REDUCING SEXUALLY TRANSMITTED INFECTIONS IN AFRICAN AMERICAN TEENAGE ADOLESCENTS: DEVELOPING A CULTURALLY COMPETENT HEALTH PROGRAM FOR UNDERSERVED COMMUNITIES

by

Brandolyn Burks

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

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ABSTRACT

Proper education and programming can help reduce Sexually transmitted infections (STIs) among adolescents. This research aimed to help lay the framework for determining ways to ensure African American young adult adolescents aged 18–19 years have the necessary information and resources to make healthy decisions regarding their sex lives and experiences. The purpose of this grounded theory study was to understand what lived experiences and gaps of knowledge contribute to the contracting of STIs to develop a culturally competent health program to reduce the high rate of infections among African American 18–19-year-old adolescents living in underserved communities. The theory guiding this research was the Health Belief Model (HBM). The researcher collected the data by conducting field interviews with 15 participants living in underserved communities in Prince George’s County, Maryland. Data analysis strategies included open coding and memoing to develop a theory-based health intervention.

Keywords: adolescents, cultural competence, health education, health disparity, sexually transmitted infections, COVID-19, underserved community

Dedication

I dedicate this research study to my younger self, who knew she would become a doctor one day. This body of work is a testament to never giving up on your dreams, no matter how many twists and turns your life takes. I also want to dedicate this study to all the young black boys and girls who desperately search for answers about their bodies and sexual health. My greatest wish is that this body of work brings answers, comfort, and peace to black adolescents trying to understand sexual health. “May the Lord bless you and take care of you; May the Lord be kind and gracious to you; May the Lord look on you with favor and peace.” Numbers 6: 24-26.

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List of Abbreviations

Sexually transmitted infections (STIs)

Health Belief Model (HBM)

Federal Poverty Level (FPL)

National Cancer Institute (NCI)

World Health Organization (WHO)

Centers for Disease Control and Prevention (CDC)

Sexual Risk Avoidance Education (SRAE)

CHAPTER ONE: INTRODUCTION

Overview

Decreasing sexually transmitted infections (STIs) is an important cause among adolescents living in underserved communities (Bamberger, 2020). The findings of this research will help lay the framework for determining steps that one can take to help ensure young adult adolescents aged 18–19 years old have the necessary information and resources to make healthy decisions regarding their sex lives and experiences. The research included individuals in the target population who willingly participated in sexual activities and not those who were forced and did not provide consent. An adolescent is between ages 10 and 19; this research specifically targeted adolescents of legal age (World Health Organization [WHO], 2019). One is at the legal age when they gain control and responsibility over their actions and decisions, also known as the age of majority (Legal Age, n.d.) The United States regulations provide the age of majority as 18 (Legal Age, n.d.). This research focused on African American legal-age young adult adolescents, aged 18–19, who live in underserved communities where families live at or below the Federal Poverty Level (FPL). An individual living at the FPL has an annual income of $13,590.00, a family of two has an annual revenue of $18,310.00, a family of four living at the FPL has a yearly income of $27,750.00, and a family of six has annual earnings of $37,190.00 (FPL, n.d.). Exploring this topic helped develop a culturally competent health program targeted at African American 18–19-year-old adolescents in underserved communities. This topic is sociologically important because it helps improve public health (Lederer & Vertacnik, 2021). The more knowledge spread about the prevalence of STIs through discussing this sex education topic, the more positive health outcomes one can expect (Lederer & Vertacnik, 2021).

This research aimed to allow for health education and health promotion in 18–19-year-old African American adolescents living in underserved communities. Health education will help this population with the knowledge and skills to adopt healthy sexual behaviors voluntarily (Kumar & Preetha, 2011). Health promotion enables individuals and communities to improve and maintain their health through education, behavior change, and the creation of supportive environments (WHO, 2019). It focuses on empowering people to take control of their health and make informed choices that contribute to overall well-being. The findings of this research will empower the target population to make informed decisions regarding their sexual health. According to the WHO (2019), health promotion plays a crucial role in preventing diseases, reducing health risks, and enhancing the quality of life by addressing the underlying determinants of health and promoting healthy lifestyles.

Providing African American 18–19-year-old adolescents with health programs will address disparities, cultural beliefs, and environmental factors that may hinder them from making healthy sexual behaviors (Kumar & Preetha, 2011). African American 18–19-year-old adolescents engaging in this topic is essential because adolescents have a disproportionate rate of contracting new STIs compared to other age groups (Hoefer & Hoefer, 2017). Seeking to decrease STIs among African American young adult adolescents in underserved communities will address public health concerns and can help improve the well-being of the target population (Bamberger, 2020). Participants' health literacy is important to consider for the proper use of health knowledge (Riiser et al., 2020). The researcher factored in the basic skills of reading, writing, and comprehension of health information of the target population in developing a health program for them (Riiser et al., 2020). Adolescents' health literacy will be pivotal in their health decision-making (Riiser et al., 2020).

When discussing STIs and health education, one must consider how this impacts different communities. Underserved communities often face various barriers when trying to access the healthcare system. These barriers include economic, access-related, and social status-related barriers (Noonan et al., 2016). Inadequate access to healthcare and STI testing services sheds light on this problem. Chow et al. (2021) highlighted the disparities in healthcare access among young adults, particularly those from marginalized communities, such as the target population of this study. Limited access to clinics, lack of insurance coverage, and stigma surrounding STIs hinder young adults from seeking timely testing and treatment (Chow et al., 2021). When discussing ways to decrease STIs among African American 18–19-year-old adolescents living in these areas, one must include the adolescent's viewpoint and experiences in the solution. Incorporating these aspects requires the development of culturally competent health programs tailored to their communities. A culturally competent health program demonstrates an understanding of the patient's beliefs, values, practices, and living environment and incorporates those factors into the patient's care (Spector, 2016). Health programs tailored to the target population will help decrease STIs among them (Henderson et al., 2018).

STIs continue to be a significant health concern among young adult adolescents. Factors such as changing sexual behaviors, inadequate sex education, and inconsistent condom use contribute to the rise in STI rates. According to a study by Laufer et al. (2020), the prevalence of STIs, including chlamydia, gonorrhea, and syphilis, has increased among young adults in recent years. The researchers emphasized the need for comprehensive sexual education programs that address safer sex practices to help reduce STI rates in this population (Laufer et al., 2020).

Another contributing factor to the rising STI rates among young adult adolescents is the use of dating apps and online platforms for casual sexual encounters (Beymer et al., 2014). A study conducted by Beymer et al. (2014) indicated that individuals who use dating apps have a higher likelihood of engaging in risky sexual behaviors and contracting STIs. The convenience and accessibility of these platforms make it easier for young adults to connect with sexual partners while also increasing their exposure to potential STIs (Beymer et al., 2014). In this chapter, the researcher will explore the importance of this topic and its role historically, socially, and theoretically in the lives of 18–19-year-old African American adolescents. The chapter will also include the topic's significance to me as the researcher and the purpose of the study.

Background

Believing that adolescents deserve to be informed and educated early enough to make intelligent sexual health decisions helped guide this research. STIs are diseases caused by infection from bacteria, viruses, and other microorganisms that can be passed between persons through blood, semen, vaginal fluids, and other body fluids during oral, anal, or genital sex with an infected person (NCI, n.d.). Young adults aged 18–19 are a high-risk population for contracting STIs, and despite sex prevention programs, screening rates for STIs among the young adult population are low (Thompson et al., 2020). Thompson et al. (2020) examined 817 young adults and their behaviors that can lead to contracting STIs, such as chlamydia and gonorrhea. One suspected vulnerability to STIs among this age group is their social behaviors and a lack of STI testing (Thompson et al., 2020). Interventions tailored to those suspected vulnerabilities to STI contraction can help increase STI testing among this population (Thompson et al., 2020).

In recent years, the target population has faced the COVID-19 pandemic and other challenging regular aspects of life. Bonett et al. (2022) found that during the COVID-19 pandemic, testing for asymptomatic STIs dropped from 72.5% to 54.5%. Bonett et al. (2022)

believed that due to providers and health systems making COVID testing and recovery their primary focus, young adults did not feel they could get routine STI testing. Regular STI testing is what health professionals count on to help slow and stop the spread of STIs (Bonett et al., 2022). The undetected STIs from the lack of routine asymptomatic testing contribute to the rise of STIs in adolescents (Bonett et al., 2022).

Increased STI rates among adolescents are related to the COVID-19 pandemic (Bonett et al., 2022). The restrictive measures and disruptions in healthcare practices caused by the pandemic reduced access to sexual health services, education, and preventive measures (R.D. Johnson et al., 2022). Those affected the most by STI rates are adolescents who already face higher risks of STIs due to various factors such as limited knowledge, inconsistent condom use, and multiple sexual partners (R.D. Johnson et al., 2022). Research by R. D. Johnson et al. (2022) indicated a significant rise in STI rates among adolescents during the pandemic, with a 30% increase in reported cases compared to prepandemic rates (R.D. Johnson et al., 2022). There is an urgent need for targeted interventions and comprehensive sexual health education to address these numbers.

Emerging evidence suggests that African American adolescents have been disproportionately affected by the increase in STIs during the COVID-19 pandemic (Williams et al., 2023). The pandemic has made existing health disparities, including those related to sexual health, worse among minority populations (Williams et al., 2023). Limited access to healthcare services, reduced availability of preventive measures, and disruptions in sexual health education have contributed to the rise in STI rates among African American adolescents (Williams et al., 2023). Williams et al. (2023) found that STI rates among African American adolescents increased by 40% during the pandemic compared to prepandemic rates. This research aimed to create a culturally competent health program to target the unique challenges faced by African American adolescents and promote equitable access to sexual health education and resources.

The use of dating sites among young adult adolescents has also significantly increased during the COVID-19 pandemic (Moreland et al., 2021). With social distancing measures and restrictions on in-person gatherings, young adult adolescents turned to online platforms to connect with others (Moreland et al., 2021). Studies have shown that a surge in dating app usage among adolescents during the pandemic occurred to combat feelings of isolation from pandemic restrictions (Moreland et al., 2021). The convenience and accessibility of these dating sites provided an avenue for virtual interactions, allowing adolescents to maintain social connections while adhering to public health guidelines (Moreland et al., 2021).

The increased usage of dating sites and apps has been linked to increased STIs among adolescents (Albright, 2018). These apps allow for a convenient platform for individuals to connect with potential partners, leading to more sexual encounters (Albright, 2018). Ward (2019) found that young adult adolescents who were of collegiate age, including those aged 18–19 years old, who use dating apps, are more likely to engage in risky sexual behaviors. These behaviors include unprotected sex and multiple sexual partners, which can increase their vulnerability to STIs. The combination of increased sexual activity, decreased condom use, and decreased STI testing has increased STI rates among young adult adolescents (Glick et al., 2020). Currently, 66% of STIs are present in an asymptomatic way in people, causing them to go untreated and possibly spread among people, which emphasizes the need for proper sex education and sex resources (Unigwe et al., 2021). African Americans face health disparities that prevent them from obtaining adequate healthcare resources (Adebayo et al., 2019). Health disparities such as health literacy and low socioeconomic status have hindered African Americans from accessing needed healthcare (Adebayo et al., 2019). Race-based discrimination affects how African Americans experience the healthcare system, such as dealing with treatment delays more often than other races (Adebayo et al., 2019). Lower reading levels among African Americans have affected their abilities to understand health information and make informed health choices (Adebayo et al., 2019). High unemployment rates among African Americans lead to many of them being uninsured and unable to pay for healthcare services (Wasserman et al., 2019). I designed a culturally competent health program to help African Americans overcome healthcare disparities by empowering them with the knowledge to make smart sexual health choices and decrease STI rates among them.

Cultural competence in healthcare requires having the knowledge, skills, and attitudes to interact and provide care to individuals from diverse cultural backgrounds (NIH, n.d.). Understanding and respecting one's different cultural beliefs, values, practices, and languages is required to provide culturally competent care to an individual (NIH, n.d.). Healthcare providers may also have to change their approach to different patients to meet each patient's unique needs. Culturally competent healthcare providers must aim to eliminate healthcare disparities and improve patient outcomes by promoting equitable access, communication, and understanding (NIH, n.d.). Eliminating these disparities enhances patient satisfaction, trust, and engagement (NIH, n.d.). Developing and implementing a culturally competent health program requires a systematic and inclusive approach that addresses a population's unique needs and characteristics (OMH, n.d.). A culturally competent health program strives to eliminate health disparities, promote equity in healthcare, and foster a culturally inclusive environment to improve health outcomes for all individuals (OMH, n.d.). The researcher included African American 18–19-

year-old adolescents’ knowledge, beliefs, and attitudes to develop a culturally competent program to help them reduce STIs among them.

To further understand the need for this research, one must look at how reducing STIs in the target population has evolved in the historical, social, and theoretical context. The study addressed the need to develop a competent program to reduce STIs in African American 18–19-year-old adolescents living in underserved communities. This research added to the existing literature about the target population's knowledge, beliefs, and attitudes toward STIs. This topic can help one understand better the "why" of the target population contracting STIs at high rates and lead to ways to combat this issue.

Historical Context

When and how one learns about sex education can differ from person to person. Because there is no national standard on how adolescents learn this information, there are gaps in knowledge about the topic (Hoefer & Hoefer, 2017). Currently, there are more than 2.5 million cases of chlamydia, syphilis, and gonorrhea in the United States (Centers for Disease Control and Prevention [CDC], n.d.). The geographical region where this research took place, Prince George’s County, Maryland, has worse STI rates than the normal for the country, with gonorrhea, chlamydia, and syphilis having 221.3, 877.9, and 16.8 cases per every 100,000 respectively (Prince George’s County Health Department, n.d.).

STIs continue to pose a significant health concern among young adult adolescents. Factors such as changing sexual behaviors, inadequate sex education, and inconsistent condom use contribute to the rise in STI rates. According to a study by Laufer et al. (2020), the prevalence of STIs, including chlamydia, gonorrhea, and syphilis, has increased among young adults aged 15 to 24 in recent years. The researchers emphasized the need for comprehensive sexual education programs that address safer sex practices and promote regular STI testing to help reduce infection rates (Laufer et al., 2020).

Inadequate access to healthcare and STI testing services further exacerbates the problem (Chow et al., 2021). Research from Chow et al. (2021) highlighted the disparities in healthcare access among young adults, particularly those from marginalized communities such as African Americans. Over the previous 10 years (the period of this literature research), STIs increased dramatically among young individuals, those in large urban areas, and those in racial minority groups (Chow et al., 2021). STI rates continue to trend negatively in the United States (Bamberger, 2020). Since dropping to historic low transmission rates in 2009 of 98 cases per 100,000 population, gonorrhea infection rates have increased by 82.6%, chlamydia infections have increased by 33.9%, and syphilis infections have increased by 315% as of 2018 (Bamberger, 2020). In addition to the lack of resources, increased adolescent STI rates have also been attributed to factors such as poor decision-making skills and a lack of knowledge on the topic (Unigwe et al., 2021). With increasing transmission rates, properly educating vulnerable populations on safe sexual health practices is very important (Unigwe et al., 2021).

Researchers have long attributed increased STIs to social inequalities (Bamberger, 2020). Race, gender, and socioeconomic status are inequalities that can contribute to one not receiving the resources and education needed to make informed health decisions (Noonan et al., 2016). These inequalities impact the ability of one to access the education and resources needed to make smart sexual health decisions (Bamberger, 2020). African Americans face inequalities that disproportionally impact them and the care they can receive (Noonan et al., 2016). Over the last 10 years (from this literature review), efforts to increase prevention methods, such as improving community health education and expanding Medicaid, have not effectively reduced STI rates

(Rietmeijer et al., 2021). People living in low-income areas often lack prevention, screening, and treatment services, thus leading to increased STI rates in their community (Rietmeijer et al., 2021).

Social Context

Adolescents desire to learn more about this topic (Fisher et al., 2019). Research from Fisher et al. (2019) revealed this desire through the adolescents sharing their want for more sex education classes in a nonschool setting and reporting that they generally seek out sex education information on their own when they are experiencing an issue. According to Fisher et al. (2019), adolescents shared their desire to learn more about contracting STIs with the researcher. Although adolescents desired to know more about this topic, they also expressed concerns about learning the information in school (Fisher et al., 2019). School can be a convenient place to educate this population on the topic; however, many students reported not feeling comfortable with their questions being kept confidential, thus leading to a need for education outside of a school setting (Fisher et al., 2019). In addition to learning more about contracting STIs, adolescents reported wanting to learn more about sexuality, risk behaviors, and proper prevention practices (Almeida et al., 2017). With only 55% of adolescents in a study conducted by Almeida et al. (2017) reporting that they have someone they felt comfortable asking sex education questions to, one must develop a way to give adolescents a safe space to learn more on this topic. Perceived vulnerability reasons in young adult adolescents can include their having casual sex partners and the sexual behaviors they take part in while engaging in risky social behaviors (Thompson et al., 2020). These reasons provide the opportunity to target young adolescents with a health program tailored to their needs (Thompson et al., 2020).

Theoretical Context

Astle et al. (2020) gathered perspectives from college-age students who received sex education in school as adolescents to identify topics that need to be taught and expanded upon to adolescents. The topics included were education on diverse sexual behaviors and identities and discussion on the social-emotional and relational aspects of sex (Astle et al., 2020). Participants in the study shared insight on topics they did not learn about and sexual health information they were unaware of (Astle et al., 2020). In Fisher et al. (2019), participants desired places to speak on sexual health outside of school. They reported not feeling comfortable speaking on this topic at school with teachers (Fisher et al., 2019).

The teaching of this topic should be based on the needs of the target population. Research on sex education knowledge of adolescents enrolled in health-promoting courses indicated that despite students taking this course, their understanding of STIs was lacking (Lederer & Vertacnik, 2021). Lack of asymptomatic testing in young adult adolescents led to STI contraction rates increasing by 20%, thus showing more education on STI testing in this population is needed (Thompson et al., 2020). The lack of testing further reveals how health programs must be tailored to the population of interest to ensure the message is getting across and retained.

Grounded theory is a qualitative research methodology that I utilized to develop a theory for STI rates in young adult adolescents for this research. This approach involves collecting and analyzing data to construct a theory grounded in the experiences and perspectives of the target population. Using the grounded theory in STI research with young adult adolescents, I gained valuable insights into their lived experiences, beliefs, and cultural context, which I used to develop a culturally competent health program.

According to Auerbach and Silverstein (2003), grounded theory is instrumental in exploring the nature of adolescent sexual behavior and its relationship to STI transmission rates. This methodology allowed me to examine the social interactions shaping young adults' sexual decision-making and behavior (Auerbach & Silverstein, 2003). The Grounded theory is a methodology widely applied in various fields, including public health and STI research (Auerbach & Silverstein, 2003). Research shows that grounded theory is relevant and effective in developing STI research theories (Auerbach & Silverstein, 2003).

The HBM is a psychological framework that helps explain and predict individuals' health behaviors by considering their perceptions and beliefs about health-related risks and benefits (Anuar et al., 2020). The HBM is a valuable tool for understanding and designing interventions to address various health concerns, including adolescent STIs (Cook et al., 2018). I used HBM as the theoretical framework for this study. The HBM addresses public health concerns through concepts that predict if people will take action to prevent health concerns (Anuar et al., 2020). According to the HBM, an individual's decision to engage in preventive behaviors is influenced by their perceived susceptibility to the threat, the perceived severity of the threat, the perceived benefits of taking action, the perceived barriers to action, and cues to action (Anuar et al., 2020).

In this research, there was a need to explore the target population’s beliefs, views, and knowledge through the constructs of the HBM model. These constructs were perceived susceptibility, severity, benefits, barriers, cues to action, and self-efficacy (Anuar et al., 2020). Using the HBM as a guide, I developed a culturally competent health program from the research. This model's perceived susceptibility and severity constructs will help identify the perceived threats to the intended health outcome (Anuar et al., 2020). The health program developed from this research aims to overcome those threats to ensure the participants receive what they need from the program. The model's perceived benefit construct helped develop a program that benefits the participants, outweighing any barriers and increasing their motivation for change (Anuar et al., 2020). I used the cues to action and self-efficacy constructs of the HBM by including variables in the health program that empower individuals to make behavior changes on their own (Anuar et al., 2020).

Research conducted in recent years sheds light on applying the HBM to develop interventions targeting STI reduction in adolescents. Teitelman et al. (2017) examined the effectiveness of an intervention based on the HBM to promote safe sexual practices among urban adolescent girls. The intervention aimed to increase their knowledge about STIs, enhance their perception of susceptibility, and provide them with skills to overcome barriers to condom use (Teitelman et al., 2017). The findings revealed that the HBM helped lead to a significant increase in knowledge, a decrease in perceived barriers, and an increase in condom use among the participants (Teitelman et al., 2017).

Cook et al. (2018) utilized the HBM to design an intervention to reduce STIs among sexually active African American adolescents. The intervention focused on enhancing adolescents' perceived susceptibility to STIs, increasing their knowledge about prevention methods, and providing skills to negotiate condom use (Cook et al., 2018). The study suggested that the intervention created using the HBM resulted in improved knowledge and attitudes toward STI prevention, increased condom use, and decreased risky sexual behaviors (Cook et al., 2018).

Situation to Self

Previous experience working in an urban health clinic has offered me the motivation to conduct this research. While working in the health clinic, I saw adolescents seek help for STIs.

During the search process, they were often scared and uninformed about the proper decisions they could have made to avoid their situation. Usually, I saw adolescents concerned with affording prescription medicines needed to treat their STIs. This exposure allowed me to understand the need to focus on adolescents in communities that cannot quickly purchase health-related items and to recognize the need for appropriate education and resource allocation for adolescents on this topic.

My ontological assumption of this study was that current health education lessons in schools and abstinence-only education fail at adequately teaching adolescents about STIs, thus leading to more infections in this population. The epistemological assumption was that adolescents' firsthand knowledge and experiences would help develop a health program for their benefit. My axiological assumptions in this study were that contracting a sexually transmitted infection is undesirable, adolescents do not desire to contract an STI, and adolescents want the knowledge to protect themselves from contracting STIs. The social constructivism paradigm guided the research, allowing me to understand the adolescents' experiences and viewpoints on sex education.

Problem Statement

Each year, there are many reported cases of STIs globally, highlighting the public health challenge they present; however, specific statistics regarding the total number of STIs can vary depending on the region and population under study. According to WHO, an estimated 376 million new cases of four curable STIs (chlamydia, gonorrhea, syphilis, and trichomoniasis) occur each year among people aged 15–49 worldwide (WHO, 2019). The CDC in the United States reported over 2.9 million cases of chlamydia, gonorrhea, and syphilis combined in 2019 (CDC, 2021a). Currently, only 46% of sexually active teenagers reported using a condom (Astle et al., 2020). Adolescents who receive health education classes still report being uninformed on topics that can lead to them making safe health choices (Astle et al., 2020). Sex education is a topic that adolescents need to help reduce the number of STIs contracted among them (Astle et al., 2020).

Lederer and Vertacnik (2021) found gaps in knowledge between adolescents in different racial and economic class groups (Lederer & Vertacnik, 2021). There is a significant knowledge gap regarding STI rates among adolescents in other racial and economic class groups (Lederer & Vertacnik, 2021). Despite the recognition that these disparities exist, limited research specifically focuses on the variations in STI rates among different racial and economic class categories (Lederer & Vertacnik, 2021). Existing studies fail to capture the complex factors of race, economic class, and STI risk factors among adolescents (C. M. Smith et al., 2019). This gap in knowledge hinders the development of targeted interventions and policies aimed at reducing STI rates and addressing health disparities (C. M. Smith et al. (2019). Research from C. M. Smith et al. (2019) highlighted the need for further investigation into the racial and economic factors contributing to adolescent STI disparities. A. M. Johnson et al. (2020) emphasized the importance of understanding the specific socioeconomic factors that shape STI rates in different racial groups. The study highlighted the current knowledge gap and the need for more comprehensive research to address this issue.

Adequate sex health education must be informative, accessible, and realistic for all adolescents regardless of race or socioeconomic status (Owusu et al., 2018). People living in low-income areas and who engage in risky sexual behavior often struggle to access needed healthcare (Owusu et al., 2018). One’s inability to receive adequate and accessible healthcare affects how one interacts with the healthcare system (Wasserman et al., 2019).

Recent research on this topic shows that abstinence-only sex education is unproductive among adolescents and that one must provide them with a safe space to seek knowledge about sexual health-related topics (Morales et al., 2018). Research shows that by giving proper education through adequate intervention programs, condom usage increases, thus decreasing the rate of sexually transmitted infections among the population (Morales et al., 2018). However, the research does not provide insight into how different intervention programs connect to diverse populations of adolescents. There is a need for research on tailoring health intervention programs to the needs of specific groups of adolescents to ensure programs are connecting and effective in improving health outcomes. I addressed the problem of high rates of STI contraction in African American 18–19-year-old adolescents in underserved communities without access to health prevention and promotion programs by developing a culturally competent sex education intervention program from the research.

Purpose Statement

This grounded theory study aimed to understand what lived experiences and gaps of knowledge in African American 18–19-year-old adolescents living in underserved communities contribute to them contracting STIs. The research led to the development of a culturally competent health program to reduce the high rate of African American 18–19-year-old adolescents contracting STIs. Reducing the rate of STIs was generally defined as a decrease in the number of African American 18–19-year-old adolescents reporting contracting an STI. The theory that guided this research was the HBM. Using this theoretical framework, the study focused on exploring the participants' perceived susceptibility, severity, benefits, barriers, cues to action, and self-efficacy (Anuar et al., 2020). Using these constructs of the HBM, one can examine the beliefs and knowledge about STIs, as they relate to the constructs of the HBM, from

African American 18–19-year-old adolescents and be able to develop a culturally competent health program to reduce STI rates among this population. The culturally competent program created in this research utilized participants' knowledge, beliefs, and attitudes about STIs to provide them with a program specifically tailored to them, allowing them to make smart sexual health decisions independently.

Significance of the Study

This study is significant because it focused primarily on developing a well-tailored, culturally competent health program for 18–19-year-old African American adolescents. Developing a program to combat the issue for specific adolescents based on their community makes this research significant and necessary. The study is important to African American 18–19-year-old adolescents because research has shown that over half of adolescents reported seeking knowledge on this topic from their friends and being too afraid to ask the adults in their lives for guidance (Fisher et al., 2019). Sexually active adolescents have also reported barriers to condom usage: a lack of knowledge on how to wear a condom correctly, access to buy condoms, and money to afford condoms readily (Astle et al., 2020). By providing the population with proper education and access to sexual health resources, one can be empowered to make safe sexual health choices (Almeida et al., 2017). By developing a culturally competent health program to reduce sexually transmitted infection rates based on the target population’s lived experiences, one can ensure the research reaches that population and improves health outcomes.

Research Questions

The overarching question was: What sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities can be used to create a tailored, culturally competent health program to reduce the rate of STIs among them?

RQ1: How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?
RQ2: What are the beliefs of African American 18–19-year-old adolescents living in underserved communities towards sexual health decision-making?

Currently, 46% of sexually active adolescents report participating in risky sexual behavior, such as not using a condom, making them more likely to contract an STI (Astle et al., 2020). Despite these behaviors, adolescents have reported the desire to learn more about sex education (Astle et al., 2020). Adolescents have identified the need to learn more about STI facts, safe sex acts, and how to access sexual health information independently (Astle et al., 2020). Increasing knowledge about STIs and how to have safe sexual experiences can help reduce the number of STIs among adolescents.

RQ3: What attitudes about culturally competent healthcare do African American 18–19-year-old adolescents living in underserved communities display? One's lived experiences being understood and included in their care demonstrates cultural competence. Research by Henderson et al. (2018) showed that when patients have their lived experience included in their care, they report better satisfaction with their care, the perception of receiving a better quality of care, more adherence to treatment plans, and improved health results.

Definitions

1. *Adolescents*- A person between 10–19 years old (WHO, 2019).
2. *Asymptomatic* – Having no signs or symptoms of a disease (NCI Dictionary of Cancer Terms, n.d.)
3. *Cultural Competence* – Understanding the total context of one's situation, including knowledge, attitude, skills, beliefs, practices, and living environment (Spector, 2016).

4. *Health Disparity* – Preventable differences in the burden of disease, injury, violence, or the opportunity to achieve optimal health from the experiences of socially disadvantaged populations (CDC, n.d.)
5. *Health Education* – Providing health information, knowledge, and skills to individuals and communities to enable them to voluntarily adopt healthy behaviors (Kumar & Preetha, 2011)
6. *Health Literacy* – the degree to which an individual can find, understand, and use information and services to make informed health-related decisions and take health-related actions for themselves and others (Health Resource & Service Administration., 2022)
7. *Health Promotion* – Health-related activities that respond to direct or indirect factors that affect health, such as inequities, consumption patterns, environmental factors, cultural beliefs, etc. (Kumar & Preetha, 2011)
8. *Legal Age* – The age when a person gains control over their actions and affairs and becomes responsible for the decisions they make (*Legal Age*, n.d.)
9. *Sexually Transmitted Infection* – A disease caused by infection from certain bacteria, viruses, and other microorganisms that can be passed between persons through blood, semen, vaginal fluids, and other body fluids during oral, anal, or genital sex with an infected partner (NCI, n.d.).
10. *Underserved Community* – A community where people’s annual income is below the FPL (Federal Register, 2022).

Summary

This research focused on addressing STIs among African American 18–19-year-old adolescents living in underserved communities. I aimed to develop a culturally competent health program to provide this population with the necessary information and resources to make healthy decisions regarding their sex lives. The study highlighted the higher risk of STIs among young adults aged 18–19 and the barriers they face in accessing healthcare and STI testing services. There was also an emphasis on the need for comprehensive sexual education programs that address safer sex practices and promote regular STI testing. The research aimed to develop a culturally competent health program tailored to the beliefs, values, practices, and living environment of 18–19-year-old African American adolescents. It also aimed to highlight the gaps in sex education and the disparities in healthcare access that contribute to the high STI rates among African American adolescents.

Overall, the research aimed to increase knowledge, address disparities, and develop interventions to reduce STI rates among African American 18–19-year-old adolescents in underserved communities. The emphasis was on the significance of providing health education and resources to empower this population in making informed decisions about their sexual health. The findings of this research will aid in improving the infection rates among the target population, thus improving this public health crisis.

CHAPTER TWO: LITERATURE REVIEW

Overview

People experience the American Healthcare system differently. Many vulnerable populations, such as low-income and minority populations, often face issues with receiving quality healthcare services (Noonan et al., 2016). Vulnerable populations face biases, access to care, and difficulties finding health solutions for their community issues. The biases vulnerable populations face, such as African Americans, in healthcare can lead them to get incorrect medical treatments or not get the care they need (Adebayo et al., 2019). Because of these biases, vulnerable populations and minorities often feel they are not heard within the healthcare system, thus having no one to advocate for their care truly (Gopal et al., 2021). Problems with access to quality healthcare services for these populations have long been an issue that has plagued their communities (Noonan et al., 2016). African American 18–19-year-old adolescents in these marginalized groups cannot always receive quality healthcare on various treatment issues, including STIs such as gonorrhea, chlamydia, human papillomavirus (HPV), and syphilis (Rietmeijer et al., 2021). The COVID-19 Pandemic has hurt the rate at which young adult adolescents receive testing for STIs (Bonett et al., 2022). During the pandemic, routine asymptomatic testing was not a priority for public health needs, leading to increased STIs among African American adolescents (Bonett et al., 2022).

Health education is essential for adolescents to learn about and understand sexual health (Mirzazadeh et al., 2017). Sex education can help to understand STIs and how to stop their spread. Educating African American 18–19-year-old adolescents on this topic can help them make wise decisions as they engage in sexual activity. Researchers must find the proper time to introduce intervention techniques to educate the target population properly. When one does not receive appropriate sex education, they are unequipped to make safe and smart sexual health decisions (Mirzazadeh et al., 2017). This research highlighted what type of intervention can help reduce STIs among African American 18–19-year-old adolescents in vulnerable populations such as those in underserved communities. I used the grounded theory approach in this research to develop a culturally competent program to reduce STIs in underserved communities using the HBM for the theoretical framework. The literature entails a discussion on STI rates in adolescents, the COVID-19 impact on STIs in adolescents, health disparities among vulnerable populations, STI interventions, community intervention programs, and African American 18–19-year-old adolescents' perspectives and vulnerability to STIs to reveal the need to develop a culturally competent health program using the HBM for the target population.

Theoretical Framework

The grounded theory designed by Glaser and Strauss allows the development of a theory based on the views of those participating in a study (Creswell & Poth, 2017). The theory, developed in 1967, allows for the data collected from individuals to guide research to offer explanations (Creswell & Poth, 2017). Using this methodology, one can develop a theory for STI rates in African American 18–19-year-old adolescents living in underserved communities for this research. Collecting and analyzing data to construct a theory grounded in the experiences and perspectives of the target population ensures the inclusion of the target population’s voice in the intervention tailored for them.

The participant's perspective in the literature shows how there is a need for education and health interventions to help educate African American 18–19-year-old adolescents on reducing the spread of STIs. The HBM guided this study to develop a program that responds to this public health crisis. Initially, the HBM aimed to explain why people failed to participate in prevention programs; however, it has since evolved into a practical solution to address public health concerns through concepts that predict if people will take action to prevent health concerns (Anuar et al., 2020). Anuar et al. (2020) found the HBM to be the most successful framework for improving health-related behaviors compared to the protection motivation, transtheoretical, and commonsense models. HBM's success lies in the five constructs it covers, which identify perceived seriousness, susceptibility, benefits, barriers, cues to action, and the push for self-efficacy (Anuar et al., 2020).

In the context of STIs, the HBM is applicable in understanding individuals' decisions regarding preventive measures such as condom use, regular STI testing, and communication with sexual partners about sexual health. By identifying the factors that influence these behaviors, health professionals can design targeted interventions to promote safer sexual practices and reduce the incidence of STIs. C. M. Jones et al. (2020) developed an STI prevention intervention using the HBM to design the intervention. The intervention targeted adolescents in school settings and aimed to promote condom use as a preventive measure against STIs (C. M. Jones et al., 2020). The program utilized HBM's key constructs, including perceived susceptibility, severity, benefits, and barriers, to shape its educational materials and messaging. Participants received information on the prevalence and consequences of STIs among their age group, highlighting the risk of infection (C. M. Jones et al., 2020). There was an emphasis on the severity of STIs, particularly the long-term health implications (C. M. Jones et al., 2020). The intervention underscored the effectiveness of condom use in preventing STI transmission and unintended pregnancies, addressing perceived benefits (C. M. Jones et al., 2020). To tackle barriers, the program offered confidential access to condoms and encouraged open communication about sexual health with partners and healthcare providers (C. M. Jones et al., 2020). The results showed a significant increase in condom use and a reduction in risky sexual behaviors, demonstrating the effectiveness of the HBM-based intervention in promoting STI prevention among adolescents (C. M. Jones et al., 2020).

The constructs of this model, perceived susceptibility, severity, benefits, barriers, cues to action, and self-efficacy, help invoke change in the target population (Anuar et al., 2020). One's perceived susceptibility will allow for the research to understand how likely the target population believes they are to contract an STI (Anuar et al., 2020). Perceived severity shows the researcher if the target population believes contracting an STI is severe (Anuar et al., 2020). The degree of one's perceived susceptibility and severity can be considered a threat to the target population’s prospective behavior change (Anuar et al., 2020). The behavior change one makes regarding their perceived susceptibility is influenced by their beliefs and serves as the perceived benefit (Anuar et al., 2020). Negative factors contributing to the lack of one making a behavior change are their perceived barriers (Anuar et al., 2020). This research addressed how to overcome these barriers to help promote positive health change. Developing a culturally competent health program serves as the target populations' cue to action by allowing them to feel ready to take action toward positive health outcomes (Anuar et al., 2020). Lastly, the program can potentially increase self-efficacy in the target population. One's self-efficacy is the conviction that one must incorporate into their changed behaviors for a better health outcome (Anuar et al., 2020). Using the grounded theory approach with the HBM framework, I studied the perspectives and knowledge of 18–19-year-old African American adolescents living in underserved communities to develop a culturally competent health program.

This health program will give the target population access and knowledge to make intelligent choices regarding their sexual health. The emphasis of this health program will be that it is culturally competent to ensure the target population, which consists of those in a vulnerable group, can access, understand, and navigate the program. A culturally competent health program designed to reduce STI rates in African American 18–19-year-old adolescents living in underserved communities can significantly benefit this population by addressing their specific needs and promoting responsible sexual behavior. The program incorporated cultural sensitivity, respect for diversity, and an understanding of the target population's unique challenges. By recognizing and embracing the cultural nuances and beliefs surrounding sexual health, the program can effectively engage and educate the target population in a way that resonates with their cultural values and practices. The aim of the program was to provide accurate and comprehensive information about STIs, their prevention strategies, and information about safe sexual practices. It also aimed to acknowledge and address cultural barriers that may hinder access to healthcare or impede open discussions about sexual health to the study population. Different communities can implement this program for people who meet the study population parameters. This approach empowers the target population to make informed decisions about their sexual health, reduces stigma, and encourages responsible behaviors within their cultural context.

Related Literature

STIs in Adolescents

STIs are caused by bacteria, viruses, and microorganisms that can be passed through blood, semen, vaginal fluids, and other bodily fluids during sexual activity with an infected partner (NCI, n.d.). STIs have continued to increase steadily over the past 10 years (Bamberger, 2020). Despite renewed prevention, education, and Medicaid expansion efforts, increases in STIs such as chlamydia, gonorrhea, and syphilis in adolescents continue to be conspicuous (Rietmeijer et al., 2021). Rising STI rates in adolescents call for more education and prevention resources for this population. By addressing the factors that lead to the rise in STI rates, one can determine how to combat them and help curb this public health crisis.

Sexually Transmitted Infection Rates

Although STIs can impact anyone's health, adolescents have been affected by increased STI rates (Bamberger, 2020). Since 2009, STIs such as gonorrhea, chlamydia, and syphilis have steadily increased and negatively impacted specific populations of people, including adolescents (Bamberger, 2020). Gonorrhea has increased by 82.6 % in a 10-year period, with it being 46% higher among males than females (Bamberger, 2020). Chlamydia has increased by 33.3 % over a 10-year period, with those aged between 15 and 24 being the most affected by this infection (Bamberger, 2020). Over 10 years, syphilis, in all stages, has increased by 315% and is six times more common in males than females (Bamberger, 2020). There are more than 2.5 million cases of chlamydia, syphilis, and gonorrhea in the United States (CDC, n.d.). According to the STI Surveillance report, the 2.5 million cases represent the most recent data from 2021, which increased from the previous report for 2020 (CDC, 2021a). Prince George's County, Maryland, has worse STI rates than the average for the country. The county has 221.3 cases per every 1000,000 population of gonorrhea, which is higher and worse than the national average of 179.1 cases per every 100,000, 877.9 cases per every 1000,000 population of chlamydia, which is higher and worse than the national average of 539.9 cases per every 100,000, and 16.8 cases per every 1000,000 population of syphilis which is higher and worse than the national average of 10.8 cases per every 100,000 (Prince George's County Health Department, n.d.). A commonality among these three STIs is that they disproportionately affect racial and ethnic minorities (Bamberger, 2020).

Another STI that affects adolescents at high rates is the HPV (Naidoo, 2017). Adolescents have the highest incidence of STIs compared to other populations, and HPV is one of the most common STIs among adolescents (Naidoo, 2017). HPV is a risk for those reinfected with STIs within a few months of each infection, and there is a strong correlation between HIV and HPV susceptibility (Naidoo, 2017). HPV can lead to women getting cervical cancer, although adolescents are generally at low risk for getting cervical cancer (Naidoo, 2017). An issue with seeking treatment for HPV and other STIs, including bacterial vaginosis (BV), is that they are asymptomatic until a severe complication appears in an individual (Naidoo, 2017). Adolescents' lack of knowledge and awareness of STIs and their seriousness leads to further transmission (Naidoo, 2017).

Research by Naidoo (2017) showed that education about sexual health needs to focus on STIs and their seriousness and not solely on ways to prevent unwanted pregnancies (Naidoo, 2017). Another prevention method necessary in sex education is information on available vaccines (Naidoo, 2017). Currently, there are two HPV vaccines available to help prevent this STI (Naidoo, 2017). The WHO recommends a one or two-dose schedule for the HPV vaccine for girls ages 9 to 14 (WHO, 2023b). Although cervical cancer affects women, men can get penile cancer from HPV, and both genders can get anal or oropharyngeal cancer from HPV (CDC, n.d.). The CDC recommends the HPV vaccine for girls and boys starting at 11 years old; however, it acknowledged that stating the vaccine series at 9 years old is also appropriate, thus not contradicting the WHO (CDC, n.d.).

STIs such as *mycoplasma genitalium* and *trichomonas vaginalis* also have high incidence rates among adolescents (Trent et al., 2018). A study by Trent et al. (2018) included 483 patients, and 79% of them were African American. Adolescents accounted for 25% of the study population, and 35% of adolescents had the STIs of *mycoplasma genitalium*, *trichomonas vaginalis*, *chlamydia trachomatis*, or *Neisseria gonorrhoeae* (Trent et al., 2018). Trent et al. (2018) concluded that sexual education for adolescents prevented risky behaviors that led to contracting STIs as adolescents and into adulthood.

Sexually Transmitted Infection Testing

The U.S. Preventative Services Task Force recommends screenings for STIs to help combat their spread and that all sexually active people as young as 15 years get screened annually for Human Immunodeficiency Virus (HIV; United States Preventive Services Taskforce, n.d.). The task force also recommends that females younger than 25 years old and sexually active be screened annually for chlamydia, syphilis, and gonorrhea (United States Preventive Services Taskforce, n.d.). As STIs continue to increase, clinicians must obtain frequent sexual health screenings to aid prevention efforts (Bamberger, 2020). The CDC recommends testing for HPV and cervical cancer for women as young as 13 years or any age for those seeking STI evaluation and treatment (CDC, n.d.). Testing for trichomonas, herpes, *bacterial vaginosis*, and *mycoplasma genitalium* is recommended when an individual presents for STI evaluation and treatment and displays symptoms of the infection (CDC, n.d.).

Bamberger (2020) argued that frequent sexual health testing is vital in prevention efforts. Naidoo (2017) echoed this sentiment by emphasizing the importance of regular testing among adolescents, as many do not know their bodies well enough at a young age to know when an issue or infection is occurring. Combating risky sexual behavior through proper health education and frequent testing is instrumental in decreasing STI rates (Trent et al., 2018).

Treatment Disparities for STIs

Areas with low funding and inadequate health insurance coverage often see a rise in STI rates (Rietmeijer et al., 2021). Medicaid is a program that offers health insurance coverage to uninsured persons who are often low-income (Rietmeijer et al., 2021). In 2018, chlamydia, gonorrhea, and syphilis rates were significantly higher in counties in U.S. states without Medicaid expansion as compared to those with Medicaid expansion (Rietmeijer et al., 2021). STI rates were 59.9% in counties without Medicaid expansion, while counties with expansion had a rate of 42.2% (Rietmeijer et al., 2021). The passage of the 2014 Affordable Care Act allowed funds to be given to states to expand their Medicaid programs (Rietmeijer et al., 2021). The research shows that the states that do not accept the funds to develop their Medicaid programs have higher STI rates than those that expanded their programs (Rietmeijer et al., 2021). Research from Rietmeijer et al. (2021) suggested that this occurs because of a lack of prevention, screening, and treatment services included in a Medicaid expansion plan. There is a need to include sociodemographic and health equity resources in health education programs and services to reduce STI infections in low-income and underserved communities.

Unigwe et al. (2021) examined data collected between 2005 and 2016 on STI rates from those seeking care from an ambulatory care clinic. They determined that STIs are a public health concern as they burden individuals and the healthcare system. An estimated 66% of STIs are asymptomatic and thus go untreated and present risks such as contracting HIV, having a stillbirth, infant death, infertility, and further transmission of STIs to more sexual partners (Unigwe et al., 2021). Some STIs have treatments, while others, such as herpes simplex viruses 1 and 2, remain with the individual throughout their life (Unigwe et al., 2021). Throughout Unigwe et al.'s study, STI rates in those seeking care in the clinic setting increased by 75%. From those who sought care from a clinic, people who identified as Black had higher odds of seeking care due to an STI (Unigwe et al., 2021). STI rates in adolescents are related to poor decision-making skills and a lack of knowledge of the risks associated with STIs (Unigwe et al., 2021). Engaging with the adolescent community and teaching them the risks associated with STIs and better sexual health decision-making skills can help them understand their susceptibility to STI contraction and how to make safe sexual health decisions.

Cost of Sexually Transmitted Infection Testing and Treatment. The financial burden of STI treatments and testing can disproportionately affect marginalized and vulnerable populations, including low-income individuals and minority communities (CDC, 2021b). The cost of medications, doctor's visits, laboratory tests, and follow-up care can accumulate, causing financial strain and reducing the likelihood of individuals adhering to prescribed treatment regimens (Scott et al., 2020). Cost is critical in the accessibility and affordability of STI treatments and testing. High treatment costs can act as barriers for individuals seeking medical assistance, leading to delayed or inadequate treatment and exacerbating the spread of infections (Scott et al., 2020).

The cost of STI testing can be a significant deterrent for individuals, especially those who lack health insurance or financial resources (Scott et al., 2020). The expense of diagnostic tests may lead some individuals to forgo testing altogether, perpetuating the transmission cycle and hindering efforts to control STI outbreaks (Scott et al., 2020). Reducing the cost of STI treatments and testing through targeted interventions, government subsidies, and public health initiatives is crucial for ensuring equitable access to essential healthcare services and ultimately curbing the prevalence of STIs.

STI treatment and testing costs can significantly impact healthcare accessibility and affordability. According to the CDC (2021b), the costs of treating common STIs can vary widely. For instance, the average cost of antibiotics to treat chlamydia can range from $20 to $90 per course of treatment (CDC, 2021b). Treating more complex infections like syphilis may require a longer and more intensive regimen, with costs reaching up to $1500 or more, depending on the stage of the infection and the prescribed medications (CDC, 2021b). Scott et al. (2020) found that the average cost of a comprehensive STI panel test, which includes tests for infections such as chlamydia, gonorrhea, and HIV, can be around $200 to $300 in private healthcare settings. The high costs of STI treatment and testing may discourage some individuals from seeking timely medical care, leading to potential complications and contributing to the overall burden of STIs in the population (Scott et al., 2020).

Community intervention programs to prevent and manage STIs can be valuable tools in reducing transmission rates and improving overall public health. However, these programs often have associated costs that must be carefully considered and budgeted. The expenses of STI community intervention programs can vary widely depending on the initiative's scope, the targeted population, and the range of services provided (M. L. Johnson et al., 2020). For instance, a comprehensive community-based program that includes STI education and awareness campaigns, free or subsidized testing and treatment services, and outreach efforts to at-risk populations may entail substantial costs. According to a study by M. L. Johnson et al. (2020), the average annual cost of implementing such a community intervention program in a medium-sized city can range from $100,000 to $500,000, depending on the program's scale and complexity. These costs include staffing, training, testing supplies, public outreach materials, and administrative expenses (M. L. Johnson et al., 2020). Although the initial investment might seem substantial, the long-term benefits of reducing STI transmission rates and associated healthcare expenses can outweigh the financial burden.

The sustainability of STI community intervention programs also depends on securing adequate funding and resources (M. L. Johnson et al., 2020). Seeking financial support from government health agencies, nonprofit organizations, or private donors is a common practice for funding such initiatives (M. L. Johnson et al., 2020). Additionally, cost-effectiveness evaluations can help demonstrate the impact and value of these programs to potential funders (M. L. Johnson et al., 2020). By efficiently utilizing resources and demonstrating positive health outcomes, STI community intervention programs can secure ongoing support, ensure continued access to essential services for vulnerable communities, and improve public health (M. L. Johnson et al., 2020).

Young Adult Adolescents' Age 18–19 Years Old Susceptibility to STI Contraction

Knowledge of public health topics is essential to healthy living. A public health topic that is vital today is STI rates. Approximately 19 million new cases of STIs are diagnosed each year (Lederer & Vertacnik, 2021). Over the past several years, STI rates have increased and become a burden to adolescents (Lederer & Vertacnik, 2021). Research by Lederer and Vertacnik (2021) focused on exploring the importance of adolescents having accurate knowledge about STIs. One's lack of knowledge can play a pivotal role in what health decisions one makes for themselves (Lederer & Vertacnik, 2021). The research involved 419 students enrolled in health-promoting courses to assess their knowledge about STIs (Lederer & Vertacnik, 2021). The participants in this study included "late adolescents," meaning those who were in college and at least 18 years old (Lederer & Vertacnik, 2021). The research study included asking students about their sexual health, sexual behavior, sexual preferences, and general STI information questions (Lederer & Vertacnik, 2021). The findings of the study showed that STI knowledge among these late adolescents is low; however, when information is known, adolescents can make smart sexual health decisions (Lederer & Vertacnik, 2021). This finding leads to the need for more knowledge on STIs to be provided to the study population, African American 18–19-year-old adolescents living in underserved communities.

Further analysis of the study indicated that late adolescent women had more knowledge about STIs than adolescent men (Lederer & Vertacnik, 2021). For instance, the researchers reported that women interacted more with the healthcare system, specifically regarding sexual and reproductive health (Lederer & Vertacnik, 2021). The study also showed disparities in knowledge between racial groups and economic classes (Lederer & Vertacnik, 2021). The study's findings suggest the need for more research to explore why different races and socioeconomic classes have different knowledge levels about STIs.

Young Adult Adolescent Education on STIs

To improve sex education, college students who received sex education as adolescents offered suggestions to help further educate adolescents (Astle et al., 2020). The average age of the participants was 18.6 years old (Astle et al., 2020). The areas reported needing inclusion in sex education were coverage of diverse sexual behaviors and identities, discussion around the social-emotional and relational aspects of sex, and that the information should be presented early in adolescent years and by a trained professional (Astle et al., 2020). These topics help adolescents make better sexual decisions. Risky behaviors can be tailored by adequately educating adolescents before they begin having sex and throughout their continued sexual experiences. Currently, 46% of sexually active teenagers report not using a condom, making them more susceptible to contracting STIs (Astle et al., 2020). Adolescents, when surveyed, reported wanting more information on topics that included medical and STIs facts, safe sexual activities, and where to find that information on their own (Astle et al., 2020). This research showed a need to educate adolescents properly regarding this topic. The researchers found that additional research is needed so students can feel more comfortable accessing STI information independently. The research utilized a sex-positive framework. This framework from Astle et al. (2020) study used the belief that everyone has access to complete autonomy over their sexual choices. Almeida et al. (2017) shared the same belief that having autonomy over one's body leads to safe sexual health decisions.

For adolescents to have autonomy over their sexual choices, they must have the tools to make the best decisions for their sexual health and learn about the topic (Almeida et al., 2017). Almeida et al. (2017) performed a qualitative study of 22 adolescents, ages 16–19, and found that adolescents desired to learn about sexuality and sex education, risky behaviors, STI/HIV, and prevention practices. The rising incidence of STIs among this population shows a need for this education (Almeida et al., 2017). Only 55% of research participants reported having someone to talk to about these topics; however, of that 55%, more than half stated they speak only to friends for education on the subject matter (Almeida et al., 2017). Adolescents cannot get the correct information to make intelligent decisions without the ability to speak to educated individuals on this subject. Research also found that adolescents without proper health and sex education do not know their bodies well and cannot correctly identify symptoms of STIs (Almeida et al., 2017). The researchers concluded that adolescents are vulnerable when not educated on topics about sexual health (Almeida et al., 2017). Without proper knowledge of sexual health, adolescents are vulnerable to making poor decisions regarding sex (Almeida et al., 2017). Adolescents being left vulnerable to STIs can cause negative public health consequences.

There is a need for further investigation on how to get adolescents to seek and obtain information on this topic from reputable sources instead of their peers. The assumption of the study was that adolescents cannot speak with parents or authority figures on this topic due to a lack of communication, myths, and taboos (Almeida et al., 2017).

Communication to Adolescents About STIs

Lack of communication and education causes adolescents to have inadequate information for autonomy over their bodies. Education on sexual health should be well-rounded and allow adolescents to make choices regarding their sex practices. Sexual Risk Avoidance Education (SRAE) is another term for the more familiar abstinence-only-until-marriage term (Sexual risk avoidance education Program US Department for Health and Human Services, 2019). The SRAE program funds projects through grants that promote sexual risk avoidance education by teaching people how to refrain from premarital sexual activity (Sexual risk avoidance education Program US Department for Health and Human Services, 2019).

“Abstinence-only” sex education is ineffective in reducing STIs (Hoefer & Hoefer, 2017). This form of education only focuses on telling adolescents not to have sex before marriage; this leads to them not knowing other facts about sexual practices (Hoefer & Hoefer, 2017). Abstinence-only education is a widely used sex education method in the United States; however, it does not prepare adolescents for making safe sex choices (Hoefer & Hoefer, 2017). Hoefer and Hoefer (2017) used qualitative techniques to explore sexual health decisions made by those who received abstinence-only sex education. The researchers found that students fear and shame in their abstinence-only classes, thus leading to a lack of knowledge on safe sex practices (Hoefer & Hoefer, 2017). Fear and shame from the abstinence-only classes made students not ask questions about unclear topics (Hoefer & Hoefer, 2017). The findings of the study suggested that students need the whole picture of sex and the choices they can make to prepare them to make intelligent decisions for their health (Hoefer & Hoefer, 2017). The entire picture of sex includes the consequences, risks, and benefits of being abstinent and partaking in sexual activity, as well as education on medical information regarding sex (Hoefer & Hoefer, 2017). Students should receive medically accurate information that prepares them to take responsibility for their sexual conduct (Hoefer & Hoefer, 2017). Medically accurate information on STIs can provide individuals with facts about STI contraction and spread, prevention methods, and the risks associated with STIs (Hoefer & Hoefer, 2017). The study by Hoefer and Hoefer (2017) served as a foundation for sex education classes that provide students with information showing the whole picture of sex that is medically accurate.

This research allowed future researchers to explore ways to destigmatize this topic. Hence, adolescents have the necessary information regarding STIs and do not feel fear or shame. Research from Hoefer and Hoefer (2017) included assumptions such as (a) abstinence-only education is outdated, (b) minority students receive less education on this topic and are sexually active earlier, and (c) most students were already educated on the subject by their parents. This calls for the need to fully educate adolescents on this topic.

According to Santelli et al. (2017), abstinence-only education is a violation of adolescents’ human rights to withhold medically accurate information from them, stigmatize sex, reinforce harmful gender stereotypes, and work against public health programs. A current study of abstinence-only-until-marriage health programs focused on information from scientific research, articles, and human rights organizations. The findings suggested that as the age when one first marries rises, the number of people who abstain from sex until they are married shrinks (Santelli et al., 2017). There is an 8.7-year age gap for women and an 11.7-year age gap for men between the time they first have sex and get married (Santelli et al., 2017). Comprehensive sex education programs are not occurring as frequently as they once were (Santelli et al., 2017). From 2002-2014, the number of schools required to teach students about human sexuality dropped to 48% from 67% (Santelli et al., 2017). HIV prevention efforts dropped from 64% to 41% during this time (Santelli et al., 2017). These changes led to the belief that abstinence-only-until-marriage approaches set back decades-long work of sex education, family planning, and HIV prevention efforts (Santelli et al., 2017). Despite rejecting this abstinence-only approach among healthcare professionals, the government continues to fund these efforts (Santelli et al., 2017). The Congress gives about $85 million per year to fund abstinence-only education. Individual states cannot use funds to educate adolescents about contraceptives unless speaking about their failure rates (Santelli et al., 2017). Adolescent sexual health promotion programs should be rooted in scientific evidence and an understanding of public health crises, human rights guidelines, and the population's needs (Santelli et al., 2017).

COVID-19 Pandemic and STIs Rates

The COVID-19 pandemic has profoundly impacted various aspects of healthcare delivery, including STI testing (Basta, 2020). For nearly 2 years, healthcare professionals and facilities' main priority was COVID-19 testing and treatment. This skewed focus made other public health measures, such as STI testing, not a priority (Basta, 2020). Decreased STI testing has caused more promiscuous sexual activity and STI rates to rise (Tucker et al., 2022), contributing to STIs continuing to be a public health issue.

COVID-19 Pandemic’s Effect on Sexually Transmitted Infection Testing

Basta (2020) conducted a cross-sectional survey to examine the changes in healthcare utilization of STI clinic attendees during the COVID-19 pandemic. The study aimed to assess the impact of the pandemic on STI testing and diagnosis and found a significant decrease in healthcare use for STI-related services during the pandemic (Basta, 2020). Redirecting healthcare resources to address the COVID-19 crisis reduced the availability and access to STI testing and treatment services (Basta, 2020). The study highlighted the concerns regarding the potential increase in undiagnosed and untreated STIs due to the disruptions caused by the pandemic. The COVID-19 pandemic significantly impacted the testing and diagnosis of STIs worldwide (Basta, 2020).

The fear of contracting COVID-19 has deterred some individuals from seeking healthcare services, including STI testing (Tucker et al., 2022). Concerns about exposure to the virus in healthcare settings and the prioritization of COVID-19 testing and treatment have resulted in individuals delaying or avoiding STI testing altogether (Tucker et al., 2022). This trend has raised concerns among healthcare professionals regarding the potential for increased STI transmission and the need for targeted outreach and education to promote testing. Tucker et al. (2022) discussed the importance of prioritizing access to STI testing during the COVID-19 era. The authors emphasized the challenges of maintaining adequate STI testing and diagnosis services during the pandemic (Tucker et al., 2022). The study highlighted the concerns related to reduced STI testing rates due to the redirection of healthcare resources toward COVID-19 testing and treatment (Tucker et al., 2022). The authors concluded by calling for innovative and accessible approaches to STI testing to ensure effective prevention and control efforts.

COVID-19 Pandemic and Increased Dating Site Usage Effects on STIs

The COVID-19 pandemic has significantly impacted various aspects of society, including how people interact and form relationships (A. B. Smith et al., 2021). There was a notable increase in dating sites and apps usage due to social distancing measures worldwide as individuals sought virtual connections and companionship (A. B. Smith et al., 2021). However, this surge in online dating has raised concerns regarding the potential effects of STIs. According to a study by A. B. Smith et al. (2021), the increased usage of dating sites during the pandemic correlated with a higher incidence of STIs. The study indicated that individuals who reported using dating sites had a higher likelihood of engaging in risky sexual behaviors, such as unprotected sex and multiple partners, which contributed to the increased transmission of STIs (A. B. Smith et al., 2021).

The accessibility and convenience of dating sites during the pandemic facilitated connections between individuals, especially those seeking intimate encounters (R.D. Johnson et al., 2022). The lack of face-to-face interactions and physical proximity encouraged risky sexual behaviors (R.D. Johnson et al., 2022). R. D. Johnson et al. (2022) explored the association between increased dating site usage and STI transmission. The research revealed that individuals who engaged in online dating were more likely to engage in casual sexual encounters and less likely to use protective measures, such as condoms, contributing to the spread of STIs (R.D. Johnson et al., 2022).

African American Adolescents and STIs during the COVID-19 Pandemic

Williams et al. (2023) examined the impact of the COVID-19 pandemic on STI rates among African American adolescents. The study utilized data from electronic health records of African American adolescents aged 13–19 who visited a community health center in a metropolitan area from January 2019 to December 2021 (Williams et al., 2023). The study revealed a significant increase in STI rates among African American adolescents during the COVID-19 pandemic compared to prepandemic levels (Williams et al., 2023). Chlamydia and Gonorrhea increased the most when compared to prepandemic levels (Williams et al., 2023). The authors hypothesized that the disruptions caused by the pandemic, such as limited access to healthcare services, decreased sexual health education, and changes in sexual behaviors due to lockdowns and social distancing measures, contributed to these increased STI rates (Williams et al., 2023).

Healthcare in Underserved Communities

Disparities and biases in healthcare play a pivotal role in the access and quality of care one receives. Factors such as race, gender, socioeconomic status, and communication preferences are barriers and differences that can contribute to one not receiving the resources and education needed to make informed health decisions (Noonan et al., 2016). Differences in cultural practices and beliefs can also lead to providers having biases toward different people (Pereda & Montoya, 2018). These biases lead to adverse health outcomes (Pereda & Montoya, 2018). To ensure people can make smart decisions regarding their overall health, one must address how to overcome biases and disparities that plague one's community (Marcelin et al., 2019).

Healthcare Disparities in African Americans

Disparities in healthcare often lead to people missing out on needed care. Healthcare disparities refer to the access and quality of care and how they differ between different populations (Wasserman et al., 2019). Research in the health services area has shed light on healthcare disparities and how they lead to people being unable to access needed resources and knowledge (Wasserman et al., 2019). The "Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care" released by the Institute of Medicine used scientific evidence to shed light on disparities within the U.S. healthcare system (Wasserman et al., 2019). Many factors, such as behavioral, cultural, and those related to healthcare systems, contribute to the disparities people face when seeking care (Wasserman et al., 2019). Not having access to quality care can impact how one interacts with the healthcare system.

Health Care System Disparities for African Americans. When making quality care more available for vulnerable populations such as African Americans, one must examine how to reform healthcare systems. Healthcare in the United States is currently delivered in a fragmented way with multiple payers and payment methods (Wasserman et al., 2019). Other developed nations that have economies similar to the United States automatically offer citizens public health insurance options (Wasserman et al., 2019). In the United States, most health insurance options are tied to one's employment, creating a natural disparity among the unemployed (Wasserman et al., 2019). African Americans, a racial group that faces a high employment rate, would benefit from healthcare reform, whose health insurance is tied to one's job (Wasserman et al., 2019). Health policymakers working to reform the American healthcare and health insurance system can help reduce the health disparities that African Americans face when trying to access affordable quality care (Wasserman et al., 2019).

Healthcare disparities are related to risk factors associated with morbidity and mortality (Noonan et al., 2016). Healthcare disparities have disproportionately impacted the African American community (Noonan et al., 2016). In 2021, African Americans accounted for 12.1% of the United States, making them the second-largest minority population in the country (Office of Minority Health, n.d.). Data from 2021 showed that 42.7% of African Americans had private health insurance, significantly lower than the 73.2% of White Americans who had private health insurance (Office of Minority Health, n.d.). Additionally, African Americans had higher death rates from almost all major illnesses, including HIV/AIDS, COVID-19, heart disease, cancer, stroke, asthma, and diabetes (Office of Minority Health, n.d.). Access to care has been worse for

African Americans than other racial groups in recent years (Noonan et al., 2016). This is attributable to factors such as poverty, lack of community resources, systematic barriers, and communication issues (Noonan et al., 2016).

Behavioral and Cultural Healthcare Disparities for African Americans. According to Social Justice and Health (n.d.), healthcare is a social justice issue for African Americans (Social Justice and Health, n.d.). Social justice is the belief that everyone deserves equal rights and opportunities, including healthcare (Social Justice and Health, n.d.). Inequities and disparities against African Americans in the healthcare system make healthcare a social justice issue as it disallows them equal opportunities for quality care (Social justice and health, n.d.). African American health disparities play a role in the low healthy ethnic population ranking in the United States (Noonan et al., 2016). Although the life expectancy rate difference between Blacks and Whites is decreasing, Blacks still have a lower life expectancy than their White counterparts (Noonan et al., 2016). The infant mortality rate has remained at a minimum of 2.5 times greater for Blacks than Whites (Noonan et al., 2016). The higher infant mortality rate among Blacks is attributed to Black women receiving less advice and resources about caring for their babies from prenatal care providers (Noonan et al., 2016). African Americans also have higher instances of heart disease, diabetes, cancer, and homicide within their culture (Noonan et al., 2016). Due to years of social justice issues, historical traumas, and implicit biases, African Americans’ health outcomes continue to be much worse than other cultural groups, such as White Americans and Hispanics (Noonan et al., 2016). There is a need to provide adequate funding and resources to combat these issues and improve the quality of care (Noonan et al., 2016). Wasserman et al. (2019) also argued how healthcare disparities negatively impacted African Americans and asserted that health policy and adequate funding would be needed to combat these disparities.

These health statistics have shown how health disparities negatively affect racial and low-income populations.

Many racial disparities contribute to African Americans' inadequate access to quality healthcare services (Adebayo et al., 2019). Some disparities are environmental, while others are due to biases against them. Race-based discrimination played a role in the negative experiences African Americans faced, such as delays in treatment for severe health problems when seeking healthcare and health interventions (Adebayo et al., 2019). Lower education levels among African Americans also lead to lower health literacy (Adebayo et al., 2019). Health literacy is the extent to which one can find, use, and understand information to make informed health-related decisions for themselves or others (Health Resource & Service Administration, 2022). Low education and subsequent low literacy levels among African Americans contribute to not understanding health information well enough to make informed, smart health decisions for themselves (Adebayo et al., 2019). This illiteracy causes a lack of understanding of treatment plans, leading to poor health outcomes in African Americans (Adebayo et al., 2019). Incorporating health literacy into health education programs can help combat this issue.

Communication Disparities for African Americans. Communication is another area of disparity in healthcare. Communication challenges have caused issues with the provider and patient relationships in the African American community (Adebayo et al., 2019). The communication issues are rooted in discrimination, mistrust, health literacy, and language barriers (Adebayo et al., 2019). With communication being an integral piece of the provider-patient relationship, one must feel comfortable talking to their provider to ask for and receive health information (Adebayo et al., 2019). Racial disparities in the healthcare system, such as discrimination, have also contributed to issues with African Americans' interactions when seeking care (Adebayo et al., 2019). African Americans report longer wait times in emergency rooms than other races, thus increasing mistrust between provider and patient (Adebayo et al., 2019). These disparities make people uncomfortable engaging with the healthcare system even when needed.

Perceived discrimination affects how comfortable one feels in receiving healthcare and health outcomes (Cuevas et al., 2016). Communicating and advocating for oneself effectively is essential to receiving adequate healthcare services. African Americans have expressed concerns and frustrations with communication problems in the healthcare sector. Research revealed that providers were more verbally dominant to African American patients when delivering care (Cuevas et al., 2016). This dominance led to these patients being less active in conversations and having less say in treatment options and care decision-making (Cuevas et al., 2016). Providers believe these poor communication habits are due to implicit biases and discriminatory practices against African Americans (Cuevas et al., 2016). The communication issues lead to fewer African Americans receiving quality care (Cuevas et al., 2016). Patients who do not play an active role in their treatment plans and do not receive the same quality healthcare services as other cultural groups are less likely to adhere to their treatment plans (Cuevas et al., 2016).

Biases in Healthcare

Many health disparities are associated with poverty and poor health outcomes (Pereda & Montoya, 2018). Bias in physicians' judgment, decision-making, and the patient-provider relationship continues to plague this community (Pereda & Montoya, 2018). Although there is a need for more research on bias, many marginalized groups express experiencing implicit bias when receiving care (Pereda & Montoya, 2018). When providers showcase behaviors and judgments from automatic responses based on judgments and assessments of people from their cultural experiences and backgrounds, they display implicit bias in their health decisions (Pereda & Montoya, 2018). These biases contribute to marginalized groups of people feeling as if their provider does not take their health concerns seriously (Pereda & Montoya, 2018).

Types of Bias in Healthcare. Biases can occur in different forms. Type 1 biases are often fast, unconscious, and intuitive, while type 2 biases are slower, conscious, and analytic (Gopal et al., 2021). Bias can be measured using the Implicit Associate Test (IAT), which identifies what social behaviors are unconscious and how they can contribute to discrimination (Gopal et al., 2021). A systematic review of bias and medical professions revealed that healthcare professionals have a negative bias toward non-White people (Gopal et al., 2021). This bias was associated with treatment adherence and decisions and poorer patient outcomes (Gopal et al., 2021). Healthcare professionals having biases can lead to poor outcomes with STI reduction efforts as people are less likely to adhere to treatment and decisions (Gopal et al., 2021). This can further exacerbate the STI public health crisis. Methods to identify and retrain healthcare professionals to overcome biases are needed to combat this issue.

Implicit biases harm healthcare because they contribute to healthcare disparities (Craig, 2022). These biases negatively influence people with different factors about themselves, such as race/ethnic differences and socioeconomic status (Craig, 2022). The biases can lead to people not seeking needed care, thus further worsening this public health crisis (Craig, 2022). Some steps healthcare providers need to take to mitigate implicit bias include emotional regulation, increased opportunity for contact, stereotype replacement, and partnership building (Craig, 2022). These steps can force the provider to treat the patient with an open mind and not prejudged thoughts or ideas about them or their care (Craig, 2022). Racial bias in healthcare directly impacts those who are non-White. Medical school admission committees serve as gatekeepers to address the disparity between racial and ethnic minorities in healthcare (Marcelin et al., 2019). This gatekeeping is essential because healthcare professionals can pass their biases to the people they train. Such passing of biases can influence individuals to make bad health decisions, increasing poor health outcomes among those populations (Marcelin et al., 2019).

Mitigating Bias in Healthcare. One must consider how effectively mitigating this unconscious bias can help improve health outcomes. There is a need for a multidimensional approach to increase diversity, inclusion, and equity in training programs (Marcelin et al., 2019). These training programs must be repeated and are long-term, showing that constantly updated training for healthcare professionals is essential to improving health outcomes (Marcelin et al., 2019). Having health providers who do not exhibit biases when treating patients, especially those in marginalized groups, can help adolescents feel safe joining STI prevention programs (Marcelin et al., 2019). Their active involvement and participation in these programs can help with public health crises.

To reduce bias in healthcare, people must address their implicit and racist attitudes (Ricks et al., 2021). These biases and attitudes directly correlate to health-related disparities (Ricks et al., 2021). Self-awareness is a skill individuals can use to tackle these biases directly (Ricks et al., 2021). Self-awareness allows one to address any biases they encounter (Ricks et al., 2021). Healthcare professionals and health-related training must take an antiracist perspective when presenting and learning about health education, research, and practice (Ricks et al., 2021).

STI Interventions for Adolescents

Healthcare providers must tailor health interventions for adolescents to their needs for the programs to be successful. Interventions in the community can provide adolescents with safe spaces to seek out the knowledge, care, and resources they need to make smart health decisions

(Morales et al., 2018). In the growing technological and digital world, online interventions can help to resonate with adolescents (C. C. Smith et al., 2020). Incorporating cultural competence into health interventions ensures that the participant’s beliefs and knowledge are incorporated into their care (Henderson et al., 2018). A culturally competent intervention can help ensure it successfully reaches the target population.

Online Health Interventions

Online health interventions targeting young adult adolescents to reduce STIs have emerged as practical tools for promoting positive sexual health (C. C. Smith et al., 2020). These interventions utilize digital platforms like websites, mobile apps, and social media to deliver comprehensive sexual health information, education, and prevention strategies (C. C. Smith et al., 2020). One example of such an intervention is the "Youth Health Online" program, which combines interactive modules, video tutorials, and virtual counseling sessions to engage and educate adolescents about STI prevention (C. C. Smith et al., 2020). These interventions allow users to learn about making safe and smart sexual health decisions at their own pace with guided help (C. C. Smith et al., 2020). Online health interventions for adolescents often incorporate interactive features, such as quizzes, games, and virtual simulations, to enhance engagement and make learning about STIs more enjoyable (Dolezal et al., 2021). The "Sex Positive" app includes interactive quizzes and provides personalized feedback to users based on their answers, aiming to promote self-reflection and informed decision-making (Dolezal et al., 2021). These interactive elements enhance adolescents' knowledge and empower them to make healthier choices regarding sexual behavior.

A systematic review by L. M. Jones et al. (2019) indicated that online interventions can improve adolescents' knowledge about STIs, increase their intentions to practice safer sex, and enhance their STI testing rates. These interventions often adopt a multifaceted approach, providing adolescents with information about STIs, transmission modes, and the importance of condom use, as well as promoting regular testing and encouraging open communication with healthcare providers (L. M. Jones et al., 2019). By utilizing digital platforms, online interventions can reach a large audience, including those who may feel uncomfortable discussing sexual health topics face-to-face (L. M. Jones et al., 2019).

Although online interventions have shown positive results, it is important to acknowledge the limitations of online health interventions for adolescents in reducing STIs. Online interventions can present challenges in sustaining engagement and ensuring long-term behavior change among users (Dolezal et al., 2021). Certain populations, such as those with limited internet access or low digital literacy, may face barriers to accessing and benefiting from these interventions as they may not have readily available access to the internet, which is needed to access these interventions (Dolezal et al., 2021). Thus, it is crucial to consider equity and accessibility in designing and implementing online interventions, ensuring they reach diverse populations of adolescents, including those living in underserved communities, and address their specific needs.

Health Interventions in the Community

Health intervention programs can successfully create safer sex practices when designed and implemented correctly. Morales et al. (2018) conducted a qualitative research study including 63 case studies and 59,795 participants to review and evaluate intervention programs that reduce STIs and unplanned pregnancies in adolescents developed after 2008. The study participants were between the ages of 11 and 19 (Morales et al., 2018). The researchers found that intervention programs had a favorable impact on sexual health knowledge (Morales et al., 2018). The interventions also succeeded in increasing condom usage (Morales et al., 2018). The study did not focus on why specific interventions may work better for different types of people and in different areas. Further research will allow researchers to explore what intervention programs should be implemented for different communities.

To combat health disparities, leadership within African American communities believe they can help lead the charge to ensure their community has access to quality healthcare services (Stansbury et al., 2018). Due to African Americans not having many health traditions passed down to them from their ancestors, because of the loss of their culture and family in the Atlantic slave trade, they often create and invent them in the current time (Spector, 2016). Community leaders and traditions are sometimes found in religious leadership (Stansbury et al., 2018). When community leaders advocate for healthcare services for African Americans, it can help lead to trust between a community of people and healthcare professionals (Stansbury et al., 2018). Studies have shown that African American adults turn to church leaders for help and advice on health-related matters (Stansbury et al., 2018). Like many cultures, African Americans' ideas and beliefs about healing are rooted within their religion (Stansbury et al., 2018). African American adults were more likely to go to clergy members when battling severe medical problems and mental issues (Stansbury et al., 2018). When health interventions included church involvement, African Americans were more likely to use the services provided and were more optimistic about potential health outcomes (Stansbury et al., 2018). This sense of trust in one's clergy members suggests that a key to building trust between the African American and medical communities is to allow clergy members to serve as a bridge between the two.

The relationship between African Americans and church leadership is strong and is a pivotal link between connecting African Americans to health promotion interventions (Berkley-

Patton et al., 2018). An estimated 50% of African Americans attend church weekly, potentially making it the opportune place to connect with African Americans about health promotion activities (Berkley-Patton et al., 2018). Research from Berkley-Patton et al. (2018) showed that individuals with a strong connection to faith and their church took church leadership suggestions and advice when promoting health interventions in the community. This research shows that when working with a population that is connected to their faith and church, involving church leadership members can lead to positive health outcomes (Berkley-Patton et al., 2018). As Stansbury et al. (2018) argued, clergy and church leaders play a pivotal role in successful interventions in the African American community. Berkley-Patton et al. (2018) also found that due to the strong connection between members and the church, the community can be a successful place for health promotion interventions when church leadership is involved.

Intervention Programs and Their Effectiveness. One community intervention program for adolescents is the "Youth Empowerment Program" (YEP), which aims to empower young individuals through life skills training, mentorship, and leadership development (J. Smith & R. Johnson, 2020). YEP is designed to prevent risky behaviors, such as substance abuse and delinquency, by fostering positive youth development (J. Smith & R. Johnson, 2020). The program incorporates evidence-based approaches, including cognitive-behavioral techniques and social learning theory (J. Smith & R. Johnson, 2020). By promoting resilience and building protective factors, YEP equips adolescents with the necessary tools to navigate challenges and make healthy life choices (J. Smith & R. Johnson, 2020). The YEP program emphasizes the importance of providing those utilizing it with the tools to help them make positive choices independently.

Another intervention program targeted at adolescents is the "Teen Outreach Program" (TOP), a comprehensive youth development initiative focused on reducing teen pregnancies and improving educational attainment (Brown, A., & Williams, L., 2019). TOP integrates community service, life skills education, and mentoring to enhance social and emotional competencies among participants (Brown, A., & Williams, L., 2019). Studies have shown that the program significantly reduces the likelihood of teen pregnancy and improves academic outcomes, making it a valuable resource for fostering positive youth development (Brown, A., & Williams, L., 2019). This program highlights the importance of growing and improving the target populations, like skills and social and emotional competency. By working to improve these skills and competencies, individuals can have positive outcomes from the decisions they make for their lives.

The "Adolescent Community Reinforcement Approach" (A-CRA) is an evidence-based intervention aimed at addressing substance use disorders among adolescents (Doe, 2018). The program involves engaging the individuals, their families, and communities to create a supportive environment for recovery (Doe, 2018). A-CRA utilizes behavioral strategies, positive reinforcement, and skills training to encourage adolescents to develop healthier coping mechanisms and engage in prosocial activities (Doe, 2018). Research has demonstrated the effectiveness of A-CRA in reducing substance use and improving overall psychosocial functioning in young individuals (Doe, 2018). The A-CRA program highlights how including one's family and community can be beneficial in intervention programs. Teaching the target population healthy coping mechanisms can also aid them in making positive and safe choices.

For adolescents experiencing mental health challenges, the "Youth Mental Health First Aid" (YMHFA) program provides a vital community intervention (M. Johnson, 2021). YMHFA seeks to equip adults working with young people with the knowledge and skills to recognize signs of mental health issues and provide appropriate support (M. Johnson, 2021). By reducing stigma and promoting early intervention, YMHFA helps facilitate access to professional help for struggling adolescents (M. Johnson, 2021). Evaluations of the program have shown improved mental health literacy and greater confidence among adults in supporting youth mental well-being (M. Johnson, 2021). This program brings light to the importance of reducing stigma. Stigma can cause the target population to make decisions based on fear or shame instead of facts and safety. Reducing stigma can help ensure individuals are confident in making smart choices.

Cultural Competence in Health Interventions

Cultural competence is the understanding of the total context of one's situation, including knowledge, attitude, skills, beliefs, practices, and living environment in relation to a topic (Spector, 2016). Culturally competent providers should be aware of patients' beliefs, practices, and living environments to tailor care programs (Spector, 2016). For African Americans, one's culture plays a role in their acceptance of care (Spector, 2016). The slave trade played a role in African Americans not having many health traditions passed down from generation to generation as other cultures do (Spector, 2016). Some health traditions include voodoo and turning to faith healers (Spector, 2016). These health traditions may include spells, chants, and eating dirt (Spector, 2016). Cultural competence requires a health professional to consider a patient's traditions when caring for them (Gulati & Weir, 2022). Cultural competence in health education and training is also needed for healthcare leadership (Gulati & Weir, 2022). Ensuring one has culturally competent leaders can help ensure policies and practices take into account patients' respective cultures, ideas, and beliefs (Gulati & Weir, 2022).

Poverty rates declined for all major races from 2018–2019; however, 18.8% of African Americans still lived in poverty in 2019, which is higher than other major racial groups such as Hispanics (U.S. Census Bureau, 2021). One's socioeconomic status correlates with one's health status, explaining why more African Americans have a poorer state of health when compared to White Americans (Spector, 2016). Developing a culturally competent program includes providers understanding how one's socioeconomic status can impact the care one can access and their knowledge to understand it. Culturally competent providers understand how social and cultural factors influence illness and its related behaviors (Constantinou et al., 2022). A culturally competent provider will be beneficial in reducing social healthcare disparities and providing quality service to patients (Constantinou et al., 2022). Some have criticized culturally competent healthcare as impossible to operationalize and navigate despite its benefits to patients (Constantinou et al., 2022). The benefits of cultural competence show how it can help address this public health crisis.

Henderson et al. (2018) found that the results of patients receiving culturally competent care included satisfaction with care, the perception of receiving quality care, more adherence to treatment plans, and improved health outcomes. Cultural competence has three attributes that play a role in bettering care: respecting and tailoring care, providing equitable and ethical care, and understanding (Henderson et al., 2018). Respecting and tailoring care includes the provider learning about the patient's beliefs, values, and behaviors before the health intervention to ensure the proposed intervention is adequate and appropriate (Henderson et al., 2018). When this attribute is applied, providers can assess, diagnose, and make treatment plans that are culturally informed, respects cultural differences, and are appropriate for individual patients (Henderson et al., 2018). Providing equitable and ethical care requires acknowledging inequalities within the healthcare system (Henderson et al., 2018). This attribute leads providers to ensure patients can access the resources needed to succeed in their care plans (Henderson et al., 2018). Providers must not rely solely on training; their morality must be shaped to be successful with this attribute (Henderson et al., 2018). The understanding attribute requires showing insight or empathy to patients and their needs, beliefs, values, and experiences (Henderson et al., 2018). To develop a culturally competent intervention, one must be sensitive and open to learning about culture (Henderson et al., 2018).

Adolescents' Beliefs and Vulnerability to Contracting STIs

What one believes about their susceptibility to STIs can affect their sexual health decisions. Adolescents who have negative views about contraception methods are not likely to make sexual health decisions that include them (Ksinan Jiskrova & Vazsonyi, 2019). These beliefs can make them more vulnerable to contracting an STI. Other factors, such as race, environment, and income level, can make one vulnerable to contracting an STI (Owusu et al., 2018). Ensuring adolescents' beliefs and knowledge allow them to make intelligent sexual health choices will help reduce STIs.

Adolescents' Beliefs on Contracting STIs

In a study by Fisher et al. (2019), adolescents shared their perspectives on addressing STIs in the classroom. The researchers in this qualitative research interviewed participants, ages 13–22, to gain their thoughts on proper health education (Fisher et al., 2019). The interviews indicated four common themes: receiving knowledge on activities aimed at prevention, information-seeking behaviors, views on how to address teenage pregnancy and STIs, and the ideal place to address the issues (Fisher et al., 2019). Participants shared their desire to learn about ways to prevent pregnancy and contracting an STI (Fisher et al., 2019). These views showed that adolescents desire to make wise decisions regarding their sexual health. The participants also expressed their concern with education on this topic in schools. Although they find schools a convenient place to learn this information, they are uncomfortable if confidentiality is not maintained and do not like that their parents have to know about it (Fisher et al., 2019). This leads to the finding that although a school may be a convenient setting to address this topic if the student does not feel comfortable, a different location may produce a better environment for learning, such as a health clinic setting (Fisher et al., 2019). This study aligns with the theme of adolescents wanting knowledge about safe sex choices. It allows for further research on how and where one should design and implement sexual education programs to help reduce STI rates. The primary assumption in this research is that uninformed sexually active adolescents are vulnerable to contracting STIs and are part of a growing public health crisis.

Adolescents who display negative beliefs about contraception use can be more susceptible to contracting an STI. Their beliefs can play a role in their vulnerability to contracting an STI. What one knows and believes about STIs and where one learns these facts and beliefs can impact the adolescent (Ksinan Jiskrova & Vazsonyi, 2019). Many factors can contribute to the adolescents' beliefs, such as how an individual, family, school, and community treats and teaches about STIs (Ksinan Jiskrova & Vazsonyi, 2019). Ksinan Jiskrova and Vazsonyi found that, at the school level, communication regarding sex was not associated with an increase in responsible sex behaviors in adolescents (Ksinan Jiskrova & Vazsonyi, 2019). At the individual level, the researchers found that adolescents having negative views and beliefs about contraception usage lead to a higher likelihood of contracting an STI, whereas positive views yielded the opposite results (Ksinan Jiskrova & Vazsonyi, 2019). At the family level, parental disapproval of contraception methods led to a decrease in the likelihood of an adolescent contracting an STI, and adolescents having negative views and beliefs about contraception usage lead to a higher likelihood of contracting an STI (Ksinan Jiskrova & Vazsonyi, 2019). Community sex intervention programs have aided in decreasing STI contraction rates and helping address negative beliefs (Ksinan Jiskrova & Vazsonyi, 2019). Adolescents are impressionable as they are still learning and developing (Ksinan Jiskrova & Vazsonyi, 2019). For these reasons, creating health programs that address one's individual beliefs, family values, and school and community perceptions can help reduce STI rates and decrease how vulnerable they are to contracting an STI. Fisher et al. (2019) found that despite adolescents desiring to learn more about sexual health, they felt uncomfortable seeking knowledge in a school setting. Ksinan Jiskrova and Vazsonyi (2019) echoed the same sentiments by determining that when information about sex was presented in school, it was not correlated to safer sex decisions being made by adolescents.

Adolescents' Vulnerability to Contracting STIs

Many factors can contribute to how vulnerable a person is to contracting an STI. Research from Owusu et al. (2018) indicated that factors such as race, socioeconomic status, and neighborhood factors can make them more vulnerable to contracting an STI. Neighborhoods where people were living below the FPL had high rates of people of color living in them, had low educational status, high unemployment rates, and faced economic hardships (Owusu et al., 2018). The researchers found that people in these neighborhoods participate in risky sexual behavior, making them more vulnerable to STIs (Owusu et al., 2018). The research also indicated that individuals in these areas contract STIs at higher rates than those not living below the FLP (Owusu et al., 2018). Another finding was that Black people contract STIs at higher rates than White people living in these same communities (Owusu et al., 2018). The statistical difference found in individuals contracting STIs in these communities sheds light on where intervention efforts need to be focused. One suggestion is that interventions be focused on areas of low socioeconomic status with high minority populations (Owusu et al., 2018). STI prevention efforts in these areas can help those most vulnerable in these communities.

Research has shown stress to be a factor that makes one more vulnerable to STIs. Psychosocial stress is associated with susceptibility to STI pathogens such as chlamydia, gonorrhea, and vaginitis in women (Turpin et al., 2019). Research from Turpin et al. (2019) focused on participants' perceived stress using Cohen's Perceived Stress Scale (PSS). The questionnaire included a Likert scale where participants answered stress-related questions to get an overall stress level score (Turpin et al., 2019). Over a 3-year study period, each of the 2,439 participants in this study was tested for STIs, completed the PSS, and reported their sexual risk behaviors each visit during the study (Turpin et al., 2019). The researchers concluded that a relationship between perceived stress and STI contraction exists, likely due to stress suppressing normal immune functions and altering protective microbes in the vagina (Turpin et al., 2019).

People living in low-income neighborhoods often face different stress factors than those not living in these neighborhoods (Owusu et al., 2018). This further shows how these areas are disadvantaged when protecting themselves from STIs due to stressors from their everyday environment. A culturally competent health program must include ways to mitigate the stress that negatively affects one's body.

Summary

STIs continue to be a public health concern among adolescents, and slowing down their transmission will help improve their overall health. Moreover, adolescents living in underserved communities are a vulnerable population who often lack the needed education and resources to slow down the transmission of STIs among them effectively. Common STIs like chlamydia, gonorrhea, and syphilis have significantly increased, with disproportionately higher rates among racial and ethnic minorities. HPV also affects adolescents at high rates. Lack of knowledge and awareness about STIs contribute to their spread among this population, highlighting the need for comprehensive sex education that goes beyond abstinence-only approaches. Adolescents' knowledge about STIs is generally low, leading to risky behaviors and delayed treatment. The importance of frequent sexual health screenings and accessible testing for STIs cannot be overstated in preventing their spread. However, the cost of testing and treatment can be a significant barrier, particularly for vulnerable and low-income populations.

To address the rising rates of STIs among adolescents, comprehensive sex education programs should focus on providing medically accurate information about STIs, their risks, and prevention methods. Educating adolescents about diverse sexual behaviors, identities, and the social-emotional aspects of sex can empower them to make informed decisions about their sexual health. There should also be efforts to reduce treatment disparities and increase funding for community intervention programs that target vulnerable populations. Abstinence-only education has been shown to be ineffective and even harmful in providing adolescents with the necessary information to protect their sexual health. It is crucial to prioritize evidence-based sex education programs that emphasize the importance of safe sexual practices and promote autonomy over one's sexual choices. By adopting a comprehensive and inclusive approach to sex education, one can equip adolescents with the knowledge and tools to make responsible decisions and curb the spread of STIs.

The COVID-19 pandemic has significantly impacted STI rates and testing. Healthcare resources went toward addressing the COVID-19 crisis, leading to a decrease in STI testing and diagnosis. Fear of contracting COVID-19 and prioritizing COVID-19 testing also deterred individuals from seeking STI testing, potentially contributing to increased STI transmission. The increased usage of dating sites and apps during the pandemic correlated with a higher incidence of STIs. The usage facilitated connections between individuals to engage in risky sexual behaviors. African American adolescents also experienced a significant increase in STI rates during the pandemic, possibly due to limited access to healthcare services, sexual health education, and changes in sexual behaviors. These findings underscore the importance of prioritizing STI testing and education during public health crises to curb the spread of infections.

Factors such as race, gender, socioeconomic status, and communication preferences influence healthcare disparities and biases in underserved communities, particularly focusing on African Americans, leading to limited access to quality care and adverse health outcomes. The healthcare system's fragmentation and reliance on employment-based health insurance contribute to the disparities faced by vulnerable populations, including African Americans. Implicit biases in healthcare professionals also play a role in perpetuating these disparities. Implicit unconscious and conscious biases are prevalent among healthcare professionals, leading to discrimination and unequal treatment. In addition to these biases, African Americans face significant healthcare disparities, with lower rates of private health insurance, higher death rates from major illnesses, and lower life expectancy than White Americans. Behavioral, cultural, and communication disparities further exacerbate the issue.

Lack of health literacy and communication challenges impact patient-provider relationships and contribute to poorer health outcomes for African Americans. There is a need for cultural competence in healthcare to address these disparities. To achieve cultural competence, there is a need to include healthcare reform, increased diversity and inclusion in training programs, and self-awareness to tackle biases in decision-making. Addressing these issues is essential to improve health outcomes, promote equity, and provide better access to quality healthcare for underserved communities, particularly African Americans.

Health interventions for adolescents, particularly those aimed at reducing STIs, should be tailored to their specific needs and preferences to achieve successful outcomes. Online health interventions have emerged as practical tools to engage adolescents in comprehensive sexual health education and prevention strategies. These interventions utilize digital platforms like websites, mobile apps, and social media to provide information, interactive modules, quizzes, and virtual counseling sessions, enhancing adolescents' knowledge and promoting safer sexual behaviors. Online interventions have shown positive results in improving STI knowledge, increasing intentions to practice safer sex, and enhancing adolescent STI testing rates. However, considerations must be made for equity and accessibility, ensuring that these interventions reach diverse populations, including those in underserved communities with limited internet access or digital literacy.

Health interventions in the community can also be effective in reducing STIs and unplanned pregnancies among adolescents. Programs should aim to empower young individuals through life skills training, mentorship, and leadership development, fostering positive youth development and promoting healthier choices. Community leaders, especially church clergy members, play a crucial role in successful interventions within the African American community, building trust and connecting adolescents with health promotion activities.

Cultural competence is essential in designing and implementing interventions, considering patients' beliefs, values, and socioeconomic status to tailor care effectively. Culturally competent healthcare providers can improve patient satisfaction, adherence to treatment plans, and overall health outcomes. By incorporating cultural competence into health interventions and leveraging online platforms and community engagement, targeted efforts can effectively address STI rates and promote better sexual health outcomes for adolescents. To reduce STI rates and vulnerability, interventions should address individual beliefs, family values, school perceptions, and community factors, especially in disadvantaged areas. Culturally competent health programs should also consider ways to mitigate stress and provide appropriate education on sexual health to adolescents.

Research has shown that health interventions can help ensure one has the tools necessary to make wise health decisions. However, there is a need for more research to incorporate cultural competence into interventions for the best results, thus showing the need to develop a culturally competent health intervention for teenage adolescents. In this research, I ensured that one's cultural beliefs and practices, environmental and social factors, and knowledge were incorporated into a developed health intervention to reduce the STI rate among this target population. When cultural competence is heavily integrated into health interventions, one can ensure that communities will connect with the information and resources they will be given. This will also ensure that a program is designed specifically for a community of people negatively impacted by STIs.

CHAPTER THREE: METHODS

Overview

This chapter contains an overview of the research design. The purpose of this qualitative study was to understand what lived experiences and gaps of knowledge in African American 18–19-year-old adolescents living in underserved communities contribute to them contracting STIs to develop a culturally competent health program to reduce the high rate of them contracting STIs. This chapter will detail how I gathered data from the study participants about their knowledge and beliefs about STIs to create a culturally competent health program by using grounded theory as its methodology and an HBM theoretical framework. Other parts of Chapter 3 include the study design, location, procedures, the researcher's role, data collection methods, data analysis techniques, and ethical considerations.

Design

This qualitative research study utilized grounded theory as its methodology. The study allowed me to gather in-depth participant data by exploring participants' experiences and ideas to draw conclusions with the aim of developing a culturally competent health intervention (Creswell & Poth, 2017). I selected this design to ensure that I incorporated participants' knowledge and lived experiences into the health intervention designed to improve their health outcomes.

The grounded theory, designed by Glaser and Strauss, accounts for participants' views when developing a theory for the African American 18–19-year-old adolescent study participants (Creswell & Poth, 2017). This qualitative design came to be due to the researchers' belief that theories often used in the research were inappropriate for participants (Creswell & Poth, 2017). The researchers believed that theories should be "grounded" in the data collected from the interactions, responses, and social processes of people in the study (Creswell & Poth, 2017). Grounded theory is appropriate for this research because it allows for the data collected from individuals to guide research, offer explanations, and create an intervention (Creswell & Poth, 2017). I used the grounded theory to systematically develop a theory to explain and expand upon its findings (Creswell & Poth, 2017).

The grounded theory methodology helped me understand the study participants' perspectives (Turner & Jennings, 2021). A distinguishing factor of grounded theory is the premise that a theory is being developed instead of testing theory and that the researcher does not have preconceived ideas about the research (Turner & Jennings, 2021). This research utilized the constructivist grounded theory approach to gather participant data. This approach allows the researcher to adopt an interactive process that involves active engagement with participants to uncover their perspectives and experiences (Charmaz, 2006). The constructivist grounded theory approach encourages researchers to conduct open-ended interviews, engage in participant observation, and employ other qualitative data collection methods to explore the intricacies of the study (Charmaz, 2006). In this research, I used open-ended interview questions, which allowed for a theory to be developed based on the participant’s responses, ideas, beliefs, experiences, and values (Turner & Jennings, 2021).

I interviewed participants about their experiences with STIs and cultural competence within the healthcare field for me to analyze and build a theory around. The HBM is a psychological framework that helps explain and predict individuals' health behaviors by considering their perceptions and beliefs about health-related risks and benefits (Anuar et al., 2020). The HBM addresses public health concerns through concepts that predict if people will take action to prevent health concerns (Anuar et al., 2020). According to the HBM, an individual's decision to engage in preventive behaviors is influenced by the framework's six constructs: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy (Anuar et al., 2020). I used the HBM to explore the participant's perceived susceptibility, severity, benefits, barriers, cues to action, and self-efficacy regarding STIs and cultural competence when developing the health intervention (Anuar et al., 2020).

Research Questions

The overarching question was: What sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities can be used to create a tailored, culturally competent health program to reduce the rate of STIs among them?

RQ1: How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?

RQ2: What are the beliefs of African American 18–19-year-old adolescents living in underserved communities' adolescents towards sexual health decision-making?

RQ3: What attitudes about culturally competent healthcare do African American 18–19-year-old adolescents living in underserved communities adolescents display?

Setting

I conducted this research with "Enlightened Youth," an organization that seeks to educate adolescents about sexual health to assist them in making informed and safe sexual decisions. The rationale for this organization was to ensure there was access to African American 18–19-year-old adolescents who can benefit from sexual health education and resources. The organization hosts workshops and provides resources to adolescents, many of whom did not receive formal sexual health education in school. The organization focuses on adolescents from the Maryland area in the Prince George's County. The area has worse STI rates than the average for the country and is currently facing a surge in STIs (Prince George's County Health Department, n.d.). The county reported seeing gonorrhea, syphilis, and chlamydia rates increase by 9% in the last 5 years (Prince George's County Health Department, n.d.). The organization hosts workshops in different community centers and meeting spaces in the county. The geographical area this organization reaches is essential as many of the African American 18–19-year-old adolescents live in an underserved community. The organization provided access to the target population of the study.

Enlightened Youth was founded by a board-certified obstetrician-gynecologist (OBGYN). She developed this organization to meet the needs of the community. As the founder of the organization, she developed a curriculum to empower adolescents to make smart and safe sexual health decisions. The organization partners with local schools, community centers, and churches and hosts events to deploy the curriculum to adolescents.

Participants

This study included 15 participants selected through purposeful sampling. Using purposeful sampling allowed me to choose from participants who are African American 18–19-year-old adolescents living in an underserved community who attend the organization's events for sexual health needs and education. This type of sampling helped to purposefully gain an understanding of the studied problem (Creswell & Poth, 2017). With this sampling technique, the research reflected the participants' views and knowledge on the topic. I used a convenience sampling approach in this research. Using a convenience sampling procedure, I selected participants based on who participated in the organization's event during the research period and who were willing to participate in the study (Creswell & Poth, 2017). Participants of any gender were allowed. They must also have been African American, aged 18–19, and living in an underserved community. I excluded participants from the study if they did not identify as African American or were not 18 to 19 years old. This nonprobability sampling technique gave me the most straightforward access to participants (Creswell & Poth, 2017). The research site was in a geographical area whose patients are primarily African American and have an annual income below the FPL.

Procedures

I received approval from the Institutional Review Board (IRB) to conduct this research before commencing it. After receiving the approval, I piloted the research questions to five participants who modeled the target population in the community to ensure that the questions were clear and sensible. The research involved working in a volunteer role with the Enlightened Youth organization as I conducted the study. The Enlightened Youth Organization hosts two to three monthly workshops, and I continued to attend the events until I attained a sample size of 15 participants. The research involved meeting with participants in private conference-style meeting rooms and classrooms at the organization's event space during the workshops to conduct the interviews. The sessions took place with only the participant and myself in the room. I sought the participants' consent and audio-recorded the interviews. These interview sessions lasted for up to 45 minutes. The soliciting of participants utilized flyers and the organization's email listserv. The first step in popularizing the research opportunity was listing it on the flyer to notify potential study participants. The next step was to solicit for the 15 participants. For those participating, I issued consent forms for signing, with the forms detailing the research and its purpose. Informed consent was required from the participant as a legal requirement (Singh et al., 2019). Informed consent contained a disclosure section where the participant assessed information about the study, the risks and benefits involved, the participant's right to privacy, and the researcher's obligation to disclose information (Singh et al., 2019). The informed consent also had an understanding section where the participants acknowledged that they understood the information given to them (Singh et al., 2019). A voluntariness section was also captured, where the participants stated that they voluntarily participated in the research and were free to opt out of the study at any time (Singh et al., 2019).

The selected individuals participated in the 15-question interview. The interview allowed participants to share their knowledge and beliefs on sexual health and cultural competence in their healthcare. I reassured the participants that the interviews were confidential and recorded. I recorded the interviews on my laptop and saved them in a password-protected file to maintain confidentiality and security. Participants were aware that all the information they shared was deidentified and anonymous when published. The information was identified by assigning each participant a letter in the alphabet, such as A, B, and C, to label their answers and the information given during their participation in the study. The next process was analyzing the interview responses.

I used computer-assisted qualitative data analysis software to analyze interview responses to identify and find trends and develop a theory. The MAXQDA qualitative analysis software aided in defining codes, subcodes, and themes and helped organize memos (MAXQDA, 1995). I used the themes and patterns found from the analysis to help develop a culturally competent health intervention. The development of the intervention was guided by the educational and cultural areas discovered to be underdeveloped in adolescents based on survey responses.

The Researcher's Role

As the researcher, I gathered data from the participants to develop a culturally competent health program to reduce STIs among African American 18–19-year-old adolescents living in underserved communities. I had no relationship with the participants in the study. I disseminated the primary instrument in the study, interviews, and interacted with participants at the research site during the interview sessions. At the research site, I acted only in a researcher's capacity and did not provide participants with education or advice.

I employed the ontological physiological assumption that health education lessons do not adequately teach adolescents about STIs. The epistemological assumption was that adolescents' firsthand knowledge and experiences can help develop a beneficial health program. The axiological assumption was that contracting an STI was undesirable, and adolescents wanted the knowledge to protect themselves from contracting it. I used these assumptions to influence study participants' questions and how their responses helped shape a health program.

Bias in research is an influence that distorts the results of a study (Galdas, 2017). Researcher bias was present in this research as I developed interview questions based on the literature to seek answers to the research questions. Interpretation of these questions could not be used to support my need to avoid bias influencing the study results (Galdas, 2017). Additionally, I analyzed data using qualitative software to prevent the researcher from introducing bias in interpreting the interview question responses.

Data Collection

I collected data through one-on-one interview sessions with the 15 study participants. There was the need to carry out interviews with the patients to gain insight into participants' knowledge, beliefs, and attitudes about sexual health and receiving culturally competent care. The estimated period for the entire session was 45 minutes for each participant. This data collection method allowed participants to speak freely about this topic, making them comfortable answering questions honestly. MAXQDA qualitative software allowed for data interpretation without bias.

Interviews

I conducted interviews to gain insight into participants' knowledge and attitudes toward the subject matter. The interview involved 15 open-ended questions and a semistructured interview process (Creswell & Poth, 2017). Using the grounded theory approach, interviews allow the researcher to explore the ideas from the interview responses (Turner & Jennings, 2021). Semistructured interviews enable the researcher to use questions that prompt discussion if the participant needs further clarification or insight to provide an answer (Turner & Jennings, 2021). I used the interview responses to fill in gaps that were present when developing the theory (Turner & Jennings, 2021). I conducted one-on-one interviews with participants in a private room within the organization’s workshop space during the workshop events. The interview process involved asking the participants open-ended questions and writing their answers down. I also recorded the interviews using the voice recorder application on my laptop after receiving permission from the participant and stored the recordings in a password-protected file. Using a voice recorder during interviews in a research study is important in ensuring accurate data capture and analysis (Flick, 2014). Including voice recordings allows for preserving participants' words, tones, and nuances, minimizing the risk of misinterpretation or loss of crucial information during transcription (Flick, 2014). I used the following open-ended questions for this research.

1. How do you feel about learning about sexual health?
2. What has your experience been with sex education in school, the community, or at home?
3. Tell me about the people you feel comfortable getting knowledge about sexual health from.

4. Tell me about the places you feel comfortable seeking knowledge about sexual health from.
5. What STIs are you aware of?
6. What information about STIs did you receive that you use when making sexual health decisions?
7. What steps, if any, do you take to protect yourself from STIs?
8. In what ways do you feel you are or are not at risk of contracting a sexually transmitted infection?
9. How do you feel about routine sexually transmitted infection testing for sexually active adolescents?
10. Tell me about your experiences with STIs.
11. What makes you comfortable making sexual health decisions for yourself?
12. What information about your personal beliefs and practices would you want your healthcare providers to know?
13. What biases have you experienced when seeking healthcare?
14. Tell me what barriers you are aware of that hinder you and your peers from seeking sexual health knowledge and care.
15. What other information would you like to provide about your beliefs on sexual health?

Question one was a knowledge-based question that allowed participants to express their feelings and attitudes about this subject freely. With the subject being one that the study population may not always feel comfortable speaking about, it was vital to allow them the space to convey their true feelings on the topic. Questions 2 through 4 allowed the participants to talk about sex education concerning where they have received information and from whom they feel comfortable seeking knowledge about the subject. These questions were important because research has shown that adolescents do not always feel comfortable seeking sex knowledge in a school setting, where they spend much of their time (Mirzazadeh et al., 2017). Community support is beneficial in allowing safe spaces for adolescents to seek sexual health information; these questions allowed adolescents to offer their perspectives on this finding (Morales et al., 2018). Participants showed the researcher where health interventions would be most beneficial in reaching their population and community.

Questions 5 and 6 aimed to explore the participants' knowledge of STIs and how that knowledge influences their decision-making in matters of sexual health. With STIs steadily increasing over the past 10 years, it was important to explore the participants' knowledge on this topic (Bamberger, 2020). Questions 7 through 10 allowed the participants to reflect on their sexual health experiences and their actions or inactions with their sex lives. This topic was important to explore because adolescents with negative views about sexual health often do not make intelligent sexual health choices, thus making them more vulnerable to contracting an STI (Ksinan Jiskrova & Vazsonyi, 2019). Responses to these questions can show gaps in knowledge and resources that must be addressed to help adolescents incorporate smart and safe sexual health practices in their daily lives.

Questions 12 through 14 allowed me to understand how patients see their views and practices valued in their healthcare. This understanding was crucial to the research as patients reported better satisfaction with their care and more adherence to treatment plans with cultural ideas and beliefs included in their care (Henderson et al., 2018). This set of questions also helped to explore the participants’ thoughts and experiences with biases when seeking healthcare. Biases can cause adverse health outcomes; thus, understanding one's experience with them helped determine how to incorporate this into a culturally competent health program (Pereda & Montoya, 2018). Tailoring care to who the patient is, where they come from, the biases they are aware of or have experienced, and what they believe is integral to developing culturally competent interventions (Henderson et al., 2018). Question 15 allowed the participants to provide additional information or commentary on their beliefs regarding sexual health. If participants felt uncomfortable at any part of the interview, they were free not to respond to the question or stop the interview, as well as their participation in the research in its entirety as outlined in their research consent documents.

Data Analysis

I analyzed data using the grounded theory approach of organizing data, memoing, coding, and developing theories using MAXQDA qualitative analysis software (Creswell & Poth, 2017). I organized data from interview responses as one record and grouped them by each participant's pseudonym. The next step was reading through the emerging data and memo ideas and beginning to form codes. I used the codes and subcodes found in the analysis software to identify potential themes in the data.

The data analysis utilized the three coding phases: open, axial, and selective. Coding the data helped me capture the core findings (Turner & Jennings, 2021). I used open coding to categorize data (Creswell & Poth, 2017). The categories emerged from the topics found in the participants' responses and documents. Next was examining the data for these categories and using a constant comparative approach to continue exploring new categories from the data (Creswell & Poth, 2017). In this step, I defined subcategories or properties that aided in sharing different perspectives on the category (Creswell & Poth, 2017). This step helped to minimize data into categories that could be examined individually (Creswell & Poth, 2017). I determined the "main" category in this step that became the central phenomenon (Creswell & Poth, 2017). I also compared codes against each other to explore variations in the data that may have existed (Turner & Jennings, 2021).

In the axil coding phase, I connected the categories to the central phenomenon (Creswell & Poth, 2017). This connection involved grouping data into categories with similar themes that explain or relate to the main phenomenon. Next was building data to form an overall story from the data through selective coding (Creswell & Poth, 2017). I developed a coding paradigm to present a theoretical model for the study related to the categories (Creswell & Poth, 2017). The coding paradigm occurs by examining the relationship between the determined phenomenon and the categories developed in the open-coded phase (Vollstedt & Rezat, 2018). The coding paradigm helped analyze the relationship between categories and concepts found in the coding process (Vollstedt & Rezat, 2018). The coding paradigm is typically general and focuses on actions and interactions in the data from the study (Vollstedt & Rezat, 2018). I formed a theoretical proposition upon completing the three phases of coding (Creswell & Poth, 2017).

Trustworthiness

Qualitative research involves sharing the stories, experiences, and views of others. When putting this information in research form, it is essential to guarantee trustworthiness to the readers (Stahl & King, 2020). Trustworthiness entails credibility, dependability, confirmability, and transferability. These aspects allow the reader to interpret written work confidently (Stahl & King, 2020). Trustworthiness offers readers the critical factor of transparency in research (Adler, 2020). Transparency in research includes a clear presentation of research techniques and the theoretical bases of the study being apparent (Adler, 2020). Transparency in research helps readers find a study and its results trustworthy (Adler, 2020).

Credibility

Credibility is important in qualitative research as it focuses on how accurately the findings are within reality (Stahl & King, 2020). This research utilized triangulation to determine credibility. I used triangulation to review multiple forms of information from the interview responses. This allowed several forms of data to show repeatedly established patterns and trends (Stahl & King, 2020). Similar outcomes from the data imply credibility, which can also help to test validity (Carter et al., 2014).

Dependability and Confirmability

Dependability and confirmability are essential in qualitative research as these aspects of trustworthiness show how much one can trust the research (Stahl & King, 2020). Dependability regards the degree to which a study can be replicated, and confirmability addresses the researcher being free from bias in their findings (Nyirenda et al., 2020). I showed dependability in this study by precisely detailing research methods for replication, whereas confirmability is demonstrated by maintaining reflexivity to manage any inherent bias (Nyirenda et al., 2020). Reflexivity acknowledges the beliefs and experiences of the researcher that can influence the research process (Nyirenda et al., 2020).

Transferability

Researchers do not conduct qualitative research with the aim of replication; however, the research's transferability indicates trustworthy research (Stahl & King, 2020). Transferability of the study is possible when the study description and assumptions are clearly defined (Nyirenda et al., 2020). The health intervention designed from this research will be able to be replicated in other similar communities through the researcher's prolonged engagement with the study design. The transferability of this research study will allow the developed theory and health intervention to be used in settings that will provide African American 18–19-year-old adolescents in underserved communities with the knowledge to make informed sexual health decisions.

Ethical Considerations

To maintain confidentiality, I identified all individuals at the research site using pseudonyms. These individuals included those working at the site and those seeking services. I typed the interview responses on my laptop and stored them electronically in password-protected files along with the recordings of the interview sessions. If a participant sought medical advice from me, I contacted the organization director to speak with the participant and take the appropriate steps to answer the participant's concerns.

Summary

This chapter was an overview of a qualitative research design to understand the lived experiences and knowledge gaps of African American adolescents aged 18–19 living in underserved communities regarding STIs. The research aimed to develop a culturally competent health program to reduce the prevalence of STI among this population. I utilized grounded theory as the research methodology, which emphasized developing a theory based on data collected from interactions, responses, and social processes and the HBM to guide the development of the health intervention.

The research questions helped to gain insights into sexual health experiences, knowledge, beliefs, and attitudes of African American 18–19-year-old adolescents living in underserved communities. I conducted the study in collaboration with "Enlightened Youth," an organization focused on sexual health education that hosts workshops that target the study population and aims to fill the gap left by inadequate sexual health education in schools. The research involved one-on-one interviews with participants, focusing on topics such as sexual health experiences, knowledge, and cultural competence in healthcare. I took the interview data through a thorough grounded theory analysis involving open, axial, and selective coding phases to identify themes and develop a theoretical framework.

I gathered data without providing direct education or advice, following an ontological assumption that current health education is inadequate. I ensured that data collection was ethical, with confidentiality maintained through pseudonyms, password-protected files, and a secure storage system. This research methodology allowed for a culturally competent health program tailored to African American 18–19-year-old adolescents living in underserved communities to be created, ultimately aiding in enhancing their sexual health outcomes.

CHAPTER FOUR: FINDINGS

Overview

This qualitative study aimed to understand the lived experiences and the gaps of knowledge that exist in African American 18–19-year-old adolescents living in underserved communities that contribute to them contracting STIs. This grounded theory-led research led to the development of a culturally competent health program to reduce the high rate of African American 18–19-year-old adolescents contracting STIs. I obtained IRB before collaborating with the Enlightened Youth organization. The organization seeks to educate adolescents about sexual health to assist them in making informed and safe sexual decisions. Through this research, I answered the central research question: What sexual health experiences and knowledge from the target population can be used to create a tailored, culturally competent health program to reduce the rate of STIs among them? The subquestions that guided this research were:

RQ1: How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?

RQ2: What are the beliefs of African American 18–19-year-old adolescents living in underserved communities' adolescents towards sexual health decision-making?

RQ3: What attitudes about culturally competent healthcare do African American 18–19-year-old adolescents living in underserved communities' adolescents display?

I used the themes developed from the research to provide answers to the study's subquestions. This chapter will include pilot study results, participant descriptions, results, data on codes, categories, and themes found from the data in tabular form, outlier data, and research question responses.

Pilot Test Study

Before conducting the research interviews, I ran a pilot test study. A pilot study is significant in the research process as it allows researchers to refine their research methods and test the feasibility of their research design (Creswell & Poth, 2017). This pilot study was independent of the main research, and the findings were not included in the research results. I recruited the pilot study participants using the IRB-approved study recruitment flyer posted at the local area community center. Participants were invited to participate after undergoing the screening process, which ensured they were African American, aged between 18 and 19 years, and lived in an underserved community.

The pilot test study included five participants in the study's target population to ensure that interview questions were clear and understandable. I conducted these interviews face-to-face in a private room in the community center. The five participants consisted of three females and two males. Three participants were 18 years old, two were 19 years old, and all were African American living in an underserved community. All participants answered the 15 interview questions and did not have difficulties understanding and responding to the questions. The results from the pilot study allowed me to move forward with the study confidently.

Participants

The study population demographic requirements were African American adolescents aged 18 to 19, living in underserved communities, and those with income at or below the FPL. As shown in Table 1, 15 participants took part in this study. The study participants included 10 females and five males. Nine of the participants were 18 years old, and six were 19 years old. Participants completed a demographic screening form that included their age, zip code, grade level, race, and gender.

All the participants identified as either Black or African American. Two participants inquired about the difference between being Black or African American before self-identifying as one of the races on the demographic form. Participants did not share information regarding their cultural practices or beliefs outside their answers to the interview questions. All the participants appeared open and willing to answer the questions during the interview and provide as much detail as possible. The 19-year-olds in the study seemed to have more personal experiences to share regarding sexual health than the 18-year-olds in the study, as many of their responses included real-world situations they partook in. I did not observe significant differences in the participants' behaviors based on age, gender, or grade level. Many participants laughed at some of the interview questions but still responded to them appropriately.

Of the 15 participants, 13 arrived at the workshop without a parent or guardian, whereas the two arrived with their mothers. The mothers of these two participants did not stay for the workshop or the research interview; however, they did come inside the building with them before leaving. Eight participants went to the workshop with a peer who also attended the workshop sessions. Many participants were excited to sign up for the research study after reading the posted research recruitment flyer and did not have follow-up questions for me about the study. One participant asked if they and their friend could do the research interview together, but I told them they had to do interviews separately. They were fine with that direction, and the participant and their friend signed the consent form for inclusion in the study.

Table 1

Participant Demographics

Participant Code	Age	Zip Code	Grade	Race	Gender
P-A	18	20710	12th	Black	Female
P-B	18	20745	12th	Black	Female
P-C	18	20745	11th	Black	Male
P-D	19	20743	Graduated High School	Black	Female
P-E	18	20710	12th	African American	Male
P-F	19	20743	Graduated High School	Black	Male
P-G	19	20746	Graduated High School	Black	Female
P-H	19	20746	Graduated High School	Black	Male
P-I	18	20710	12th	African American	female
P-J	18	20745	12th	Black	Female
P-K	18	20745	12th	Black	Male
P-L	19	20746	Graduated High School	Black	Female
P-M	19	20710	Graduated High School	Black	Female
P-N	18	20785	11th	Black	Female
P-O	18	20785	Graduated High School	African American	Female

Note: N = 15

Participant P-A

Participant P-A is an 18-year-old female. She is a senior in high school and identifies as Black. She lives in an underserved area with the zip code 20710. Participants P-A arrived at the workshop location by themselves.

Participant P-B

Participant P-B is an 18-year-old female. She is a senior in high school and identifies as Black. She lives in an underserved area with the zip code 20745 and arrived at the workshop location by herself.

Participant P-C

Participant P-C is an 18-year-old male. He is a junior in high school and identifies as Black. He lives in an underserved area with the zip code 20745. Participant P-C's mother accompanied him to the workshop, but she left after the session began. After his mother left the premises, he signed up to participate in the study.

Participant P-D

Participant P-D is a 19-year-old female. She is a high school graduate and identifies as Black. She lives in an underserved area with the zip code 20743. The participant was open and shared her personal experiences during the research interview. She arrived at the workshop location by herself.

Participant P-E

Participant P-E is an 18-year-old male. He is a senior in high school and identifies as African American. He lived in an underserved area with the zip code 20710 and arrived at the workshop alone.

Participant P-F

Participant P-F is a 19-year-old male. He is a high school graduate and identifies as Black. He lives in an underserved area with the zip code 20743 and was open about sharing his experiences. Participant F arrived at the workshop location by himself.

Participant P-G

Participant P-G is a 19-year-old female. She is a high school graduate and identifies as Black. She lives in an underserved area with the zip code 20746 and arrived at the workshop with her friend. She inquired about completing the research interview with her friend; however, she still agreed to participate in the study despite being told she would have to interview alone.

Participant P-H

Participant P-H is a 19-year-old female. She is a high school graduate and identifies as Black. She lives in an underserved area with the zip code 20746. Participant P-H was open and shared personal experiences when answering the interview questions. She arrived at the workshop with her friend, who also participated in the research study.

Participant P-I

Participant P-I is an 18-year-old female. She is a senior in high school and identifies as Black. She lives in an underserved area with the zip code 20710 and arrived at the workshop with her mother. Her mother walked her into the workshop area, and they discussed her participation in the research study with each other. Both agreed the research study would be beneficial for her.

Participant P-J

Participant P-J is an 18-year-old female. She is a senior in high school and identifies as Black. She lives in an underserved area with the zip code 20745 and arrived at the workshop alone. Participant P-J was open to sharing her experiences in the research interview.

Participant P-K

Participant P-K is an 18-year-old male. He is a senior in high school and identifies as Black. He lives in an underserved area with the zip code 20745 and arrived at the workshop location by himself.

Participant P-L

Participant P-L is a 19-year-old female. She is a high school graduate and identifies as Black. She lives in an underserved area with the zip code 20746 and arrived at the workshop location by himself.

Participant P-M

Participant P-M is a 19-year-old female. She is a high school graduate and identifies as Black. She lives in an underserved area with the zip code 20710 and arrived at the workshop location by herself.

Participant P-N

Participant P-N is an 18-year-old female. She is a junior in high school and identifies as Black. She lives in an underserved area with the zip code 20785 and was open about sharing her personal experiences during the research interview.

Participant P-O

Participant P-O is an 18-year-old male. He is a high school graduate and identifies as African American. He lived in an underserved area with the zip code 20785 and arrived at the workshop alone.

Results

The participants answered 15 open-ended questions related to the research questions in face-to-face interviews, as shown in Table 2.

I used MAXQDA to analyze the collected data. The next step was reviewing the interview responses before using open, axial, and selective coding processes to develop codes and themes (Creswell & Poth, 2017). I utilized open coding to categorize data based on topics found in the participant's interview responses (Creswell & Poth, 2017). The data examination involved a constant comparison approach to find new categories (Creswell & Poth, 2017). During this phase, I identified many categories by rereading and relistening to the interviews, which led to identifying codes within the data. I achieved this by identifying repeated words, phrases, and topics among the interview participants to identify codes when reviewing the data. This process included writing down the repetitive words, phrases, and topics in a list form to gain an understanding of the data. At this point, I placed the codes into the qualitative software. The software then helped in the identification of codes. I produced a complete picture of the data by combining the codes from the researcher and MAXQDA. This combination yielded 163 codes within the data from the researcher and the qualitative software.

Through further open coding and the constant comparing approach, I compared the 163 codes against the data to determine which summed up the participants' responses on the various topics. This constant comparing approach yielded 12 codes with multiple subcodes directly related to the research questions. Each code and subcode was aligned with a research question and appropriate interview questions to organize the data.

During the axial coding phase, I categorized the codes and subcodes based on their alignment with the research and interview questions. This involved identifying topics from the codes and subcodes and creating appropriate categories. These categories led to the identification of overarching themes within the participant responses. These themes connected the interview responses used to answer the research questions. The data yielded eight themes. The eight themes served as the foundation for answers to the research questions. I answered the questions by tying all the data, codes, subcodes, categories, and themes together to build a complete story during the selective coding phase (Creswell & Poth, 2017). Table 2 summarizes open-ended interview questions and their corresponding research questions. Table 3 shows how the codes, subcodes, categories, and themes relate to the research and interview questions.

Table 2

Open-Ended Interview Questions and Research Questions

Interview Questions	**Research Questions**
1. How do you feel about learning about sexual health?	**RQ1:** How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?
2. What has your experience been with sex education in school, the community, or at home?	**RQ1:** How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?
3. Tell me about the people you feel comfortable getting knowledge about sexual health from.	**RQ1:** How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?
4. Tell me about the places you feel comfortable seeking knowledge about sexual health.	**RQ1:** How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?
5. What STIs are you aware of?	**RQ1:** How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?

6. What information about STIs did you receive that you use when making sexual health decisions?	**RQ1:** How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?
7. What steps, if any, do you take to protect yourself from STIs?	**RQ1:** How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?
8. Tell me about your experiences with STIs.	**RQ1:** How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?
9. How do you feel about routine sexually transmitted infection testing for sexually active adolescents?	**RQ2:** What are the beliefs of African American 18–19-year-old adolescents living in underserved communities towards sexual health decision-making?
10. In what ways do you feel you are or are not vulnerable to contracting a sexually transmitted infection?	**RQ2:** What are the beliefs of African American 18–19-year-old adolescents living in underserved communities towards sexual health decision-making?
11. What makes you comfortable making sexual health decisions for yourself?	**RQ2:** What are the beliefs of African American 18–19-year-old adolescents living in underserved communities towards sexual health decision-making?
12. What other information would you like to provide about your beliefs on sexual health?	**RQ2:** What are the beliefs of African American 18–19-year-old adolescents living in underserved communities towards sexual health decision-making?
13. What information about your personal beliefs and practices would you want your healthcare providers to know?	**RQ2:** What are the beliefs of African American 18–19-year-old adolescents living in underserved communities towards sexual health decision-making?
14. What biases have you experienced when seeking healthcare?	**RQ3:** What attitudes about culturally competent healthcare do African American

	18–19-year-old adolescents living in underserved communities display?
15. Tell me what barriers you are aware of that hinder you and your peers from seeking sexual health knowledge and care.	**RQ3:** What attitudes about culturally competent healthcare do African American 18–19-year-old adolescents living in underserved communities display?

Table 3

Identified RQs, interview questions, codes, subcodes, categories and themes

Research Question	Interview Questions	Codes	Subcodes	Categories	Themes
RQ1: How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?	IQ1, IQ2, IQ3, IQ4, IQ5, IQ6, IQ7, IQ8	-Hygiene -Protection - STIs - People -Family	-Showers -Urination -Clean -Dirty -Condoms -Abstinence -No Sex -Testing -Gonorrhea -HIV -Syphilis -Herpes -The Clap -Burning -Treatment -Medications -Teachers -Mom -Sister -Grandma -Female Role Model -Cousin -Friends	-Taking care of your body -Protection and hygiene measures -Knowledge and Education -Personal beliefs and choices -Protecting yourself from potential harm -Preventative Measures -Negative experience with STI treatment -STI treatment process -Sexual education sources -Schools role in sexual education -Information and knowledge seeking -Support and guidance -Comfort and familiarity -uncomfortableness	1. Healthy Physical Body 2. Prevention 3. STI Treatments 4. Support
RQ2: What are the beliefs of	IQ9, IQ10,	-Communication -Discussion	-Talking -Testing	-Importance of STI testing	5. STI Testing

African American 18–19-year-old adolescents living in underserved communities' adolescents towards sexual health decision-making?	IQ11, IQ12, IQ13	- Internet -Social Media - Doctor Visits	-Vulnerable -Communication -Information -Sneak -Blocking -Gossip -Secrets -Treatment -Questions	-Personal Attitudes toward STI testing Source of knowledge and education -Accessing taboo or restricted information -Spreading information and gossip -Tool for communication and social interaction -Information gathering -Information sharing -Sources of doctor visits -Attitudes toward doctor visits	6. Internet Access
RQ3: What attitudes about culturally competent healthcare do African American 18–19-year-old adolescents living in underserved communities display?	IQ14, IQ15	-Biases -Uncomfortable	-Shame -Guilt -Unawareness -Fears -Parents -School -Permission -Avoiding	-Avoidance of topic -Fear of sexual Health -Overcoming stigma and shame -Providing Permission to learn about the topic -Lack of school education -Avoidance of talking about the topic	7. Personal Cultural Experiences 8. Perceived Barriers

Thematic Analysis

Theme 1: Healthy Physical Body

Participants spoke of their beliefs regarding the importance of sexual health, taking care of their physical body, and hygiene in this theme. This theme showed that the participants believed maintaining good hygiene to care for their physical bodies was important. One participant shared:

> The information I learned about sexually transmitted diseases that I took upon when being in that situation is to always use protection no matter what, and when finished doing something, taking a shower as soon as possible. (P-H)

Participant P-E stated, "Hygiene and being careful of sharing items with others" when speaking about their actions to protect themselves. Another participant stated:

> My beliefs on sexual health are it is important to take care of your body and treating it well and protecting yourself from all things because you may never know the person you are dealing with may or may not have something and can be passed down to you and possibly ruin chances of things you would like to do with your body in the future. (P-N)

The concept of taking care of one’s physical body was prevalent in the data among all participants. The participants associated this with being clean. The data showed that the notion of one being physically clean meant that one was being safe against STIs. The software produced many instances where participants mentioned the importance of showering and urinating after intercourse. These responses were prevalent when I asked participants about their sexual health experiences. The participants highlighted how prioritizing hygiene, taking care of their bodies, and cleaning oneself after sex is essential when discussing STIs.

Theme 2: Prevention

This theme revealed that participants believe in using condoms, getting tested, and practicing abstinence to help prevent them from contracting STIs. When speaking about prevention methods, Participant P-C stated, "Use condoms," Participant P-D stated, "Have a condom and not having sex with anybody," with Participant P-F saying, "My choice of not having sex makes me comfortable because I know I'm not gonna have any STIs."

Research participants showed an understanding of what STIs were and how they can affect someone. This theme was prevalent in the research. No participant stated they were unaware of prevention methods. I acknowledge how all the participants were able to shed light on what prevention looks like in their reality. Most participants shared that condom usage was important to them regarding sexual health. The participants also shared that discussing condom usage was common when talking to others about sexual health or when learning about sexual health in different settings. Gathering from the data that all the participants could express the importance of prevention methods shows how this theme can play a role in their sexual health and how they believe it can help them stay safe from STIs.

Theme 3: STI Treatments

I found knowledge of different STIs in this theme. Participants noted STIs such as "HPV, Herpes, syphilis, gonorrhea, chlamydia" (P-E) and "Chlamydia, HIV/Aids, Trichomoniasis, Gonorrhea (aka the clap), Herpes, and *Bacterial vaginosis* aka BV" (P-D). This theme also uncovered the treatments participants have experienced regarding treatment to contracting an STI. Participants shared how they did not enjoy the treatments they had to endure to treat the STI. A participant shared, "I've had three before, all from the same guy, and I hated it. I hate getting a shot in my butt and taking pills never again" (P-D). This statement emphasizes how getting treated for an STI can impact an individual.

Although all participants could identify different types of STIs, not many identified treatments for them. From this theme, I identified the importance of discussing STI treatments more among the study population; however, MAXQDA did not identify this as a prevalent theme in the data. The few participants who shared personal and private experiences of having an STI mentioned not enjoying the treatments, showing the need to discuss this topic with more people in this population. Knowledge of STI treatments can factor into one's sexual health decision-making. None of the participants expressed knowing that some STIs are not curable and may require lifelong interventions. STI treatments and their role in sexual health knowledge among the study participants play a role in their understanding of different STIs.

Theme 4: Support

Participants revealed they do not believe they learn about sexual health enough in school, so they rely heavily on the people in their lives. Participants said they sought knowledge from people who support them, such as family members, friends, doctors, and close people in their communities. Some people identified in the research as people the participants talk to on the subject are sisters, grandmothers, big cousins, and doctors. A participant shared:

> I say I feel comfortable gaining sexual health info from a female mentor or some female close to me; if it's time I don't want to come to my mom, I know I have other female authorities I can look up to and ask. (P-N)

Participant P-I stated, "My brother's girlfriend because I don't really know her like that, but she seems mature." Participant P-L shared, "My sister because I can trust her, and I'm comfortable with her." I found trust, comfort, and how mature one is allows this target population to feel safe in talking to people about STIs.

All the participants echoed this theme as they were able to acknowledge people they were comfortable talking to about their sexual health. The research did not yield results that could explain what information the participants shared in these conversations but just that the conversations occurred. In addition to participants discussing whom they felt comfortable talking to, some also shed light on people they could not speak to, such as parents—having people who act as support personnel allowed the participants to gain sexual health knowledge from people they trust.

Theme 5: STI Testing

I found STI testing to be important to the study population. The importance of STI testing and getting checked before having sex is emphasized through the participant's responses. Participant P-A said, "Always make sure you get tested you and your partner get tested for anything before having sex." This theme also shows how the participants view getting tested can make one feel ashamed or guilty but that they know STI testing is still necessary: "I think it's good but can be scary and make you feel bad because if you don't get checked out, it can possibly affect you in many ways" (P-K). STI testing was shown to be necessary for this population.

The participant's ability to acknowledge the validity of STI testing emerged as a recurring topic from the participant interview responses. Although STI testing had a positive connotation for some participants and a negative connotation for others, all agreed it is essential for sexual health. The MAXQDA software further amplified how prevalent this topic was in the data. Some of the participants shared how they felt STI testing was necessary before engaging in sex to protect themselves and their partners before engaging in sexual activities. Participants did not shed light on how accessible finding and getting to an STI location is. The aspect of STI testing is important to the sexual health experience of this population.

Theme 6: Internet Access

Seeking sexual health knowledge and information from the internet and social media is a tool the participants shared that they used. The Internet is a major source of knowledge for many people, especially when traditional education falls short. Participant P-A reported that "Not much is learned in school or at least in my school. You sort of just know from the internet or from the people around you" when discussing where they gained their sexual health knowledge.

The internet was also reportedly used to find individuals who know about STIs. Participant P-E shared that "social media has a lot of health experts" when discussing who they can seek STI information from. Additionally, the internet was a tool used to learn and spread gossip on the topic of STIs. A participant shared that:

> The internet is where a lot of gossip is, I guess. You do something with someone, then someone is going to find out, and it's going to spread. People can do what they want with their body, but we have the internet and people to talk to on it about anything we find out. (P-H)

The internet plays an essential role in learning and sharing information. The internet acted as a safe space in the data for participants who searched for sexual health knowledge. Internet use and access to information appeared necessary to all participants regardless of whether they had support individuals they could talk to about the topic. The study population seemed to need readily available access to knowledge on this topic. The internet also served as a mechanism for participants to discuss the subject with their friends. Communicating with peers easily provides a sense of community in the population. Internet access helps them achieve this, thus showing how important this theme is to the research.

Theme 7: Personal Cultural Experiences

The participant's interview responses indicated that not speaking about STIs was the norm. Participants shared how the topic can lead to feeling ashamed or embarrassed. Most participants shared that they felt this way when STIs and sexual health came up in school and home settings. Participant P-E shared, "It is a topic that is avoided and makes people afraid to speak up about it." The culture of the study participants is to not speak on this subject and to treat it as if it is a taboo topic. Participant P-D shared, "People in my generation don't like going to the doctor and talking about this. I feel like it's because of guilt or shame of them might having something and feeling dirty." The sentiments of guilt and shame were common in the research.

All the participants talked about the lack of cultural experiences about one’s cultural background. None of the participants shared experiences or knowledge of how their culture, such as race or ethnicity, has played a role in the positive or negative care they received regarding their sexual health. However, the specific age make-up of this population did have the recurring experience of associating contracting an STI with shame or guilt. The sentiments of shame showed me that the culture among 18–19-year-olds does share this association. The MAXQDA software and I identified multiple instances of shame, guilt, and fear prevalent in the interview responses. These personal cultural experiences contribute to how one views STIs and sexual health.

Theme 8: Perceived Barriers

The research indicated that the lack of information taught in school and parents were a barrier to the study population accessing sexual health information. Participants shared that they use the internet to gain information about sexual health and STIs despite their parents not wanting them to learn about the topic: "My mom tries to stop me from knowing about that stuff, but I use the internet." (P-F") and "it's something usually viewed as forbidden by parents, but I use the media aka internet to research more about the topic" (P-G).

Another barrier found was participants’ accessibility to sexual health classes. Participant P-O stated: "At my school, you can take a class, but your parents have to agree for you to take it.

My parents didn't let me take it “. Participant P-A also shared, "Not much learned in school or at least in my school" about learning sexual health information. The research also showed that when discussing what barriers prevent them from seeking or receiving care from their doctors, they shared, "Too shy to talk about" (P-A). The research indicated that participants look to other avenues to learn sexual health information when facing their perceived barriers to learning about sexual health.

Outlier Data and Findings

The research showed that the study participants had no relevant knowledge of cultural competence and did not experience any biases. Participants could not identify when they felt their culture, beliefs, or practices played a role when seeing a doctor. Many reported that they did not discuss those issues with doctors, and their visits focused on getting treatments or asking specific questions.

Outlier Theme: No Perceived Provider Bias

When explicitly asked about cultural beliefs, practices, and biases, 12 of the 15 participants could not respond, with most participants choosing to skip those questions. When discussing what personal beliefs one would want their doctor to know, participants shared that "I'm not really religious, and I become paranoid about when it's time to talk about it" (P-I). The participants did not share any responses about biases they faced when seeking care. Participants did not identify any implicit or explicit biases throughout the research interview. They also did not share much insight into aspects of their culture, barriers, or biases impacting their sexual health care.

Research Question Responses

The overarching research question was: What sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities can be used to create a tailored, culturally competent health program to reduce the rate of STIs among them? There were three research questions in this study. Table 4 shows the research questions and the corresponding themes.

Table 4

Identified research questions and thematic responses

Research Questions	Themes
Overarching Question: What sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities can be used to create a tailored culturally competent health program to reduce the rate of STIs among them?	
RQ1: How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?	• Healthy Physical Body • Prevention • STI Treatments • Support
RQ2: What are the beliefs of African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions?	• STI Testing • Internet Access
RQ3: What attitudes about culturally competent healthcare do African American 18–19-year-old adolescents living in underserved communities' adolescents display?	• Personal Cultural Experiences • Perceived Barriers

Central Research Question

What sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities can be used to create a tailored, culturally competent health program to reduce the rate of STIs among them? The research indicated that one's perception of a healthy physical body, proper prevention methods, learning about STI treatments, and having a support system are integral factors in African American 18–19-year-olds' knowledge about STIs. African American 18–19-year-olds experience with STI testing and internet access contribute to their STI rate. The personal cultural beliefs and perceived barriers in African American 18–19-year-olds can help to create a culturally competent health program to reduce STI rates.

Subquestion One

How do sexual health experiences and knowledge from African American 18–19-year-old adolescents living in underserved communities play a role in their sexual health decisions? African American 18–19-year-old adolescents living in underserved communities experience maintaining a healthy physical body, prevention practices, STI treatments, and knowledge gained from people who support them play a role in their sexual health decisions. They viewed taking care of their bodies as integral in addressing STIs.

Theme 1 - Healthy Physical Body. Participants viewed taking care of their bodies through the practices of maintaining good hygiene when engaging in sexual activity as important in preventing the contraction of an STI. Participant P-F stated, “I've heard that you should pee afterward.” When discussing sex, the participants shared that:

> The information I learned about sexually transmitted diseases that I took upon when being in that situation is to always use protection no matter what, and when finished doing something, taking a shower as soon as possible. (P-H)

Participants' experience with maintaining healthy hygiene through practices such as showering and peeing after sex leads participants to use the practices when making sexual health decisions.

Theme 2 - Prevention. Prevention practices such as condom usage, STI testing before sexual activity, and practicing abstinence were prevalent in the research. Participants recognized condom usage as a preventative practice, and multiple of them mentioned; “Condoms” (P-A), “Use condoms” (P-C), “Must use condoms” (P-F), and “Condoms” (P-B). Participant P-H stated, "I feel like if I ever did choose to have sex, then I would like to get tested," participant P-C states that one can "Wait till marriage" as a preventative practice—participants' experience and knowledge of prevention practice aids in their sexual health decision making.

Theme 3 - STI Treatment. Having been treated for an STI led to participants expressing they never wanted to experience it again. Participant P-D stated, “I’ve had three before, all from the same guy, and I hated it. I hate getting a shot in my butt and taking pills never again”. The participants’ response shows that their experience with STI treatments was a negative one, and them not wanting to get a shot or having to retake medication affects their sexual health decisions.

Theme 4 - Support. Participants revealed that many family members they talk to help guide their beliefs regarding sexual health. Some of the family and nonfamily members participants stated they felt comfortable talking to included “my sister, because I can trust her and I’m comfortable with her enough” (P-L), “my big cousin, and my sister” (P-O), “My grandma because I’m comfortable talking to her about things” (P-D), “my brother girlfriend because I don't really know her like that but she seems matured” (P-I) and ”My mother and sometimes my friends we talk and they explain a few things to me” (P-H). The people participants feel comfortable talking to and trust to have conversations with about sexual health help them make sexual health decisions.

Subquestion Two

What are the beliefs of African American 18–19-year-old adolescents living in underserved communities’ adolescents towards sexual health decision-making? African American 18–19-year-old adolescents living in underserved communities have beliefs about STI testing and beliefs. They learned the beliefs from their access to the internet that help them make sexual health decisions.

Theme 5 - STI Testing. Participants’ knowledge of the importance of STI testing showed that testing is present in their sexual health decisions. Participant P-A stated, “Always make sure you get tested; you and your partner get tested for anything before having sex,” while participant P-H, who is currently practicing abstinent, stated, “I feel like if I ever did choose to have sex then I would like to get tested” and participant P-I said, “I make sure that my partner is checked to make sure he doesn't have anything wrong and then for him to wear a condom just in case to prevent STI's.” These statements show how the study population knows and understands the importance of STI testing in their sexual decision-making to protect themselves and others.

Theme 6 - Internet Access. Using the internet to find information was a common theme in participant responses. Many participants emphasized how they gathered information from the internet on sexual health. When participants seek knowledge about sexual health and STIs, they often use the internet for information and guidance. Participants P-D, P-F, and P-G all stated "the internet" when discussing where one gets their sexual health information from. Participant P-E said, besides the internet, "Social media has health experts." The study population uses sexual health information accessed online to guide their sexual health decision-making.

Subquestion Three

What attitudes about culturally competent healthcare do African American 18–19-year-old adolescents living in underserved communities' adolescents display? African American 18–19-year-old adolescents living in underserved communities showed attitudes from their personal cultural experiences of not talking about sexual health, beliefs, and cultural norms. They also indicated that STIs are associated with shame and guilt, along with the perceived barriers they face learning about sexual health during their interactions with the healthcare system.

Theme 7 – Personal Cultural Experiences. The research indicated that attitudes of guilt, shame, and sexual health were taboo topics among African American 18–19-year-old adolescents living in underserved communities. Participants shared that "people in my generation don't like going to the doctor and talking about this. I feel like it's because of guilt or shame of them might having something and feeling dirty" (P-D). These attitudes and feelings of guilt or shame prevented many participants from having insight into culturally competent healthcare. Twelve of the 15 research participants expressed that they did not have a response regarding their experiences with culturally competent care in the healthcare system. Participant P-O stated, "I don't talk to my doctor about any of that," regarding their beliefs and practices. Not speaking to doctors about sexual health was common among the study participants.

Theme 8 – Perceived Barriers. Barriers faced when seeking health knowledge factor into participants' attitudes that they display their culture in their healthcare. These barriers include parents not allowing them to learn about sexual health and schools under education on the topic. When speaking about sexual decision-making, participant P-G states, "It's something usually viewed as forbidden by parents, but I use the media, aka internet, to research more about the topic." Participant P-A shared that the internet is used to get knowledge when it is not received elsewhere by stating, "Not much is learned in school or at least in my school. You sort of just know from the internet or from the people around you." Participants turn to other methods to overcome barriers that have been present in their sexual health culture, knowledge, and experiences.

Summary

In this qualitative study, I examined the lived experiences and knowledge gaps of African American 18–19-year-old adolescents living in underserved communities, shedding light on their perspectives regarding sexual health and STIs. The findings of this research provided insights that are useful for developing a culturally competent health program to reduce the high rates of STIs in this population. The 15 participants in this study answered 15 open-ended interview questions, leading to the identification of multiple codes, subcodes, categories, and themes. The eight themes identified in this study, healthy physical body, prevention, STI treatments, support, STI testing, internet access, personal cultural experiences, and perceived barriers, provided answers to the overarching and three sub-research questions.

The research showed how participants value maintaining their physical health to prevent contracting an STI. The results indicated that condoms, STI testing, and abstinence are the leading STI prevention methods this population took to protect themselves. Participants were able to identify a limited knowledge of different STIs. Despite the participants acknowledging some STIs, they did not offer any information on ways to treat the STIs or that some are unable to be cured; however, they recognized the importance of STI testing to provide themselves and others protection from contracting and spreading STIs.

Having people that the participants could talk to was evident in the data. Participants expressed comfort to both family and nonfamily members about sexual health. Despite having people to talk to, the participants still utilized the internet to access information about sexual health. Internet access was critical in the research for participants to seek and gain knowledge and discuss the topic with peers.

One’s personal cultural experiences revealed one’s struggle within one’s age group as opposed to one’s racial or ethnic background. Other barriers and struggles participants faced included being unable to access health class information without a parent’s permission and the lack of information taught on the topic in schools. Participants did not identify any implicit or explicit biases they faced within the healthcare system; thus, it did not appear to be a barrier to the research participants.

The findings from this study provide valuable insights into the sexual health experiences, knowledge, beliefs, and attitudes of African American 18–19-year-old adolescents in underserved communities. These themes can be useful in developing a culturally competent health program to reduce the prevalence of STIs in this population. The cultural findings from the study amplify the need for a culturally competent program when addressing sexual health issues among African American 18–19-year-olds in underserved communities. In addition to the research calling for a culturally competent program, there is a need to address the program's format. The research overwhelmingly showed how important having sexual health knowledge on the internet is. The high use of the internet indicates the need for a program that gives the needed sexual health information in the format that is most accessible to the participants. The data showed that providing this information to participants in a face-to-face and internet-based setting is equally important to the program's success, whose goal is to reduce STI rates among this population.

CHAPTER FIVE: CONCLUSION

Overview

This study aimed to examine and understand the lived experiences and gaps of knowledge in African American 18–19-year-old adolescents living in underserved communities that contribute to them contracting STIs. This grounded theory-based research served as the basis for developing a health program. I used the research data to construct a theoretical model that answered the central research question of what sexual health experiences and knowledge from the target population can help to create a tailored, culturally competent health program to reduce the rate of STIs among them.

This chapter will include interpretations of the data. Using the data, I have provided implications of practice by developing an in-person and web-based culturally competent health program. This chapter will also address theoretical implications by developing a theory from the research. Lastly, the chapter will entail a review of the study's limitations and recommendations for future research.

Discussion

Interpretation of Findings

The study's findings aligned with the literature findings of the need to increase sexual health knowledge among adolescents, mitigate biases in healthcare, improve care in underserved communities, and develop health programs that target the population's needs. The thematic findings of the research shed light on how the study results support and expand upon the existing knowledge on STI rates and sexual health knowledge among African American adolescents ages 18–19 years old.

The research yielded eight themes. The themes included a healthy physical body, prevention, STI treatments, support, STI testing, internet access, personal cultural experiences, and perceived biases. These factors showed the understanding and experiences of the research participants with STIs. The themes were the foundation for developing a culturally competent health program that aims to reduce STI contraction among African American adolescents ages 18–19 years old.

Summary of Thematic Findings

The eight themes of the research led to five interpretations of the data. The interpretations show how integral caring for one's physical body is and how it correlates to the knowledge African American Adolescents ages 18–19 years old have about sexual health. The data also showed how important a support system is for participants to make smart sexual health decisions. A support system consisted of family members, friends, mentors, and acquaintances that the study population trusted. The data indicated the use of the internet and its importance throughout. This finding shows the necessity of including internet access in programs aimed at increasing sexual health knowledge. I also interpreted one's cultural barriers from the data to show that overcoming shame, fear, and guilt is integral to increasing sexual health knowledge. The themes for the research show how one can use them to create a culturally competent health program to reduce STIs among the study population.

Interpretation 1 – Caring for One's Body

The data indicated that African Americans aged 18–19 believe that caring for their physical body is very important when protecting themselves from STIs. This need for care was evident through the themes of a healthy physical body, prevention, and STI treatments. Participants believe that taking steps such as showering after sex, urinating after sex, using condoms, not desiring to "burn" after sex, and not wanting to take pills or get shots for an STI will keep them safe from contracting an STI. It showed me that including education on proper care of one's physical body pre and postsex in a health program, is important to decrease STI rates among them.

Interpretation 2 – Knowledge of STIs

Over 30 STIs exist worldwide (WHO, 2023a). Despite the many different STIs worldwide, participants only identified five when discussing which STIs they were aware of during the research interview. I recognized a lack of knowledge of STIs and treatments for them in the themes of STI testing and STI treatments. Participants only identified pills and shots as treatment options when discussing treating STIs. Participants did not discuss how some STIs are incurable; thus, treatment options that cure the STI do not exist for them. Increased knowledge and awareness of more STIs and their treatments are integral to include in a health program that aims to keep African Americans ages 18–19 years old safe from contracting an STI.

Interpretation 3 – Support System

Research showed that having people the participants can speak with about sexual health gives them the space to seek knowledge on the topic. The findings indicated that participants sought support from family, friends, teachers, and mentors. The support theme highlighted the importance of support. Although I found a support system important from the research data, there was no discussion on how the participants talked and interacted with them. A lack of sentiments in the area showed the necessity of ensuring this population has the tools to start dialogue freely and safely with their support system. The data also revealed that when participants did not identify people they could speak to about sexual health, they sought knowledge on the topic by using other methods. These methods included searching on the internet for trusted people, turning to peers, and using online chat options. Having African Americans ages 18–19 identify a support system and ways to communicate with them is vital to ensuring they can access accurate information about sexual health.

Interpretation 4 – Internet Usage

The theme of internet access highlighted the importance of the participants being able to use the internet to seek information about sexual health. This theme conveyed how the study population relies on easily accessible information online to gain information, find answers, and discuss this topic with their peers. All the participants shared about using the internet. The use was common in participants who had and did not have a support system that they felt comfortable talking to about sexual health. For these reasons, it was evident that incorporating the internet in health interventions is essential when developing the intervention for African Americans ages 18–19 years old.

Interpretation 5 – Cultural Barriers

The themes of personal cultural experiences and perceived barriers revealed the struggles African Americans ages 18–19 years old experience when seeking sexual health knowledge and talking about sexual experiences. Factors such as shame, guilt, stigma, and avoiding the topic were engrained into their beliefs when discussing sexual health. Participants presented barriers to gaining knowledge on this topic in ways such as being fearful of talking to people about sexual experiences, parents and guardians not permitting participants in school sexual health classes, and schools not providing education about sexual health. There is a need to address ways to overcome culturally based factors and barriers to ensure this population gains sexual health knowledge.

Implications for Practice

The researcher used the eight themes found in the data to create an in-person and web-based culturally competent health program for African American adolescents ages 18–19. The data shows how this program will be effective for this population. However, the program may also be effective for all adolescents in this age group.

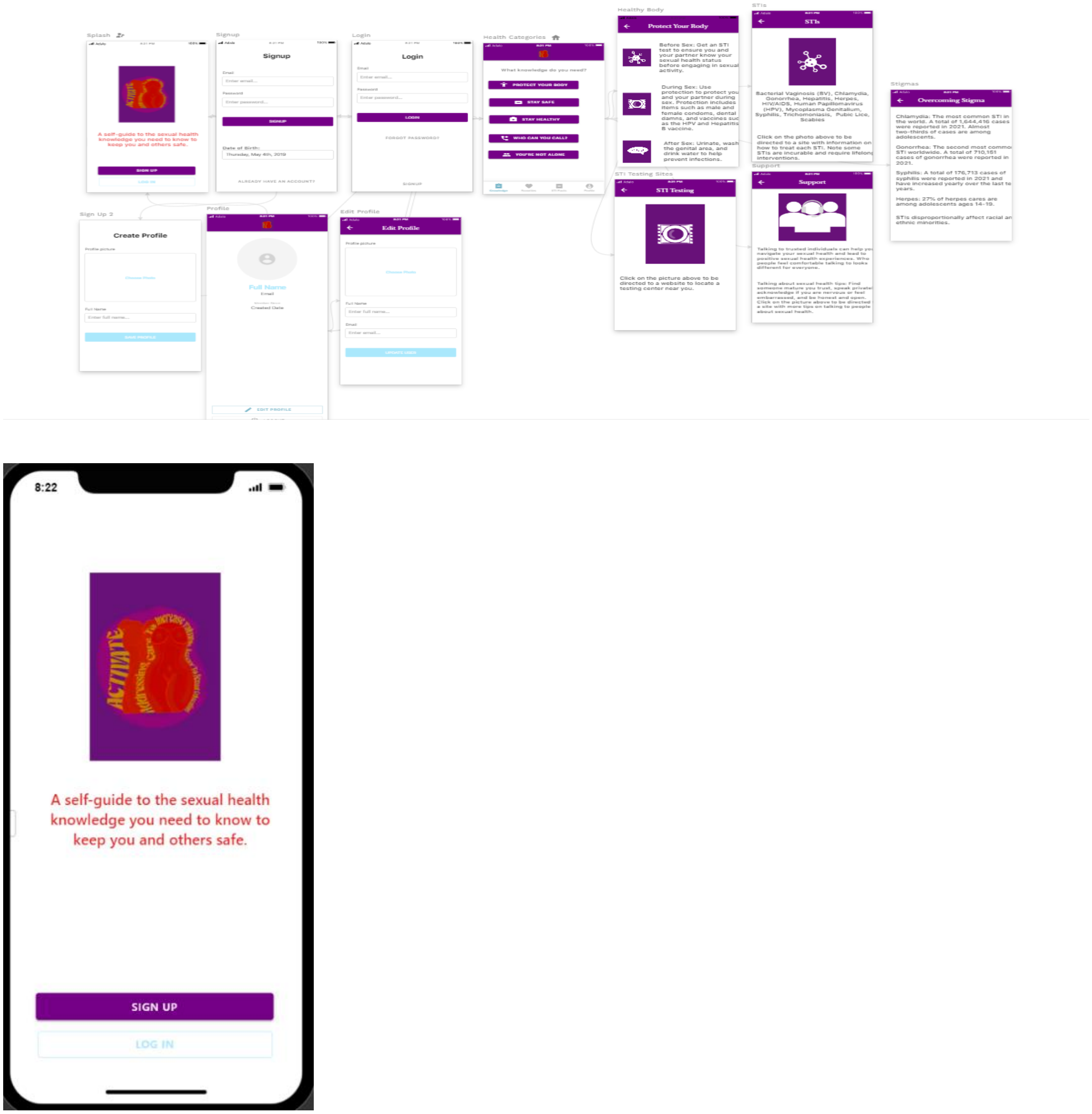
Through the eight themes and five interpretations yielded from the data, I developed a program to aid the study population in reducing STIs. Due to the importance of internet usage found in the data by the majority of the participants, it was necessary to create an in-person program and a web-based program via an app for participants to get the needed sexual health knowledge to help reduce STI rates. The in-person program can take place in a safe setting for participants, where they can engage in group discussions and share experiences, ideas, and questions with each other. Participants must be 18–19 years of age to participate, thus requiring no parental consent. The app will also prompt participants to enter their date of birth to verify that they are at least 18 years of age before they can download it, and users can access the program information on their own and at their own pace.

I named the program/app A.C.T.I.V.A.T.E, an acronym for **A**ddressing **C**are **T**o **I**ncrease **V**aluable **A**ccess **T**o **S**exual **E**ducation, which uses a five-category approach to educate adolescents on sexual health knowledge. The app will be available for free by downloading it to one’s smartphone through their google or apple app store. Participation in an in-person program will also be free, and the organization will handle any cost associated with the program. Those in need can obtain grants and personal funding from those implementing the in-person program. I will fund placing the app in the smartphone app stores for free download by those who intend to use it. I developed this app to account for the need to get sexual health information to the target population in a virtual format, as revealed by the research findings. People can find out about that app through promotion using paid ads, word of mouth, and community partnerships. The in-person program and app version are informational and do not collect participant data. This program helps provide the knowledge and education needed about sexual health to help the target population make smart sexual health decisions.

Participants will receive the same information in person at the program and virtually through the app. Individuals can use the app with the program for reinforcement after attending an in-person session or as a self-guide through sexual health knowledge. Figure 1 shows the layout design of the app, whereas Figure 2 shows the five categories of the program and app.

Figure 1

App Layout Design Overview



A self-guide to the sexual health knowledge you need to know to keep you and others safe.

Before Sex: Get an STI test to ensure you and your partner know your sexual health status before engaging in sexual activity.

During Sex: Use protection to protect you and your partner during sex. Protection includes items such as male and female condoms, dental damns, and vaccines suc as the HPV and Hepatitis B vaccine.

After Sex: Urinate, wash the genital area, and drink water to help prevent infections.

Bacterial Vaginosis (BV), Chlamydia, Gonorrhea, Hepatitis, Herpes, HIV/AIDS, Human Papillomavirus (HPV), Mycoplasma Genitalium, Syphilis, Trichomoniasis, Pubic Lice, Scabies

Click on the photo above to be directed to a site with information on how to treat each STI. Note some STIs are incurable and require lifelong interventions.

Chlamydia: The most common STI in the world. A total of 1,644,416 cases were reported in 2021. Almost two-thirds of cases are among adolescents.

Gonorrhea: The second most commo STI worldwide. A total of 710,151 cases of gonorrhea were reported in 2021.

Syphilis: A total of 176,713 cases of syphilis were reported in 2021 and have increased yearly over the last te years.

Herpes: 27% of herpes cares are among adolescents ages 14-19.

STIs disproportionally affect racial an ethnic minorities.

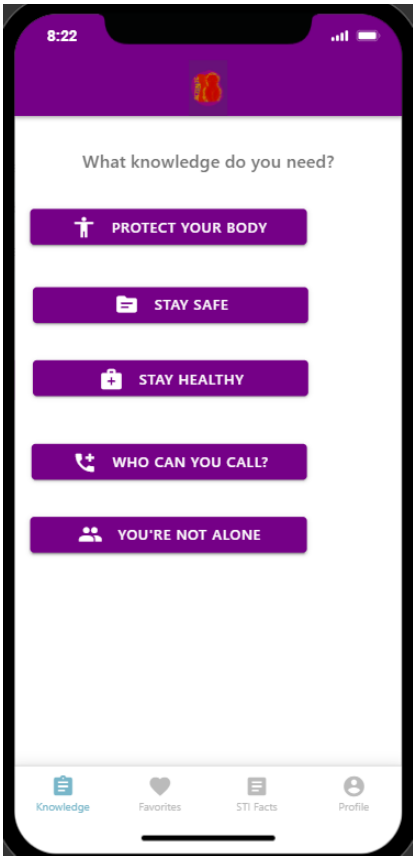
Click on the picture above to be directed to a website to locate a testing center near you.

Talking to trusted individuals can help yo navigate your sexual health and lead to positive sexual health experiences. Who people feel comfortable talking to looks different for everyone.

Talking about sexual health tips: Find someone mature you trust, speak privatel acknowledge if you are nervous or feel embarrassed, and be honest and open. Click on the picture above to be directed a site with more tips on talking to people about sexual health.

Figure 2

Five Categories of the Program/App

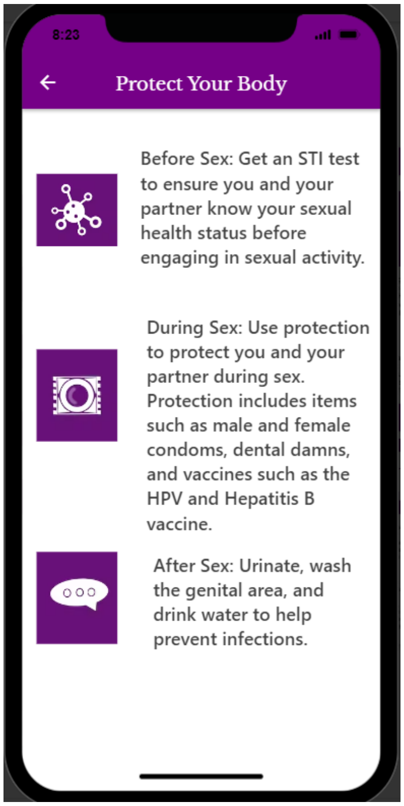


What knowledge do you need?

"Protect Your Body" is the first category of the program/app. This category addresses the themes of a healthy physical body and prevention found in the research. In this portion of the program and app, the participant will learn how to protect their body before, during, and after sex. Participants will get information on how to keep their physical bodies safe and how to help them make wise choices to reduce STI contraction rates. This category provides knowledge to the user to help guide their sexual health decision-making. It supports the answer to the first research question by allowing the use of accurate knowledge in decision-making. Increasing sexual health knowledge on topics shown to be prevalent from the research data is integral to the success of this program. Figure 3 shows what information the app will provide in this category.

Figure 3

Protect Your Body Category of App



Before Sex: Get an STI test to ensure you and your partner know your sexual health status before engaging in sexual activity.

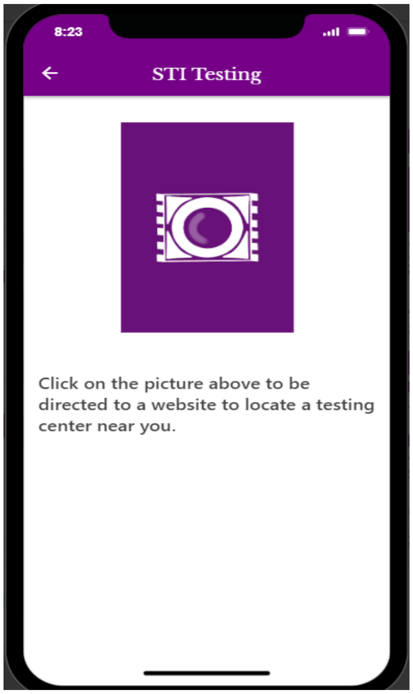
During Sex: Use protection to protect you and your partner during sex. Protection includes items such as male and female condoms, dental damns, and vaccines such as the HPV and Hepatitis B vaccine.

After Sex: Urinate, wash the genital area, and drink water to help prevent infections.

Category 2 of the program is the “Stay Safe” section. This category addresses the STI testing theme from the research. This section of the app will focus on the importance of STI testing. In-person participants will review the importance of testing and get resources to help find testing centers. On the app, users can click on a photo that will take them to an external link to the CDC website page that allows them to enter their zip code and find STI testing sites nearby. The research shows that the study population knows and understands the importance of STI testing before and after sexual activity. This program helps to further that knowledge by ensuring they know where to access STI testing sites. Ensuring that participants can easily access places that will help them take the necessary steps to make safe sexual health choices can help reduce STI rates among this population. Figure 4 shows the “Stay Safe” category of the app.

Figure 4

Stay Safe Screen of the App



Click on the picture above to be directed to a website to locate a testing center near you.

"Stay Healthy" is the third category of the app. This category addresses the STI treatment theme found within the research. In this category, participants will learn about different STIs. The study indicated the need to educate participants on the different types of STIs and how they are treated. This section will highlight the treatment information for each STI. At this point of the in-person program, participants will be encouraged to have an open dialogue about STIs and their knowledge of treatments. The facilitator will use this time to shed more light on different STIs and discuss the importance of understanding STI treatments, cures, and incurable STIs. This portion of the in-person program can allow participants to share personal stories with each other if they choose. This can help participants understand that they do not deal with STIs alone and undo any negative feelings about the topic among them. On the app, participants will see the names of various STIs and can click on a photo linked to an external link that takes them to the Mayo Clinic website, which will help them learn how each STI is cured and/or treated. This knowledge ensures that participants are aware of all STIs and what treatment will look like if someone were to contract an STI. Figure 5 shows the "Stay Healthy" screen of the app.

Figure 5

Stay Healthy Screen of the App

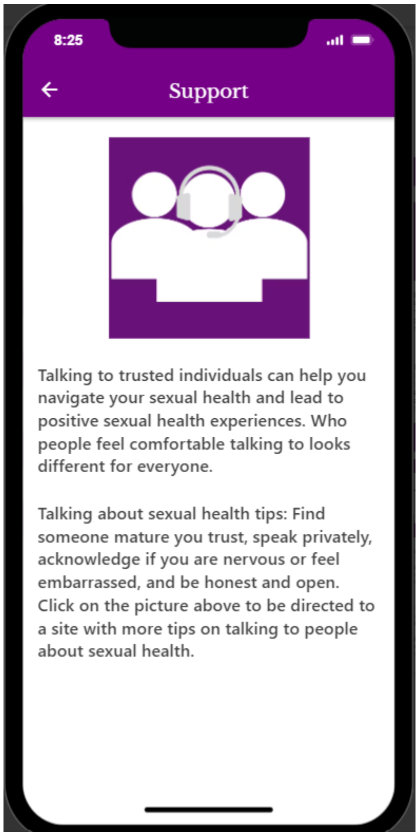
Bacterial Vaginosis (BV), Chlamydia, Gonorrhea, Hepatitis, Herpes, HIV/AIDS, Human Papillomavirus (HPV), Mycoplasma Genitalium, Syphilis, Trichomoniasis, Pubic Lice, Scabies

Click on the photo above to be directed to a site with information on how to treat each STI. Note some STIs are incurable and require lifelong interventions.

“Who Can You Call” is category four of the A.C.T.I.V.A.T.E. program/app. This category addresses the support theme, where participants will review ways to talk about sexual health with people they identify as support personnel in their lives. Participants will access resources for meaningful conversation for the in-person program. They will also receive information on what a supportive person looks like and broad tips on facilitating conversations with those people. Participants can also click on a photo that will take them to an external link to the “Who can I talk to about my body and sexual health” page of the Planned Parenthood website for more insight into how to have these conversations. This portion of the app is essential to account for research question two. The people from whom participants seek guidance on the topic can shape the participants' beliefs. Ensuring the participants have people to talk to and know how to talk to them about this topic can help ensure participants' beliefs about sexual health lead to them making smart sexual health decisions. Figure 6 shows the “Who Can You Call” screen of the app.

Figure 6

Who Can You Call Screen of the App



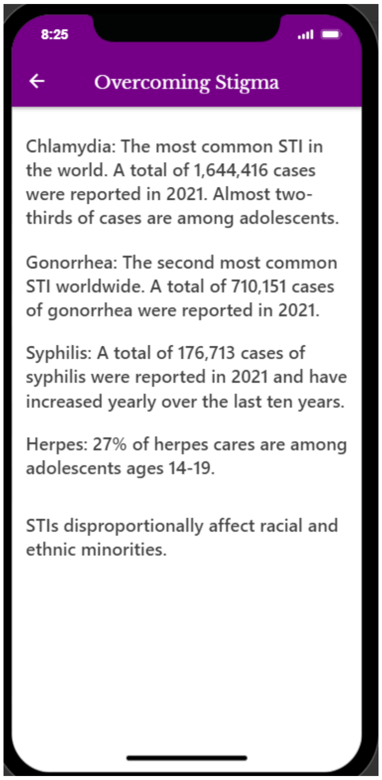
Talking to trusted individuals can help you navigate your sexual health and lead to positive sexual health experiences. Who people feel comfortable talking to looks different for everyone.

Talking about sexual health tips: Find someone mature you trust, speak privately, acknowledge if you are nervous or feel embarrassed, and be honest and open. Click on the picture above to be directed to a site with more tips on talking to people about sexual health.

“You’re Not Alone” is the fifth category of the program/app. This section addresses the perceived cultural experiences and perceived barrier themes found in the research. This section will help participants overcome the stigma and shame associated with STIs, as seen in the research. This portion will entail the rates of STIs among adolescents to assure the participants that they are not alone and should not feel ashamed or embarrassed about contracting STIs or getting sexual health knowledge. Sharing personal experiences among participants would also be appropriate for in-person participants in this program section. Allowing the participants the space to connect about personal experiences can help them overcome their fear and shame rooted in their cultural beliefs about STIs. The app will show the rates and statistics about STIs among adolescents to provide a sense of familiarity with participants who may be ashamed of contracting an STI or learning about them. This portion of the program accounts for the answer to research question three. Ensuring the participants have a positive experience and attitude regarding receiving culturally competent care can lead to positive sexual health outcomes. Figure 7 shows the “You’re Not Alone” screen of the app.

Figure 7

You're Not Alone Screen of the App



Overcoming Stigma

Chlamydia: The most common STI in the world. A total of 1,644,416 cases were reported in 2021. Almost two-thirds of cases are among adolescents.

Gonorrhea: The second most common STI worldwide. A total of 710,151 cases of gonorrhea were reported in 2021.

Syphilis: A total of 176,713 cases of syphilis were reported in 2021 and have increased yearly over the last ten years.

Herpes: 27% of herpes cares are among adolescents ages 14-19.

STIs disproportionally affect racial and ethnic minorities.

About the A.C.T.I.V.A.T.E Program

The section below addresses the about of the A.C.T.I.V.A.T.E program. It entails the mission statement, SMART goals, program objectives, logic model (Figure 8), and marketing strategy of the culturally competent health program for underserved communities. Other information in this section is the evaluation plan and budget.

Mission Statement

The mission of the culturally competent health program for underserved communities, Addressing Care To Increase Valuable Access To Sexual Education (A.C.T.I.V.A.T.E), is to provide accurate sexual health education by providing resources and tools to African American

Adolescents ages 18–19 years old living in underserved communities. The A.C.T.I.V.A.T.E program contains sexual health information, current data statistics, and sexual health best practices to educate participants to help them make smart sexual health decisions. Participants and users can access the culturally competent health program A.C.T.I.V.A.T.E in person. The program is also easily accessible through a web-based app on a smartphone.

S.M.A.R.T Goals

1. A.C.T.I.V.A.T.E will teach 100% of participants about different types of protection they can use when engaging in sexual activities during the first phase category of the program by providing participants with information about safe sex practices.
2. A.C.T.I.V.A.T.E will provide 100% of participants with resources such as reputable location search websites to help them locate STI testing locations by the end of the program.
3. A.C.T.I.V.A.T.E will teach 100% of participants about different STIs and their cures and treatments during the third category of the program.
4. A.C.T.I.V.A.T.E will help 100% of participants identify people they can talk to about sexual health by the end of the program.
5. A.C.T.I.V.A.T.E will educate 100% of participants on how common STIs are among their peers during the fifth category of the program.
6. The A.C.T.I.V.A.T.E program will be functioning and accessible to all willing participants and users in December 2024.

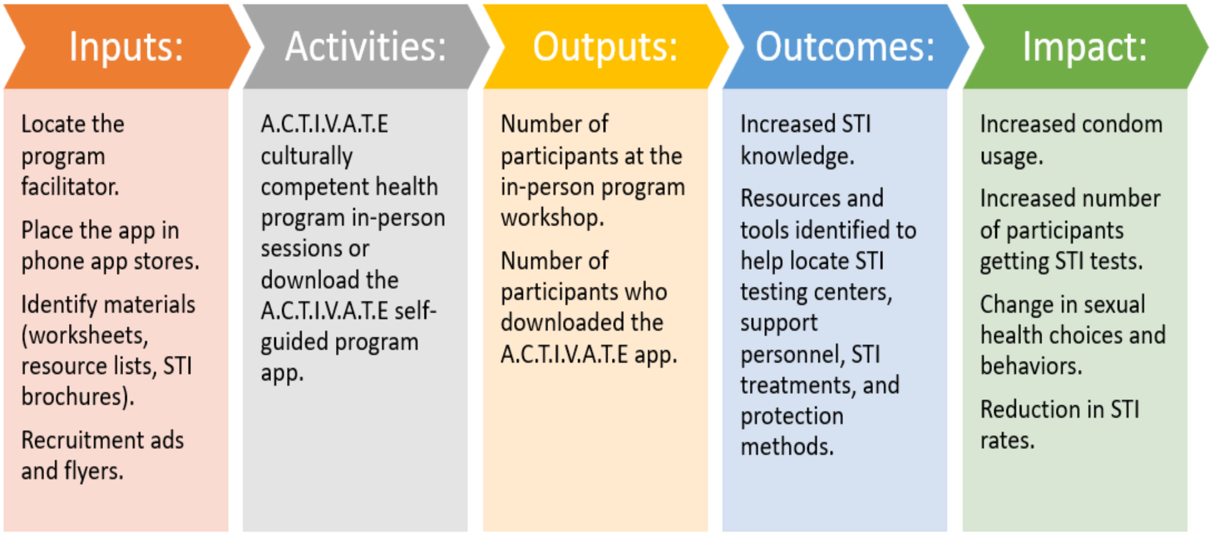
Measurable Objectives:

1. Participants will be able to identify two types of protection they can use during sexual activities.

2. Participants will be able to recognize one STI testing location they have access to.
3. Participants will be able to identify ten STI's they learned about in the program.
4. Participants will be able to describe the life-long treatments required for STIs that do not have a cure.
5. Participants will be able to describe two treatments for curable STIs.
6. Participants will be able to identify one person they can talk to about sexual health.
7. Participants will be able to describe STI rates among adolescents.

Figure 8

Logic Model



Inputs:	Activities:	Outputs:	Outcomes:	Impact:
Locate the program facilitator. Place the app in phone app stores. Identify materials (worksheets, resource lists, STI brochures). Recruitment ads and flyers.	A.C.T.I.V.A.T.E culturally competent health program in-person sessions or download the A.C.T.I.V.A.T.E self-guided program app.	Number of participants at the in-person program workshop. Number of participants who downloaded the A.C.T.I.V.A.T.E app.	Increased STI knowledge. Resources and tools identified to help locate STI testing centers, support personnel, STI treatments, and protection methods.	Increased condom usage. Increased number of participants getting STI tests. Change in sexual health choices and behaviors. Reduction in STI rates.

Marketing Strategy

Stakeholders

- Pitch the A.C.T.I.V.A.T.E culturally competent health program for underserved communities to local area community centers, health clinics, and sexual health organizations.

Technology

- Place ads for the A.C.T.I.V.A.T.E culturally competent health program for underserved communities, an app on social media sites commonly used by African American Adolescents ages 18–19 years old living in underserved communities such as Instagram, Facebook, Twitter, TikTok, and YouTube. The ads will promote the target population to download the A.C.T.I.V.A.T.E program on their smart phones.

Stakeholder & Technology

- Create QR code flyers that people can scan with their smartphones that will take them to the app store on their phones to download the app. Ask permission to place a QR code flyer in local community centers and health clinics—place QR code flyers in public posting areas such as malls and bus stops.

Evaluation Plan

A.C.T.I.V.A.T.E culturally competent health program for underserved communities. In-Person: At the end of the program, participants will be asked questions to evaluate the knowledge gained from the program. Content validation will be used to establish the validity of the questions asked after receiving the knowledge and education from

A.C.T.I.V.A.T.E. Participants will answer the following questions to evaluate the effectiveness of the program:

1. What are two types of protection methods you can use during sexual intercourse?
2. Where is a testing location that you can use?
3. What are ten STI's you learned about in the program?
4. What is a life-long treatment practice for an STI that does not have a cure?
5. What are two ways curable STIs are treated?
6. Who is one person you feel comfortable and safe talking to about sexual health?
7. What is one STI statistic in adolescents did you learn today?

The evaluation criteria below will aid in the successful content validation of the questions that participants will answer in the program. The program will be evaluated as successful if 75% or more of the participants can answer the questions correctly once they complete the program. This will help ensure that the participants have received and retained information.

Evaluation Criteria:

- 75% of participants will be able to name two types of protection that can be used during intercourse once the program is completed.
- 75% of participants will be able to identify a testing location they can use once the program is completed.
- 75% of participants will be able to identify ten STI's once the program is completed.
- 75% of participants will be able to identify one life-long treatment practice for an STI that does not have a cure once the program is completed.
- 75% of participants will be able to describe two treatments for curable STIs once the program is completed.

- 75% of participants will identify one person they feel comfortable and safe talking about sexual health with once the program is completed.
- 75% of participants will be able to state one STI in adolescent statistic they learned from the program once the program is completed.

A.C.T.I.V.A.T.E culturally competent health program for underserved communities. A.C.T.I.V.A.T.E web-based App: TruRadius data analytic software will assist in evaluating the app's usage and generating statistical analysis reports. Statistics will be generated on the number of people who click on ads for the app in comparison to how many users download the app. I will use data analytics to monitor the use of app components.

- Target 30% of people who viewed the app's ads to download the app.
- Target 50% of people who download the app to click on each category of the app.
- Target 50% of people who visit the "Stay Safe" page of the app to click on the link that takes them to the Center for Disease Control website to locate an STI testing center.

TruRadius data analytic software will monitor and track how many people use the app but not track or monitor who the users using the app are or sell their information.

Budget

The budget for the culturally competent health program for underserved communities, Addressing Care To Increase Valuable Access To Sexual Education (A.C.T.I.V.A.T.E), details the cost associated with its use. The in-person format of A.C.T.I.V.A.T.E requires no cost for the program facilitator as they will host the program for free, and no cost for the actual program will be necessary. The organization or employee implementing the A.C.T.I.V.A.T.E program into their current sexual health outreach events for the community will facilitate the A.C.T.I.V.A.T.E program. The program will take place in a building the organization already has access to, thus requiring no funds to rent a space. The in-person format budgets include the cost of equipment and activities. There will be the need to print documents with STI testing locations, STI statistics in adolescents, STI and STI treatment facts, healthy conversation tips, and other sexual health information for the participants. The budget accounts for 50 pages at $.60 per page to print, thus allotting $30.00. Other equipment for the program includes office supplies such as pens, notepads, and highlighters, for which $100.00 is allotted, $40.00 is allotted for visual aids such as condoms and anatomy models, and $25.00 for a first-aid kit for emergencies. The program itself will be free; however, $50.00 for refreshments for the participants has been allocated in the budget. Lastly, eight $10.00 gift cards for participation in the eight evaluation questions are allocated to participants who share their answers with the group. The total cost for the program in the in-person format is $325.00.

The budget for the culturally competent health program for underserved communities, Addressing Care To Increase Valuable Access To Sexual Education (A.C.T.I.V.A.T.E) app format of the program, is $785.00. The creator of the app will be responsible for this cost. This program will not require personnel or equipment because it is self-guided and is taken by participants on their smartphones. Promotional ads will need $125.00 of the budget for marketing. Marketing on social media sites ranges from $0 to $8.00. This budget allows $5.00 per promotional ad per social media site for five sites (Instagram, Facebook, Twitter, TikTok, and YouTube) and for the promotional ad to run five times on each site. The budget also includes the TrustRadius data analytic software price for 1 year. I will use data analytic software to evaluate the effectiveness of the ads for the app and the use of the app. This package will help analyze the data of seven social media websites and one site for one brand. The software supplies custom reports and dashboards for effectiveness. TrustRadius data analytics software is $55.00 monthly for the premium package and is included in the budget for 1 year, a total of $660.00.

Theoretical and Empirical Implication

The themes in this study have theoretical and empirical implications. The themes addressed the importance of combating STI rates in the study population by increasing sexual health knowledge through a culturally competent health program. Below is a discussion of the implications.

Empirical Implications

Empirical Implication 1: Adolescents Awareness of STIs

The research yielded themes of a healthy physical body, prevention, STI testing, and STI treatments. These themes supported the literature findings from the study. The literature addressed how STI rates continue to increase among adolescents and how efforts on testing and sexual health education are crucial to improving STI rates among the study population (Trent et al., 2018). The data showed how African American adolescents aged 18–19 years are aware of STIs and put forth efforts to prevent contraction of them. These efforts include maintaining a healthy physical body by keeping up with hygiene to help protect against STIs. They also engage in prevention methods such as practicing abstinence, wearing condoms during sex, and getting tested for STIs before and after engaging in sexual activities. These efforts help protect them from contracting and transferring STIs.

Empirical Implication 2: Adolescents Need Access to Support

The themes of support and internet access shed light on how the study population learns about sexual health topics. The literature showed that when adolescents are in a safe space with trusted people, they will be open to seeking knowledge, care, and resources to make intelligent sexual health decisions (Morales et al., 2018). These themes align with the findings of the literature. When adolescents had a support system, they leaned on them for knowledge about sexual health. They also turn to the internet to find answers from sources to help guide their decision-making.

Empirical Implication 3: Barriers and Cultural Experiences Can Impact Care

The literature addressed the need to mitigate biases in healthcare (Marcelin et al., 2019). The research indicated this through the themes of perceived barriers and personal cultural experiences. The barriers and cultural experiences evidenced in the research show the need to ensure biases and differences in the healthcare system do not lead to adolescents feeling feelings of shame and guilt that play a role in their beliefs about STIs. The interpretation of the research findings supports the development of a culturally competent health program for African American adolescents aged 18–19 years.

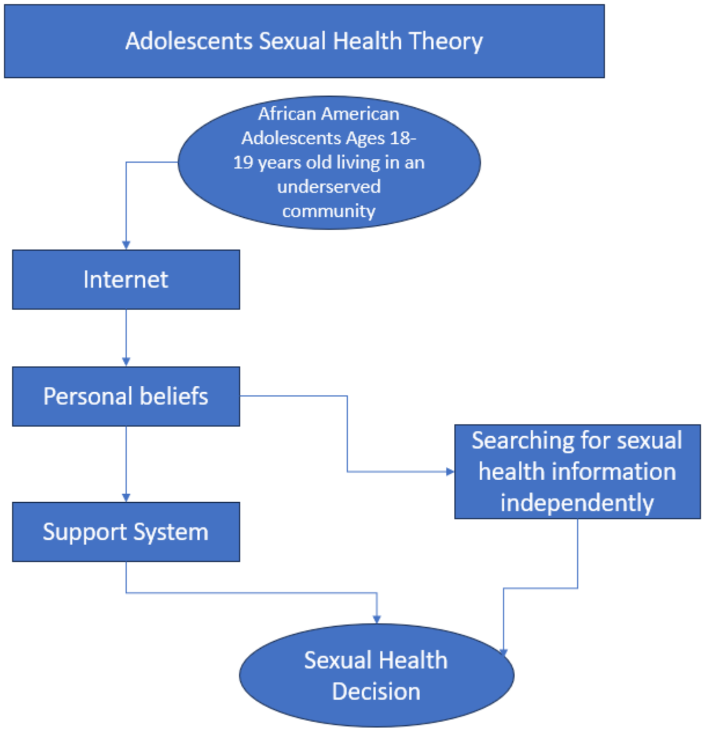
Theoretical Implications

Theoretical Implication 1: Adolescents Sexual Health Theory

The HBM served as the theoretical framework guiding this research. The HBM allowed me to explore the study participants' beliefs, knowledge, and thoughts. I then used the grounded, utilizing the research findings to develop a theory. From the research, I created the “adolescents sexual health” theory using the participants' views revealed within the data (Creswell & Poth, 2017). From the data, I theorized that African American adolescents aged 18–19 living in underserved communities will use the internet, their own beliefs, and a support system to guide their sexual health decision-making. I also theorized that in the absence of a support system, the study population will search for answers about sexual health on their own and that they will not include their cultural beliefs in their sexual health decision-making. Figure 9 illustrates the adolescents sexual health theory.

Figure 9

Adolescents Sexual Health Theory



Using the HBM, I examined the participants perceived seriousness, susceptibility, benefits, barriers, cues to action, and the push for self-efficacy. The data revealed that adolescents perceived contracting an STI as severe but did not perceive themselves as highly susceptible to contracting one as they believed they took proper actions to prevent this from occurring. Participants also shared their perceived benefits of not contracting an STI and the perceived barriers that prevent them from gaining needed sexual health education to make intelligent sexual health choices. I also explored the participants' cues to action and self-efficacy within the research and used them as the foundation to create a culturally competent health program. I used the adolescents sexual health theory to create a program that uses the internet usage, personal beliefs, support systems, and lack of support systems aspects of the theory to ensure program participants are receiving the sexual health knowledge they need. The A.C.T.I.V.A.T.E culturally competent health program/app relies on the adolescent's sexual health theory as its foundation and addresses all constructs of the HBM.

This research expands upon existing research by finding what beliefs, thoughts, and experiences lead to high adolescent STI rates and using those factors to create a program specifically for the study population. The research helps to further existing knowledge by highlighting the need to include cultural competence in a health program. Though the literature addressed the need for community interventions regarding increasing sexual health, this research extends those findings by suggesting that cultural competence is needed to ensure participants receive the knowledge in a way that connects and resonates with them. Cultural competence is integral to overcoming biases and barriers African American adolescents aged 18–19 years old face in their healthcare.

The research also showed the need to create in-person and virtual program versions. This novel contribution allows for a program to meet the needs of participants in the way that best meets their needs. Meeting these needs is important as it ensures that all types of people in the target population get service. The study shed light on how, in an increasingly technologically advancing society, developing programs that account for advancing technology is needed and ensures equal access to people.

Limitations and Delimitations

The limitations of this study were the study samples' age range and the geographical location of the study. Limiting the study to adolescents aged 18–19 did not allow the research to capture a broad range of adolescents' thoughts, beliefs, and experiences. An adolescent refers to someone who is 10–19 years old (WHO, 2019). The study participants' data would likely differ if younger adolescents were involved. Information from younger adolescents may have required different, more, or less information to incorporate into the designed program/app.

Another limitation was the geographical location of where I conducted the study. The study took place in Prince George's County, Maryland. This county is 60.7% Black/African American, has a mean *income of $91,124, and a homeownership rate of 62.2% (*Prince George's County, MD **|** Data USA*, n.d.).* This area did not allow a racially diverse community, which may have factored into the lack of data collected on biases experienced when receiving healthcare.

Recommendations for Future Research

Recommendations for future research include (a) using a broader age range for the study population, (b) conducting the research in a more diverse community, (c) including more research and interview questions that focus on participants' internet usage around the sexual health topic, and (d) including an electronic survey to collect interview questions. Including a broader age range for the study can allow the researcher to gain different perspectives on participants' knowledge and experiences regarding sexual health. This information can lead to the researcher finding more themes to incorporate into a culturally competent health program. Conducting this research in a more diverse community may also allow for more data collection about one's cultural beliefs and how they intertwine with their healthcare. A more diverse community may also lead to more insight into biases and barriers in healthcare the study population receives. This information can shed light on other ways to get the needed sexual health information to the study population to reduce STI rates.

Despite the research not having any direct questions about internet use, the majority of participants shared information about how they use the internet for sexual health knowledge. Including more research questions about how and why participants use the internet to learn about sexual health can help further ensure the development of a comprehensive program. It may include ensuring participants have adequate access to the internet to get the needed sexual health knowledge that will help lead to them not contracting an STI.

Including an electronic format to capture interview responses can lead to more open and transparent responses. Collecting data through an electronic survey may make participants more open to transparently answering questions about this topic. This format will allow participants to anonymously write their answers down instead of telling them to the researcher. Ensuring participants feel comfortable in this research can help lead to rich data for developing a culturally competent program.

Conclusion

This research focused on addressing the issue of STIs among African American adolescents aged 18–19 in underserved communities. The primary goal was to develop a culturally competent health program to reduce STI rates in this population. The grounded theory guided the research. I used the HBM as the theoretical framework and aimed to understand the lived experiences and knowledge gaps contributing to STI contraction among the study population.

The study involved 15 purposefully selected participants from working with the Enlightened Youth, an organization in Prince George's County, Maryland, that provides sexual health education. Data collection included one-on-one interviews, which I analyzed using MAXQDA qualitative analysis software. I identified eight key themes from the data: the importance of a healthy physical body, prevention, STI treatments, support, STI testing, internet access, personal cultural experiences, and perceived biases. These themes aided me in developing a culturally competent health program called A.C.T.I.V.A.T.E., which includes in-person sessions and a web-based app. The program addresses the HBM constructs and focuses on providing sexual health knowledge to adolescents. I used the HBM to construct a new theory, “The Adolescents Sexual Health Theory.” This research addresses the high rates of STIs among African American adolescents by developing an innovative program and app to promote informed and safe sexual decisions. It expands on existing research by examining the beliefs and experiences that influence STI rates in this population.

The study's limitations included the participants' limited age range and geographical location. Future researchers should consider broader age groups and more diverse communities, exploring internet usage in greater depth and incorporating electronic interview surveys. Overall, this research provides valuable insights into the development of culturally competent interventions to address STIs in underserved 18–19-year-old African American adolescent communities.

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APPENDICES

Appendix A: IRB Approval Letter

LIBERTY UNIVERSITY
INSTITUTIONAL REVIEW BOARD

May 31, 2023
Brandolyn Burks
Sheila Davis

Re: IRB Approval - IRB-FY22-23-1593 Reducing Sexually Transmitted Infections in African American Teenage Adolescents: Developing a Culturally Competent Health Program for Underserved Communities

Dear Brandolyn Burks, Sheila Davis,
We are pleased to inform you that your study has been approved by the Liberty University Institutional Review Board (IRB). This approval is extended to you for one year from the following date: May 31, 2023. If you need to make changes to the methodology as it pertains to human subjects, you must submit a modification to the IRB. Modifications can be completed through your Cayuse IRB account.

Your study falls under the expedited review category (45 CFR 46.110), which is applicable to specific, minimal risk studies and minor changes to approved studies for the following reason(s):

7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

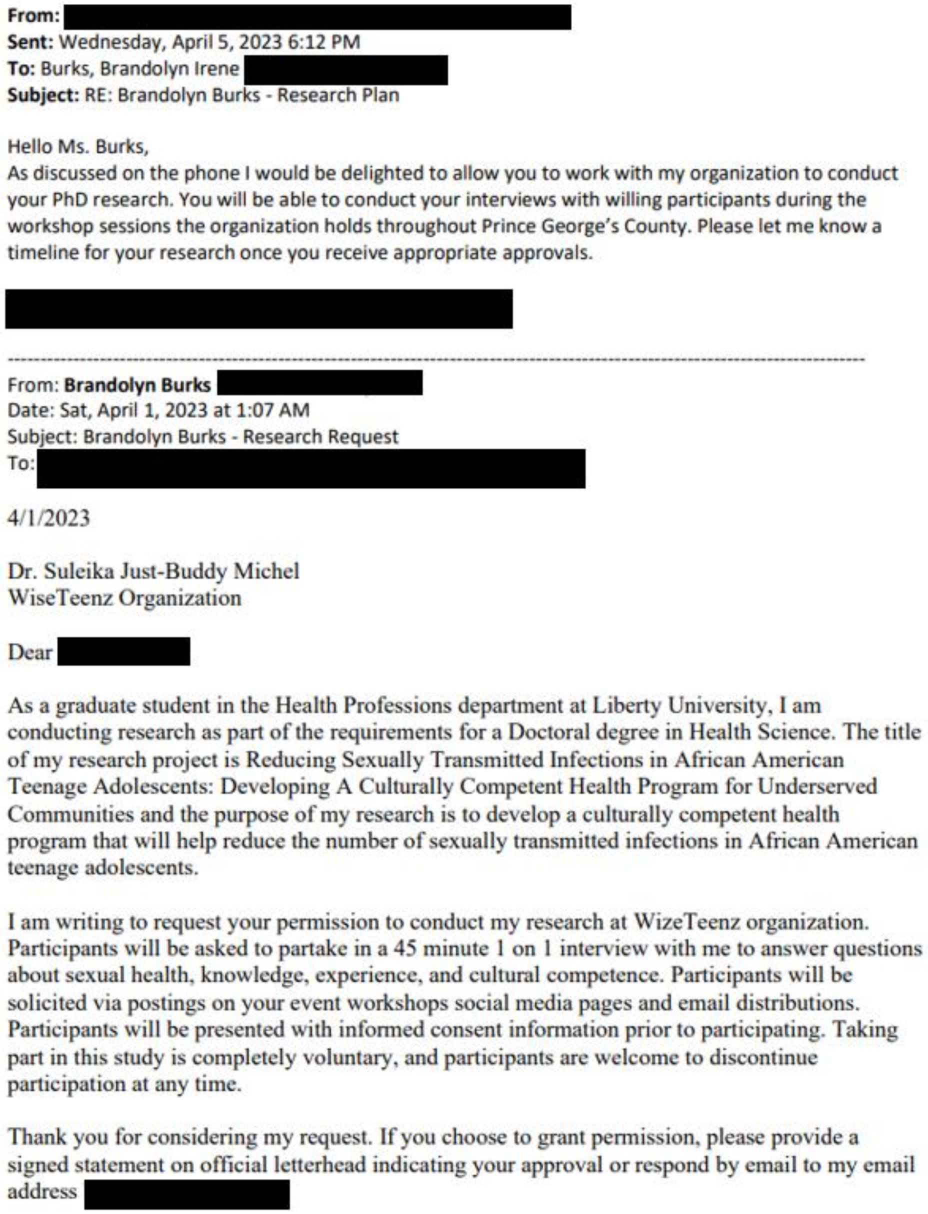
Your stamped consent form(s) and final versions of your study documents can be found under the Attachments tab within the Submission Details section of your study on Cayuse IRB. Your stamped consent form(s) should be copied and used to gain the consent of your research participants. If you plan to provide your consent information electronically, the contents of the attached consent document(s) should be made available without alteration.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office

Appendix B: Site Permission Approval



From: [redacted]
Sent: Wednesday, April 5, 2023 6:12 PM
To: Burks, Brandolyn Irene [redacted]
Subject: RE: Brandolyn Burks - Research Plan

Hello Ms. Burks,
As discussed on the phone I would be delighted to allow you to work with my organization to conduct your PhD research. You will be able to conduct your interviews with willing participants during the workshop sessions the organization holds throughout Prince George's County. Please let me know a timeline for your research once you receive appropriate approvals.

[redacted]

From: **Brandolyn Burks** [redacted]
Date: Sat, April 1, 2023 at 1:07 AM
Subject: Brandolyn Burks - Research Request
To: [redacted]

4/1/2023

Dr. Suleika Just-Buddy Michel
WiseTeenz Organization

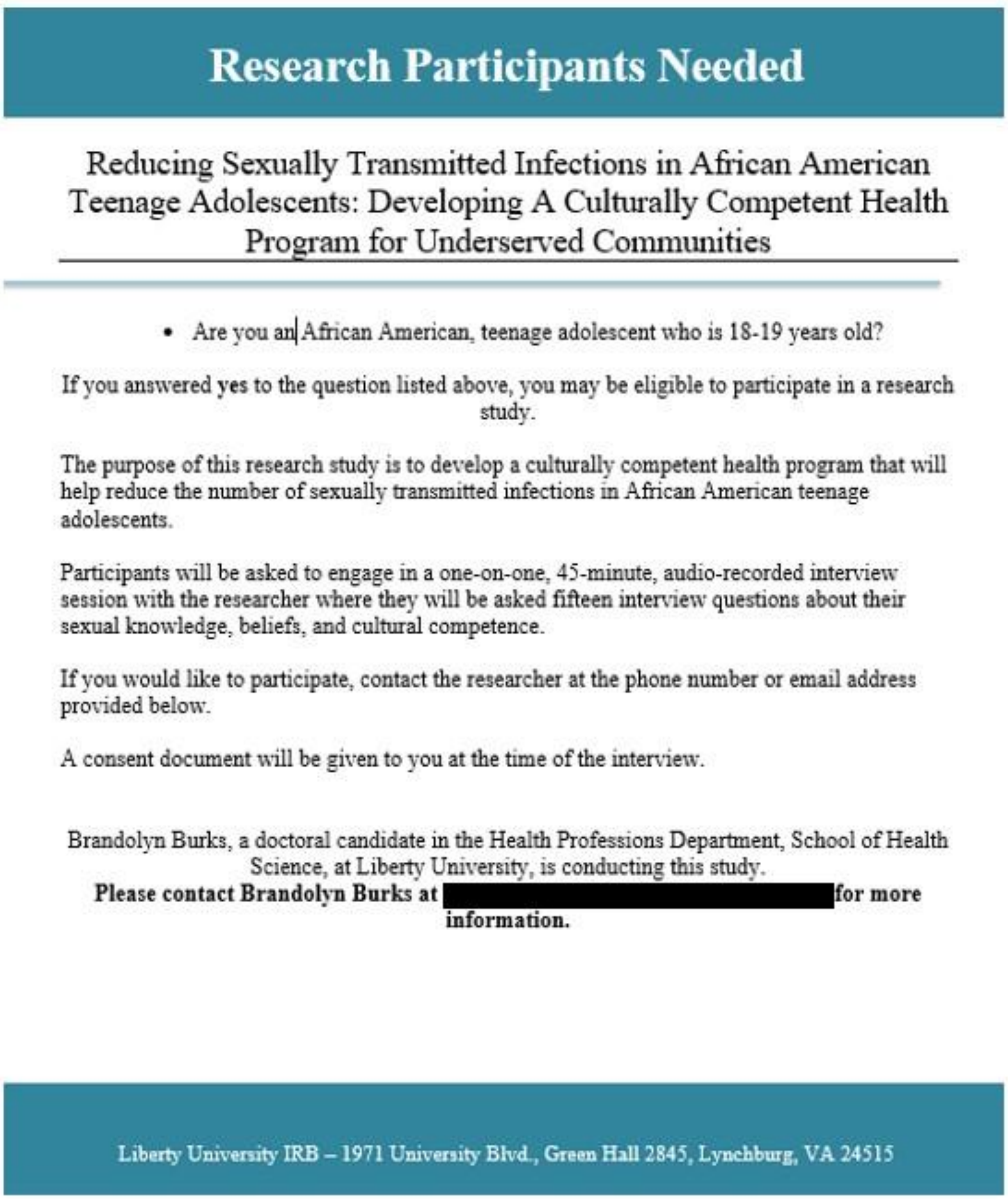
Dear [redacted]

As a graduate student in the Health Professions department at Liberty University, I am conducting research as part of the requirements for a Doctoral degree in Health Science. The title of my research project is Reducing Sexually Transmitted Infections in African American Teenage Adolescents: Developing A Culturally Competent Health Program for Underserved Communities and the purpose of my research is to develop a culturally competent health program that will help reduce the number of sexually transmitted infections in African American teenage adolescents.

I am writing to request your permission to conduct my research at WizeTeenz organization. Participants will be asked to partake in a 45 minute 1 on 1 interview with me to answer questions about sexual health, knowledge, experience, and cultural competence. Participants will be solicited via postings on your event workshops social media pages and email distributions. Participants will be presented with informed consent information prior to participating. Taking part in this study is completely voluntary, and participants are welcome to discontinue participation at any time.

Thank you for considering my request. If you choose to grant permission, please provide a signed statement on official letterhead indicating your approval or respond by email to my email address [redacted]

Appendix C: Recruitment Flyer



Research Participants Needed

Reducing Sexually Transmitted Infections in African American Teenage Adolescents: Developing A Culturally Competent Health Program for Underserved Communities

- Are you an African American, teenage adolescent who is 18-19 years old?

If you answered yes to the question listed above, you may be eligible to participate in a research study.

The purpose of this research study is to develop a culturally competent health program that will help reduce the number of sexually transmitted infections in African American teenage adolescents.

Participants will be asked to engage in a one-on-one, 45-minute, audio-recorded interview session with the researcher where they will be asked fifteen interview questions about their sexual knowledge, beliefs, and cultural competence.

If you would like to participate, contact the researcher at the phone number or email address provided below.

A consent document will be given to you at the time of the interview.

Brandolyn Burks, a doctoral candidate in the Health Professions Department, School of Health Science, at Liberty University, is conducting this study.
Please contact Brandolyn Burks at [redacted] for more information.

Liberty University IRB – 1971 University Blvd., Green Hall 2845, Lynchburg, VA 24515

Appendix D: Recruitment Email

Dear Potential Participant,

As a doctoral candidate in the Health Professions department at Liberty University, I am conducting research as part of the requirements for a Doctor of Philosophy in Health Science degree. The purpose of my research is to develop a culturally competent health program that will help reduce the number of sexually transmitted infections in African American teenage adolescents and I am writing to invite you to join my study.

Participants must be African American, teenage adolescents who are ages 18–19 years old. Participants will be asked to participate in a one-on-one, audio-recorded interview session that consists of 15 questions. It should take approximately 45 minutes to complete the procedure listed. Names and other identifying information will be requested as part of the study, but participant identities will not be disclosed and will be kept confidential.

To participate, please contact me at [redacted] to confirm your eligibility and schedule an interview.

A consent document will be given to you at the time of the interview. The consent document contains additional information about my research. If you choose to participate you will need to sign the consent document and return it to me at the time of the interview at the community center study location.

Sincerely,
Brandolyn Burks
Doctoral Candidate
[redacted]

Appendix E: Participant Consent Form

Consent Form

Title: Reducing Sexually Transmitted Infections in African American Teenage Adolescents: Developing A Culturally Competent Health Program for Underserved Communities
Principal Investigator: Brandolyn Burks, Doctoral Candidate, Health Professions Department, Liberty University

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Invitation to be Part of a Research Study:

You are being invited to take part in a research study. To participate, you must be an African American teenage adolescent who is between the ages of 18 and 19 years old. Taking part in this research study is voluntary.

Please take time to read this entire form and ask questions before deciding to take part in this research.

What is the study about and why is it being done?

The purpose of this study is to develop a culturally competent health program that will help reduce the number of sexually transmitted infections in African American teenage adolescents.

What will happen if you take part in this study?

After consenting to being in this study, you will take part in an audio-recorded, one-on-one, 45-minute interview session with the researcher in person. During the session you will be asked fifteen interview questions about your sexual knowledge, beliefs, and cultural competence.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How could you or others benefit from this Study?

Participants should not expect to receive a direct benefit from partaking in this study. However, benefits to society will include contributing to the development of a culturally competent health program for underserved communities.

How will personal information be protected?

The data from this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Data will be stored securely, and only the researcher and members of her doctoral committee will have access to it. Participant responses will be kept confidential by replacing names with pseudonyms. Interviews will be conducted in a location where others will not easily overhear the conversation. Data will be stored on a password-locked computer. After three years all electronic data will be deleted. Recordings of interviews will be stored for three years and then deleted. The research and members of her doctoral committee will have access to the recordings.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any questions or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address or phone number included in the next paragraph. Should you choose to withdraw, the data collected from you will be destroyed immediately and will not be included in the study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is Brandolyn Burks. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at [redacted] and/or [redacted]. You may also contact the researcher's faculty sponsor, Dr. Sheila Davis, at [redacted].

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the IRB. Our physical address is Institutional Review Board, 1971 University Blvd., Green Hall Ste. 2845, Lynchburg, VA, 24515; our phone number is 434-592-5530, and our email address is irb@liberty.edu.

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By signing this document, you are agreeing to be in this study. Make sure you understand what the study is about before you sign. You will be given a copy of this document for your records. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

☐ The researcher has my permission to audio-record me as part of my participation in this study.

____

Printed Subject Name

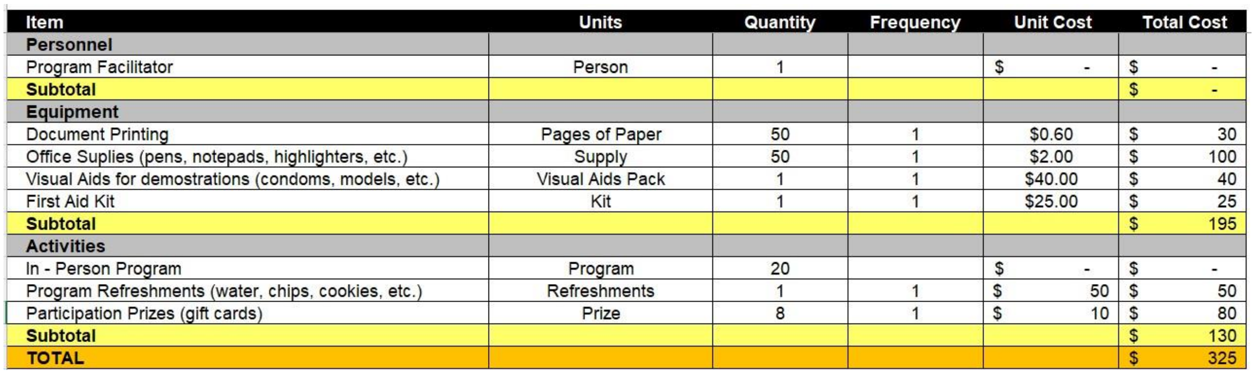
____

Signature & Date

Appendix F: Participant Demographic Form

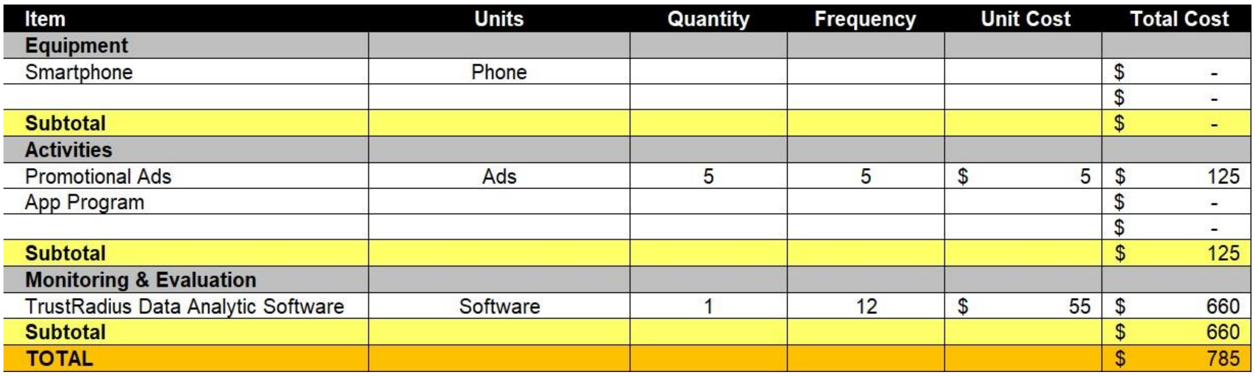
Name: ____
Age: ____
Race: ____
Gender: ____
Zip Code: ____
Grade Level: ____

Appendix G: In-Person Program Format Budget



Item	Units	Quantity	Frequency	Unit Cost	Total Cost
Personnel					
Program Facilitator	Person	1		$ -	$ -
Subtotal					$ -
Equipment					
Document Printing	Pages of Paper	50	1	$0.60	$ 30
Office Suplies (pens, notepads, highlighters, etc.)	Supply	50	1	$2.00	$ 100
Visual Aids for demostrations (condoms, models, etc.)	Visual Aids Pack	1	1	$40.00	$ 40
First Aid Kit	Kit	1	1	$25.00	$ 25
Subtotal					$ 195
Activities					
In - Person Program	Program	20		$ -	$ -
Program Refreshments (water, chips, cookies, etc.)	Refreshments	1	1	$ 50	$ 50
Participation Prizes (gift cards)	Prize	8	1	$ 10	$ 80
Subtotal					$ 130
TOTAL					$ 325

Appendix H: App Program Format Budget



Item	Units	Quantity	Frequency	Unit Cost	Total Cost
Equipment					
Smartphone	Phone				$ -
					$ -
Subtotal					$ -
Activities					
Promotional Ads	Ads	5	5	$ 5	$ 125
App Program					$ -
					$ -
Subtotal					$ 125
Monitoring & Evaluation					
TrustRadius Data Analytic Software	Software	1	12	$ 55	$ 660
Subtotal					$ 660
TOTAL					$ 785