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# A Qualitative Assessment of Screening Behavior for Sexually Transmitted Diseases Among African American Women in Milwaukee Using the Integrated Behavioral Model

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A QUALITATIVE ASSESSMENT OF SCREENING BEHAVIOR FOR SEXUALLY  
TRANSMITTED DISEASES AMONG AFRICAN AMERICAN WOMEN IN  
MILWAUKEE USING THE INTEGRATED BEHAVIORAL MODEL

by

Bernadette. I. Okwu

A Dissertation Submitted in  
Partial Fulfillment of the  
Requirements for the Degree of

Doctor of Philosophy  
in Public Health

at

The University of Wisconsin-Milwaukee

May 2022

## ABSTRACT

### A QUALITATIVE ASSESSMENT OF SCREENING BEHAVIOR FOR SEXUALLY TRANSMITTED DISEASES AMONG AFRICAN AMERICAN WOMEN IN MILWAUKEE USING THE INTEGRATED BEHAVIORAL MODEL

by

Bernadette. I. Okwu

The University of Wisconsin-Milwaukee 2022  
Under the Supervision of Professor Lance Weinhardt

Sexually transmitted diseases remain a notable public health problem in the United States. It is estimated that 1 in 5 people have a sexually transmitted disease in the country. African Americans are disproportionately affected. The situation locally in Milwaukee, Wisconsin mirrors this national trend. African American women are especially vulnerable to sexually transmitted diseases. This situation is further complicated by the fact that some of the more common sexually transmitted diseases may be present without symptoms. It is imperative that women seek testing to enable them to identify and effectively combat sexually transmitted diseases. As such, there is need to explore and understand some of the contextual factors that influence African American women's decision to seek testing for sexually transmitted diseases in Milwaukee. The Integrated Behavioral Model was used as a framework to guide this study. The study involved conducting a series of twenty-two semi-structured interviews that yielded qualitative data related to attitude, norms, personal agency, and environmental factors linked to testing for sexually transmitted diseases from a community-based sample of African American women in Milwaukee. Thematic analysis was used to evaluate the interview transcripts to develop an understanding of the importance of these factors to women as they engage in the

preventive health behavior of testing for sexually transmitted diseases. Through this study, seven main themes were identified as important factors to women's decision to test for STDs. The themes include personal factors, racial issues, physician-related factors, testing issues, transportation, personal network, and community resources. The findings of this study help to illuminate some of the challenges African American women face in seeking STD testing. These factors can be targeted for future STD health promotion interventions in urban metropolitan areas.

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# A QUALITATIVE ASSESSMENT OF SCREENING BEHAVIOR FOR SEXUALLY TRANSMITTED DISEASES AMONG AFRICAN AMERICAN WOMEN IN MILWAUKEE USING THE INTEGRATED BEHAVIORAL MODEL

## CHAPTER 1: INTRODUCTION

### Background

The prevalence of sexually transmitted diseases (STDs) is rising in the United States despite concerted medical and public health efforts. It is estimated that 1 in 5 people have a STDs and about 68 million people in the United States were reported to have these infections in 2018 (Center for Disease Control, 2021a). STDs are of significant public health concern because they have substantial financial implications in terms of physical impact and health care cost. The direct medical cost of treating new STDs in the United States is estimated to be about 16 billion dollars (CDC, 2021a).

### Statement of the Problem

The most common STDs are chlamydia, gonorrhea, and syphilis. Chlamydia is the most commonly reported condition in the United States with 1.8 million cases reported in 2018, while there were about 583,405 cases of gonorrhea and 35,063 cases of primary and secondary syphilis, according to the Center for Disease Control and Prevention (CDC, 2019a). The prevalence of STDs has increased over time. Chlamydia has seen a 19% increase since 2014 while gonorrhea increased by 63%. Syphilis on the other hand, has been on the rise in form of primary and secondary syphilis, which increased by 71% since 2014, while congenital syphilis cases increased by 185% over the same period (CDC, 2019a).

In the state of Wisconsin alone, 28,027 cases of chlamydia, 7,882 cases of gonorrhea and 152 cases of primary and secondary syphilis were reported in 2018 (CDC, 2019a). Milwaukee county recorded 11,221 cases of chlamydia, 4,552 cases of gonorrhea and 220 cases of syphilis in 2018. This report indicated that Milwaukee County had the highest rates of all three STDs (44.8%) compared to all other counties in the state. Overall, in Milwaukee County, a total of 9,653 cases (59.8%) of all three STDs reported were among women while 6,474 cases (40.1%) were reported among men. African Americans bore 64.2% of the total burden of these three STDs in the county for this period (Wisconsin Department of Health Services 2019).

Concerning the City of Milwaukee, data obtained earlier on STDs in 2016, indicated that there were 9,627 confirmed cases of chlamydia (1,617.8 cases per 100,000), 4,039 confirmed cases of gonorrhea (679.0 cases per 100,000) and 41 confirmed primary and secondary syphilis cases (6.9 cases per 100,000) (City of Milwaukee Health Department 2017). This data from the county makes it clear that African Americans, especially women, are vulnerable to STDs. As such, the problem demands further investigation and necessitates allocation of resources to address the various problems related to STDs among African Americans.

### **Effects of Common Sexually Transmitted Diseases**

Chlamydia is caused by *Chlamydia trachomatis* and can result in serious complications if not properly treated (CDC, 2018). Chlamydia infection is often asymptomatic and has been referred to as a silent epidemic or silent infection (Lorimer & McDaid, 2013). But despite the largely asymptomatic course, chlamydia can result in serious complications among women and can cause disease conditions like pelvic inflammatory disease, infertility, and ectopic pregnancy (McDonagh et al, 2017). Chronic pelvic pain can also result from pelvic inflammatory disease that arises from untreated chlamydia infection (CDC, 2018). Women are an important population

where STDs are concerned because pregnant women who are infected with chlamydia can pass the infection to their infants during delivery and the infant can develop ophthalmia neonatorum which can potentially lead to pneumonia and blindness (CDC, 2018).

*Neisseria gonorrhoea* is the organism responsible for gonorrhoea infection. Most often, the disease is an uncomplicated mucosal infection, but if left untreated, serious complications such as sterility, ectopic pregnancy, septic arthritis, and occasionally death can result (Hill, Masters & Wachter, 2016). Additionally, in pregnant women first trimester abortion can occur, and neonatal conjunctivitis could also be the result of the infection which could lead to blindness in the newborn. Furthermore, there is evidence that infection with gonorrhoea facilitates the transmission of HIV (World Health Organization, 2012). Also pertinent to public health is the acknowledgement by the CDC that the social determinants of health such as socioeconomic status, discrimination, and access to quality health care could contribute to the burden of gonorrhoea in a community (CDC 2018). A different study also acknowledges the influence of broader socioeconomic factors in the elevated incidence of gonorrhoea in certain populations. This study identified individual factors such as number of partners, as important but not enough to explain this pattern. Furthermore, local network factors like preferential mixing with partners of the same racial/ethnic group was also identified as contributing to this trend (Tuite et al, 2018). A study on STDs that was conducted by Laumann and Youm (1999) using a national survey stated that African Americans have increased prevalence of bacterial diseases and attributed this to the patterns of sexual networks within and between different racial/ethnic groups. This study stated that the higher prevalence of STDs among African Americans is closely linked to their choice of partners as their partner choices are often more segregated (assortative mating) than other groups (Laumann & Youm 1999).

Syphilis is a genital ulcerative disease that is caused by *Treponema pallidum*. Syphilis has several complications depending on the stage and is also associated with increased transmission of HIV (CDC, 2017). Individuals infected with syphilis typically experience the disease in primary, secondary, latent, and tertiary stages over a period of about 10 years. Primary syphilis presents with a painless single ulcer or multiple lesions on the genitals. It could also occur on other body sites involved in sexual interaction. Three weeks after the onset of symptoms, regional lymphadenopathy develops, and the primary lesions usually resolve naturally. After 6-8 weeks when key lesions resolve, consequent manifestations begin and warning signs at this stage of the infection will include fever, headache and a maculopapular rash on the flank, shoulders, arm, chest or back. Additionally, the disease may entail wounds that affect the palms of the hands and soles of the feet. As signs and symptoms of the disease decrease, patients enter a latent phase which can last many years. Research indicates that 15–40% of untreated individuals will develop tertiary syphilis, which can appear as destructive cardiac or neurological conditions, severe skin, or visceral wounds (gummas) or bony involvement (Peeling et al, 2017). Additionally, the growing rates of syphilis among women has resulted in a rise in congenital syphilis among newborns because of transmission of the diseases during pregnancy (CDC, 2017). The effect of syphilis on newborns could be still birth, or infant death (CDC, 2018).

It is also documented that patients with repeated STDs are at increased risk for HIV infection mainly because of their continued sexual risk behaviors. Additional evidence suggests that infection with STDs increases HIV risk by two-to-five-fold, irrespective of associated symptoms (CDC, 1998). This kind of risk exists because of a person having a sore or inflammation from an STD allows transmission of HIV infection that would have been stopped



by an intact layer of skin. People who have HIV are more likely to shed the HIV virus when they have conditions like urethritis or a genital ulcer (CDC, 2019b).

### **Racial Health Disparities**

Racial disparities exist in relation to STDs as African Americans are disproportionately at higher risk of STDs in the United States (Andrasik, Nguyen, George & Kajumulo, 2014; Dauria et al, 2015; Floyd & Brown, 2013; Hamilton & Morris, 2015). According to the CDC, African Americans are 5.6 times more likely to contract chlamydia, 8.3 times more likely to contract gonorrhea and 4.5 times more likely to contract primary and secondary syphilis compared to Whites (CDC, 2017). The rate of chlamydia is higher among women; it is estimated that in the United States, 1 in 20 sexually active young women ages 14-24 years have chlamydia infection. Regarding gonorrhea and syphilis, the rates are higher among men compared to women (CDC, 2018).

African Americans are documented to be the least healthy ethnic group in the United States. This situation may be closely linked to their past history of slavery, where for more than 250 years African Americans were enslaved and brutalized physically, socially, and mentally. Even after slavery was abolished, African Americans could not immediately start to live healthier lives; instead they continue to experience systematic discrimination and oppression that persists till present day (Noonan, Velasco-Mondragon, & Wagner, 2016). The experience of institutional and interpersonal racism among African Americans has resulted in major physical and mental health consequences, including mortality, hypertension, depression, anxiety, and psychological distress (Bleich et al 2019). Further, African American women have the shortest life expectancy of all racial/ethnic gender groups (Richardson & Brown, 2016). One of the possible explanations presented for the poorer health of African Americans is the ‘weathering hypothesis’ which suggests that African Americans may experience early health deterioration

because of the cumulative effect of repeated experience with social or economic adversity and political marginalization (Geronimus, 1992). This may stem from the experience of stress that is an integral part of living in a race-conscious society which tends to stigmatize and disadvantage African Americans, causing disproportionate physiological deterioration. The net result of all of these stressors is the reported experiences of poorer health at earlier ages among African Americans compared to Whites. This deterioration in health accumulates and results in racial inequality in health through middle adulthood (Geronimus, Hicken, Keene & Bound, 2006).

Likewise, Gee and Ford (2011) stated that the health status of African Americans may be related to factors such as racism, poverty, and the resultant social and health inequities they experience. Although the era of slavery officially ended, racism persists in different institutions and through attitudes that specifically marginalize African American women. Racism is persistent and has been identified as a significant driver of sexual and reproductive health disparities of African American women in the United States (Prather et al, 2018). According to Andrasik and colleagues (2014) the historical trauma, or the collective complex trauma perpetrated against African Americans, caused intergenerational psychological and social responses to traumatic events at different levels including the individual, family, and community levels. Also, the social determinants of health linked with institutionalized and interpersonal racism like poverty, unemployment, and residential segregation, tend to make African American women more vulnerable to negative sexual and reproductive health outcomes. Further, the quality and types of care received by African Americans may also be affected by discriminatory healthcare practices that are linked to a negative historical narrative of racial inferiority (Prather et al, 2018). This notion is further supported by research finding that African American women are more likely to delay seeking care from health care providers. As such, they use health care

services to a lesser extent compared to White women, and this situation contributes to potentially increasing their risk of disease conditions like STDs (Oser et al, 2017).

### **Race and Ethnicity Theories**

Despite the poorer health situation of African Americans, public health researchers continue to approach important issues that affect African Americans such as health disparities, discrimination, and residential segregation which are linked to racism without clearly admitting the connections of these factors to racism. This approach undermines or disguises the impact that racism has on racial health disparities and enables the perpetuation of these inequities (Garcia & Sharif, 2015). The use of different perspectives and frameworks have been suggested to address the health concerns of African Americans. One of the newer approaches for women's health research is 'intersectionality' which was coined by Kimberle Crenshaw (1989, 1991) who used the term to speak to the unique experiences of marginalization experienced by Black women.

Intersectionality places a particular focus on disparities among marginalized groups and attempts to analyze the various interacting social factors affecting human lives, including social location, health status, and quality of life (Hankivisky et al, 2010). This framework suggests that social categories like race, ethnicity, gender, sexual orientation, socioeconomic status intersect at the micro level of the individual experience to reflect several interlocking systems of privilege and oppression at the macro, social-structural level like racism, sexism, heterosexism (Bowleg, 2012). Intersectionality refers to African Americans simultaneous positioning at the disadvantaged point of race, gender, and class hierarchies (Collins, 2000). As such, from an intersectionality point of view, one cannot attempt to understand or address health disparities that affect African Americans through a single analytical category such as gender or race or sexual orientation, as this ignores the complex ways in which multiple social categories intersect with

social discrimination based on those multiple intersecting categories to create disparity and social inequality in health (Bowleg, 2012).

Another suggested approach for race-related research is Critical Race Theory (CRT) as this offers a model for investigating the origin of health disparities (Ford & Airhihenbuwa, 2010a). CRT is an emerging transdisciplinary, race-equity research approach that was developed from legal studies, which has recently come into use in public health. This approach to race focused research is grounded in social justice. The use of the CRT's approach for research and practice helps to create a better understanding of modern-day racial experiences, expand the language used to talk about complicated racial concepts, and confront existing racial hierarchies (Ford & Airhihenbuwa 2010a). The core tenets of critical race theory are racialization, race consciousness, social location and its aim is not only to understand health inequities but to eliminate them (Ford & Airhihenbuwa 2010b).

### **Challenges of Race and Ethnicity Theories**

Although, race and ethnicity focused theories have been developed to explain health disparities, there are some theoretical and methodological challenges that have been identified with these frameworks. According to Bowleg (2012), challenges that are important to the incorporation of intersectionality within public health exist. These include determining which social categories intersectionality should encompass and accepting that intersectionality was not designed to forecast behavior, mental processes, or health. An additional challenge to the use of intersectionality as a framework is the issue of how to change a perspective that was created mainly as an analytical framework into one that can empirically investigate several intersecting social identities and resultant multiple macrolevel structural inequality. There is also agreement about the lack of knowledge as to how to conduct intersectionality research (Bowleg, 2012).

Similarly, Hankivisky and colleagues (2010) stated that intersectionality has not been used to a great extent because of the inadequate advancement made in developing theoretically informed and methodologically sound approaches for its application in health research (Hankivisky et al, 2010). When intersectionality is used, in order to convert this theoretical insight to research, there is a need to reconceptualize the meaning and consequences of social categories. This process may take a researcher further away from an approach in which social categories are operationalized through demographic items that have self-evident meanings (Cole, 2009).

Concerning Critical Race Theory (CRT), Ford and Airhihenbuwa (2010a) clearly state that CRT is different from behavior change theories and epidemiological theories. Instead, it was developed as an iterative methodology for aiding researchers to stay focused on issues around equity while they engage in scholarship or practice in their fields (Ford & Airhihenbuwa 2010a). More recently, Ford and Airhihenbuwa (2018) stated that despite the growth of public health interest in critical race theory over the last ten years, epistemological differences still exist between critical race theory and public health since CRT has its origin in legal studies. To apply CRT empirically would necessitate translational tools that account for these differences. Some of the differences that exist between critical race theory and public health are around what represent theory, research, and method. Differences also exist in underlying notions about science i.e., that science is objective and that a field's main evidence base provides its best approximation of the truth. Furthermore, critical race theory and public health disagree on how they understand a field's core knowledge base. In science, a field's knowledge base centralizes the production of knowledge; so that each new study adds incremental evidence to an established body of knowledge. Yet, in critical race theory it is important to generate knowledge from outside a discipline's core knowledge base (Ford & Airhihenbuwa 2018). Further, there have been

numerous critiques of this theory for not presenting testable hypotheses or measurable outcomes (e.g., Farber, & Sherry, 1997).

### **Disparities in the Spread of STDs**

The persistence of STD disparities among African Americans, may in part be explained by the ineffectiveness of the strategies outlined for prevention in communities. This may be due to factors such as limited access, acceptability, appropriateness, and affordability of services which may contribute to decreasing the effectiveness of these strategies for African American communities (Barrow et al, 2008). Different reasons have been cited for the inequities that exist in health across racial and ethnic groups. These reasons are stated to be driven by the interplay of multilevel factors including structural, systems, and provider factors (Braverman & Gottlieb, 2014). A study by Cipres and colleagues considered reasons for disparities in STDs as multifactorial and these factors include both structural and community factors. The paper also stated that some African American women were likely at more risk of contracting STDs because of higher risk partners which are connected to higher incarceration rates among African Americans (Cipres et al, 2017). Moreover, the effect of the criminal justice system on some African American men leaves them unemployed, living in poverty, having higher mortality and incarceration rates (Andrasik, Nguyen, George & Kajumolo, 2014). Research also found that census tracts with growing male incarceration rates had more rapid increase in new cases of STDs (Dauria, Elifson, Arriola, Wingood & Cooper, 2015).

For STD transmission to occur, the behaviors of both partners are important. The chance of acquiring an STD depends as much on the behavior of a partner as it does on an individual's behavior (Hamilton & Morris, 2015). Several studies reported that an important risk behavior that is commonly practiced and appear to put many African Americans at risk of STDs compared

to other racial groups is concurrent sexual partnerships (Adimora et al, 2017; Hess et al, 2012; Nunn et al, 2012; Waldrop-Valverde et al, 2013). Concurrent sexual partnership increases the risk of STDs among individuals who engage in this behavior (Adimora, Schoenbach, Taylor, Khan & Schwartz, 2011; Andrasik, Nguyen, George & Kajumulo, 2014; Hess et al, 2012; Nunn et al, 2014; Senn, Scott-Sheldon, Seward, Wright & Carey, 2010). This practice increases the risk of STDs like chlamydia, gonorrhea, syphilis, and HIV infections on both individual and population levels (Hess et al, 2012). Another issue of importance to the health disparities that exist in STDs among African American women is the issue of transactional sex. Dunkle and colleagues (2010) in a national survey explored links among economically motivated relationships, transactional sex, and risk behavior related to STDs and HIV transmission among low income unmarried African American and White women. They found that African American women were more likely than White women to report starting a relationship for economic reasons and were also more likely to have transactional sex with someone who was not a regular partner. These behaviors were all associated with lack of education, experience of economic hardship, need to care for dependents, and increased levels of STD/HIV risk (Dunkle, Wingood, Camp & DiClemente, 2010).

In a study that examined risk factors related to STDs, Floyd & Brown (2013) described attitudes about issues related to drug dealing, the prevalence of sexual partnerships with males involved in illegal drug economies, and STD rates among non-drug-dependent African American women living in low socioeconomic areas. The results of their research suggest that sexual partnerships with males involved in the distribution of drugs are prevalent in the study sample and that these partnerships may play a significant role in the spread of STDs among low-risk

females, as drug dealers possibly serve as a link between higher risk drug and prison populations and lower risk female populations (Floyd & Brown, 2013).

Environmental and neighborhood factors also contribute to STD disparities. Poor neighborhoods with high concentration of African American residents are reported to have excessively high STD rates (Fichtenberg, Jennings, Glass & Ellen 2010). Neighborhoods that are deteriorated and have high alcohol outlet density have also been linked to high STD rates (Avey et al, 2013). Likewise, women living in high-poverty areas were significantly more likely than those living in low poverty areas to have multiple chlamydia diagnoses (Biello, Pettigrew & Niccolai, 2011), while African Americans living in segregated areas appear to be at higher risk for gonorrhea than those living in non-segregated areas (Biello, Niccolai, Kershaw, Lin, & Ickovics, 2013). This may be in part due to the fact that African Americans are faced with persistent residential segregation that result in them living in neighborhoods with a high concentration of poverty, drug use and other harmful effects that adversely influence the difficult socioeconomic conditions that both African American men and women face. This situation may also affect partner selection, women's bargaining power, sexual availability, and both genders' participation in sexual risk behaviors (Andrasik, Nguyen, George & Kajumolo, 2014). Additionally, in discussing neighborhood characteristics and STDs, features of the areas where people live such as imbalanced male-to-female sex ratios, alcohol outlet density, and incarceration rates, are also associated with STD/HIV transmission (Linton et al, 2017).

Because neighborhood factors can also affect travel time to health care facilities, one study assessed the association between travel time to a healthcare provider and the likelihood of testing positive for one of three STDs among African American adult study participants living in public housing. The study found a curvilinear relationship between travel time and STD status. When



travel time was < 48 minutes, a positive relationship existed between travel time and the odds of testing positive for an STD, while an inverse relationship existed when travel time was  $\geq$  48 minutes (Booney et al, 2012). Furthermore, poor health care access may increase the chances of STDs transmission and endemicity by increasing the percentage of the population with untreated STDs. This tends to increase the chances of women being exposed to an infected sexual partner. It is also stated that people at increased risk of STDs/HIV tend to live closer to their sexual partners than do people from lower risk populations (Haley et al, 2018).

Concerning testing for STDs, a paper discussed pattern of testing for these diseases among healthcare providers and revealed that testing often differed by patients' race/ethnicity, which may further propagate disparities in STDs (Cipres et al, 2017). Furthermore, to provide a better understanding of factors that influence STDs, Prather and colleagues identified factors like limited education, unemployment, lack of quality care, distrust of physicians, and negative perceptions of the healthcare system as potential barriers to STD and HIV prevention, treatment, and care (Prather, Fuller, Marshall, & Jeffries 2016). Regarding interpersonal relationships and communication between health care providers and patients, patients who feel understood and respected by their health care providers are more likely to reveal information about their health while patients who do not feel the same way are less likely to follow through with seeking health care services (Adebayo et al, 2019). The disparities related to STD transmission, treatment and care are evident and need to be explored and solutions proffered. In so doing, effort can be made to meet Healthy People 2020's main goals of eliminating disparities to achieve health equity and improve the health of all groups (CDC, 2013).

## **Screening for Sexually Transmitted Diseases**

In response to the problems posed by STDs, the CDC recommends three ways to approach prevention. These include recommendations for individuals to: (1) engage in open conversation about STDs with partners and healthcare providers, (2) get tested to know if they have the disease and, (3) work closely with healthcare providers to get the right treatment for themselves and their partners (CDC, 2019a). The 2015 STD treatment guidelines recommend screening for chlamydia and gonorrhea for sexually active women under 25 years and for sexually active women above 25 years who are at increased risk. The recommendations also include retesting three months after treatment. The recommendations for syphilis are different and state that all pregnant women at first prenatal visit are expected to be tested, with retesting being done in early third trimester and at time of delivery (CDC, 2015).

Despite the recommendations and data illustrating that screening for chlamydia can reduce the incidences of conditions like pelvic inflammatory disease, there is only modest evidence of increased screening for chlamydia among sexually active women. Data from the CDC indicates an increase in testing rates; chlamydia screening rates for sexually active women 16-24 years with commercial health maintenance organization plans increased from 23.1% to 48.9% between 2001 and 2017 and among sexually active women of the same age who are covered by Medicaid, chlamydia screening rates increased from 40.4% to 57.6% for the same time period. Although, testing rates have increased, many women at risk are still not being tested partly because of lack of awareness among providers and limited resources (CDC, 2018).

The numbers of reported cases of gonorrhea, especially from low-resource settings, are considerably smaller. The reason may be due to suboptimal diagnostics like lack of appropriate methods, or access to testing, and use of syndromic management. Additionally, incomplete case

reporting and epidemiological surveillance were also important factors cited (Unemo & Shafer, 2014). Furthermore, information on incidence and prevalence of syphilis are mostly based on cases reported to state health departments and summaries generated by the CDC. So, it is not surprising that reported rates probably underestimate true rates as STD screening and case reporting may be low in actual practice (Cantor et al, 2016).

Research characterizing the population that engage in testing for STDs/HIV has found that women, people who identify as Blacks, and individuals with multiple sexual partners are more likely than others to seek testing. Other factors positively related with STDs/HIV testing include access to public health insurance, perception that STD-related stigma is low, past history of physical exam in the previous year and a history of pregnancy involvement. Some barriers to STD testing identified were access to services, discomfort with testing procedures, and concerns expressed about confidentiality (Carter, Kraft, Hatfield-Timajchy, Hock-Long & Hogben, 2011)

Since African American women are vulnerable to STDs in Milwaukee, and behaviors related to STDs have not been studied extensively in this population, this dissertation will focus on African American Women's STD testing behaviors in Milwaukee to understand some of the barriers and facilitators to testing. The enquiry will use a theoretical health framework called the Integrated Behavioral Model.

### **Theoretical Framework**

Although, various studies have advocated for the use of race and ethnicity theories in public health research that seeks to understand issues concerning African Americans, the field of health behavior has a different set of theories and frameworks. These theories have clearly defined constructs that are suitable for understanding behaviors among any population and can be placed in the context of other broader theories. One such model is the Integrated Behavioral Model

(IBM) which is an emergent theory in the field of public health and is the theoretical framework of choice for this research. The IBM was developed to incorporate some of the leading theories and models that are used in health behavior research at a theorists' workshop in 1992 that was convened by the National Institute of Mental Health (Fishbein et al., 1992). Prior to 1992, significant attention was focused on the differences that existed between popular health behavior theories even though they had many similar and complementary constructs (Weinstein, 1993). The integrative model was developed by Fishbein and colleagues to focus primarily on the determinants of behavioral intentions (Fishbein, 2000, Fishbein and Cappella, 2006). At this meeting, the researchers successfully reached an agreement about behavioral constructs that are important to predicting and changing behaviors. The constructs identified include intentions, skills, expected outcome, social normative pressure, self-image, self-efficacy, emotional reaction, and environmental limitations (Fishbein & Ajzen 2010).

### **Purpose and Specific Aims**

- a) Assess the attitudes of African American women toward testing for sexually transmitted diseases in Milwaukee.
- b) Analyze perceived norms that influence African American women's decision to test for sexually transmitted diseases in Milwaukee.
- c) Analyze how African American women's personal agency contributes to their decision to test for sexually transmitted diseases in Milwaukee.
- d) Identify factors within neighborhood and environment that affect African American women's decision to test for sexually transmitted diseases in Milwaukee.

## **Assumptions**

This research study was conducted based on the following three assumptions. The study assumed that:

- a) Women did not misrepresent themselves demographically.
- b) Women who participated in the study answered all questions in an honest and open manner.
- c) Women's narratives can be analyzed to provide an understanding of some of the important factors related to their decision to seek testing for sexually transmitted diseases.

## **Operational Definitions**

Several important terms and concepts were integrated into this study. To provide clarity, basic definitions and explanations are outlined in this section describing what these terms mean or how they were used in this study.

*Women:* Persons who report their biological sex as female and their gender identity as a woman.

*African Americans:* A person having origins in any of the Black racial groups of Africa (United States Census Bureau, 2020).

*Milwaukee:* The geographic area considered for this study is the City of Milwaukee.

*Sexually transmitted diseases:* Any infection transmitted through sexual contact.

*Testing for sexually transmitted diseases:* A one-time experience of testing for sexually transmitted diseases was considered for this research.

*Integrated Behavioral Model*: A health behavior theory designed to help researchers provide a clearer understanding of the determinants of health-related behaviors.

### **Significance of Research**

This dissertation research focusing on STD screening behaviors of African American women in Milwaukee is not only timely, but a much-needed effort at highlighting STD as a significant public health issue. STD persist as a national health problem in the United States, as a recent report highlighted clusters of HIV and Syphilis in the City of Milwaukee. The report stated that it was a ‘sentinel event’ (i.e., an unexpected occurrence with potential for great harm or death). However, this report also acknowledged that there was an epidemic of STDs in Milwaukee, but because it was not being openly discussed, people continued to engage in high-risk sexual behaviors that was encouraging the spread of STDs (Spicuzza, M, 2018). Consequently, this study was developed to help bring attention to some of the contextual factors that may otherwise not have been captured by existing epidemiological data on STDs in the city. Additionally, this study is an attempt to contribute to the discourse around STDs in Milwaukee, by engaging African American women in the community in discussions around their risk of STDs and important issues linked with STD testing as this effort can help to keep this important dialogue alive. Further, this research seeks to gain meaningful insight from women’s narratives that will be used to make recommendations towards more effective STD preventive efforts around the city. Lastly, this study will also help to bridge existing gaps in literature about important factors that may be unique to African American women in their struggle against STDs in a Midwestern city like Milwaukee.

## **Summary**

The first chapter of this dissertation project provides a clear background on the issue of STD in the United States as well as its' scope locally in Milwaukee, Wisconsin. The effect of STD on individuals was highlighted along with the existence of racial health disparities in sexually transmitted diseases. The recommended approach to STD prevention includes screening for STD. However, disparities occur not only in the prevalence of STD but in screening for STD as well. So, as to add some context to challenges of screening for STD that African American women experience, this chapter provides clearly proposed goals for this study, and highlights a theoretical framework used for conducting this study.

## **CHAPTER 2: LITERATURE REVIEW**

### **Introduction**

In recent times, the IBM has emerged as a valuable health behavior model for predicting and promoting behavior change. To build on previous work done with this model, the IBM was selected to guide this proposed qualitative inquiry and a thorough review of literature was conducted.

### **Objective of the Literature Review**

The main objective of the literature review conducted around the Integrated Behavioral Model used as the framework for this research was largely to explore its utility in health-related research. Since the IBM is a comparatively newer theory in the field of public health, the review of literature conducted involved exploring the extent of use of this theory and in what manner it was used in previous research studies.

### **Integrated Behavioral Model**

A significant amount of research has been conducted on STDs in the United States and different models and theories have been used to explain STD-related behaviors. The IBM, which is of interest to this study, was proposed to focus primarily on what determines intention to perform the behavior of interest (Montano & Kasprzyk 2015). Although, the IBM has been used in some HIV/STD prevention research (Conserve et al. 2018; Dillard 2011; Kasprzyk & Montano 2007; Mills & Vanderpool 2013; Roncancio et. al 2018; Roncancio et al 2017; Rodriguez et al 2018; Solorio et al. 2016), there is still a scarcity of research that attempts to examine screening behavior for STDs among African American women using this framework. As such, this research attempts to bridge part of the existing gaps in literature by using this framework as a guide for the proposed study.



As stated earlier, the IBM was developed through integrating constructs from existing behavioral theories including the theory of reasoned action, the theory of planned behavior and other influential health behavior theories like social cognitive theory, health belief model, theory of subjective culture, and the transtheoretical model. Before efforts were made to integrate similar constructs across these theories, a lot of attention was paid to the differences that existed between theories rather than their similarities (Montaño & Kasprzyk 2015). Thus, the newly developed integrative model theorizes that engaging in a certain behavior is predicted by the intention to engage in the behavior, possessing the skills and abilities needed to engage in the behavior, and the absence of environmental constraints to engaging in the behavior. Additionally, intention to engage in a behavior is itself predicted by attitude toward the behavior, perceived behavioral norms and belief in the ability to engage in the behavior (self-efficacy) (Roncancio et al. 2018; Roncancio, Ward, Carmack, Munoz, & Cribbs 2017; Ritchwood et al. 2017; Schmidt, Ranney & Goldstein 2014). Furthermore, it is important that the behavior of interest is salient to the individual so that the experience of performing the behavior becomes habitual, as such, intention to perform the behavior does not remain the most important consideration in performance of behaviors of interest (Montano & Kasprzyk 2015).

### **Previous Health Behavior Theories**

Although the IBM is not the only theory that could be used to study behaviors such as screening for STDs among African American women, according to Montano & Kasprzyk (2015), this kind of theoretical framework is valuable in helping researchers organize their thoughts and plans for research, intervention, and analysis. Additionally, the IBM and the closely related theory of planned behavior and theory of reasoned action serve as exceptional

frameworks that help researchers conceptualize, measure, and identify factors that are influential to behaviors of interest (Montano & Kasprzyk 2015).

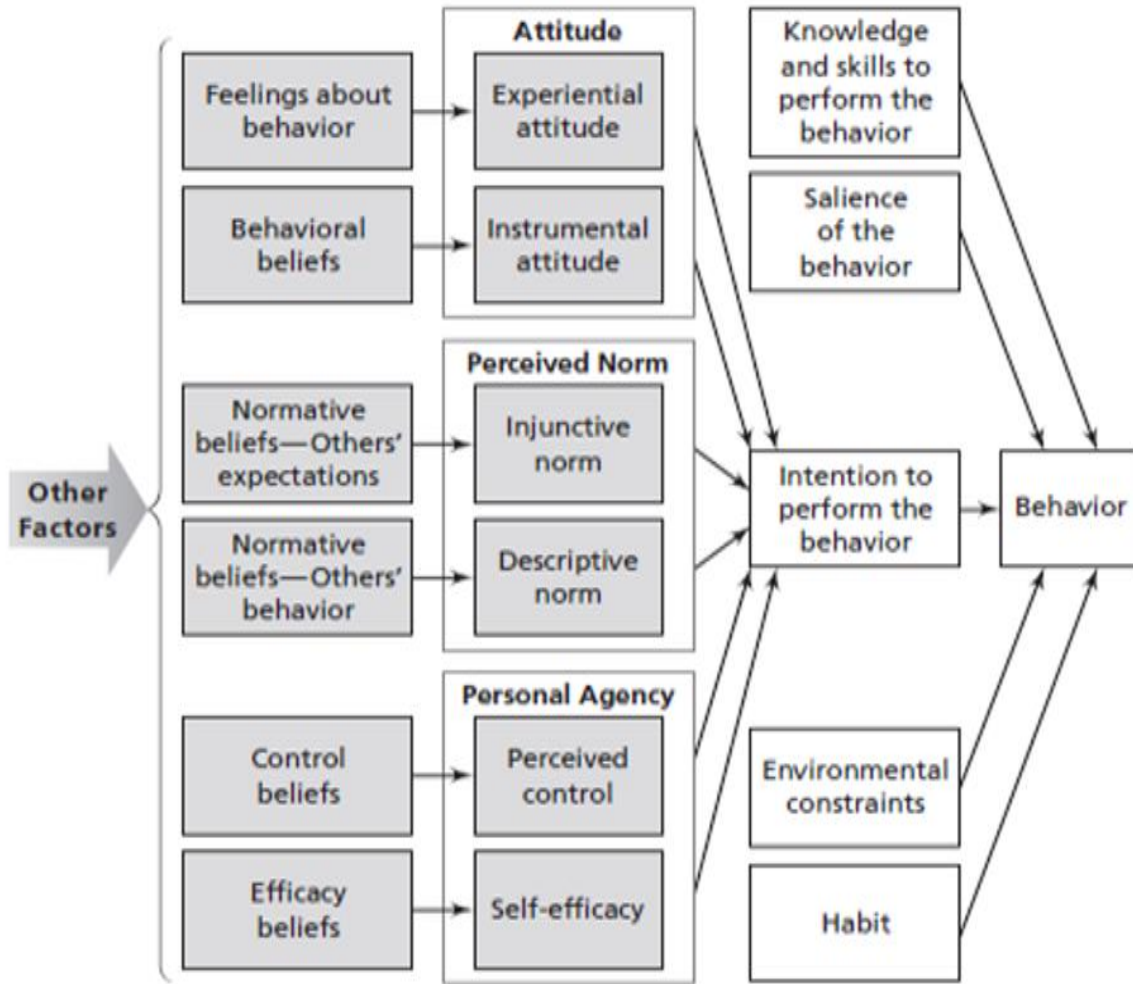
Also, the IBM was chosen for this study because other theories openly acknowledge their own weaknesses, hence the need to use an integrative model that builds on the strength of other models. For example, the socioecological model, which focuses on multiple levels of influence, expands options for intervention yet lacks specificity about the mechanism of action of most of the important theorized influences. Because of this, the task of identifying critical factors for each behavioral application falls on health promotion professionals. Additionally, even when behavior specific ecological models are employed, there is not enough information about how broader levels of influence operate, or clarity about the way that constructs operate across levels (Sallis & Owen 2015). So, this model succeeds in extending perspective but fails to identify specific constructs or provide direction about how to use the ecological model to enhance research or intervention. Consequently, research done using the ecological model becomes more demanding than when it is done at a single level (Sallis & Owen 2015).

In contrast, models like the Health Belief Model (HBM) have constructs that are more intuitive and relatively easily defined, yet there is documentation about the lack of understanding regarding how the constructs operate to influence health behaviors. Constructs like ‘cues to action’ have been poorly defined and yet to be systematically studied. This contributes to creating a deficit in the understanding of HBM (Skinner, Tiro & Champion 2015).

The IBM is a direct expansion of the Theory of Reasoned Action (TRA)/Theory of Planned Behavior (TPB). While these two theories have as their strength an approach that provides a framework for understanding reasons or beliefs that encourage behavior of interest, neither

accounts for important factors like environmental constraints, habits, knowledge, and salience of the behavior hence the need for an integrative model (Montano & Kasprzyk 2015).

**FIGURE 1: The Integrated Behavioral Model (Montano & Kasprzyk 2015)**



The constructs of the IBM are attitude which comprise of experiential and instrumental attitude, perceived norms which consist of descriptive norm and injunctive norms and personal agency which consist of perceived control and self-efficacy. Other constructs include habits, environmental constraints, salience of behavior, intention to perform the behavior and knowledge and skills to perform the behavior (Montano & Kasprzyk 2015). The central idea of

the IBM is that intention to perform a behavior is the most vital determining factor of a behavior. Also, that intention to perform a behavior is influenced by constructs like attitudes, perceived norms, and personal agency. Also, that factors like knowledge and environmental constraints have a direct impact on the behavior of interest (Montano & Kasprzyk 2015).

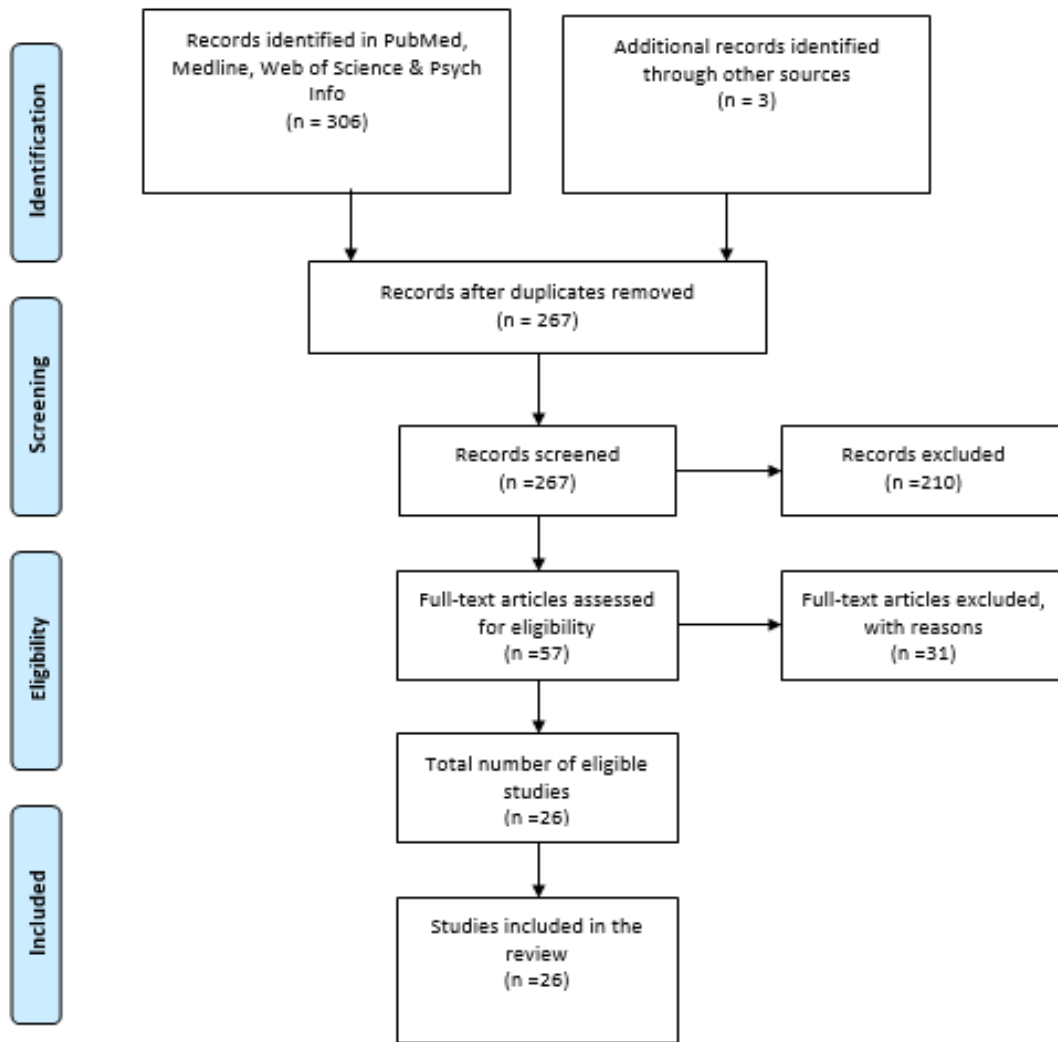
According to Fishbein and Ajzen (2010) behavioral attitudes that depend on beliefs about expected outcomes of engaging in the behavior is referred to as instrumental attitudes while individuals' feelings about the behavior is considered as experiential attitudes. Normative perceptions can be described in two ways: injunctive and descriptive norms. Injunctive norms are stated to be guided by the support of individuals whose opinions are held in high esteem while descriptive norms are the perceptions of the number of people involved in the behavior of interest. Personal agency on the other hand is controlled by an individuals' confidence in their ability to engage in the behavior of interest (Fishbein & Ajzen, 2010).

### **Literature Search Strategy**

A thorough review of the literature was conducted to closely assess the different studies that have used the theoretical framework of interest for this study. Different search engines were used in the search for articles for this review including PubMed, Medline, Web of Science and Psych Info. The search was done by using the search term "Integrated Behavioral Model" (IBM). The papers retrieved and used for this review were all peer reviewed articles published in English between 2004 -2019. Papers were included if they were population-based studies and examined constructs of the IBM in their study. Publications other than peer reviewed journals and publications in any other language apart from English Language were excluded. Additionally, studies that were identified as clinical trials or drug trials were excluded. Papers that used multiple theories to inform the research work were also excluded. Finally, papers that used a

variant of this model called the Integrated Behavioral Model for Water, Sanitation and Hygiene (IBM-WASH) were also excluded. There were 172 papers identified in PubMed, 56 in the Web of Science, 43 in Psych Info, and 35 in Medline. Overall, 26 papers met the inclusion criteria and were fully reviewed and included in this literature review.

**FIGURE 2: Flow Chart for Literature Search**



*Flow chart used for literature search designed by Moher, D. Liberati, A. Tetzlaff, J. Altman, D.G, The PRISMA Group 2009.*

## Scope of Current IBM Research

The IBM has been widely and successfully used in research focusing on a variety of health outcomes. Table 1 provides a summary of the review of literature conducted for this research.

**Table 1: Summary Table for Literature Review Articles on IBM**

Author/Year	Research Design	Model	Participants	Outcome
Bauermeister /2018	Cross sectional study	IBM	Young sexual minority women	Bisexual women were more likely to report a prior smoking cessation attempt.
Borsky/ 2018	Quasi-experimental design	IBM	College students	Increase in bystander behaviors like urging a friend in an abusive relationship to get help.
Branscum/ 2016	Cross sectional study	IBM	Elementary children	Perceived behavioral control, attitudes, and norms significantly predicted intention toward physical activity for both boys and girls
Branscum/ 2018	Cross sectional study	IBM	Parents of elementary school children	Significant differences existed among groups, mothers had greater levels of monitoring sweetened sugar beverages and IBM constructs.
Branscum/ 2017	Cross sectional study	IBM	Hispanic mothers of 2- to 5-year-old children	Intention significantly predicted maternal monitoring of fruits and vegetables.
Buhi/2011	Cross Sectional Study	IBM	Texas middle school youth	Beliefs, norms, and self-efficacy were predictive of intentions, which predicted sexual abstinence later.
Choi/2018	Randomized control trial	IBM	Young Black men who have sex with men	Those who reported condomless anal intercourse (CAI) in the 3 months before baseline survey described decreased self-efficacy for condom use, lower condom use norms, more negative attitudes toward condom use, and lower condom use intentions at baseline compared to those who reported no CAI.
Conserve/ 2018	Qualitative study	IBM	Young men in Tanzania	Privacy, confidentiality, and saving time as the primary reasons for their self-testing interest that were reported by men in this study.
Cooper/ 2016	Cross sectional study	IBM	Texas youth	E-cigarette was the most used product overall and most frequently used in combination with other products.
Dillard/ 2011	Cross sectional study	IBM	Undergraduate women	Jointly, attitude, subjective norms, perceived control predicted intention to vaccinate

Ebrahim/ 2016	Cross sectional study	IBM	Somali and Ethiopian immigrants in Minnesota.	The results of study showed low intention and slightly favorable attitudes toward condom use. Participants experienced weak, but positive social influence as measured by injunctive and descriptive norms.
Groshong/ 2017	Qualitative study	IBM	Youth and adults	Participants' attitudes showed the importance of parks for mental and physical health, with social interaction and solitude mentioned as key motivations.
Gutema/ 2018	Cross sectional study	IBM	Bahir Dar University students	Experiential attitude, instrumental attitude, perceived control and self-efficacy were stated to significantly predict behavioral intention.
Head/2017	Qualitative study	IBM	Former high school football players	Results showed significant descriptive and injunctive normative influences, a culture of high school football that helped bulking up which was different from experiential and instrumental attitudes toward weight-gain behaviors.
Hull/ 2011	Longitudinal survey of youths	IBM	Longitudinal sample of virgins	Religiosity at baseline was adversely connected with sexual debut a year later. This relationship was mediated through attitudes to personally engaging in sexual intercourse
Kasprzyk/ 2016	A Phase I safety trial	IBM	Men in Zimbabwe	Men were pleased with the method. They also understood that male circumcision is only partly protective against HIV. Most of them decided they will keep using condoms to protect themselves from HIV.
Montano/ 2014	Mixed methods design	IBM	Men in Zimbabwe	All five IBM constructs substantially described male circumcision intention. Nearly all beliefs underlying the IBM constructs were significantly linked with male circumcision intention
Macy/2018	Cross- sectional study	IBM	Mexican American adults	Attitude and self-efficacy towards seeking preventive dental care were linked with intention to seek preventive dental care. The association between dental beliefs and intention to seek preventive dental care was mediated by attitude and self-efficacy.
Mills/2013	Qualitative Study	IBM	Young adult women	There were 3 primary barriers that affect vaccination behaviors and there are: a knowledge gap where women are both informed and misinformed about cervical cancer, HPV and the HPV vaccine Next. Is environmental and tangible barriers and lastly, ambiguous information sources which contribute to misinformation that later affect vaccination decisions

Patterson/ 2015	Cross sectional survey	IBM	College women	Important relationships exist between strength training and attitude, descriptive norms, perceived behavioral control, self-efficacy, intention, and moderate-to-vigorous physical activity. Also, self-efficacy, intention, and moderate-to-vigorous physical activity forecasted whether college women met U.S. strength training recommendations.
Riddley- Merriweather/ 2017	Cross sectional survey	IBM	African American Women	The study result demonstrated positive instrumental attitudes or reasons for donating. Participants felt generally supported in their decision to donate but stated that the lack of Black women taking part in the KTB meant that they themselves were setting the norm for others.
Roncancio/ 2018	Qualitative Study	IBM	Hispanic mothers of adolescent daughters aged 11 to 17 years	Hispanic mothers expressed a sense of security, concern, happiness, relief, and fear about vaccination. They understood that vaccination prevents HPV but may lead to adverse effects and loss of sexual inhibitions. The study also identified supporters/non-supporters of HPV vaccine. Affordability, transportation, clinic distance and making appointments were identified as facilitators/barriers
Roncancio/ 2017	Qualitative Study	IBM	Hispanic mothers of adolescent daughters aged 11–17 years	Mothers articulated salient positive feelings and believed that completing the series led to positive effects. They also believed that the main supporters were themselves, their daughter’s father, and doctor. Some of their friends did not support series completion. They also believed vaccine facilitators included vaccine affordability, information, transportation, ease of scheduling and keeping vaccination appointments and taking their daughter’s immunization card to appointments.
Rodriguez/ 2018	Randomized controlled trial	IBM	Hispanic mothers of adolescent daughters aged 11–17 years	Subjective norms related to daughter’s doctor, belief that the vaccine is safe, self-efficacy to obtain the vaccine for their daughter, and parental concern about vaccine side effects were correlates of intention to vaccinate. Intentions predicted initiation, concerns about loss of sexual inhibition reduced the chances of having a vaccinated daughter at follow-up. Parental intention and concerns about loss of sexual inhibition forecasted vaccine initiation.
Sheppard/ 2016	Cross sectional study	IBM	Undergraduate college students	The whole model described 45.6% of the variation of average drinks per week and included important predictors that included



				Greek involvement, gender, attitudes, and descriptive norms of alcohol-related problems
Solorio/ 2016	Evaluation of a pilot HIV testing campaign	IBM	Latino MSM in Seattle, WA	The campaign had a substantial and direct impact on attitudes, beliefs, norms and self-efficacy towards HIV testing as well as on actual behavior, with HIV testing rates increasing over time.

### **Sexual and Reproductive Health**

Based on the research for this review, the IBM was used to examine several sexual and reproductive health issues. Studies that used the IBM on HIV and Human Papilloma Virus (HPV) related issues were identified, but no study was identified in this paper that examined the STDs of interest which are chlamydia, gonorrhoea, and syphilis. A qualitative study on HIV self-testing by Conserve and colleagues (2018) in Tanzania guided by the IBM was conducted to assess men's attitudes and personal agency towards HIV self-testing and confirmatory HIV testing to inform the development of the Tanzania STEP (Self-Testing Education and Promotion) Project. The study found that most participants had high perceived control and self-efficacy to self-test and pursue confirmatory HIV testing (Conserve et al. 2018). Similarly, in an evaluation of a multimedia HIV testing campaign involving Latino men who have sex with men (MSM), Solorio and colleagues used the IBM to examine HIV testing rates and condom use rates and found that their campaign had a significant effect on attitudes, beliefs, norms and self-efficacy towards HIV testing and actual behavior. They stated that HIV testing rates increased over time during the intervention period (Solorio et al. 2016).

The issue of HPV vaccination has also received much attention from health researchers (Dillard 2011; Mills, Head & Vanderpool 2013; Roncancio et al. 2018; Roncancio et al. 2017; Rodriguez et al. 2018). Research by Dillard (2011) to test the usefulness of the IBM with respect to HPV vaccination found that attitude, subjective norms, perceived control predicted intention

to vaccinate. The study also found that attitude and subjective norm interacted with perceived control such that both were identified as powerful predictors of intentions at higher levels of control (Dillard 2011). Issues around initiation of HPV vaccines among parents of Hispanic adolescent daughters were examined by Rodriguez and colleagues (2018) in a randomized controlled trial study. The study sought to identify parent's psychosocial predictors of HPV vaccine initiation and correlates of parental intentions using the IBM. The authors reported that the intention to vaccinate included subjective norms linked to daughter's doctors, belief in the safety of the vaccine, self-efficacy to obtain vaccines for their daughters, and parental fears about adverse effects of vaccines (Rodriguez et al. 2018). Similarly, Roncancio and colleagues (2018) examined issues around HPV vaccine initiation while Roncancio and colleagues (2017) examined completion of HPV vaccination among Hispanic mothers in different qualitative studies using the IBM. The findings from both studies helped to identify positive feelings expressed by mothers about vaccination, supporters/non-supporters and more importantly facilitators and barriers to HPV vaccination. Affordability of vaccines, transportation, and issues with scheduling for vaccination were pertinent factors identified as facilitators/barriers to vaccination (Roncancio et al. 2018; Roncancio, Ward, Carmack, Munoz, & Cribbs 2017). More barriers to HPV vaccination were identified by Mills and colleagues (2013) when they used the IBM in a qualitative study that examined HPV vaccine uptake and adherence among women. Their study identified knowledge gap, environmental and tangible barriers as well as ambiguous information sources as influential factors to uptake and adherence of HPV vaccines (Mills, Head & Vanderpool 2013).

Regarding onset of sexual activities, Hull and colleagues (2011) used the IBM in a longitudinal survey of youths to examine whether religiosity delays initiation of vaginal sex and

found that the relationship was mediated through attitudes towards personally engaging in sexual intercourse (Hull et al. 2011). Conversely, Buhi and colleagues used the IBM to examine sexual abstinence and found that beliefs, norms, and self-efficacy predicted intention which predicted sexual abstinence at a later date (Buhi, Goodson, Neiland & Blunt 2011). The IBM has also been used in condom use research as Choi and colleagues (2018) examined Condomless Anal Intercourse (CAI) among young Black men who have sex with men. The study found that those who reported CAI three months prior to their survey reported lower self-efficacy for condom use, lower condom use norms, more negative attitudes towards condom use and lower condom use intention than those who did not report CAI (Choi, LeGrand, Dong, Muessig & Hightow-Weidman 2018). Another study on condom use intentions examined the psychosocial determinants of male condom use in steady heterosexual relationships among Somali and Ethiopian immigrants in Minnesota also used the IBM and found that participants had low intention and slightly favorable attitudes towards condom use and they also experienced weak but positive social effects as measured by injunctive and descriptive norms (Ebrahim, Davis & Tomaka 2016).

As part of male reproductive health, male circumcision has been examined using the IBM in Zimbabwe (Kasprzyk et al 2016; Montano et al 2014). In a mixed methods research study Montano and colleagues investigated male circumcision motivations using the IBM and found that all five IBM constructs examined in the study explained male circumcision intentions. Nearly all the beliefs underlying the IBM constructs were significantly correlated with male circumcision intentions (Montano et al. 2014). While Kasprzyk and colleagues (2016) investigated attitudes towards male circumcision, sex and condoms and sources of social support. The results of their study stated that men understood that male circumcision was only partially

protective against HIV and most of the participants in the study agreed that they would continue to use condoms for protection (Kasprzyk et al. 2016). On a different note, Gutema and colleagues (2018) in a cross-sectional study examined testicular self-examination using the IBM among university students in Ethiopia and found that experiential and instrumental attitudes, perceived control and self-efficacy significantly predicted behavioral intentions (Gutema et al. 2018). Concerning female reproductive health issues, a cross sectional study conducted by Riddley-Merriweather and Head (2017) used the IBM to examine breast tissue donation among African American women and found that participants had positive instrumental attitudes towards donation, and they also felt they were setting the norms for others by participating in the research (Riddley-Merriweather and Head (2017)).

### **Nutrition**

Aside from sexual and reproductive health, the IBM has been successfully used in studies on nutrition (Branscum & Housley 2018; Branscum & Lora 2017). The cross-sectional study by Branscum and Housley (2018) evaluated differences between how mothers and fathers monitor their children's consumption of sugar sweetened beverages (SSBs) using constructs from the IBM. The results of the study demonstrated significant differences between groups, with mothers having consistently higher levels of monitoring SSBs and IBM constructs. Additionally, regression models showed that the core constructs of the IBM predicted a significant amount of the variance for monitoring SSBs for both mothers and fathers with intentions being the primary predictor for mothers and skillfulness the primary predictor for how fathers monitored SSBs (Branscum & Housley 2018). In an earlier study on nutrition to operationalize the IBM to identify significant theory-based determinants of maternal monitoring of fruits and vegetables among low-income Hispanic mothers of 2-5-year-old children, the authors found that intention

significantly predicted maternal monitoring of fruits and vegetables and autonomy significantly predicted intentions (Branscum & Lora 2017).

### **Physical Activity**

The IBM has also been utilized to some extent in physical activity studies (Branscum & Bhochhibhoya 2015; Groshong, Stannis, Kacyzynski, Hipp & Besenyi 2017; Head & Iannarino 2017; Patterson, Meyer & Beville 2015). In 2015, a cross sectional study was conducted to operationalize the IBM as it relates to physical activity among children and explore potential gender differences within the model. Perceived behavioral control, attitudes, and perceived norms significantly predicted intention toward physical activity for both boys and girls. Moreover, intentions and parental environment also significantly predicted physical activity among boys and girls (Branscum & Bhochhibhoya 2016). Regarding park-based physical activity, a qualitative study was conducted to elicit insights about key attitudes, perceived norms, and personal agency that affect park use and park-based physical activity in low-income urban neighborhoods. Participants' attitudes reflected the importance of parks for mental and physical health, with social interaction and solitude cited as key motivations. The results of the study found that of the ten themes analyzed regarding perceived norms, influential others mirrored participants' ethnic make-up, but there was little agreement among groups. Social and safety themes were cited as both facilitators and constraints, along with park offerings and setting (Groshong, Stannis, Kacyzynski, Hipp & Besenyi 2017). Another study examined what former high school football players identify as the underlying beliefs, attitudes, normative influences, and facilitators/barriers to food-based weight gain behaviors for athletic performance. The study found that significant descriptive and injunctive norms influence a culture of high school football that helped bulking up and was different from experiential and instrumental attitudes toward

weight-gain behaviors (Head & Iannarino 2017). Similarly, a different study was conducted to investigate the correlates of college women meeting strength training recommendations using the IBM and found that there were significant relationships between strength training and attitude, descriptive norms, perceived behavioral control, self-efficacy, intention, and moderate-to-vigorous physical activity. Further, self-efficacy, intention, and moderate-to-vigorous physical activity were predictive of college women meeting the United States strength training recommendations (Patterson, Meyer & Beville 2015).

### **Substance Use**

Substance use issues have also been examined using the IBM (Bauermeister et al. 2018; Cooper et al. 2016; Sheppard, Usdan, Higginbotham, Cremeens-Matthews 2016). In 2018, Bauermeister and colleagues conducted a study to examine the contribution of psychosocial correlates of behavior (attitudes, norms, habits) and experiences of general stress (perceived stress) on young sexual minority women's prior smoking cessation and future smoking cessation intentions. The study found that bisexual women were more likely than lesbian counterparts to report a prior smoking cessation attempt. Prior cessation attempts were associated with less internalized homophobia and positive attitudes towards smoking. Additionally, smoking cessation intentions in the next month were negatively associated with being a daily smoker and attitudes towards smoking (Bauermeister et al. 2018). Cooper and colleagues examined tobacco use behaviors in a study that assessed risk perception and social norms about tobacco use across adolescent non-users of tobacco, single-product users, and dual/poly-product users. The study found that E-cigarette was the most commonly used product overall and most frequently used in combination with other products. Concerning descriptive norms, single product users only perceive e-cigarette and hookah pipes as more common for their peers to use compared to non-

users. About injunctive norms, single-product users are more likely to report that they would date someone who uses e-cigarettes, hookah pipes, and cigars compared to non-users. Furthermore, the study found that dual/poly product users are more likely to report that cigarettes and cigars are not at all harmful compared to non-users (Cooper et al 2016). Alcohol use was also examined using the IBM in a study among undergraduate college students that aimed to identify predictors of alcohol use based on personal values and several constructs from the IBM (i.e., attitudes, injunctive norms and descriptive norms). The overall model explained 45.6% of the variance of average drinks per week and included the following significant predictors: Greek involvement, gender, attitudes, and descriptive norms of alcohol-related problems (Shepphard, Usdan, Higginbotham, Cremeens-Matthews 2016).

### **Violence**

Concerning dating violence, a quasi-experimental study was conducted using the IBM to investigate whether a brief and easy-to-implement university wide intervention could increase bystander behaviors, intentions, attitudes, efficacy, and social norms to prevent dating violence; and understand what variables were most strongly associated with bystander behaviors. The results showed an increase in bystander behaviors like encouraging a friend who may be in an abusive relationship to get help after the intervention. However, no significant changes were found for bystander intentions, self-efficacy, social norms, or attitudes related to dating violence from pre- to postintervention (Borsky, McDonnell, Turner & Rimal 2018).

### **Dental Health**

On a different note, the IBM was also used in the field of preventive dental care in a cross-sectional study by Macy and Colleagues (2018). The aim of their study was to explore the

usefulness of applying theory-based factors associated with seeking preventive dental care among Mexican American adults. The study showed that attitude towards seeking preventive dental care and self-efficacy for seeking preventive dental care were associated with intention to seek preventive dental care. The association between dental beliefs and intention to seek preventive dental care was mediated by attitude and self-efficacy. The association between past behavior and intention to seek preventive dental care was also mediated by self-efficacy (Macy et al. 2018).

### **Summary**

The IBM has proved to be a useful framework in different research domains as evident in the discussion in this chapter. It has been used to guide the investigation of a wide variety of topics and useful recommendations have emerged from these studies. However, of utmost importance to this research are some of the issues that were uncovered in the reproductive and sexual health research that used the IBM. Dillard (2011) was able to successfully predict different factors that were closely linked with HPV vaccination using the IBM as a guide in his research work. Using the same framework, Mills and colleagues (2013) uncovered important barriers to HPV vaccination and adherence among women. Behavioral, normative and control beliefs linked to HPV initiation and completion were also uncovered in the findings from the research by Roncancio and colleagues (2018) and Roncancio and colleagues (2017). Regarding HIV testing, Conserve and colleagues (2018) clarified men's attitude and personal agency towards HIV testing using the IBM in their sample. Since the IBM has been used to guide HIV testing research among men to provide a better understanding of their attitude and personal agency, this research work seeks to extend this approach to African American women to gain a



better understanding of their testing behaviors for common STDs like chlamydia, gonorrhea and syphilis.

## **CHAPTER 3: METHOD**

### **The Choice of Qualitative Research**

A qualitative approach was adopted in this study to explore the issues around sexual behaviors like screening for STD among African American women in Milwaukee. This study was guided by the IBM. The rationale for using the IBM to guide this study was explained in-depth in chapter two. However, it is important to reiterate that this study was designed to provide a better understanding of the motivation and reasons behind health behaviors that women engage in like seeking testing for STD. Also, to find out if the IBM will be an adequate model to help elucidate issues and challenges around STD testing that African American women in Milwaukee face. So, the goal of the study was to identify factors that are influential to screening for STDs including attitude, norms and personal agency that could be somewhat difficult to characterize solely using quantitative methods. Additionally, the research also explored issues related to the environmental challenges that women experience in seeking STD testing in Milwaukee. The approach for this kind of research is more flexible and allows the researcher to respond to themes that are identified through the interviews. Qualitative enquiry allows for sensitive issues like testing for STDs to be explored in a manner that allows women to share their stories and lived experiences, and have their unique voices heard on such an important public health problem.

### **Defining the Behavior**

This study explored issues related to testing for STDs among African American women in Milwaukee. A one-time experience of testing for any of the STDs was considered as meeting the definition of the behavior for the purpose of this study.

## **Research Aim**

This study was designed with the aim of exploring issues related attitude, norms, personal agency and environment that influence African American women's STD testing behavior. As such, questions related to these issues were adapted from a questionnaire or created to address these concerns as they relate to STD testing.

## **Research Design**

This qualitative study employed a deductive research strategy in the thematic analysis since it used an existing theory (IBM) to guide the inquiry.

## **Interview Guide**

The interview guide presented in this section of the paper is made up of eight questions that were selected from the study questionnaire for the final data analysis in this study. This was done in line with the aims of this study and to help keep the scope of analysis manageable. Additionally, a review of the interview transcripts showed that these questions also provoked more ardent discussions from participants. The questions selected for analysis were adapted from the elicitation questions developed by Montano & Kasprzyk (2015). These questions were described by this author as indirect measures of some of the constructs of the IBM like experiential attitude, injunctive norms, perceived control, or power (Montano & Kasprzyk 2015). It was not stated whether the questions on environmental factors were regarded as direct or indirect measures of the construct.

## **Attitude**

### **Experiential Attitude**

i). How do you feel about the idea of screening for sexually transmitted diseases?

ii). What do you dislike about screening for sexually transmitted diseases?

### **Perceived Norms**

Injunctive Norm

iii.) Who are the people who are important to you that would support you screening for sexually transmitted diseases?

iv.) Who are the people who are important to you that would be against you screening for sexually transmitted diseases?

### **Personal Agency**

Perceived Control

v.). What things make it easy for you to screen for sexually transmitted diseases?

vi). What things make it hard for you to screen for sexually transmitted diseases?

### **Environmental Factors**

vii). What factors in your neighborhood or environment (e.g., transportation, location of medical facilities), prevents you from screening for sexually transmitted diseases?

viii). What factors in your neighborhood or environment (e.g., transportation, location of medical facilities) supports you in seeking screening for sexually transmitted diseases?

### **Participants**

A community-based sample of young African American women in the City of Milwaukee was recruited. Purposive sampling was used to obtain a sample of women who show diversity in their socioeconomic status. Participants were recruited from bus stops, through recruitment flyers

strategically placed in various community locations (i.e., hair salons, nail salons, business centers, community health center and non-profit organizations) around Milwaukee that had largely African American clientele. Additionally, social media platforms like Facebook, YouTube, and Instagram were used to publicize the study to enhance recruitment. Participants were informed about the nature of the study, their role in the study and the compensation that they would receive if they completed the study. They were then instructed on the flyers, or through online notices, to contact the researcher, via telephone or email, to volunteer or learn more about the study.

The inclusion criteria set for the study were: (1) self-identify as African American, (2) female (assigned sex at birth) this decision was made largely because the complications that are of interest to this study are mainly problematic to individuals who have anatomic female reproductive organs and have the capacity to pass infections to newborns, (3) live in the City of Milwaukee, (4) between 18 years of age and 65 years (5) able to read and speak English, and (6) have access to telephone or internet.

Those who are currently pregnant or undergoing therapy for debilitating illnesses that make it difficult for them to freely consent or fully participate in the interviews were excluded from the study (e.g., stroke, cancer, HIV/AIDS). This study is focused on focused on women's decision making around STD testing so pregnant women were excluded because they are more likely to get STD testing done based on the CDC's current recommendations. The recommendations are that all pregnant women under 25 years of age should test for chlamydia, and at first prenatal visit they should test for syphilis. While it is recommended that all pregnant women under 25 years of age, and those 25 and older should test for gonorrhea if they are at increased risk of the disease (CDCc 2021).

Once participants indicated interest through e-mail or phone calls, they were screened using an eleven-item questionnaire. If they were deemed eligible, a research consent document was mailed out or e-mailed to them. At the scheduled time of interview, interested participants provided informed consent over phone. This process was designed this way to ensure that participants' decision to participate in the research was voluntary and social distance recommendations were maintained. The research consent document provided information about the aims of the study, the funder, the researcher, and voluntary nature of the study. It was also communicated that each participant would get a \$20 gift card for completing the interview.

### **Sample Size**

The proposed sample size for this study was 30 to 40. This proposed sample size is based on the recommendation of Ragin (2012) that states that sample sizes for qualitative studies should be between 20 to 50 participants. Twenty-two participants were successfully recruited for this study. Additionally, the proposed study focused on a homogenous sample of only African American women as this sample is expected to include all the internal diversity that could exist within this segment of the population. To ensure that the study captured feedback from African American women with diverse socioeconomic backgrounds, recruitment was designed to occur in different sites and platforms (business centers, non-for-profit organizations that serve this population and online platforms). The participants who were recruited were all women who had tested for STD within the City of Milwaukee.

### **Recruitment**

The recruitment for this study was conducted via one-on-one semi-structured interviews over the phone in compliance with the recommendation for social distancing during the COVID-

19 pandemic lock down. At the initial screening conversation, the researcher ensured that each participant met the inclusion criteria and then arranged times that were suitable to the participants to participate in a one-on-one qualitative interview. The study recruited and interviewed women who had tested for STDs. The interviews generally lasted between twenty to thirty minutes.

### **Screening**

Once participants indicated interest in participating in the study, they were screened by the researcher who used an 11-item screening questionnaire to determine the eligibility of participants. These questions were mainly about demographic information but also ascertained if participants were pregnant, had life threatening conditions or had prior STD testing. A question was also asked about phone or internet to ensure that volunteers can participate in the study if found eligible. The following questions were used in screening participants for the research.

1. What is your name?
2. How old are you?
3. What is your gender at birth?
4. What is your race/ethnicity?
5. What is your marital status?
6. Are you currently pregnant?
7. Are you currently receiving treatment for any illnesses? If yes, what is the condition?
8. Have you ever tested for STDs?
9. Would you be available for a Zoom, Teams, or telephone interview?
10. Address & Zip code?
11. E-mail address

The eligibility questions were pre-tested by the researcher before it was used on volunteers., The interview process took about 5 minutes to complete. Afterwards successful screening and participants are deemed eligible, informed consent document was sent to participants. Once they have read and understood the consent document, they were scheduled for the full interviews by telephone.

### **Data Collection**

The method chosen for data collection for this research was telephone interviews as this method was chosen by most participants and less likely to pose any health risks to participants during COVID-19 pandemic lockdown.

### **Ethical and Regulatory Considerations and Confidentiality**

Ethical approval from the University of Wisconsin Milwaukee's Research Ethics Committee/Institutional Review Board (IRB) was received for this study. The researcher also agreed to protect the privacy and personal information of participants as part of its confidentiality measures in the event of future analysis or data sharing.

### **Data Collection Instrument**

The data collection instrument used for this study was developed to capture rich data about participants. Questions were developed to elicit information about demographic characteristics not captured during screening, sexual history, IBM constructs, testing history and questions on COVID 19 and STD testing. The researcher developed all the questions except the questions on IBM constructs which were adapted from previous work. The final questionnaire contained five sections and forty-nine questions.



## **Semi-Structured Interviews**

The researcher began the interview with the first section of the questionnaire which contained 6 demographic questions that were not asked during the screening phase. The questions were focused on education, occupation, home ownership and health insurance status. The interview then continued to the second section which contained 7 questions about sexual history. This section had questions about age of initiation of sexual activity, use of condoms, and number of sexual partners.

The third section of the interview contained 25 questions that focused on the constructs of the IBM. Questions 18 to 36 of the questionnaire were adapted from the elicitation questions developed by Montano and Kasprzyk (2015). This section of the interview was composed of open-ended questions aimed at obtaining information on participants' knowledge and behavior around screening for STDs. There were also questions about attitude, norms, and personal agency around screening for STDs included in this section. Additionally, issues around salience of screening for STDs, habit and environmental factors were also assessed.

The fourth section on the interview guide focused on 4 questions on testing history. This section had questions that elicit testing history from participants, as well as ascertain if they would be interested in retesting. There were also additional questions to find out where the participant would like to go to get tested.

The final section of this questionnaire included several questions about the effect of the COVID-19 pandemic on healthcare seeking especially as it related to testing for STDs. The World Health Organization declared COVID-19 a global pandemic in March 2020 (Valencia 2020). Because of the timing of this pandemic, which coincided with this project, a few questions were included to capture the effect of this pandemic on participants. The COVID-19

pandemic in the United States has recorded more than 44 million cases of the disease and 723,205 deaths (CDC 2021b). In Wisconsin, the spread of COVID-19 infection led to the ‘Safer at Home Order’ by the state’s Governor and the order encouraged individuals to stay home, keep social distance from other people, and only leave their residence for essential reasons (Wisconsin Department of Health 2020). This situation made seeking healthcare services tougher for many families in Milwaukee. As such, select questions were developed to capture some of the challenges that participants may have experienced during this period specific to STD testing.

Seven questions were designed and included in this questionnaire to capture the impact of the current COVID-19 pandemic on interest, attitude, and beliefs around testing for STDs, as well as some of the barriers that could be encountered during this period.

### **Study Questionnaire**

This research study is being conducted by a PhD student at the Zilber School of Public Health to help provide a clearer understanding of some of the factors that encourage or deter women in Milwaukee from getting tested for Sexually Transmitted Diseases (STDs).

#### **Section I: Demographic Information**

1. Please tell me about yourself
2. What is your level of education?
3. What work do you do?
4. What is your income?
5. Do you have health insurance? If yes, what type?
6. Do you own your own home?

## Section II: Sexual History

7. At what age did you first have sexual intercourse?
8. Did you use condom during last sexual intercourse?
9. If No, what were your reasons?
10. How many sexual partners do you have currently?
11. How many sexual partners have you had in the past year?
12. Do you want to share your reasons for having more than one sexual partner currently or over the past year?
13. Can you tell me how the practice of social distancing since the COVID-19 pandemic has affected your sexual relationship with your partner(s)?

## Section III: Integrated Behavioral Model Constructs

### Knowledge and Skills

14. What do you know about sexually transmitted diseases?
15. What do you know about screening for sexually transmitted diseases?

### Behavioral Beliefs

16. What are your beliefs about sexually transmitted diseases?
17. What are your beliefs about screening for sexually transmitted diseases?

### Attitudes

Experiential attitude:

18.How do you feel about the idea of screening for sexually transmitted diseases?

19.What do you like about screening for sexually transmitted diseases?

20.What do you dislike about screening for sexually transmitted diseases?

Instrumental attitude:

21.What would you say are benefits of you screening for sexually transmitted diseases?

22.What are some negative effects of you screening for sexually transmitted diseases?

Perceived norm

Injunctive norm:

23.Who are the people who are important to you that would support your screening for sexually transmitted diseases?

24.Who are the people who are important to you that would be against you screening for sexually transmitted diseases?

Descriptive norm:

25.Who are the people who are important to you that you think will screen for sexually transmitted diseases?

26.Who are the people who are important to you that you think will not screen for sexually transmitted diseases?

Personal agency

Perceived control:

27. What things make it easy for you to screen for sexually transmitted diseases?

28. What things make it hard for you to screen for sexually transmitted diseases?

Self-efficacy:

29. If you wanted to screen for sexually transmitted diseases how certain are you that you can do it?

30. What factors affect your ability to screen for sexually transmitted diseases?

Salience of the behavior

31. How important is the issue of sexually transmitted diseases to you?

32. How important is screening for sexually transmitted diseases to you? Please explain.

Intention to perform the behavior

33. Do you intend to screen for sexually transmitted diseases any time? Why or why not?

34. Is there anything that can change this decision?

Environmental constraints

35. What factors in your neighborhood or environment (e.g., transportation, location of medical facilities), prevents you from screening for sexually transmitted diseases?

36. What factors in your neighborhood or environment (e.g., transportation, location of medical facilities) supports you in seeking screening for sexually transmitted diseases?

Habits

37. What health habits do you engage in?

38. What would you need to make screening for sexually transmitted diseases a part of your health habits?

#### Section IV: Testing history

39. Have you ever been tested for any sexually transmitted disease? If so which one?

40. If Yes, what was the result of your test (s)?

41. How would you feel about more regular testing (e.g., every 3 months or every 6 months)?

42. Where would you like to be tested?

#### Section V: STD Testing and COVID-19 pandemic

43. Can you tell me about your general health since the onset of COVID-19 pandemic?

44. Can you tell me how the practice of social distancing since the onset of the COVID-19 has affected your risk of getting STDs?

45. Can you tell me how the COVID-19 pandemic and the practice of social distancing has affected how you seek help from your health care providers/hospitals?

46. Can you tell me how the COVID-19 pandemic has affected your interest in getting tested for STDs?

47. Can you tell me how the COVID-19 pandemic has affected your belief in getting tested for STDs?

48. Can you tell me how the COVID-19 pandemic has affected your attitude towards getting tested for STDs?

49. Can you tell me how the COVID-19 pandemic has affected your ability to get testing done for STDs?

Thank you for taking the time to participate in this interview. Do you have any questions about sexually transmitted diseases and screening for them? I will encourage you to consider practicing safe sex by using condoms and seek regular testing for STDs. I will follow-up with you by mailing a \$20 gift card and information about STDs and testing for STDs to you.

### **Informed Consent**

As part of the recruitment protocol, a research consent document approved by University of Wisconsin Milwaukee's IRB was either mailed or e-mailed to participants before they were interviewed. The consent document identified the title of the study and the names of the researchers. The document clearly communicated that participating in the study was entirely voluntary and there were no negative consequences of withdrawal from the study. Additionally, information was provided about the purpose, the interview process, and the time commitment required for the interviews. Information was also provided about compensation and the way that information collected would be stored and used.

### **Data Collection and Storage Process**

The interviews were all conducted over the telephone to abide by the recommendation for social distancing. At the beginning of the interviews, the phone was set on speaker and the digital voice recorder was switched on and stayed on all through the interviews. At the end of the interviews, the recorder was then turned off. Later, the recorded interviews were transcribed verbatim and stored electronically in appropriate computer files. The computer that was used for this research was configured with password-protected access.

## **Analysis Plan**

The analytical approach for this study is thematic analysis and it was guided by the framework of the IBM. More so, this study is interested more in women's attitude and experiences surrounding testing for sexually transmitted diseases. As described by Spencer and colleagues (2014), thematic analysis involves acquainting oneself with the data, understanding the data, and reporting patterns and clusters of meaning found within the data (Spencer, Ritchie, Ormston, O'Connor & Barnard 2014).

During data collection, completed interviews were transcribed verbatim, and content of the responses to the elicitation questions were closely reviewed. Since this study proposed a deductive approach for the analysis, the data was coded, and themes and subthemes identified paying close attention to the constructs of the theory (IBM). The main constructs that were of interest for this study are attitude, perceived norms, personal agency and environmental constraints. Although, the questionnaire covered a wide range of issues, 8 questions were selected and analyzed that focused on the research aims. The software used for this analysis is NVIVO.

For details regarding the data analysis, the approach that this study chose was guided by the formal analysis process that was laid out by Spencer and colleagues (2014). There are eight steps to this analysis process laid out in Table 2 below.



**TABLE 2: Description of Steps in Formal Data Analysis Process** (Spencer, Ritchie, Ormston, O'Connor & Barnard 2014)

<b>STEP</b>	<b>DESCRIPTION</b>
<b>I</b>	Familiarization – In this step the researcher looks closely at what participants said that is relevant to the research questions. To accomplish this, the researcher immerses herself in the data to get a firm grasp of the content and identify topics of interest.
<b>ii</b>	Constructing an initial thematic framework - this step of the analysis looks at what set of headings participant’s views can be organized into. Since the researcher has at this point developed a list of possible topics for consideration, she then sorted them into themes and subthemes that consist of the initial thematic framework.
<b>iii</b>	Indexing and sorting - this step looked at what part of the data generated from participants interviews were about the same thing and belonged together. At this stage, the researcher then applied labels to portions of data that she thought are about the same thing so that data that has been labelled alike were further analyzed.
<b>iv</b>	Reviewing data extracts - here, the researcher looked for other ways to organize the data, so that it could yield more coherent categories. The researcher then read through the piles of data that have been labelled to examine coherence to see if they were really about the same thing, or if the labels needed to be changed.
<b>v</b>	Data summary and display - this step looked at what each participant was saying about a specific theme. At this point, the researcher then created a summary for each subtheme and each person in the study. The summaries are then entered and displayed by theme and by participants.
<b>vi</b>	Constructing categories - the researcher at this point closely reviewed the range of things people said about a particular theme and how this varied between participants. Additionally, the types of responses from the participants that can be identified are also reviewed. The researcher then took each theme in turn and reviewed all the closely connected data extracts or summaries, maps the variation and diversity of views and experiences. She also identified constituent elements and underlying dimensions and suggested key themes that support them.
<b>vii</b>	Identifying linkage - the researcher then reviewed the ways in which different parts of the data are connected. The researcher then searches for connections that occur in the

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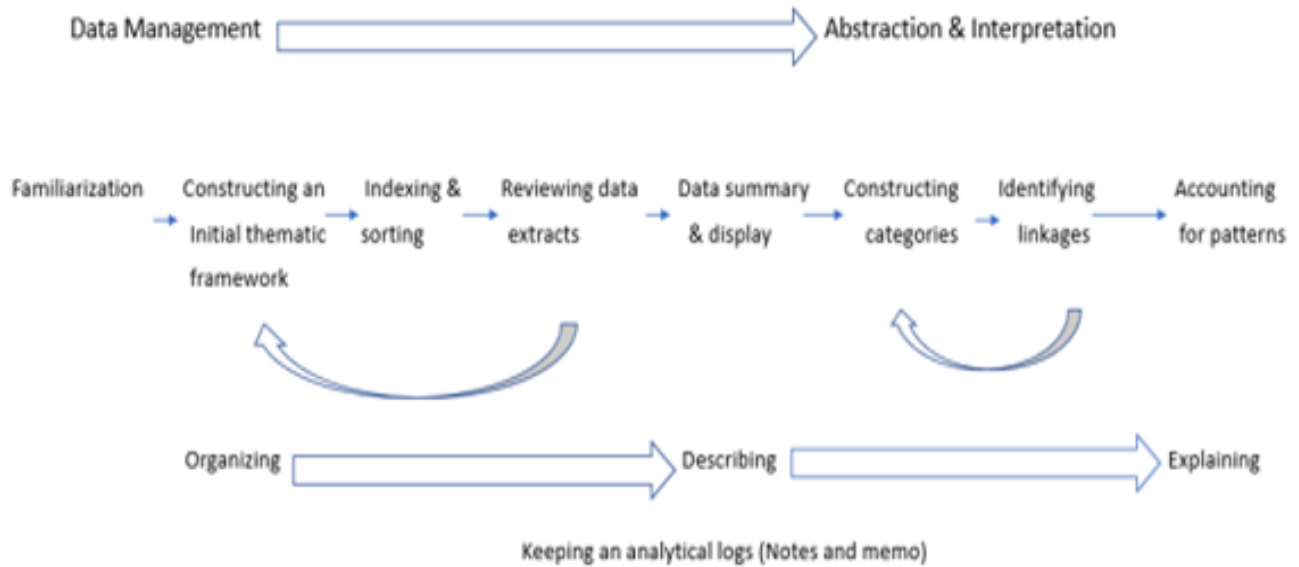
text, or between experiences, behaviors, and perspectives, or between expectations and outcomes, sometimes linking these to sample profile.

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- viii** Accounting for patterns – in the last step of this analysis process, the researcher reviewed the data to find out why they hung together in a particular manner. Several approaches can be used to account for patterns by the researcher. The approach the researcher chose for this step maybe gave explicit account based on reasons given by women in the study or using implicit accounts that entail the researcher making inferences about underlying logic based on women’s intention, normative expectation, or situational factors. The researcher also relied on the theoretical framework that guided this study to make sense of the patterns of the data.
- 

This study also utilized notes and memos during the analysis phase. According to Birks and colleagues (2008), memoing serves several functions. The practice can help with mapping research activities, extracting meaning from the data, keeping up the energy of study interactions, and opening communication. Although there are various styles of memoing, the researcher used pen and paper to help keep the style of the memo conversational and reflective. This practice of memoing helped the researcher stay open and curious to the experiences of women being studied.

**FIGURE 3: Formal Data Analysis Process**



(Spencer, Ritchie, Ormston, O'Connor & Barnard

2014)

### **Rigor of Study**

Since qualitative inquiry is a rather subjective approach to research, Lincoln and Guba (1985) outlined four elements to demonstrate rigor in qualitative studies: credibility, dependability, confirmability, transferability.

#### **Credibility**

It is noted that to improve the credibility of data analysis and interpretation in qualitative research, there is a need for sustained engagement with participants when conducting research particularly if it is an observational study (Hughes et al 2011; Power et al 2015). If the design of the study is interview only, then it is more practical to improve credibility through other approaches such as keeping detailed field notes about the interviews and including them in the analysis (Wu, Thompson, Aroian, McQuaid & Deatrck 2016). This study kept field notes to

support the research process and data collection. The notes were written after each participant interaction, and it was a way for the researcher to reflect on the data collection and note additional observation about participants that were not part of the interview transcript. This journal was useful in writing up the results of the analysis.

Another study stated that the process of showing the credibility of a study is embedded in reporting how the biases and other possible confounders were detected and addressed throughout study processes in an honest and transparent manner. This reporting can start with the conceptual framework used in the study and should be re-evaluated during report writing. Attention should also be given to some important confounders. These confounders include the researcher's training and previous experiences, personal connections to the background theory, access to the study population, and funding sources (Johnson, Adkins & Chauvin 2020). The study was designed around a theory (IBM) that was frequently re-visited throughout every aspect of the entire study. An extensive review of the IBM was conducted at the inception of the study, then IBM elicitation questionnaire was adapted for data collection. Additionally, the study findings will be discussed in relation to the IBM, the research consent document used for this study clearly described the qualification of the researcher and principal investigator of this study. The principal investigator for this research is a professor of public health, a psychologist and an experienced researcher. The proposal for this study was also reviewed and approved by four other professors. The researcher who engaged in the participants interviews and data collection is also well equipped for the task as she is a doctoral student in public health. The discussion by Johnson and colleagues (2020) on credibility of a study also referred to funding source for research. This study was funded by the school of public health dean's dissertation award, and this does not in any way present a conflict of interest for this research.

Furthermore, another study stated that the credibility of qualitative study can be established by approaches like data and method triangulation. This involves the use of numerous sources of data and/or methods, recurring interaction or communication with participants and peer debriefing. This study used only one type of data but had multiple interactions with participants. The initial contact was when the study was introduced through flyers or online adverts and participants called to express interest. Then they were screened and after the initial screening interview, they were either mailed or e-mailed a consent research document to review. This was followed by scheduling a full interview and finally mails were sent out to participants with informational materials on STD and STD testing. Participants also received \$20 gift card as compensation for their time.

Peer debriefing involves communicating openly with a peer about research questions and getting an additional viewpoint on analysis and interpretation of the research data. Also, member checking which entails sending back research results to participants to ascertain if the findings show their experiences. Lastly, the researcher's reflexivity also adds to the study's credibility as it helps in making the reader more conscious of likely impacts on the study (Jeanfreau & Jack 2010). For this research, the researcher engaged in peer debriefing with a younger public health researcher who listened and provided useful feedback.

### **Confirmability**

According to research, confirmability of qualitative study refers to the documentation of the process of establishing a paper-trail that relates to the researcher's thoughts, decisions, and research methods (Polit, Beck & Hungler 2006; Streubert-Speziale 2007). Additionally, other tools that can be helpful in allowing readers to understand the researcher's decision making are field notes, memos, transcripts, and the researcher's reflexivity journal or diary (Jeanfreau &

Jack 2010). As mentioned earlier, there are records of e-mails that were sent to participants with research consent documents and the researcher kept field notes for this research study. Also, the participants interviews were transcribed and used in the research analysis and reporting.

### **Dependability**

This describes the theoretical condition where research can be duplicated with comparable participants in a similar setting and provide equivalent findings (Hannes 2011). Another author stated that dependability is a process that ensures the outcomes of qualitative research can be replicated if the inquiry was done in similar group of participants, coders, and the same circumstances. Based on the original strategies adapted from Lincoln and Guba (1986), the authors indicated that dependability involves the rich description of the study method, creating an audit trail and step by step duplication of the data (Forero et al 2018). This dissertation study was approved by the university's institutional review board after submitting a well-developed proposal and detailed documentation about the study. A detailed study protocol was developed for the study. Also, an informed consent document and recruitment materials were used throughout the study.

### **Transferability**

This refers to how the results of a study can be applied to a certain population or the general population. For qualitative inquiry, the readers decide how results can be transferred to other situations or settings (Hannes 2011). According to Charlesworth & Foëx, (2016), it is not feasible to generalize the result of a project that is restricted to few individuals and environments. Rather, transferability encourages readers to create links between parts of the study and their own experiences (Charlesworth & Foëx, 2016). Similarly, another research study described transferability as the extent to which the findings of a research can be transferred to another

situation or setting. The original strategies described by the study to address transferability include purposeful sampling to form a nominated sample and data saturation (Forero et al. 2018). Purposive sampling method was used in this study and the target of recruitment is low to middle income African American women resident in Milwaukee. The goal is that some of the findings and recommendations that emanate from this work will be useful across similar demographics locally in Wisconsin as well as other states in the US.

### **Summary**

The study design and various aspect of this dissertation study was described in this chapter. In this part of the paper, the behavior of interest was defined, the research questions used in the semi-structured interviews were also described. In addition, the inclusion and exclusion criteria outlined helped to characterize the study population for the study. A detailed description of recruitment and data collection instrument was also presented. Due to the COVID-19 restrictions and recommendations for social distancing, data collection was conducted via telephone and data storage and data analysis plan were clearly outlined. Rigor of the research was addressed by discussing the credibility, confirmability, transferability, and dependability of the study.

## CHAPTER 4: RESULTS

A total of twenty-two (22) African American women who were resident in Milwaukee agreed to participate in this dissertation study and they shared their experiences around testing for STDs. Each participant provided general background information such as educational background, occupation, income level, health insurance, as well as a history of previous STD testing. The result of the study showed that the average age of women who participated in this study (36.64, SD 12.28), eighteen (n=18, 82%) women were single and six (n=6, 27%) of the women had a high school education, while seven (n=7, 32%) were unemployed. Additionally, twelve women (n=12, 55%) either had no income or earned less than \$20,000 per annum. About half the participants (n=12, 55%) had Medicaid health insurance. Regarding testing history, all the women (n=22, 100%) interviewed had at least one previous STD testing. A complete table describing the demographic characteristics of participants is attached to this paper as **Appendix F**.

The one-on-one interviews conducted also provided participants with an opportunity to openly share about their attitudes, experiences, and the challenges they have encountered while testing for STDs.

**Table 3: Baseline Characteristics of Participants (n=22)**

Characteristics	Description	N (%) or mean +/-SD
Age		36.64 +/-12.28
Gender	Female	22 (100)
Race	African American	22 (100)
Marital status	Single	18 (82)
	Married	1(4.5)
	Divorce	2 (9)
	Widow	1(4.5)
Education	High school	6 (27)
	Some college	5 (23)
	College graduate	11 (50)
Employment status	Employed	15 (68)



	Unemployed	7 (32)
Income level	Less than \$20,000	12 (55)
	\$21,000 - 40,000	4 (18)
	\$41,000 -60,000	4 (18)
	\$61,000 -80,000	2 (9)
Health insurance	Public	12 (55)
	Private	9 (41)
	Uninsured	1 (4)
Home ownership	Rent	22 (100)
Pregnant	No	22 (100)
History of STD testing	Tested	22 (100)

Twenty-two interview transcripts were analyzed for this research. The thematic analysis conducted identified seven main themes: personal factors, physician-related factors, testing issues, racial issues, transportation, personal network, and community resources. Since the interviews conducted resulted in very robust conversations about STD testing some key insights shared by participants were presented in Table 4. This table features some of the statements that participants made about STD testing, their formulated meanings, and related themes. Also, to provide a better understanding of how the data was coded Table 5 was added to the paper. This table shows the coding framework for three selected themes related to STD testing that were identified in the analysis.

## Themes

### Theme 1: Personal Factors

Personal factors as an identified theme in this research was linked to participants’ attitude, emotions, feelings, beliefs, and their health. Participants talked about some of their feelings about STD testing by identifying embarrassment, anxiety, disgust, and fear as some of the negative emotions that they have dealt with. While others discussed their acceptance of STD testing by expressing that it was “a good idea” or “the best thing ever.” Yet some participants acknowledged that honesty with themselves, and their personal health and beliefs had an

influence on their decision to seek testing for STD. In discussing what participants disliked about STD testing, one of the participants who is a 20-year-old African American college student and a member of the LGBTQ community (lesbian), who had tested for HIV and syphilis in the past with negative test outcome said:

*“The idea is a little embarrassing because nobody wants to look like .....it’s embarrassing because like doctors and nurses who treat people, they would still know that you have it, cos it’s not anything you can hide. It’s still an embarrassing moment.”*  
(Participant 5, 20 years, Student)

Another participant talked about the embarrassment she felt when she went to get tested for STD. This participant is a 49-year-old African American single mother who has some college education and has been sexually active since she was seventeen years. She currently has one sexual partner and stated that she has been tested for all of the STDs specifically syphilis, gonorrhea, HIV, and bacterial vaginosis and the results were negative. She responded to the question on her feelings and dislike for STD testing by saying:

*“I mean it’s an embarrassing feeling when you go in there. You feel like everybody watching, but it’s something you have to do. So, it’s a little embarrassing”* (Participant 15, 49 years, Administrative Staff)

Conversely, several participants expressed positive feelings and reactions about testing for STDs in this study. They talked about how they thought it was the right step to take when a woman feels like she may have been exposed in her relationship to an STD. A participant who is a 27-year-old African American single woman stated that she currently has multiple sexual partners and has done ‘basic’ STD screening with negative outcome, and she stated that:

*“Um, I get it done when I go to the doctor’s office, um I don’t know, I feel like it’s a good thing to get tested, there is nothing bad or wrong with it”. (Participants 16, 27 years, Human Resources)*

A different participant who is a 25-year-old African American college student in a monogamous relationship, who has tested for chlamydia, syphilis, gonorrhea, HIV, Herpes with negative outcome expressed her feeling about STD testing by saying

*“It’s the best thing ever!” (Participant 19, 25 years, Student)*

**Table 4: Selected Examples of Important Statements Participants Made about STD Testing and Related Formulated Meanings**

<b>Significant Statement</b>	<b>Formulated Meaning</b>	<b>Related Theme</b>
Because I feel if a person has a disease, he can tell something ain’t right with himself rather than spreading it, go get yourself checked out.	STD testing can inform people’s sexual behavior	Personal factor
Uhm... fear probably like the fear of unknown. Okay like if this test comes out positive, I may have to break up with this person or what if it’s something that is untreatable?	STD testing can yield results with long term implications	Personal factor
Yeah, there is positive about it but the only thing I don’t like is the fact that sometimes it hurts, it’s an uncomfortable feeling. Then the wait for test results, that’s an uncomfortable feeling too you don’t know whether you got something or not and it makes you kind of anxious.	STD testing can be informative yet uncomfortable and anxiety provoking	Testing issue
If you don’t have insurance that’s where it will break down. For me as a woman I have children, I had insurance, even when I got older, I got a job that had insurance. You have a male who don’t have children and don’t have insurance	The spread and prevention of STD is not solely within a woman’s control	Testing issue

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that would prevent him from being checked, that's where that disconnect comes from

I honestly can't think of anything, if anything it will probably just be like convincing myself to go in to be tested. I think there is just that mental barrier of I don't even want to think about what these test results can tell me, but I would still make myself go in if I was really concerned about something. So, there is that mental block, like that stigma of like am worried about what the test is gonna tell me but ultimately, I know it's more important for my health, for safety, for partners and community overall for me to go get tested.

Testing for STD requires personal courage and motivation to perform the behavior

Personal factor

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**Table 5: Examples of Three Theme Clusters with Their Associated Formulated Meanings**

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**Personal Factors**

Embarrassing feeling  
Response is that this is nasty  
Process gives me anxiety  
Fear of unknown  
I guess denial, not wanting to believe it  
I feel good about it  
I think it's a good idea  
It's a positive thing that you get taken care of  
It's the best thing ever  
I like to make sure that I'm safe  
Being honest with myself  
My religion  
Convincing myself to go in to be tested  
If I'm not feeling good

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**Physician Related Factors**

Kind of awkward situation  
Some doctors and nurses be a little judgy  
A provider that I trust  
Doctor's office being available  
Having reliable healthcare and healthcare provider  
The doctor was not very comforting towards me

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## Testing Issues

An uncomfortable feeling  
Get the result the next day  
Hatred of needles and blood draw  
Can affect you for life  
I said it hurts  
I don't like getting bad news  
Just time consuming to get an appointment  
Knowing about my health is important  
Cost being covered  
If I had more information  
I guess I should say no privacy  
You got to wait for long period of time  
Schedule an appointment online

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## Theme 2: Physician - Related Factors

Several participants identified physician related factors as important factors in their decision to seek testing for STD. The factors identified were quality of relationship with providers and access to providers. In describing the quality of relationship, participants talked about their feeling around certain providers where they felt “judged” for seeking STD testing. Also issues with access like clinic hours and how comfortable a doctor’s office was came up in discussions with participants. During the interviews, the feeling of perceived judgement by providers was identified by a 20-year-old African American high school graduate who recently tested for STD and was diagnosed with vaginal cyst and herpes infection. This type of attitude displayed by the provider she encountered appeared to have left a significant impression on her. She expressed her dislike for STD testing by stating:

*“Uh I don't like the fact that I felt like I was judged or no matter like how many partners a person has had, uh they should be like more comfortability in talking to doctors at different places. Like I don't know if its certain places, like some of my family members*

*don't really like certain hospitals. So uh, can you say the question again?". (Participant 9, 20 years, Unemployed)*

Another participant who is a 22-year-old African American college student with a history of multiple sexual partners in the past but currently in a monogamous relationship stated that she had recently tested for STD. She said she tested for HIV, HSV, HPV, chlamydia, gonorrhea and trichomoniasis and received a positive diagnosis for chlamydia and herpes. She talked about her testing experience and the importance of a good relationship with providers as poor relationships deterred women from testing for STDs. She stated that:

*"It is very difficult to like.....just to know how you will be treated. Um, there's been times when I got tested and I did not receive like comforting results. Not just the results but how the doctor handled my results. There's been other times when the doctor who did the test has been nice about it. But that won't always be the case. Um, during the summer I got tested and the doctor was not very comforting towards me but like the assistant was and so that was kind of difficult for me". (Participant 20, 22 years, Student)*

Also, a 34-year-old African American woman who works as a project administrator, and has been tested for HIV, chlamydia, gonorrhea, herpes, and HPV with negative outcome talked about the need for good relationship with providers and her experience at a clinic she had gone to seek testing for STD. She said:

*"Um, just that I think there is that gap there with HSV 1 and HSV 2 and also there need to be a strong good relationship with your provider that you feel comfortable with. Maybe other people have had relationships with planned parenthood, I did not.... I probably would not go back. But as long as it is.....when I was with my own doctor and got tested, I was much more comfortable with it. It really comes down to providers*

*having a personalized touch when it comes to something as sensitive as STI testing because there is still stigma out there and people do feel uncomfortable, depending on whom there are interfacing with. For me it makes all the difference to have a provider that I trust that can do that for me, they didn't do that for me at planned parenthood, that would help with that barrier". (Participant 18, 34 years, Project Administrator)*

The same participant further expounded on her point of view about the importance of having a good relationship with your provider by saying,

*I think definitely having reliable healthcare and healthcare provider that I trust, so it's useful especially since healthcare seems to be tied to employment. If you don't have employment, it's going to be hard for you to access healthcare and I have transportation so I can drive myself to any clinic to go get tested and I have the income to pay for any doctor's bills related to STI testing. So, from an economic standpoint, transportation standpoint, having reliable healthcare insurance makes it easier and I have a good working relationship with my primary care physician, so, I don't have any worries if I need to go get tested. (Participant 18, 34 years, Project Administrator)*

Other participants talked about factors like the comfort of the doctor's office and the clinic's hours of operation. A participant said:

*"I guess it's a comfortable place or whatever, you know doctor's office that I've been dealing with, I was one of those who probably would not like to go to something new but like to stick to what I know, they would probably put you on something new."*

*(Participant 15, 49 years, Administrative Staff)*

A different participant said the clinic hours of operation was important to her decision to seek STD testing. During the interview, a 32-year-old African American licensed counselor who currently has multiple sexual partners and had a prior positive chlamydia diagnosis in 2009 said:

*“Um the only thing that prevents me is the hours and time that the clinic is available near my residence based on my work schedule.” (Participant 13, 32 years, Licensed Counselor)*

### **Theme 3: Testing Issues**

Several issues were identified during the interviews that were directly related to the testing process for STD. Participants discussed the method of STD testing and how procedures like pap smear and blood draw involved in testing was painful and uncomfortable. They described the speculum used in pap smear procedure as that “cold thing” they put inside a woman to test her. Some participants decried the lack of privacy they associated with testing for STD. They highlighted the need for more privacy and confidentiality when testing for STD. Time related factors like how long it takes to schedule a test, the wait time for the test and wait time for test results were also issues that were discussed during the interviews. Some participants talked about lack of information being influential to their decision to test for STD while others were specific about the need for more information and messaging about herpes infection. A participant talked about the lack of privacy and the need for more support from the clinic staff involved with STD testing.

*“Um basically the support and, um I think I mentioned this a while a few questions ago another thing that will also make it easy to go to the doctor because some places are like really open, they have like the big rooms, the big waiting rooms with the desk, like it’s not that confidential. Now with COVID 19 you really can’t be that close to the glass, but I feel like they should be some room that you should be able to check into instead of like being in front of everybody else. I don’t know like a support team, um like I feel like I need to go back to therapy. Um I’ve been having like suicidal thoughts and things like that so basically like a support team and more confidentiality like a place to go instead of*



*being like in front of the whole room of people then checking into the doctor's office?"*

*(Participant 9, 20 years, Unemployed)*

Some participants discussed their frustrations with the length of time it took to get an appointment or be seen by their providers for STD test. A 28-year-old African American woman who is a paramedic stated that she currently has multiple sexual partners and has tested for chlamydia, syphilis, HIV, and gonorrhea and her test results were negative. She said:

*"Um, my experience wasn't....it wasn't painful, hard or anything. I guess it's just time consuming to get an appointment and get everything done. It's just that I had to take time out of my schedule to do it." (Participant 17, 28 years, Paramedic)*

Another participant who is a 28-year-old African American single mother of three children, said she recently had a pap smear done. In the past she tested for HIV and syphilis and stated that if test results were positive, you get a call from your provider, but she never got a call, so she interpreted that as a negative test result. She said she was sent 'something about her results' afterwards. She expressed her view about the length of time it took to see a provider, by saying,

*"Yes Ma'am. I was frustrated because you got to wait for long period of time before you get seen". (Participant 4, 28 years, Unemployed)*

Then participants talked about the wait time required for STD test results to become available. A participant admitted that it was an anxiety provoking situation. During the interview a 47-year-old African American woman who works as a contract staff and has been tested for HIV, chlamydia, gonorrhea, syphilis, and herpes in the past stated that she gets HIV test done annually on her birthday. She also stated that she tested positive for gonorrhea and chlamydia when she was younger for which she was given penicillin shot. She expressed her opinion about the wait time involved with STD testing by saying:

*“I’ve hated needles, you got to give blood. I hate that more than anything other than that it will be the wait, you have to wait for an answer, you are already nervous and concerned and you have to wait for an answer.” (Participant 14, 47 years, Contract Staff)*

Another participant voiced a similar opinion by saying:

*“That you get the result the next day, not the same day. Like you can’t get your results the same day. I like that they come the next day, it’s just that you can’t get it the same day.” (Participant 13, 32 years, Licensed Counselor)*

An interesting issue that was also discussed was about herpes infection. Participants voiced their opinions about inadequate messaging or the lack of herpes testing in some STD clinics. A participant said:

*“Um, not for me right now.... I know when I first got diagnosed (herpes) I was in Chicago, um places were like we are not doing testing for that specific thing inside their facilities, and I know that’s a big issue too.” (Participant 20, 22 years, Student)*

A different participant who was more outspoken about inadequate information about herpes infection said during her interview that,

*“I’m all for it. If anything, there need to be more messaging about herpes virus. I think there is a real misconception about how common it is, how you can be asymptomatic and still have it, it’s also not typically included in STD/STI type testing. So, people think that if you get a clear panel that you are fine, meanwhile you can be potentially walking around transmitting HSV1 or HSV2. So, if anything there just needs to be more comprehensive messaging for people to understand what those tests tell you and what they don’t tell you.” (Participant 18, 34 years, Project Administrator)*

#### **Theme 4: Racial Issues**

Racial issues linked to STD testing were highlighted during participants interviews. There was discussion on racial bias or “negative connotation” around higher prevalence of STDs among African Americans. The fact that this is given a lot of attention on the media was also an issue that bothered participants. During the interview, a participant who is a 29-year-old African American single woman who is a social worker and has tested for chlamydia, gonorrhea, HIV/AIDS, and had negative outcomes said:

*“Um, I don’t like the negative connotation that is like Black people and Brown people seem to be at a higher risk. I think sometimes they feel like we don’t protect ourselves, like we don’t take ourselves seriously. Just because I’m getting myself continuously checked for STI’s and things like that doesn’t mean I’m having multiple sex partners; it just means that I have to protect myself and make sure that I know if there is something because it’s better to know ahead rather than wait and not know” (Participant 12, 29 years, Social Worker)*

Another participant talked about the negative publicity that African Americans get in the press concerning health disparities and higher prevalence of diseases such as STDs. She said:

*“Yeah, a lot of people can see it, they pull the statistics of how many African Americans have diseases and if you get tested you feel better. It’s all over the radio” (Participant 4, 28 years, Unemployed)*

#### **Theme 5: Transportation**

Participants talked about transportation as both a facilitator and a barrier to testing for STDs. Participants who had access to personal cars, who could call for ambulance or ride sharing services said they had no problem with transportation to STD testing sites. While some participants identified transportation as a barrier to testing if they did not have cars, lived blocks

away from bus lines or could not afford other types of rides sharing services. A Participant talked about accessible transportation for STD testing by saying,

*“Um I guess I live in rural city, I guess urban city, so transportation is always accessible within three block location, the doctor’s office is always around so I like that we can get all that exposure and that we are not too far from hospital within fifteen-mile radius. I like that.” (Participant 14, 47 years, Contract Staff)*

During the interviews, participants talked about importance of accessible transportation to STD testing sites. A 22-year-old African American college graduate who is a member of the LGBTQ community (lesbian) and currently has one sexual partner said during her interview that she had tested for gonorrhea, syphilis, and HIV in the past and the outcome was negative. She expressed her view on how access to transportation makes testing easier by saying,

*“Yes, there is transportation around me, there is a hospital down the street. Um, there is a test site somewhere close.” (Participant 2, 22 years, Unemployed)*

Some other participants talked about the challenges of not having access to transportation when deciding to test for sexually transmitted diseases. A participant who is a 47-year-old African American woman, college educated and currently has multiple sexual partners stated that she had tested for chlamydia, syphilis, gonorrhea, herpes, trichomonas, and HPV in the past but declined to share the outcome of her test. When responding to the question about things in her environment that made it difficult for her to seek testing, she said:

*“I’ll have to say transportation and being able to set up an appointment.” (Participant 8, 47 years, Unemployed)*

Another participant also identified not having access to transportation as an obstacle to testing for STDs. She said:

*“Transportation, like the directions of which places I can go to. Um sometimes not having bus fare to get there. Um excuse me?”. (Participant 9, 20 years, Unemployed)*

### **Theme 6: Personal Network**

Participants identified people in their personal networks that would support them seeking STD testing and people who would be opposed to their decision to seek testing for STD. Based on participants responses, it was identified that family, friends, and partners were both in support and opposed to STD testing. Many participants stated that nobody they knew was opposed to them getting tested for STDs. Other important factors identified were religious factors and education.

Family was identified in several interviews as a support system for participants when they seek testing for STDs. A participant described her source of support during her interview by saying:

*“Uh my mother, my brother um basically my family. Pretty much the people that I talk to, my sister-in-law”. (Participant 9, 20 years, Unemployed)*

Another participant stated that her family was supportive and more importantly they were open and communicative even on issues like STDs.

*“Oh, my family, we are very open with each other, so they will always be supportive.”  
(Participant 15, 49 years, Administrative Staff)*

A participant raised an interesting issue during her interview. She identified the different sources of support that she receives when seeking testing by mentioning the sources and including her education. She said,

*“Um my mum, myself, my education, my boyfriend” (Participant 12, 29 years, Social Worker)*

Then she followed up by explaining the impact getting a positive STD test could have on her educational pursuit. She said:

*“I feel like my people, my education is important because if I do get STD tested and if there was something negative like HIV that’s a problem to my education, because I can’t go to school if somebody has like herpes you miss class” (Participant 12, 29 years, Social Worker)*

During the interviews, when it came to a discussion about people who would be against participants seeking testing for STDs, many participants said they did not know anyone who would be opposed to their decision to test for STDs. One participant when responding to the interview question said:

*“Nobody, everybody in my family will do what they gonna do.” (Participant 15, 49 years, Administrative staff)*

Concerning this issue, A 57-year-old African American widow who is a mother of two children and is currently in a monogamous relationship was interviewed and she stated that she tested for HIV when she was in prison, and it turned out negative. She was also clear about her determination to get STD testing if she needed it and the fact that nobody could stop her if she took the decision. She said:

*“I was just going to say nobody will stop me from testing if I feel something wrong with me. If somebody got something and am around with him, I’m going to get tested no matter what”. (Participant 22, 54 years, Unemployed)*

However, a few participants said that they had family members that would be opposed to them getting tested for STDs. A participant stated that:

*“Um, I mean my mum probably won’t be very supportive that’s probably because she in general doesn’t have.....she wants her kids to stay kids. She doesn’t want to think about her kids having sexual relationships so she probably wouldn’t. Um, I don’t think she*

*would blatantly tell you no, but I don't think she would encourage the conversation either. She is very hush, hush about that sort of thing". (Participant 18, 34 years, Project Administrator)*

An important issue was raised by a 52-year-old African American woman who at the time of the interview stated she was in treatment for substance use. This participant became sexually active at thirteen, she had multiple sexual partners in the previous year and has been tested for all STDs. She stated that she had venereal disease at fourteen years. She asserted that her religion could be a reason why she would not test for STDs. She said:

*"My religious beliefs, some on my father's side." (Participant 6, 52 years, Unemployed)*

### **Theme 7: Community Resources**

Community resources were identified as important factors in STD testing. Participants talked about the different kinds of resources in their community that aids their decision to test for STDs. Free testing sites, planned parenthood offices and public adverts on buses and radio were identified as valuable resources within the community that were contributory to participants decision to seek STD testing.

*"Okay, um I know that I live in a 53208-area code, I know there is like a women's center over here. Um I'm pretty sure I know there is like a church, I mean I have never been to the church but I'm pretty sure like Christian people will encourage that. I think I have been a volunteer at churches where there have doctors and stuff. Like I don't really go out much so um I'm not sure." (Participant 9, 20 years, Unemployed)*

Several participants talked about testing services that they accessed through the planned parenthood network.

*“I would say planned parenthood offers a variety of wide range of services, for people with and without insurances so that the financial burden isn’t overwhelming.”*

*(Participant 17, 28 years, Paramedic)*

Additionally, a 53-year-old African American woman who works at a cleaning company said she had tested for HIV twice, but her results came back negative, identified planned parenthood as a useful resource in the community for STD testing. She said:

*“Yes, we have Planned Parenthood Clinic right there on Wisconsin street” (Participant 10, 53 years, Cleaning Company)*

Other resources in the community that were identified were availability of STD testing sites and more importantly the fact that some of the sites offered free testing services.

*“Yeah, I have my own transportation to be able to go, I feel safe walking there, like if I wanted to just walk to Brady Street to get tested, I could go do that or if I wanted to go to my doctor’s office I could just drive there. Not only that but there is free testing that is available at the health department. Um, I know that Keenan health center which is on the North side also has STD testing available. I personally, I can’t think of any environmental barriers that will keep me from getting tested.” (Participant 18, 34 years, Project Administrator)*

Another participant acknowledged the availability of free testing sites by saying,

*“The fact that most of the testing is free.” (Participant 5, 20 years, Student)*

Lastly, a participant discussed how the adverts displayed on Milwaukee city buses served as a reminder for STD testing. She said:

*“I see the buses on the road and on the side, they write get tested, get tested, get tested. So, a lot of buses they write get tested, get tested I see around my neighborhood. My*



*neighborhood is an old neighborhood in my area, and you see the sign get tested, get tested.” (Participant 4, 28 years, Unemployed)*

### **Summary**

A brief description of participants characteristics was presented in this chapter, also results from the analysis of interview transcripts was presented. The thematic analysis of the data for this study identified seven main themes including personal factors, physician-related factors, testing issues, racial issues, transportation, personal network, and community resources. Participants in the study openly discussed the ways in which these factors identified influenced their decisions and experiences of STD testing.

## **CHAPTER 5: DISCUSSION**

Historically, African Americans have been exposed to systematic discrimination and oppression for 150 years since slavery was eradicated and the discrimination continues even to present day. The implication of this for their health outcomes is far reaching. Nevertheless, the historical experience of slavery and the modern-day racial discrimination this group continues to endure clearly lies behind the unardonably poor health outcomes that African Americans experience (Noonan, Velasco-Mondragon & Wagner 2016).

### **African Americans in Milwaukee**

Milwaukee is recognized as a highly segregated city as it is documented in history that the pattern of segregation and racial inequality that besets most large northern cities in the mid-twentieth century, was especially evident in Milwaukee. In earlier times in the city, African Americans made up a small part of the population, and they were mostly an ignored ethnic group until the post–World War II period. Then the remarkable increase in the Black population deepened the racial segregation, led to marked deterioration of housing, health, and urban education in African American neighborhoods. This sequence of events sharpened racial tensions between Whites and Blacks across the city. After this period, it was documented that residential segregation in Milwaukee was more or less complete, with ninety-eight percent of African Americans living in the central city (Jones 2012).

According to the United States Census Bureau, the City of Milwaukee has a population of about 590,157 of which of which 38.7% are African Americans and 25.4% live in poverty while 10.3% live without any health insurance (United States Census Bureau 2019). Milwaukee is stated to be a highly segregated city and in the 1950's when African Americans migrated to the city, new residents faced discrimination both in jobs and housing just like many other Black

residents in the city. In addition to this was the problem of class bias that was apparent within the city's elite and middle class, and this was used as a political tool to further hinder efforts of African Americans to get jobs and adequate housing. Connell (2017) admitted that the situation with African Americans in the city is no different in recent times. He stated that a fundamental mechanism stopping African Americans from making progress economically has been the growing ploys of Milwaukee's sundown suburbs to stop lower income, mostly African American, residents from moving out of the deteriorating inner core. In 1990 it was documented that eleven suburbs in Milwaukee were in violation of agreements to promote fair housing (Connell 2017). This indicates that many African Americans that make up a significant portion of the city's populace are impoverished.

As earlier stated by Noonan and colleagues, the legacy of years of racial and social injustice experienced by African Americans has placed them as the least healthy ethnic group in the USA, thus creating a formidable challenge for them to achieve equitable health care for all (Noonan, Velasco-Mondragon & Wagner 2016). Therefore, it is no surprise that the City of Milwaukee has several public health challenges of which sexually transmitted diseases continue to persist. So, it was not only timely but also worthwhile to explore issues related to STD testing among African American women in the city.

This dissertation research interviews stirred up robust conversations among participants on some important contextual factors that affect STD testing in Milwaukee. Existing epidemiological data shows the extent and impact of these diseases in the city, but the interviews conducted in this dissertation research shed light on some of the challenges and issues that African American women grapple with linked to STD testing. Another important issue that emerged with this research is the dearth of research examining issues related to STD testing

among African American women. Thus, this research in part helps to address some of the gaps that currently exist in the literature.

### **Integrated Behavioral Model**

The IBM was used to guide this qualitative inquiry. This model proved to be an especially useful framework for exploring the issues related to testing for STDs given the array of important factors that emerged from this inquiry. As stated in previous chapters, the model consists of different constructs that are contributory to understanding motivations for a particular health behavior. This study chose to explore some of these constructs: attitude, perceived norms, personal agency and environmental influences. So, it is no surprise that the results of the analysis yielded a variety of important factors that are influential to participants decisions to test for STDs given that this model has been successfully used in several prior research studies. So, in this light, this study considered the IBM as a good choice for the enquiry.

### **Theoretical Elements**

As earlier stated in this paper, this study was guided by the IBM and the interview questions explored some of the constructs of the IBM. The constructs that were of interest to this study are attitude, perceived norms, environmental constraints, and personal agency. The data analysis showed that the IBM as a framework was not only useful in guiding the exploration of issues and challenges that African American women face with STD testing but the use of this model also helped to uncover other relevant factors that were not part of the identified constructs of the model.

### **Attitude**

Personal factor as a theme was identified in this study, and it was related to participants' attitude, feelings, emotions, beliefs, and personal health. Attitude was an IBM construct that was

explored in this study as data was gathered from participants about their feelings and dislike for STD testing. The IBM highlights two types of attitudes, experiential and instrumental attitude. Experiential attitude is an individual's response to the thought of doing the behavior of interest while instrumental attitude is ascertained by beliefs about outcomes of doing the behavior (Montano & Kasprzyk, 2015). This study focused on exploring experiential attitude. Feelings and emotions identified by participants were both negative and positive feelings about STD testing. As such, negative attitudes that participants expressed were closely linked to the negative emotions that they felt during STD testing. Some of the participants stated that they felt embarrassed, disgusted, angry, and anxious about testing for STD. While participants who expressed more positive attitudes had emotional reactions that were related to their positive view of STD testing. This was an important finding in this study because according to Montano & Kasprzyk (2015) the intention to perform a behavior of interest was determined mainly by attitude, perceived norms, and personal agency. Some participants in this study thought testing for STD was the right thing to do and others felt it was the best thing to do if a woman felt she had been exposed to STD. Participants also talked about how their beliefs and religion could influence their decision to test for STDs. Others identified feelings about their personal health and wellbeing as a contributory factor to their decision to seek testing.

Concerning attitude to STD testing, a comparable qualitative study like this dissertation study that was conducted by Conserve et al (2018), who used the IBM to guide their research to assess men's attitudes and personal agency towards HIV self-testing and confirmatory HIV testing to inform the development of the Tanzania STEP (Self-Testing Education and Promotion) Project. The result of their study revealed that men had positive and negative emotional attitude to testing. They also found that privacy, confidentiality, and saving time were the key reasons for

their interest in self-testing. Additionally, most participants had high perceived control and self-efficacy to self-test and seek confirmatory HIV testing. However, men also reported some fears linked to their ability to perform the test and the possible lack of post-test counseling. Another study by Hogan et al (2010) that used a different theoretical framework assessed the attitude of their participants towards chlamydia screening and they reported both positive and negative attitude among their participants. The study reported that almost all the participants in their study voiced positive opinions about chlamydia testing being recommended for them during a family planning consultation. However, some participants voiced negative opinions about getting recommendations for STD testing in a consultation that is not linked to sexual health. Some participants said they would feel offended if offered testing for chlamydia infection in such situation (Hogan et al 2010).

### **Perceived Norms**

Regarding perceived norms, research states that it is related to the pressure that people feel to perform or not to perform a certain behavior. The authors stated that subjective norm could be defined as injunctive and descriptive norm based on Theory of Reasoned Action and Theory of Planned Behavior. Injunctive norms are normative beliefs about what others think one should do while descriptive norms are perceptions about what others in one's network are doing, and this was deemed a key part of normative influence for health behaviors (Montano & Kasprzyk, 2015). This study focused on exploring how participants' personal network was important to their decision to seek STD testing. The study assessed people in the participants network that will support them getting tested or the people who would show opposition to testing for STDs. The study showed that family members, friends and partners constituted supporters. While non-supporters or opposers were identified as nobody, family members, friends, and partners.

Similar to this dissertation study, a qualitative study by Roncancio and colleagues (2018) that was guided by the IBM, successfully identified mothers' salient beliefs regarding their daughters' initiation of the HPV vaccine series. The most important supporters mentioned in their study were the daughter's father, the mother, the daughter, and the daughter's maternal aunt. The study revealed that the daughter's parents were the most important supporters of HPV vaccine initiation while the daughter and the mother's sister (maternal aunt) were the next two supporters (Roncancio et al. 2018). Non-supporters or opposers of the HPV vaccine were also identified. The most important groups were no one, the mother's friends, the daughter, the daughter's father and the daughter's maternal grandmother. The most important response by far was no one and this is very similar to some of the feedback from participants in this dissertation study. Additionally, many participants explained that vaccinating a daughter was largely a mother's decision (Roncancio et al. 2018). In a different study that also used the IBM to assess Hispanic mothers' belief regarding HPV vaccine series completion for their adolescent daughters, supporters were also identified. The three most important supporters of HPV vaccine series completion were the daughter's mother, the daughter's father, and the doctor. It was stated that the main reason for the father's support was the desire for his daughter to enjoy good health while doctors were supporters of vaccine series completion because of their role in recommending and administering the vaccine. Non-supporters were also identified, and they included the two most important categories of non-supporters which were nobody and the mother's friends. Several people stressed that they could not think of anyone that would not support their decision to vaccinate their daughters because vaccination was their decision to make (Roncancio, Ward, Carmack, Munoz & Cribbs 2017). The findings from this dissertation research differ from those of Roncancio and colleagues (2017) who identified their daughter's

doctor as a supporter of HPV vaccine series completion. This is because the participants in this dissertation study talked about the importance of having good relationship with their providers but none of them identified their doctor as a supporter of STD testing. Regarding the family members identified by participants in this research, they talked about mothers, sisters, brothers, aunts, and children being supporters of STD testing. Because of the older age group that was interviewed in this dissertation research no one talked about fathers as being supporters of STD testing.

### **Environmental Constraints**

Transportation was one of the main themes identified in this research and it is directly related to the IBM construct of environmental constraints. Environmental constraints in the IBM is said to directly influence the behavior of interest. Participants identified transportation as an issue they dealt with when they considered testing for STDs. Participants in this study talked about access to personal cars, ambulance services and ride sharing services. Transportation was found to be both a facilitator and barrier for participants who sought testing for STDs in this study. This is not surprising because newer research suggests that that neighborhood poverty and transportation access are important factors among US adults in achieving their desired medical care (Haley et al 2017). Transportation barriers is often commonly mentioned as an obstacle to healthcare access, and it can lead to changes such as rescheduled or missed appointments, delayed care, and missed or delayed medication use. The effect of these changes could cause poorer control of chronic diseases and poorer health consequences. (Syed, Gerber & Sharp 2013). Also Syed and colleagues (2013) noted that socioeconomic status of patients was important as patients with a lower SES were more likely to encounter transportation barriers compared to patients from higher SES when seeking care. Another study acknowledged that the



availability of both public and private transportation was part of adequate health care access. It was stated by Pheley (1999) that public transportation barriers negatively affect the elderly and poor people who depend on it most to access their health care services (Pheley 1999). In this dissertation study, many participants who identified transportation as an obstacle to STD testing were either unemployed or from low SES, while participants who were of higher SES stated that they had personal cars so did not see transportation as an obstacle to getting STD test. Although not highlighted by participants in their interview discussions, the fact that the study interviews were conducted through the COVID 19 pandemic that brought some travel restrictions may have added another layer of difficulties for participants. Mass transit services required mask and limited the number of passengers that were permitted on board the buses during the lockdown period of the pandemic. Other issues like strike by transportation workers could potentially add to the difficulties that low-income people face as they rely on public transportation to access care.

### **Personal Agency**

The IBM construct of personal agency consists of both perceived control and self-efficacy. Self-efficacy is a person's confidence in their ability to perform the behavior of interest despite obstacles. Perceived control is determined by an individual's insight into the extent to which different factors make performing the behavior of interest easy or difficult (Montano & Kasprzyk, 2015). Perceived behavioral control became a recognized concept after Ajzen (1991) added it as a construct to an existing theory (theory of reason action) paving the way for theory of planned behavior that is the precursor to the IBM. Perceived control is governed by control beliefs about the existence or lack of facilitators and barriers to performing the behavior of interest weighted by perceived power. This construct was included in the theory partly because

the thought was that performing a behavior is determined equally by intention and behavioral control (Montano & Kasprzyk 2015). This dissertation study analyzed questions that explored participants perceived control in relation to STD testing since data was gathered on issues that made testing for STDs easy or difficult for participants. Participants discussed their feelings and beliefs about STD testing as important to their decision to test for STDs. Personal feelings of fear, denial, embarrassment, honesty to self and the desire to get tested were identified as important to participants' decision to test for STDs. Individual health issues such as physical and mental health issues were mentioned by participants as important factors. Personal beliefs and religion were also found to be relevant factors in the decision to seek testing for STDs. Other issues that participants raised that affected their perceived sense of control when it came to testing for STDs was access to testing such as access to STD testing sites/clinics, ease of scheduling appointments and access to health insurance. Additionally, issues such as lack of information and privacy were identified as potential barriers to STD testing. Participants also identified transportation as both a facilitator and barrier for STD testing in response to the questions on perceived control. So, exploring perceived control as part of the construct of personal agency brought to light an array of important factors that influence participants decision to test for STDs. A study by Dillard (2011) found that perceived control, attitude, and subjective norms were the three key constructs of the IBM that strongly predicted intention to vaccinate.

About personal agency towards HIV self-testing and confirmatory testing, a study by conserve and colleagues (2018) reported a mixed level of perceived control and self-efficacy to pursuing confirmatory HIV testing and most participants were confident they could do it if they needed to. In this study, a participant stated his lack of confidence in self-testing when compared to getting tested in the hospital but expressed his willingness to seek confirmatory HIV testing.

The same participant who expressed fear about HIV testing at the clinic previously also reported low perceived control about seeking follow-up HIV services because of stigma that people living with HIV experience in his community (Conserve et al 2018).

Theoretical constructs of the IBM were successfully explored in this study as the enquiry focused on key constructs such as attitude, perceived norms, personal agency, and environmental constraints that are influential to intention to performing a behavior. This was a strategic approach chosen with the use of this model because it was clearly stated by Montano & Kasprzyk (2015) that the intention to perform a behavior is key to successfully accomplishing the behavior of interest and is influenced directly by some of the constructs examined in this study including attitude, perceived norm, personal agency. The inquiry was successful and resulted in identification of essential factors related to STD testing among African American women. Also, environmental factors that directly affect STD testing were explored and useful barriers and facilitators were identified from the enquiry.

### **Attitudes and Emotional Reactions to STD Testing**

Participants in this study expressed different emotions, feelings, and attitudes towards testing for STD. They spoke of feelings of embarrassment, anger, disgust, denial and honesty about their exposure and the need for STD testing. Fear of getting an incurable STD was also discussed and anxiety was mentioned in connection with the testing process and wait time for results. These emotions expressed by many participants were associated with negative attitude to testing for STDs, while a few expressed positive views of STD testing. Some participants thought it was a good idea or even the best thing a woman could do if she suspects she may be at risk of STDs. Yet, a few participants talked about feeling angry at themselves for potential STD exposure, while other participants talked of feelings of disgust about getting an STD test during the interviews. In a systematic review and meta-ethnography of qualitative studies that examined

women's experiences of thinking about and participating in testing for chlamydia, Jackson and Roberts (2015) identified positive feelings and embarrassment about physical nature of STD testing among the studies they reviewed. They also stated that studies reviewed reported embarrassment and anxiety from stigma as emotional responses identified among people testing for chlamydia (Jackson & Roberts 2015). Another study conducted to investigate young regional and rural women's understanding of chlamydia and factors that may prevent or delay testing reported that chlamydia infection in young regional and rural women is linked with significant perceived stigma and embarrassment (Wagg, Hocking & Tomnay 2020). Brown and colleagues (2019) in discussing the qualitative results of their study, they reported that worries and embarrassment were linked to the method of STD testing that involved collection of ano-rectal swab sample. Another issue that was highlighted by many participants in their study was whether a visit to a sexual health clinic was associated with stigma. Some participants thought it was possibly embarrassing, while others thought utilizing sexual health services was becoming a normal occurrence. Participants in this dissertation study also talked about their feelings of anger because they had put themselves at risk and needed to get STD testing done. A study examining the role of stigma in chlamydia testing stated that some of their study participants who had tested positive for chlamydia voiced feelings of shame or anger towards their sex partners (Theunissen 2015). Concerning denial, fear and anxiety discussed by participants in this dissertation research, a literature review conducted to document the views, attitudes, and opinions of women about testing for chlamydia trachomatis discussed factors that make testing less acceptable, and denial was one of the significant themes identified in that paper. In discussing denial, the study stated that women did not want to acknowledge their sexual activity and they thought their partners and themselves were at low risk of chlamydia. Also, themes of fear and anxiety were common in

their review. Women reported fear about developing infertility and the impact on their future reproductive health. They had also reported anxiety about partner notification and worried about the harmful impact of a chlamydia diagnosis on their personal relationships (Pavlin, Gunn, Parker, Fairley, & Hocking 2006).

### **Racial Issues**

Participants in this dissertation study highlighted some issues about racial bias related to STD and STD testing. A participant discussed how people of color (“brown and black people”) were viewed differently when it came to STD testing. They were seen as less serious about protecting themselves from diseases like STDs. In her discussion, she clearly attributed this negative perception of their STD risk to race. Another participant talked about the negative publicity that broadcasting the higher prevalence of STDs over the radio had for African Americans. She felt this type of media exposure put their racial group in bad light where diseases like STDs were concerned. Participants also discussed stigma associated with STD testing and positive STD results that may or may not be linked with race. Johnson and Roberts (2015) conducted a synthesis of studies and revealed that nearly all of the studies they reviewed highlighted the role of stigma surrounding beliefs about STDs. STDs were usually believed to be linked with promiscuous, risky, and careless behavior. Most of the papers reviewed reported that such stigma was largely about gender and had specific implications for women because of the different social expectations around male and female sexual behaviors (Jackson & Roberts 2015). In another study, it was stated that many of the participants perceived that a positive chlamydia diagnosis was a stigmatizing condition influenced by the view that promiscuity, poor judgement, and lack of self-control increased people’s risk (Wagg, Hocking & Tomnay 2020).

Issues around STD testing among African American women from different demographic backgrounds were explored in this dissertation study. Several participants who were unemployed

and on public health insurance (Medicaid) volunteered for this study, hence they were largely in the lower socioeconomic class. This is not a surprising finding in this study because many African Americans are disadvantaged economically, much of which some researchers earlier cited attributed to the historical experience of slavery and generational consequences of that experience. In this dissertation paper, a participant alluded to some form of racism in the way African Americans are viewed or treated when it comes to STDs and testing for it. She expressed views of racial bias or negative racial connotation linked with a person of color seeking STD testing because they do not take themselves seriously or make adequate effort to protect themselves from contracting STDs. This view may not only be linked to the fact that she was African American, but also that she was a woman. Although, the IBM has been a great model that guided the exploration of these issues around STD testing, it does not have constructs that help to provide an understanding of how the interplay of these demographic factors could present challenges to performing the behavior of interest. A theory like intersectionality if used in this type of research would have been useful to elucidate the relevance of factors like race, gender and social class. Intersectionality was described as having three core tenets. The theory according to Bowleg (2012) posits that:

*“(1) Social identities are not independent and unidimensional but are multiple and intersecting (2) people from multiple historically oppressed and marginalized groups are the focal or starting point, and (3) multiple social identities at the micro level (i.e., intersections of race, gender and SES) intersect with macrolevel structural factors (i.e., poverty, racism, and sexism) to illustrate or produce disparate health outcomes.”*

The important thing about intersectionality is that goes beyond assessing individual level factors such as biology, socioeconomic status, sex, gender, and race. Rather this concept explores the

relationships and interactions among such factors, and across multiple levels of society, to ascertain how health outcomes are influenced across population groups and geographical contexts (Kapilashrami & Hankivsky 2018).

Another theory that was described earlier in this dissertation that would also be useful in addressing issues of race is the critical race theory. As documented earlier in this dissertation, the core assumptions that are recognized for CRT are racialization, race consciousness and social location (Ford & Airhihenbuwa 2010b). As such, this theory allows room for exploration of issues that are race related and produce health inequities. There is evidence that these theories have been successfully used to explore STD related behaviors among people of color. This is so because a qualitative study used a combination of critical race theory and intersectionality theory to help better understand the views of people of color (African Americans/Blacks and Hispanics) living with HIV on the mechanisms through which structural racism specifically the macro-level systems support inequities among racial/ethnic groups and how this effect health decisions and behaviors. It was found in the study that participants experienced HIV care and medication decisions through a historical and cultural lens by combining knowledge of previous and current structural racism (Freeman et al, 2017). This background knowledge comprised of recognition of past maltreatment of people of color in medical research and these understandings were also linked to the history of HIV antiretroviral therapy. Further, it was stated that the historical/cultural background, parts of structural racism was harmful and influenced health care decisions and behavior in several ways. This includes the degree to which healthcare settings were experienced as very institutionalized, degrading and the distrust of medical institutions and healthcare providers. Additionally, it was stated that patients' perceptions were ignored from the health decision-making process and there was too much focus on antiretroviral therapy as

opposed to other non-HIV related priorities. It was also reported that although participants were located at the intersection of several social classes, race/ethnicity and social class were described as key factors (Freeman et al, 2017).

Another study by Ford and Airhihenbuwa (2010a) highlighted the application of critical race theory's effort to understand whether racism-linked factors are possible barriers to African Americans getting the recommended and readily available routine HIV testing. It was stated in the paper that because of the elevated prevalence of HIV, regular HIV testing has become the mainstay of US HIV prevention efforts. It also acknowledged that African Americans were diagnosed later and have worse prognoses compared to other populations. It was agreed that factors affecting their HIV testing behaviors are inadequately understood. The authors stated that the paper focused on racism because of prior formative research that stated that several African Americans reported discriminatory treatment by clinic staff may be an obstacle to their getting HIV testing (Ford, C. L., & Airhihenbuwa, C. O. (2010a).

Racism permeates every aspect of African American women's lived experiences and as such affects their experience with STDs and testing. So, because of the importance of racism to the African American community, the social determinants of health framework recognized this factor as a structural determinant of health equity (Solar & Irwin 2010), whereas the IBM does not explicitly acknowledge racism as an influential factor for health behaviors.

### **Access to STD Testing Services**

Issues with access to testing for STDs that participants raised during their interviews were in response to questions about environmental constraints and perceived control. Some of the issues related to access that were identified were ease of scheduling appointment to get an STD test done, hours of clinic operations, distance of clinic from participants homes and lack of health insurance. Participants also mentioned cost of STD testing as an important factor in the event



they are uninsured, or they lose health insurance coverage. A few participants talked about how their jobs made it difficult for them to find the time to schedule and get STD test done.

Access to care issues experienced by African Americans was mentioned by Bonney and colleagues (2012) as a factor linked to the unequal STD rates experienced by this racial group. African Americans were stated to have worse access to care which was linked to many of the negative health consequences they experience (Bonney et al 2012). Matthews and colleagues (2020) discussed barriers to HIV testing among African Americans and reduced access to health care was one of the factors identified in their paper. Other factors highlighted include HIV-related stigma, low knowledge of HIV, low perception of risk and fear of a positive outcome (Matthews et al 2020). In explaining contributors to the reduced access to care that African Americans experience, it was stated in a study that poverty was the most important individual level factor affecting access to care among this racial group. Poverty was linked with being unemployed, inability to pay for health care services and lack of access to health insurance. Also, people living in poverty may lack additional resources that support their access to care like phones and transportation (Parrish & Kent 2008). The participants in this dissertation study were largely of low-income bracket, many were unemployed and were on Medicaid health insurance. Participants also openly acknowledged the cost of STD test and challenges with transportation that was oftentimes connected with lack of money to pay for ride to their health care provider. So, these factors identified were similar with the findings of this dissertation study. Other important individual level barriers to access highlighted were having regular source of care, acceptability of services, patients' perceptions, and health care-seeking behaviors. Availability of health care providers were mentioned to be an influential factor at the health system level (Parrish & Kent 2008).

### **Method of STD Testing**

Participants in this dissertation study talked about their dislike for STD testing procedures. Some participants said they hated needles and the blood draw procedure associated with STD testing. Other participants talked about the use of the speculum for pap smear. A few participants said the speculum often felt cold and uncomfortable during the procedure. A focus group study conducted to identify barriers and facilitating factors related with Pap smear use among African American and Latina women identified some important beliefs held by the women. The study found that African American women considered false-negative results, financial burden, and the role of the physician as their most significant beliefs about pap smear. However, it was Latina women in the study that considered embarrassment, use of a cold or unclean speculum, and discomfort as their most significant beliefs about pap smear (Jennings 1997). Another study was conducted to assess Black, Latina, and Arab women's experiences of pain they experience from Pap test to create a clearer understanding of psychological barriers to cervical cancer screening among medically underserved women. They found that Black women were less likely to comply with pap smear screening guidelines if they become aware of Pap smear test as a painful procedure (Gauss, Mabiso & Williams 2013).

### **Relationships with Health Care Providers**

Relationships with providers was identified by participants as an important factor in their decision to test for STDs. Some participants said they had good relationships with their providers and felt comfortable testing for STDs. Other participants had less desirable interactions during their STD test. A particular participant talked about feeling judged by a provider because she was getting an STD test, and this left a negative impression on her. According to Parrish and Kent (2008) many non-structural factors affect patients' access to care. It was stated that physicians regarded Blacks more negatively than Whites particularly relating to compliance and risk

behaviors. The problem with this kind of view of patients is that it can have an impact on the providers' decisions regarding appropriate care for the patients. Also, patients who perceive bias or judgement will turn away from such providers. Healthcare personnel's maltreatment of patients can discourage patients from seeking care or utilizing such facilities. It was stated in this paper that a particular STD clinic front desk staff treated their patients rather poorly by exhibiting behaviors such as giving them knowing looks, joking about them or laughing at them, and treating them like they were dirty or promiscuous (Parrish & Kent 2008). A narrative review conducted by Drossman and Ruddy (2020) stated that when physicians ascribe a negative stigma to patient symptoms, it leaves deep impressions on the patients particularly if they hold on to this stigma. Some patients may outrightly reject the diagnosis. If patients agree to the diagnosis, they may develop feelings of guilt and self-blame for having a disease they do not perceive as real (Drossman & Ruddy 2020). In this dissertation study, a participant stated that she felt like she was judged by her healthcare providers when she went to get tested for STDs and she claimed during her interview that the diagnosis of herpes she was given was not a correct diagnosis.

One more study that examined African Americans' experiences with the healthcare system found that perceived discrimination occurred when African American patients, especially women, believed that their symptoms were not taken seriously. This leads to medical mistrust when healthcare providers fail to show respect to their patients, and this leaves those patients with thoughts of discrimination regarding their treatment. Also, poor communication occurred in situations where providers did not accept patients views during their interactions and many patients viewed such actions as discriminatory (Cuevas, O'Brien & Saha 2016).

### **Lack of Information and Privacy**

Lack of information came up during the participants interviews and many participants said they would be willing to get STD test if they had adequate information about STD and STD test.

At the end of interviews, participants had questions about STDs, STD testing and free testing sites around the city. The researcher of this dissertation study responded by mailing out two pamphlets on STD and free STD testing site in Milwaukee. Also, they were discussions on the need for more privacy and confidentiality linked with STD testing. A participant described how the waiting area in the clinic she got tested was very open and did not offer any feeling of privacy. Another participant reported that her STD test results was mailed to her parent's home by her providers even after she her requested that it should not be mailed out. A qualitative study conducted among young people on how to increase chlamydia testing in primary care identified education as a theme in the study. In this study most of the participants stated their desire for more public awareness and information on STDs. They stated that they needed information on issues such how the diseases are transmitted, availability of free general practice testing and the testing processes. Also, advantages of testing, effects of not testing, and ease of treatment in areas that participants were interested in (McDonagh, Harwood, Saunders, Cassell & Rait 2020).

There are various sources of information about STDs and STD testing that women in Milwaukee can access. The Center for Disease Control, the City of Milwaukee health department and the Wisconsin health department websites provides useful information about STDs and STD testing. Some of these sites also have information about free testing services. The challenge is that many of the participants interviewed for this dissertation study had high school education and may find it hard to understand the information presented on the websites, or they may lack access to internet. Concerning privacy, a study reported that young participants viewed free STD services from the health department as a benefit, yet lack of privacy was stated to be a major drawback. Across focus group discussions, participants shared their concerns and feelings of shame about being observed using the health department STD clinic services. Nevertheless,

participants stated that this problem was more important if they were looking for care for asymptomatic conditions. But they reported that if they had symptoms such as burning, they would be unbothered about being observed accessing services at an STD clinic. Another concern expressed by participants in this study was about confidentiality. They wondered if their STD test results from the health department would be kept confidential and it was documented that private doctors were more likely to keep their business private (Tilson et al 2004).

### **Herpes Testing**

During participants interviews, it was identified that there was lack of adequate information on herpes infection and test. A participant stated that it was often not talked about or included when you test for STDs except you specifically request for it. Another participant who received diagnosis of herpes said that the test was not readily available in some of the facilities she wanted to test at. Still, a participant who also received herpes diagnosis said she thought the test was not properly performed as such she doubted the diagnosis she received. The concerns expressed by participants in this study may be genuine given that the guideline developed by a group of physicians for the Milwaukee Health Department for STD screening and testing based on available epidemiologic data did not discuss herpes infection. This guideline was developed by the panel based on the CDC's recommendations. This guideline discussed in details recommendations for screening and testing for chlamydia, gonorrhea, syphilis, and HIV among sexually active men and women in Milwaukee (Swain, Hartlaub, Lynch & Foldy 2003). The fact that this guideline did not have any instructions about herpes infection may simply be because the above-mentioned STDs are more prevalent than herpes, so they are often prioritized and time and resources when available are allocated to addressing these more common STDs.

## **Transportation**

Transportation was identified as a pertinent factor in participants' decision to seek STD testing. Participants talked about transportation as both a facilitator and a barrier to STD testing. Participants in this study who had cars did not think transportation would stop them from seeking testing for STDs but many participants who were low income talked about having difficulty with transportation to STD testing sites. The City of Milwaukee has public transportation that operates in selected routes and neighborhoods. The Milwaukee streetcar (the Hop) offers free ride services that participants could use but it only covers a limited area as it operates between Jewish Museum on Prospect Avenue to the Milwaukee public market. There are also county buses that operate around many routes and neighborhoods in the city, but the services are not free. As such, many African American women in this study would need employment opportunities and sources of income to help them access public transportation to STD testing sites.

## **Personal Network and Social Support**

Different people in the participants' network were identified to offer support to them in connection with STD testing. Family, friends, and partners were identified to offer support to participants. A participant mentioned that her education was important to her decision to seek testing. Many participants said nobody would oppose their decision to test for STDs while some mentioned that their family, friends, and partners would be opposed to their decision to seek STD test. Religious belief was mentioned by a participant as a factor that would interfere with her decision to get STD test. Family support and other social support that participants received was important to their decision to seek STD testing. Thus, social support is an important factor, and a study documented that younger people were more likely to depend on social support from family members and friends to get health care services involving STD related care. Also, social

support has benefits and has been linked with encouraging health practices, health care services for STDs, and STD related risks (Lowery, Chung & Ellen 2005).

### **Community Resources**

Discussions in this study highlighted the importance of community resources that promote or support STD testing. Participants talked about organizations like Planned Parenthood that provided sexual and reproductive health services for both the insured and uninsured in the City of Milwaukee. They discussed both positive and negative experiences they had accessing care at such facilities. The presence of some free STDs testing sites in Milwaukee were also discussed by some participants. They acknowledged how the presence of these free testing sites make it possible for them to seek testing for STDs.

The City of Milwaukee has several testing sites for STDs, however, a few of these sites offer free testing. The City of Milwaukee health department website has information on resources to help residents get free testing. Clinics like Keenan sexual health clinic, Northwest health center, Sixteen street community health center, Milwaukee health services Inc and AIDS resource centers offer free testing to residents of the city. Other centers are Outreach community health center, Black health coalition of Wisconsin, UMOG Latina resource center, Pathfinders, Milwaukee LGBTQ center and Planned Parenthood center of Wisconsin also offer free testing services. There is need for this information to be made readily available to residents of the city as some participants said they did not have the information they needed on STDs and where to get STD test.

During the study interview, a participant talked about involvement of the church in STD prevention efforts. One study stated that African Americans are more open to believing in God, attending church than other Americans. African Americans also support religious engagement on social and political issues. Additionally, it is documented African American churches have

played crucial roles in the civil rights movement and helped with voting efforts among this segment of the population in the United States. These efforts eventually resulted in valuable civil rights legislation in the United States (Nunn et al. 2019). Although, STDs and testing remain sensitive topics, Milwaukee has several predominantly Black churches in the city like Baptist, Methodist and Pentecostal churches that can serve as useful community resources for this population. Research state that African American families believe that churches can potentially be a resource for sexual health education and prevention activities (Powell et al. 2017). Moreover, it is stated that the organized churches had a positive effect on African American women's health even though they have had a hard time reaching African American men (Jo 2008).

An interesting view that was raised during the interviews was about the role that advertising on county buses plays in reminding participants to get tested. A participant stated that once she sees the adverts on the buses in her neighborhood, she is reminded of the fact that she needs to get tested for STDs. Milwaukee county transit services has several buses in its fleet that serve the residents of Milwaukee, Waukesha, and Ozaukee counties. Because of the affordable nature of the bus services across these communities many lower income residents rely on these county buses for transportation. So, the health department and pioneers of STD prevention programs can harness these opportunities and share more information and adverts about STDs and STD testing on buses and bus shelters where commuters wait to board buses around the City of Milwaukee.

### **Factors Not Accounted for by the IBM**

Although, the IBM was used successfully to guide this inquiry as well as used to explore the relevance of many of the constructs of this model in relation to STD testing, the model does not give room for the study to delve into some other important issues that are vital or were raised by participants during the interviews. These factors include participants' demographic factors,



religion, and racism. Other factors identified in the research not directly accounted for by the IBM are physician-patient relationships, testing issues, community resources and economic factors and policies

### **Demographic Factors**

The study demographics was a select group of African American women in Milwaukee with very different characteristics (e.g., age, marital status, education, employment status/occupation, income level, health insurance and home ownership). Some of these features have the potential to influence participants STD risk and interest in seeking STD testing. However, the IBM model does not give room to explore these factors. Yet demographic factors are important not only for identifying health problems, but also helpful in characterizing the problems. They are also helpful for when one is problem solving or designing an intervention. In the description of other theories like theory of reasoned action and theory of planned behavior, Montano and Kasprzyk (2015) stated that demographic variables may be linked with behaviors so should be considered as indirect and external influence on behavior (Montano & Kasprzyk 2015). Still, in the Health Belief Model (HBM) it is stated that sociodemographic variables may moderate relationships between health beliefs and health behavior (Skinner, Tiro & Champion 2015). Furthermore, the socioecological model of behavior recognizes individual level factors/characteristics to be at the center of their model (Sallis & Owen 2015).

### **Religion**

In the interviews with participants about barriers and facilitators of STD testing, religion and the church came up a few times. Participants either felt that their religion would be a barrier to testing or that their religion and the church would be a supportive resource in testing for STDs. This is not surprising because historically, it has been known that the church plays a key role in African American culture and wellbeing. Unlike the socioecological model that has a level of

influence for community resources like churches, the IBM does not acknowledge religiosity in its framework.

### **Racism**

Issues linked to racism came up during the interviews when a participant talked about the racial gap that exist with the prevalence of STDs and the fact that healthcare providers are often prejudiced towards African Americans. The participants stated that providers extend that bias towards people of color even during testing. Although, the epidemiological data does show that African Americans have higher prevalence of STDs, it is important to understand some of the challenges and related factors driving the spread of STDs among African Americans, hence this study. In this study, the IBM help to shed light on racial issues, but this framework is not designed for in-depth exploration of issues of this nature.

### **Physician-Patient Relationships**

The quality of physician-patient relationships was discussed in this dissertation research as important factors for STD testing. Participants clearly stated that having good relationship with their providers made it easier for them to test for STD. Although this was a major theme in this research, the IBM does not have a construct that directly explores this sort of relationships.

### **Testing Issues**

Different issues were identified that were linked with testing for STDs. Issues like access to STD test, test procedure, lack of health insurance, lack of information and privacy. These were important factors discussed in relation to STD testing. However, the IBM does not have a construct that directly explore any of these factors.

## **Community Resources**

Community resources were identified as important to decisions around STD testing. Test sites such as Planned Parenthood that had clinics across Milwaukee were stated to be useful resources to participants. Other sites mentioned were free testing sites and a women's resource center. Advertising on transit buses was also identified as ways in which participants are reminded about testing for STD. The IBM does not have a construct that directly explores the importance of community resources.

## **Economic Factors & Policies**

Another important set of factors that are key to STD testing are economic factors and policies. According to the Healthy People 2020, poverty and marginalization contribute to the spread of STDs. It acknowledged that STDs unduly affect underprivileged people and people in social networks where high-risk sexual behavior is widespread, and where there is disruption in both health seeking behavior and access to care (Healthy People 2020). As part of the demographic factors, information was obtained from participants about employment, health insurance and home ownership. Many participants were unemployed in this study. These factors mentioned could be important to the participants' knowledge about STDs and STD testing. They could also be influential in their decision to get testing done.

According to the Commission for Social Determinants of Health (2008), the combination of poor social policies and programs, unfair economic arrangements and politics create unequal distribution of health damaging experiences in a population (Commission for Social Determinants of Health 2008). This report showed the importance of both economic and political factors in the creation of health outcomes and disparities. Because of the importance of economic and political factors to health outcomes, the Social Determinant of Health framework identifies socioeconomic and political context as part of the structural determinants of the social

determinants of health in its framework (Solar & Irwin 2010). While the socioecological model of behavior has a level that is focused on policies as they impact behavior (Sallis & Owen 2015), the IBM does not account for socioeconomic factors or political factors/policies.

### **Suggestions for Future Research**

The interview conversation highlighted important suggestions for future research. There was discussion about the need to give more attention to herpes infection. Further, the issues with long wait times for testing and the anxiety that comes with waiting on test results were part of the issues that were discussed. Issues of privacy and confidentiality also formed part of the discussion about STD testing. As such, a few suggestions follow for future research that will help address some of these concerns.

#### **Education About Herpes Testing**

There is need to educate the public about herpes infection and the CDC website is a good resource for information about this infection. The CDC website provides recommendations for herpes testing for women, men, pregnant women, men who have sex with men and persons living with HIV. The recommendation is that type-specific herpes serologic testing should be considered for women who present for testing especially if they have multiple sexual partners (CDC 2015). So, one of the suggestions of this dissertation study is for the City of Milwaukee to invest in educating and publicizing other STDs like Herpes, Human Papilloma Virus, trichomonas, and hepatitis among others that may not be as prevalent as chlamydia, gonorrhea, syphilis, and HIV.

#### **Education about at Home STD Testing Kits**

Due to advancement in testing, home test kits have been developed for STD testing and they are beginning to gain acceptance and popularity. Participants talked about the discomfort they

felt in the clinics when they went for testing; these home test kits could help them feel less embarrassed as they collect samples from the privacy of their homes and send it to the labs for processing. It is important to educate participants and let them know that options like this exist if they feel uncomfortable going into the clinics for testing. The challenge about this process will be proper collection (urine sample, oral or genital swab) and handling of samples. Again, some STDs may need more than one single test to establish diagnosis.

### **Internet Based STD Testing**

To address some of the negative feelings and barriers that participants in this research identified, it is important to recognize and give attention to newer approach to testing like internet-based testing. Internet based testing for STDs is a newer approach to testing and it is still gaining acceptance and approval. Internet-based testing for STDs would provide the opportunity for asymptomatic people to order a self-sampling kit online and receive their results electronically. This novel approach decreases the need for people interested in STD testing to attend a clinic unless it is to seek treatment. Additionally, this approach will be useful if the population of interest have access to internet services as this was not the situation with this research sample.

### **Emergency STD Testing Services**

Participants in this study talked about how the wait times associated with STD testing can be challenging. Usually, an STD diagnosis might be confirmed after a doctor's visit but in most cases, the samples are sent to the laboratory to confirm a diagnosis. This normally takes a few days for the results to come back. As such, there is still opportunity to push for research and future development of more rapid testing processes for STDs so that the longer wait times and anxiety associated with testing can be minimized or at best eliminated.

## **STD Testing Messages and Programs for African American Males**

Sexually transmitted diseases are transmitted through sexual contacts, so it involves women and their partners. Participants in the interview revealed that African American males they dated or had sexual encounters with were sometimes uninsured or unwilling to go to hospital for STD testing. This indicates that there is need for health prevention messages that promotes testing that would be appealing and acceptable to African American males. STD testing messages should be expanded to where they can reach many African American males. Because many African Americans males are disproportionately incarcerated, local and state health departments should look at the developing or improving existing jail and juvenile detention testing programs for STDs in the city.

### **Strengths & Limitations**

Given the qualitative nature of this inquiry, this study provided a great opportunity to examine and provide a better understanding of STD testing among a purposive sample of African American women here in Milwaukee. Some of the factors that the research clearly identified as relevant to STD testing would not have been so evident if it was a quantitative study. Aside from the nature of the research, the semi-structured interview questions used for this research allowed women to share more openly about their experiences and challenges linked to STD testing in Milwaukee. Thus, this approach allowed their voices to be heard on the issues and challenges they deal with concerning STD testing.

A limitation of this study is sampling bias. Recruitment occurred during the COVID-19 pandemic social distancing recommendations in place, which influenced the choice of recruitment and data collection method for this study. Recruitment was conducted by reaching out to different businesses and organizations that serve African American women in Milwaukee.

Online presence was established for this study, and it helped with recruitment however, the recruitment effort would have been more focused and targeted to low and middle income African American women if not for COVID 19 restrictions. Additionally, data was collected by telephone interviews as proposed because more participants had access to telephones than internet. So, the recruitment process excluded participants who did not have access to a telephone. As a result, this could affect the overall outcome of the results of this study as the study may have excluded the most financially vulnerable from participating and voicing some of their challenges around STD testing.

Although participants were recruited over the phone using select interview screening questions, this method makes it difficult to verify that demographic information provided by participants were accurate. Also, issues around STDs and STD testing are sensitive, so the data generated via telephone conversations may not be as open and rich as those generated through in-person interviews that would allow for some personal interaction and connection with study participants. Further, the study sample was a select group of African American women resident in Milwaukee, so the findings from this research may not be transferable to a different or wider population.

### **Recommendations**

The IBM was used to guide this inquiry. The results of interviews yielded several important factors that influence African Americans women's decision to get tested for sexually transmitted diseases. The approach to the inquiry did not explore or capture all of the relevant factors that contributes to women's decision to test for STDs, but it still remains a very useful framework for health researchers. It is pertinent to recommend that more culturally sensitive models could be used, or a combination of different models can be used depending on the nature of the inquiry.

One model that could be useful in this type of research is the PEN-3 model because it is intended to be central to understanding the influence of culture on health. This model is suggested largely because it helps with the integration of culture into research that focuses on health beliefs, behaviors, and health outcomes. Also, this model provides a structure to incorporate culture when defining health problems and when proffering solutions (Airhihenbuwa 1995).

The information gained from this study would be especially useful for guiding the creation of culturally sensitive STD prevention messages targeted at African American women in Milwaukee. The study uncovered attitudes, normative beliefs and issues around personal agency that facilitate or hinder women from getting tested for STDs. The messages that can be created could be in the form of radio messages, television, and internet messages so that these messages will help address some of the important issues that affect STD testing. Findings from the study showed that women complained about lack of adequate information about STDs and STD testing, yet there is information on the City of Milwaukee's website, Wisconsin health department and the CDC's website. The city's website has information on some sites for free STD testing like Keenan health clinic, Northwest health center, Holton Street clinic and Black Health coalition Inc of Wisconsin. Despite these resources, many of the participants that were interviewed did not have access to internet so are unable to gain access to the needed information. So, it becomes necessary to use platforms that are accessible like bus adverts and bus shelter adverts to display information that is linked to STD testing around the city. Also, radio stations around the city like the Milwaukee Black Truth radio station that have programs created specially for African Americans can become instrumental in hosting STD educational and prevention programs targeted at this population.



Findings that focus on existing knowledge gap around STDs and testing for STDs are especially useful for designing health education campaigns and programs that will help to educate African American women. This is especially important in this study as women identified gaps with messaging and testing for herpes infection. There are different avenues to create educational contents and programs especially with the growth of social media, these platforms can be used to publicize the less common STDs that can reach a good portion of the population considered most vulnerable. Social media sites such as Facebook, Instagram and You Tube are great platforms for health education and promotion contents that will successfully reach younger to older African Americans as such should be utilized in STD prevention efforts.

Another step that can be taken, based on the information gathered from this study, is to advocate not just for health literacy programs, but other literacy and skills training that can empower this segment of the population in the City of Milwaukee. Furthermore, issues related to habits that affect STD screening can be addressed by individual based counselling, as well as engaging African American families and communities in the City of Milwaukee. Moreover, the conversation on STD prevention could expand its focus from the individual to involve families, community leaders, gate keepers, church leaders and organizations to prevent further spread and protect the health and lives of African Americans in the city. There are ongoing efforts in Milwaukee to curb violence with significant community effort like the 414 Life movement which is a city of Milwaukee's initiative (City of Milwaukee 2016). This organization is Milwaukee's blueprint for peace focused on addressing the complex factors that fuel violence within the community. Such coordinated community driven approach can extend to STD prevention among African Americans especially women.

The study revealed the importance of good physician-patient relationships even for STD testing. They were other health care related barriers to testing that were identified in this study. Some of the things that can be done include advocating for issues like better access to health care services, cultural competency training for physicians, training of more health care workers of color and provision of better public transportation or transportation services that can help poorer African American women get to healthcare facilities.

The study found that many of the women relied on Planned Parenthood for their STD testing. Though there is strong effort to exclude Planned Parenthood health centers from state and federal funding channels like Title X national family planning program and Medicaid, if this happens it will deprive women of services like the contraceptive services and counseling, STD testing and treatment, and breast and cervical cancer screenings. The recommendation from this study is that the state of Wisconsin should continue to provide funding and support to this organization to enable this population have access to the reproductive and sexual health care services that they need.

## **CONCLUSION**

STDs continue to persist in the City of Milwaukee, and African Americans are more disproportionately affected by these diseases compared to other races. The situation with African Americans' health outcomes is further compounded by a background history of slavery, oppression, and marginalization. African American women are vulnerable and yet face several barriers that affect their decision to protect themselves against STDs. Several factors contribute to their decision making for STD testing as recommended by the current guidelines for sexually active adults. During the interviews women opened up about their struggles around STDs and testing for them. So, to make it possible for more African American women to continue to test

for STDs, there is need for attention to be given to the findings and recommendations of this study. In so doing, concerted effort can be made to help reduce the health disparities that exist with STDs in the City of Milwaukee.

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# APPENDIX A: ETHICAL APPROVAL NOTICE FROM UWM INSTITUTIONAL REVIEW BOARD



Melody Harries  
IRB Administrator  
Institutional Review Board  
Engelmann 270  
P. O. Box 413  
Milwaukee, WI 53281-0413  
414-662-3544

## New Study - Notice of IRB Expedited Approval

[melodyh@uwm.edu](mailto:melodyh@uwm.edu)  
[harries@uwm.edu](mailto:harries@uwm.edu)

**Date:** August 6, 2020

**To:** Lance Weinhardt  
**Dept:** Zilber School of Public Health

**CC:** Bernadette Okwu

**IRB #:** 20.370

**Title:** A qualitative assessment of screening behavior for sexually transmitted diseases among African American women in Milwaukee using the Integrated Behavioral Model

After review of your research protocol by the University of Wisconsin – Milwaukee Institutional Review Board, your protocol has been approved as minimal risk Expedited under **Category 6 & 7** as governed by 45 CFR 46.110. Your protocol has also been granted approval to waive documentation of informed consent as governed by 45 CFR 46.117 (c).

This protocol has been approved on **August 6, 2020** for one year. IRB approval will expire on **August 5, 2021**. Before the expiration date, you will receive an email explaining how to either keep the study open or close it.

This study may be selected for a post-approval review by the IRB. The review will include an in-person meeting with members of the IRB to verify that study activities are consistent with the approved protocol and to review signed consent forms and other study-related records.

Any proposed changes to the protocol must be reviewed by the IRB before implementation, unless the change is specifically necessary to eliminate apparent immediate hazards to the subjects. It is the principal investigator's responsibility to adhere to the policies and guidelines set forth by the UWM IRB, maintain proper documentation of study records and promptly report to the IRB any adverse events which require reporting. The principal investigator is also responsible for ensuring that all study staff receive appropriate training in the ethical guidelines of conducting human subjects research.

As Principal Investigator, it is your responsibility to adhere to UWM and UW System Policies, and any applicable state and federal laws governing activities which are independent of IRB review/approval (e.g., FERPA, Radiation Safety, UWM Data Security, UW System policy on Prizes, Awards and Gifts, state gambling laws, etc.). When conducting research at institutions outside of UWM, be sure to obtain permission and/or approval as required by their policies.

Contact the IRB office if you have any further questions. Thank you for your cooperation and best wishes for a successful project.

Respectfully,

Melody Harries  
IRB Administrator

APPENDIX B: RECRUITMENT FLYER

## *Women's Sexual Health Research Study*

- Do you want to join a research project conducted by a UWM student in Milwaukee? She wants to better understand the experiences of African American women as they seek testing for sexually transmitted disease.
- To qualify you must be African American, female, 18 years to 65 years old, live in the City of Milwaukee and be willing to participate in an online or telephone interview.
- If interested, please contact Bernadette – [biokwu@uwm.edu](mailto:biokwu@uwm.edu) or call 414-204-4317
- You will receive a \$20 dollar gift card for completing the interview.

## APPENDIX C: RECRUITMENT POSTCARD

The postcard features a vibrant, abstract background with swirling patterns in shades of red, pink, blue, and brown. A white rectangular box with a thin black border is centered on the left side, containing the study title and two bullet points. The bottom portion of the postcard is a solid black bar.

**Women's Sexual Health Research Study**

- Do you want to join a research project conducted by a UWM student in Milwaukee that is seeking to understand the experiences of African American women as they seek testing for sexually transmitted diseases?
- To qualify you must be African American, female, 18 years to 65 years old, live in the City of Milwaukee and be willing to complete an online or phone interview

## APPENDIX D: INFORMATION PAMPHLET I

### WHAT ARE STDs?

Sexually transmitted diseases (STDs) are infections passed from one person to another during oral, anal or vaginal intercourse and other sexual contact. Many STDs can be cured or treated with medications. Some examples of STDs are:

- Chlamydia
- Gonorrhea
- Syphilis
- Genital Herpes
- HPV, the virus that causes genital warts and cervical cancer
- HIV, the virus that causes AIDS

### STD SCREENING

Although STDs affect people of all ages, backgrounds, and from all walks of life, some people are at an increased risk. People who should consider being screened for STDs include:

- Persons who engage in unprotected sex (oral, anal and vaginal) with more than one partner.
- Persons whose partners have known or suspected STDs.
- Persons with symptoms of STDs, like unusual discharge, burning with urination or skin abnormalities in the genital area. It is important to remember, though, that many people who are infected with an STD do not have any symptoms.

### SERVICES NOT OFFERED

Please be aware that KCHC does NOT provide the following services:

- Treatment for Genital Herpes
- Treatment for Genital Warts
- Treatment for HIV/AIDS
- Testing for Hepatitis C


Referrals to the above services are available by calling (414) 286-3631.

### MISSION STATEMENT

The mission of the City of Milwaukee Health Department is to ensure that services are available to enhance the health of individuals and families, promote healthy neighborhoods, and safeguard the health of the Milwaukee community.

### CITY OF MILWAUKEE HEALTH DEPARTMENT

# SEXUALLY TRANSMITTED DISEASE (STD) & HIV SERVICES



Think Health  
Act Now!

CITY OF MILWAUKEE  
HEALTH DEPARTMENT

Tom Barrett, Mayor  
Bevan K. Baker,  
Commissioner of Health  
[www.milwaukee.gov/health](http://www.milwaukee.gov/health)

**KEENAN CENTRAL HEALTH CLINIC**  
3200 N 36<sup>TH</sup> ST  
MILWAUKEE WI  
**414-286-3631**  
TTY: 414-286-2025

[www.milwaukee.gov/health](http://www.milwaukee.gov/health)

The City of Milwaukee Health Department in its capacity as an employer and service provider does not discriminate on the basis of age, race, sex, religion, color, gender, national origin, arrest or conviction record, sexual orientation, disability, political belief or affiliation, or military participation. Persons needing disability assistance information, language assistance or interpreter services please call 414-286-3634 or TTY 414-286-2025. Discrimination claims may be filed with the Department's Equal Opportunity Coordinator by calling 414-286-2359.

## APPENDIX E: INFORMATION PAMPHLET II

### KEENAN CENTRAL HEALTH CLINIC

Keenan Central Health Clinic (KCHC) provides STD/HIV related services to uninsured and under-insured residents of Milwaukee and surrounding communities.

### SERVICES

KCHC offers:

- Screening, diagnosis and treatment of sexually transmitted diseases
- Confidential HIV counseling and testing
- Free condoms
- Vaccinations against Hepatitis B (with full exam)
- Risk reduction counseling

Staff at KCHC also do epidemiological investigations and follow-up for patients who are known to have or are suspected of having Syphilis, HIV, Gonorrhea and Chlamydia.

All services are confidential.

### COST

Services are provided free of charge to anyone who is at least 12 years of age.

### HOURS

Clinic services are offered on a first come, first served walk-in basis during clinic hours. Appointments are not accepted for STD screenings. We ask that you arrive at least 15 minutes early for morning and afternoon sessions. Please note that while we do our best to accommodate all clients, we do turn clients away when clinic capacity has been reached.

The clinic hours are as follows:

**Mondays and Thursdays**  
11:00 am – 7:00 pm

Please arrive by 10:45 am for the morning session, and 4:00 pm for the afternoon session.

**Tuesdays, Wednesdays, and Fridays**  
8:00 am – 4:45 pm

Please arrive by 7:45 am for the morning session and 12:15 pm for the afternoon session.

### HIV TESTING APPOINTMENTS

- Confidential HIV testing is available on a walk-in basis or by appointment.
- To make an appointment, please call (414) 286-3631.

### LOCATION


KCHC is located at 3200 North 36th Street on the corner of 36th and Auer.

**Public Transportation**  
The following MCTS bus routes will take you within a block of the clinic:

- #60 (Burleigh)
- #35 (35th Street)
- #23 (Fond du Lac)
- #4BV

### WHEN YOU ARRIVE

- Enter through the main doors facing the parking lot.
- You will receive a number from the security guard on the first floor.
- When the clinic opens, you will be directed to the clinic registration area on the second floor.



APPENDIX F: PARTICIPANTS DEMOGRAPHIC INFORMATION

Participants	Age	Gender	Ethnicity	Education	Occupation	Income/annum	Health Insurance	Home Ownership	Tested for STDs	Pregnant
P1	48	Female	African American	High School	Unemployed	Less than \$20,00	Medicaid	Rent	Yes	No
P2	22	Female	African American	College	Unemployed	Less than \$20,00	Medicaid	Rent	Yes	No
P3	47	Female	African American	High School	Home Health Worker	\$61,000 -\$80,000	Private	Rent	Yes	No
P4	28	Female	African American	Some College	Unemployed	Less than \$20,00	Medicaid	Rent	Yes	No
P5	20	Female	African American	College	Student	Less than \$20,00	Medicaid	Rent	Yes	No
P6	52	Female	African American	Some College	Unemployed	Less than \$20,00	Medicaid	Rent	Yes	No
P7	52	Female	African American	Some College	Unemployed	Less than \$20,00	Private	Rent	Yes	No
P8	47	Female	African American	College	Unemployed	Less than \$20,00	Private	Rent	Yes	No
P9	20	Female	African American	High School	Unemployed	Less than \$20,00	Medicaid	Rent	Yes	No
P10	53	Female	African American	High school	Cleaning Services	\$21,000 - \$40,00	Medicaid	Rent	Yes	No
P11	29	Female	African American	Some College	Home Health Worker	\$21,000 - \$40,00	Medicaid	Rent	Yes	No
P12	29	Female	African American	College	Social Worker	\$41,000 - \$60,00	Private	Rent	Yes	No
P13	32	Female	African American	College	Licensed Couns	\$41,000 - \$60,00	No Health Insurance	Rent	Yes	No
P14	47	Female	African American	College	Contract worker	\$21,000 - \$40,00	Medicaid	Rent	Yes	No
P15	49	Female	African American	Some College	Administrative Staff	\$21,000 - \$40,00	Medicaid	Rent	Yes	No



P16	27	Female	African American	College	Human Resource	\$41,000 - \$60,00	Private	Rent	Yes	No
P17	28	Female	African American	College	Para medic	\$41,000 - \$60,00	Private	Rent	Yes	No
P18	34	Female	African American	College	Project Administrator	\$61,000 - \$80,00	Private	Rent	Yes	No
P19	25	Female	African American	College	Student	Less than \$20,00	Private	Rent	Yes	No
P20	22	Female	African American	College	Student	Less than \$20,00	Private	Rent	Yes	No
P21	41	Female	African American	High School	Cleaning Services	Less than \$20,00	Medicaid	Rent	Yes	No
P22	54	Female	African American	High School	Unemployed	Less than \$20,00	Medicaid	Rent	Yes	No

## CURRICULUM VITAE

Bernadette. I. Okwu

Place of Birth: Zaria, Nigeria

### Education

M.B.B.S University of Jos, Nigeria August 2001  
Major: Medicine

M.P.H George Washington University 2009  
Major: Public Health

Dissertation Title: A Qualitative Assessment of Screening Behavior for Sexually Transmitted Diseases Among African American Women in Milwaukee Using the Integrated Behavioral Model

Academic Award: University of Wisconsin - Milwaukee Chancellor's Graduate Student Award - January 2018

Professional Membership: American Public Health Association  
Wisconsin Public Health Association

Grant Support: Zilber School of Public Health Dean's Dissertation Award May 2020 (\$2000.00)