Institute (ECPI), Richmond, VA
Professor of Nursing 2007–2010
Polk State College, Winter Haven, FL
Staff Nurse 2005–2011
Elite Medical Staffing, Altamonte Springs, FL
Staff Nurse 2007–2010
Professional Nurse Staffing, Lakeland, FL
Professor of Nursing Assistant/Volunteer 2007–2008
Nova Southeastern University, Orlando, FL
Nurse Researcher Assistant/Volunteer 2006–2007
Winter Haven Hospital, Winter Haven, FL
Travel Nurse 2005–2007
Cross Country Travel Corps, Boca Raton, FL
Emergency Room Staff Nurse, Nurse Preceptor and Mentor 2001–2004
Rex Health Care, Raleigh, NC
Staff/Travel Nurse 2001–2005
University of North Carolina Hospital, Chapel Hill, NC
Charge Nurse/Fast Track Nurse 1994–2000
Maria Parham Hospital, Henderson, NC

EDUCATION AND CREDENTIALS

Doctor of Nursing Practice (DNP), Walden University, Minneapolis, MN; Grad 2013
Master of Science in Nursing (MSN), University of Phoenix, Phoenix, AZ; 2007
Bachelor of Science in Nursing (BSN), Old Dominion University, Norfolk, VA; 1997
Associate Degree in Nursing (ADN), J. Sargeant Reynolds Community College, Richmond, VA; 1994
Advanced Cardiovascular Life Support Provider (ACLS)
Basic Life Support (BLS)

PROFESSIONAL ASSOCIATIONS

Member - Central Virginia Chapter – Black Nurses Association – 2011- Current
Attendee – Virginia Nurses Association - 2011- Current