SOCIAL PERCEPTIONS MATTER: EXPLORING FACTORS THAT INFLUENCE PERCEIVED COMMUNITY HIV/AIDS STIGMA AMONGST BLACK, WHITE, AND HISPANIC MEN WHO HAVE SEX WITH MEN

by

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Social Perceptions Matter: Exploring Factors that Influence Perceived Community HIV/AIDS Stigma amongst Black, White, and Hispanic Men Who Have Sex with Men

A Dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at George Mason University

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DEDICATION

This is dedicated to my husband Andy for his unconditional love and support, my parents Jeff and Bonnie as well as my sister Jennie for always believing in me, and my dog Daisy, for making me laugh and smile when I needed it most.

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ABSTRACT

SOCIAL PERCEPTIONS MATTER: EXPLORING FACTORS THAT INFLUENCE PERCEIVED COMMUNITY HIV/AIDS STIGMA AMONGST BLACK, WHITE, AND HISPANIC MEN WHO HAVE SEX WITH MEN

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HIV/AIDS continues to affect men who have sex with men (MSM) more so than any other group in the United States. Though HIV/AIDS is no longer viewed as a "death sentence" due to advances in treatment and care, HIV/AIDS stigma continues to be one of the largest barriers to achieving an HIV-free generation in the U.S. To further complicate the matter, MSM tend to be treated as a homogenous group. This leads to Black and Hispanic MSM being disproportionately affected by and vulnerable to HIV infection, because of a lack of awareness of their unique experiences and potentially differing needs. This dissertation aimed to examine how satisfaction with social support, self-acceptance, ever been tested for HIV, perceived community attitudes towards gay men, personal HIV/AIDS stigma, and HIV knowledge influenced perceived community HIV/AIDS stigma amongst Black, White, and Hispanic MSM, in the Washington, DC Metropolitan area. Data for this study was collected through a web-based self-report

survey in November of 2015. A total of 472 MSM respondents (27% Black, 28% Hispanic, and 45% White), in and around Washington, DC participated. Path analysis was used to explore the relationships between the six predictor variables and the outcome variable of perceived community HIV/AIDS stigma. Results from the full sample showed all pathways from the predictor variables to perceived community HIV/AIDS stigma were statistically significant. More interestingly though, when path analyses were conducted for Black, Hispanic, and White MSM separately, the process constructing perceived community HIV/AIDS stigma became more nuanced. Some of the pathways were similar in directionality and significance across racial/ethnic groups, some differed, and there were some instances where new pathways unique to only one or two of the groups emerged. The findings of this research provide evidence that MSM are not a homogenous group, and intersecting identities matter in understanding perceived community HIV/AIDS stigma. This study concludes with recommendations for researchers, healthcare providers, and public health program developers to create comprehensive and culturally appropriate approaches to HIV/AIDS reduction that begin with a focus on the underlying social factors that perpetuate HIV (i.e. homophobia, personal HIV/AIDS stigma, and community HIV/AIDS stigma).

CHAPTER ONE: INTRODUCTION

The HIV/AIDS epidemic is well into its fourth decade. Though many significant strides have been made in the development of treatment for the disease, the social components of living with HIV remain a hindrance towards the eradication of HIV. HIV is a disease that wreaks havoc on the physical body of a human being, but some of its greatest damage is done through the negative social consequences it creates among individuals with the disease. Understanding the social complexities that perpetuate the HIV/AIDS epidemic in the United States is critical to the development of meaningful action plans that will successfully change the course of HIV in the future.

In the United States, gay, bisexual, and other men who have sex with men (MSM) are the hardest hit by the HIV/AIDS epidemic, making up 63% of all new HIV infections, and 78% of all new HIV infections among men, based on the most recent data available (CDC 2015b). Since gay, bisexual and other MSM compose only 2% of the entire U.S. population, these statistics are particularly alarming (CDC 2015b). To further complicate the matter, Black and Latino gay, bisexual, and other MSM bear a disproportionate burden of HIV infections. Yet there are few prevention and intervention programs developed by the CDC to specifically serve the unique needs and circumstances these men face (NASTAD and NCSD 2014).

The purpose of this research was to examine how numerous psychosocial, behavioral, attitudinal, and knowledge factors influenced perceived community HIV/AIDS stigma amongst Black, White, and Hispanic MSM, in the Washington, DC Metropolitan area. Stigma is one of the largest variables preventing the U.S. from having an HIV-free generation. In this study, HIV/AIDS stigma is defined as an ideology that recognizes and connects HIV/AIDS, or any physical sign of the disease, to behaviors or groups that are negatively defined in society (Deacon et al. 2005). By understanding the factors that influence how MSM perceive HIV/AIDS stigma in their communities, we can better understand where adjustments and changes are needed in both intervention and prevention efforts.

In addition, this study was necessary, because too much research on MSM, in the social sciences, public health, and medicine, treats the population as a homogenous group, when it is in fact quite diverse. The factors that influence perceived community HIV/AIDS stigma for one sub-segment of the MSM population were thought to not necessarily be the same as those factors that influenced it for another sub-segment. Without a thorough understanding of the intricacies of these dynamics, culturally sensitive care, services, and programming cannot be properly developed to reduce HIV/AIDS stigma and thus improve the total well-being of Black, White, and Hispanic MSM.

While conducting this study I strove to answer the following two research questions:

(1) How do social support, self-acceptance, perceived community attitudes towards gay men, personal HIV/AIDS stigma, ever being tested for HIV,

and HIV knowledge directly and indirectly affect perceived community HIV/AIDS stigma?

(2) How do social support, self-acceptance, perceived community attitudes towards gay men, personal HIV/AIDS stigma, ever being tested for HIV, and HIV knowledge directly and indirectly affect perceived community HIV/AIDS stigma for Black, White, and Hispanic MSM separately?

Prior to this study, little was known about the factors that influence perceived community HIV/AIDS stigma in the United States. Moreover, before this research, very little research existed exploring these relationships with MSM across different racial/ethnic groups. Uncovering whether or not there were any possible variations in the experiences of MSM of different racial/ethnic groups was viewed as critical for the proper development and comprehensive implementation of social and health programming for this heterogeneous group.

In my research, I found that satisfaction with social support, self-acceptance, ever been tested for HIV, perceived community attitudes towards gay men, personal HIV/AIDS stigma, and HIV knowledge, significantly influenced the reports of perceived community HIV/AIDS stigma provided by all the MSM in my sample in either a direct or indirect manner. However, when the MSM in my study were placed in separate groups based on race/ethnicity, the pathways became more nuanced. When the pathways were compared across Black, Hispanic, and White MSM, some were similar in directionality and significance, some differed in terms of directionality and significance, and finally in some instances new pathways unique to only one or two of the groups developed. These results illustrate that MSM are not a homogenous group, and intersecting identities matter in understanding perceived community HIV/AIDS stigma amongst MSM. For the areas

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where no differences existed in my study, future programming can be targeted to MSM across race and ethnicity. However, for the areas where differences were discovered, a tailored approach to public health programming and healthcare is necessary in order to best serve the needs of Black, White, and Hispanic MSM as separate groups each with their own unique challenges and circumstances.

Chapter 2 is a comprehensive literature review that begins by exploring the historical background of HIV/AIDS. It outlines how HIV/AIDS is geographically distributed in the United States. I present how HIV/AIDS affects gay, bisexual, and other MSM overall, as well as how it affects Black and Hispanic populations in the United States. I present intersectionality theory, and make an argument for why intersectional invisibility should be a focus in HIV/AIDS research. After a presentation of social stigma more broadly, focusing the discussion on disease-related stigma, and then HIV/AIDS specific-stigma, an explanation of how HIV/AIDS stigma is layered is provided. I close the chapter explaining the theorized relationships among the various factors in my study as they influence perceived community HIV/AIDS stigma.

Chapter 3 is the methods chapter, where I discuss the research methodology I used in the study to understand perceived community HIV/AIDS stigma amongst MSM in the Washington, DC Metropolitan area. The chapter begins with a discussion of the data collection process, including both the data collection mode as well as a discussion of the incentives offered to participants. Next, I describe the sampling strategy I used to recruit participants, discuss how I determined who was eligible to participate, and outline the timeframe it took me to collect my data from my research sample. Following this, I

describe the content of the survey instrument and how each theoretical concept was measured within the instrument. Finally, I end the chapter with an explanation of my analysis strategy. More specifically I talk about how I coded my variables, what statistical tests I used, and the type of structural equation modeling I used in order to test my models.

Chapter 4 is the descriptive statistics chapter that outlines all the variables utilized in this study. I begin this chapter by discussing the outcome and predictor variables for the entire research sample. Then I delineate the means and standard deviations or percentages for all of the outcome and predictor variables broken out by race/ethnicity. Next, I show the two-sample t-tests for the outcome and predictor variables by race/ethnicity, in order to show where significant differences may exist between each of the groups. Finally, I conclude this chapter with some summary remarks and transition to the next chapter where the main analysis will be discussed.

Chapter 5 explores the path analyses I conducted for perceived community HIV/AIDS stigma for both the full research sample as well as for each racial/ethnic group. I start by discussing the goodness of fit measures I used to evaluate the path models and determine if modifications were needed. Next, I present my theorized path model for the full research sample, the goodness of fit measures for this model, and a discussion of why my model required modifications. Following this, I present the modification indices I used to adjust the model as well as provide my modified model with an explanation of each pathway. After this process is complete for the full sample, I repeat it for Black, Hispanic, and White MSM separately.

In Chapter 6 I evaluate the outcomes for my full sample. Additionally, I draw comparisons between the final path models for White, Black, and Hispanic MSM, and analyze how each align and depart from the existing literature. Following this, I revisit intersectionality theory here, and illustrate its relevance to MSM of different racial/ethnic groups. Finally, I discuss the limitations of my research.

Chapter 7 ties together all of the findings and I share what I think are the practical and policy implications of my study. Next I offer some general take away points from my study for researchers, healthcare providers, and public health programming developers. Lastly, I wrap up this chapter and my entire dissertation with a dialogue about the future directions of HIV/AIDS stigma research and policy, with an emphasis on studying MSM of different racial/ethnic groups.

CHAPTER TWO: LITERATURE REVIEW

Historical Background of HIV/AIDS

As of 2015 in the United States, more than 1.2 million people 13 years of age and older were living with HIV infection, and of those people close to 1 in 8 or 12.8% were unaware of their status (CDC 2015e). The number of people living with HIV has increased since the early to mid-2000's, but the annual number of new HIV infections has remained relatively stable at approximately 50,000 new infections per year (CDC 2015e). Since the beginning of the epidemic, approximately 658,507 people with an AIDS diagnosis in the United States have died (CDC 2015e).

The most affected subpopulation in the United States is men who have sex with men (MSM) of all races and ethnicities (CDC2015e). This group bears a disproportionate amount of the new HIV infection burden, making up 63% of all new HIV infections, but only approximately 2% of the entire U.S. population (CDC 2012b). The estimated number of new HIV infections is highest among White MSM at 11,200, then Black MSM at 10,600, and then Hispanic/Latino MSM at 6,700 (CDC 2015e). However, MSM of different races and ethnicities are not proportionately infected based on their racial or ethnic representation in the population. Furthermore, the greatest number of new HIV infection among MSM is found in the 13-24 age group (CDC 2015e). Overall, young, Black/African American MSM, ages 13-24 years old, make up more than half (55%) of all new HIV infection in the MSM population (CDC 2015e).

The Geographic Distribution of HIV/AIDS in the United States

In the United States, HIV and AIDS is largely concentrated in urban areas. States with high reported rates of persons living with HIV/AIDS (PLWHA) usually "contain major metropolitan areas where their epidemics are focused" (CDC 2012a:1). The most substantial number of estimated new AIDS diagnoses, at the end of 2010, was located in the South at 45% (33,015) (CDC 2012a). This was followed by the Northeast at 24%, the West at 19%, and the Midwest at 13% (CDC 2012a). However, in 2010 the Northeast reported the highest rates of new AIDS diagnoses (14.2/100,000) (CDC 2012a). The next highest rates of new AIDS diagnoses were in the South (13.0/100,000), then the West (8.8/100,000), and finally in the Midwest (6.3/100,000) (CDC 2012a). Lastly, based on 2009 data, the South accounted for 40% of all the PLWHA in the United States and District of Columbia (CDC 2012a). This was followed by the Northeast (29%), the West (20%), and then the Midwest (11%) (CDC 2012a).

This study is focused on the South due to the substantial numbers of new AIDS diagnoses, high rates of AIDS diagnoses, and PLWHA in this region (CDC 2012a). The Washington, DC-VA-MD-WV division has the fifth highest new diagnosis rate (34.5 per 100,000 population) as well as the fifth highest prevalence of diagnosed HIV infection of all metropolitan statistical areas of residence in the United States (CDC 2013). All of this taken together makes the Washington, DC Metropolitan area an ideal location to investigate the social perceptions of community HIV/AIDS stigma.

HIV among Gay, Bisexual, and Other MSM

Gay, bisexual, and other MSM are the most severely affected group when it comes to HIV (CDC 2015b). In 2013, gay and bisexual men comprised approximately

65% of estimated new HIV diagnoses in the U.S., and 81% of all infections among recently infected men ages 13 and older (CDC 2015b). There are a number of factors that contribute to the extremely high incidence and prevalence rates of HIV among MSM.

To start, many gay, bisexual, and other MSM do not know they have HIV, as is the case with many non-MSM, and therefore do not receive the treatment they need to stay healthy and prevent transmission to sexual partners (CDC 2015b). In addition, unprotected anal intercourse leaves people particularly vulnerable to HIV contraction, so MSM who engage in this behavior drastically increase the chances of passing on or contracting HIV (CDC 2015b). Moreover, MSM tend to have more sexual partners than other men, leaving them more susceptible to contracting HIV or another sexually transmitted disease (STD) (CDC 2015b). Furthermore, the higher prevalence of HIV within the pool of potential sexual partners drastically increases the possibility of HIV contraction for MSM (CDC 2015c). Finally, homophobia, stigma, and discrimination create significant barriers to health care and support, thus leading to increased chances of a number of physical and mental health problems (CDC 2015b).

With the multitude and complexity of factors faced by MSM, it is important to investigate and understand the nuances of their lived experiences, so that better prevention and intervention efforts can be devised. Too often MSM, who are HIV positive are blamed for their condition, and ostracized because of it, only further exacerbating an already dire situation (Altman et al. 2012; CDC 2015b; Courtenay-Quirk, et al. 2006).

HIV among Blacks/African Americans

Of all racial/ethnic groups in the United States, Blacks/African Americans are most affected by HIV (CDC 2015a). In 2010, African Americans accounted for 44% of all new HIV infections among adults 13 years of age and older, despite only being 12% of the total U.S. population (CDC 2015a). Additionally, African American men accounted for 70% (or approximately 14,700) of all the new HIV infections among African American adults and adolescents in 2010 (CDC 2015a). Finally, African American gay, bisexual, and other men who have sex with men make up approximately 72% of new HIV infections among African Americans and 36% of new HIV infections among all gay and bisexual men (CDC 2015a).

The disproportionate rates of infection among African Americans are due to a number of challenges. First of all, since there is a greater prevalence of HIV infection in the African American community and that African Americans tend to have sexual partners of the same race/ethnicity, this leads to increased chances of contraction for African Americans in the U.S. (CDC 2015a). In addition, African American communities tend to have higher rates of other sexual transmitted infections (STIs) compared to other racial/ethnic communities, and given that having an STI increases one's chance of contracting HIV, African Americans have a greater "chance of getting or transmitting HIV" (CDC 2015a:2). Furthermore, lack of awareness of HIV infection prevents many African Americans from receiving the necessary treatment to prevent further transmission (CDC 2015a). Lastly, "socioeconomic issues associated with poverty…stigma, fear, discrimination, homophobia, and negative perceptions about HIV

testing," are all additional factors that leave many African Americans vulnerable to infection (CDC 2015a:2).

HIV among Hispanics/Latinos

HIV in the United States also disproportionately affects Hispanics/Latinos, though not at the same levels as African Americans (CDC 2015d). In 2013, Hispanics/Latinos made up approximately 23% of new HIV diagnoses, and of those, 83% were men (CDC 2015d). Furthermore, of all Hispanic/Latino men newly infected with HIV, 81% are gay, bisexual, or men who have sex with men (CDC 2015d). Finally, since 2008, there has been a 16% increase in HIV diagnosis among gay and bisexual Hispanic/Latino men (CDC 2015d).

There are a number of factors influencing the HIV epidemic in the United States' Hispanic/Latino communities. To begin with, a large number of people in Hispanic/Latino communities are living with HIV, and tend to have sex with partners within their racial/ethnic group, thus increasing the chances of contraction (CDC 2015d). Additionally, though most data indicate that the majority of Hispanic/Latino men with HIV contracted it through sex with other men, there are variations in mode of contraction based on country or region of birth (CDC 2015d). For instance, men born in Puerto Rico have a higher percentage of diagnoses due to injected drug use (IDU) (CDC 2015d). Moreover, Hispanics/Latinos have relatively high rates of STDs, including Chlamydia, gonorrhea, and syphilis, which make it easier for someone in these communities to become infected with HIV (CDC 2015d).

Beyond sexual behaviors though, some Hispanics/Latinos do not get tested, seek out counseling, or receive treatment if infected with HIV, because of the stigma the disease carries and fear of discrimination (CDC 2015d). More specifically, "traditional gender roles, cultural norms ('machismo,' which stresses virility for Hispanic/Latino men...), and the stigma around homosexuality" all further contribute to prevention and intervention challenges (CDC 2015d:2). In addition, a number of socioeconomic factors, such as poverty, migration patterns, education, inadequate or the lack of health insurance, limited accessibility of healthcare, and language barriers all may contribute to HIV infection among Hispanics/Latinos (CDC 2015d). This is because they limit awareness as well as chances to receive testing or care (CDC 2015d). Finally, undocumented Hispanics/Latinos who immigrated to the United States may be afraid to disclose their immigration status, which makes them less likely to receive HIV prevention services, an HIV test, or proper treatment and care if they are living with HIV (CDC 2015d).

Why the Need for a Focus on Black and Hispanic MSM

There is a critical need to focus on Black and Hispanic MSM in the United States because they are disproportionately affected by the HIV/AIDS epidemic (CDC 2014; CDC 2015d). As much of the previous research on MSM has studied mainly White MSM and assumed the findings uncovered represent the experience of MSM of all racial and ethnic groups, empirical evidence suggests this is simply not the case. Black and Hispanic MSM face distinctive community, institutional, and structural barriers that must be recognized and addressed in order to reduce HIV incidence and prevalence rates among these individuals (NASTAD and NCSD 2014).

The National Alliance of State & Territorial AIDS Directors and the National

Coalition of STD Directors (2014:5) reported that there "are very few HIV prevention

interventions tailored to the unique needs of Black and Latino MSM." In fact, of the 74

interventions included in the "CDC's Compendium of Evidence-Based HIV Behavioral

Interventions, the primary sources of HIV/AIDS interventions used by community-based

organizations (CBOs)" only one was developed specifically for the needs of Black MSM,

and only two were adapted for Black and Hispanic MSM (NASTAD and NCSD 2014:5).

The lack of culturally sensitive prevention, intervention, and other social programming

for Black and Hispanic MSM has led to major health disparities amongst these groups,

and left them vulnerable to HIV infection.

The Role of Stigma in Perpetuating HIV Infection

Sociologists generally define stigma as "an attribute that is deeply discrediting"

(Goffman 1963:3). Stigma surrounding HIV status is the silent killer that is perpetuating

if not exacerbating the HIV epidemic. Stigma creates a "game of fear, blame, and

shame," that hurts individuals as well as entire communities (Rana and Parikh 2014:2).

Though advances have been made in bioscience and medicine regarding HIV itself,

significant change will not occur until the social component of HIV stigma is also

sufficiently acknowledged and efforts are put forth to work towards its eradication.

HIV is considered "the most stigmatized disease in medical history" (Rana and Parikh

2014:1). It is stigmatized partly because there is no cure for it, but also partly because

substantial judgments of someone's moral character are attached to it due to how it can

be contracted. This being said, HIV stigma is a significant "public health hazard" that

inhibits testing, treatment, care, and medication adherence amongst those who are or may

be HIV positive (Rana and Parikh 2014:2). Social science research on HIV stigma desperately needs to be a major priority for researchers, medical professionals, and policy makers, because, as history has shown thus far, biomedical advances alone will not be able to end the HIV epidemic.

HIV Is an Epidemic of Intersectional Inequality

HIV is a disease that any human being has the potential to contract. However, as the HIV epidemic in the United States shows, some groups are disproportionately infected and affected by it. There are a myriad of social, institutional, and structural factors that contribute to the inequities in HIV infection (Watkins-Hayes 2014). Applying intersectionality theory can better illuminate the complexities that comprise the HIV epidemic in the United States today.

Intersectionality is a framework that takes into consideration the roles of identity, difference and disadvantage when examining social problems (Cole 2009). It can be defined as "a conceptual framework that acknowledges how multiple, simultaneous, and structurally embedded social locations influence the life experiences, opportunities, investments, and constraints of individuals and groups" (Watkins-Hayes 2014:434). Kimberle Crenshaw, a legal scholar and critical race theorist, is credited with first developing the term "intersectionality" in relation to race and gender, however, other social scientists were also problematizing the analysis of race and gender as isolated categories around the same time (Cole 2009). Intersectionality encompasses more than gender and race though. It also takes into consideration class, sexual orientation, and other social categories that "serve as organizing principles and help to determine how

power is distributed, (im)balanced, maintained, and challenged" (Watkins-Hayes 2014:434). Various systems of inequality, such as racism, sexism, classism, heterosexism, and others, overlap and interact to produce what Collins (2000) refers to as interlocking systems of oppression (Watkins-Hayes 2014). By evaluating social categories in isolation, research assumes a monolithic experience that is decontextualized and often erroneous for certain segments of that population (Cole 2009).

Intersectionality enables social scientists to focus on marginalized and neglected groups in a nuanced and representative manner (Cole 2009). Though not typically utilized in HIV/AIDS research, it has tremendous insights to offer regarding how unequal power dynamics perpetuate and at times even increase the likelihood of being exposed to HIV (Watkins-Hayes 2014). It is important to note here that membership in a particular identity group does not determine the likelihood of an individual contracting HIV (Watkins-Hayes 2014). Individual behavior plays a role in a person's chances of contracting HIV; however, structural factors such as social and economic inequality also leave some marginalized groups particularly vulnerable to HIV contraction (Watkins-Hayes 2014). Evidence of this was presented in the earlier discussion of the Center for Disease Control and Prevention HIV surveillance data of various categories of individuals in the United States.

"Intersectional Invisibility" and How It Affects and Perpetuates the Spread of HIV

Since the majority of research on HIV/AIDS focuses on incidence and prevalence rates, as well as quantifying risk behaviors and which groups should be classified as "at-risk," much of the scholarly literature misses the complex interplay of circumstances and

identities that tell more of the complete story behind the epidemic (Watkins-Hayes 2014).

In addition, inequalities between various groups "significantly shape the likelihood of

exposure to the virus; the realities of living with the infection; and medical,

programmatic, political, and social-scientific responses" (Watkins-Hayes 2014:431). By

not thoroughly investigating the varying experiences and obstacles faced by people with

different intersecting identities, researchers studying HIV/AIDS create and reinforce what

Purdie-Vaughns and Eibach (2008) refer to as "intersectional invisibility," and therefore

do not collect data and develop programming that will best serve some of those most

vulnerable to HIV.

Intersectional invisibility occurs when an individual with two or more subordinate

identities fails to be recognized as part of their constituent groups, because they "do not

fit the prototypes of their constituent subordinate groups" (Purdie-Vaughns and Eibach

2008:381). For example, when referring to people who identify as homosexual, the

prototype for that constituent group is a white gay man. Individuals who are not White

and/or not male (i.e. White lesbian woman, Black gay man, Black lesbian woman) are

excluded from the constituent group homosexual, and thus their needs and experiences

are therefore invisible and unacknowledged (Purdie-Vaughns and Eibach 2008).

Intersectional invisibility can have some benefits, but far more substantial disadvantages.

The potential advantage of intersectional invisibility is that it may enable those

with two or more subordinate identities to escape a number of the discriminatory

practices targeting their groups, since they do not fit the prototype for their groups

(Purdie-Vaughns and Eibach 2008). However, the disadvantages of intersectional

invisibility far outweigh the potential advantages gained from it. To start with "the

struggle to be recognized or represented is the most distinctive form of oppression for

people with intersectional subordinate-group identities," and these people have to face

this struggle on a constant basis (Purdie-Vaughns and Eibach 2008:383). In addition,

those who fit the prototype of their constituent group have more opportunities for and

access to leadership as well as social influence, which further marginalizes those with

intersecting subordinate identities (Purdie-Vaughns and Eibach 2008).   Finally, the

difficulties associated with "misrepresentation, marginalization, and disempowerment"

will tend to be ever-present features in the lives of those individuals possessing

intersecting subordinate-group identities" (Purdie-Vaughns and Eibach 2008).

Purdie-Vaughns and Eibach (2008) present four different types of intersectional

invisibility. They are historical invisibility, cultural invisibility, political invisibility, and

legal invisibility (Purdie-Vaughns and Eibach 2008). Historical invisibility occurs when

the narratives of individuals with intersecting subordinate-group identities are

"deemphasized or misrepresented in the mainstream historical record" (Purdie-Vaughns

and Eibach 2008:383). Cultural invisibility exists when cultural representations do not

capture the unique experiences of groups who are intersectionally subordinate (Purdie-

Vaughns and Eibach 2008). Political invisibility relates to the neglect shown by

supposedly inclusive advocacy groups regarding matters that largely affect people with

intersecting subordinate identities (Purdie-Vaughns and Eibach 2008). In other words,

proportionate amounts of time and resources are not dedicated to members of the

constituent group that hold multiple intersecting subordinate identities (Purdie-Vaughns

and Eibach 2008). Finally, legal invisibility occurs when there is a poor fit between anti-discrimination laws and the experiences of people with two or more subordinate identities (Purdie-Vaughns and Eibach 2008).

When conducting research on sexual orientation and HIV/AIDS, it is important that social science investigators ask the question "Which group is ignored?" (Purdie-Vaughns and Eibach 2008:388). By asking this question, social scientists force themselves to explore the gaps and biases that exist in the field, and in turn contribute to the production of scholarship and social programming that better serves all people. Intersectionality challenges researchers to think about what it means "to have a marginalized status within a marginalized group," and has a prominent role in the research conducted here (Purdie-Vaughns and Eibach 2008:389).

The present research aims to explore perceived community HIV/AIDS stigma with careful consideration of how race/ethnicity potentially shade the experiences and perspectives of MSM in the Washington, DC Metropolitan area. Little research exists exploring this construct through an intersectional lens. Therefore, this project examines how social attitudes and knowledge contribute to perceived community HIV/AIDS stigma. The following sections discuss the current scholarship on perceived community HIV/AIDS stigma, illustrate the theoretical processes being tested in my research, and argue how my research addresses some of the limitations in the current literature.

Perceived Community HIV/AIDS Stigma

The Evolution of Stigma as a Social Phenomenon

The theoretical construct of stigma, as it is understood today, continues to rely heavily on Erving Goffman's (1963) definition. He states that "the term stigma… refer[s] to an attribute that is deeply discrediting" (Goffman 1963:3). It involves "dehumanization, threat, aversion, and sometimes the depersonalization of others into stereotypic caricatures" (Dovidio, Major, and Crocker 2000:1). Goffman (1963) explains that stigma has two components when it comes to differentness: discredited and discreditable. Discredited stigma is differentness that is already known about or evident immediately, whereas discreditable stigma is differentness that is not readily known or instantly perceivable (Goffman 1963).

When conceptualizing stigma as a theoretical construct, it is important to recognize that stigma does not concern attributes alone. "An attribute that stigmatizes one type of possessor can confirm the usualness of another, and therefore is neither creditable nor discreditable as a thing in itself" (Goffman 1963:3). Stigma involves "a special kind of relationship between attribute and stereotype" (Goffman 1963:4). An attribute refers to a characteristic that a particular person possesses, while a stereotype refers to the overly reductionist assumptions of what an individual ought to be from the perspective of the perceiver. When certain undesirable qualities are paired with overly simplified, pre-conceived notions about people possessing those qualities, then the person who is the focus of social scrutiny experiences stigma.

Ultimately, stigma is relationally and contextually based. According to Goffman (1963) there are three types of stigma. These are "(1) abominations of the body, … (2)

blemishes of individual character, [and]… (3) tribal stigma" (Goffman 1963:4). In the sociology of health and illness, disease-related stigma primarily focuses on abominations of the body and blemishes of individual character, but it can have aspects of tribal stigma, especially if certain conditions are associated with particular racial or ethnic groups.

Social psychologists Weiner, Perry, and Magnusson (1988) built on Goffman's (1963) theoretical foundation and showed, through the use of attribution theory, how reactions to stigma can vary based on controllability and stability of cause. The researchers conducted two experiments comparing 10 different stigmas associated with AIDS, Alzheimer's disease, blindness, cancer, child abuse, drug addiction, heart disease, obesity, paraplegia, and Vietnam War Syndrome. They found eight reliable patterns across the 10 stigmas examined.

First, stigmas differ in their perceived controllability (responsibility) and stability (reversibility). Second, "physically based stigmas tend to be perceived as onset-uncontrollable, [while] mental-behavioral problems tend to be perceived as onset-controllable" (Weiner et al. 1988:745). Third, stigmas designated onset-uncontrollable are associated with emotional reactions such as pity, liking, a lack of anger, and "behavioral judgments of help-giving," while onset-controllable stigmas are associated with a lack of pity, liking, and help-giving as well as strong feelings of anger (Weiner et al. 1988:745). Fourth, discernments of stigmas as onset-controllable can be shifted to uncontrollable, in many but not all cases, when a person is given important information. Fifth, perceptions of responsibility for a few of the stigmas (i.e. Alzheimer's disease, Vietnam War Syndrome, and child abuse) are relatively unchallengeable. Sixth,

physically-based stigmas tend to be viewed as stable (irreversible), but stigmas that are mentally-behaviorally-based are typically perceived as unstable (reversible). Seventh, "perceptions of causal stability, and to a lesser extent, causal controllability, are related to intervention strategies thought to increase the life satisfaction of the stigmatized person" (Weiner et al. 1988:747). Lastly, AIDS' unique attributional qualities separate it from stigmas caused by other conditions.

More specifically, AIDS was the only disease found by Weiner et al. (1988) to be both onset controllable (i.e. in the cases of unprotected sex and injected drug use), as well as stigma irreversible. However, the researchers note that AIDS is also onset uncontrollable (i.e. in cases of blood transfusion before 1985 and mother to child transmission in child birth or during breast feeding). Therefore, when these attributional qualities are taken all together, HIV/AIDS is quite unique and complex in the attitudes it elicits.

Link and Phelan (2001; 2006) further elaborate on Goffman's (1963) elucidation of stigma by addressing the vagaries and overly-individualistic focus previous scholarly conceptualizations have provided. They claim "stigma exists when elements of labeling, stereotyping, separating, status loss, and discrimination co-occur in a power situation that allows these processes to unfold" (Link and Phelan 2001: 382). In other words, the differences between people are distinguished and labeled, "dominant cultural beliefs link labeled persons to undesirable characteristics," distinct categories are created for labeled people in order to create an "us" versus "them" separation, people who are labeled experience loss of status and discrimination "that lead to unequal outcomes, and a lack of

"access to social, economic, and political power" are what enable the "full execution of disapproval, rejection, exclusion, and discrimination" of the stigmatized (Link and Phelan 2001:367). This definition reframes stigma as a construct that focuses on relationships rather than individual perceptions and emphasizes the importance of theorizing from the vantage point of stigmatized groups (Link and Phelan 2001). In addition, Link and Phelan (2001) call attention to the idea that stigma likely plays a critical role in determining life chances, and encourage further scholarly endeavors in this vein.

As of late, certain researchers have problematized some of the most prominent definitions and uses of stigma in the scholarly work examined above (Deacon 2006; Deacon, Stephney, and Prosalendis 2005; Green 2009; Lichtenstein 2012; Manzo 2004; Parker and Aggleton 2003). To start, Deacon (2006), Deacon et al (2005), and Green (2009) have argued that the theoretical concept of stigma has become conflated with that of discrimination. This "conceptual inflation" has led to a "lack of analytic clarity," which is problematic for both researchers as well as health practitioners (Deacon 2006:419). Stigma and discrimination are not one in the same, but a great deal of scholarly research defines stigma as "something that results in discrimination" (Deacon et al. 2005:2).

Parker and Aggleton (2003:14) build upon this critique by asserting that "stigmatization *devalues relationships* rather than being a fixed attribute." They claim that the problems involved in defining stigma are a consequence of the strong social-cognitive focus adopted in the field, where individual aspects are emphasized rather than social and/or cultural ones. As a consequence, stigma is seen as something inherent in

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the person stigmatized rather than a designation attached to the stigmatized by other people (Parker and Aggleton 2003). Moreover, a great deal of previous research has focused on stereotyping instead of on "structural conditions that produce [and reproduce] exclusion from social and economic life" (Lichtenstein 2012; Parker and Aggleton 2003:15). As a result, there is rarely a focus on how stigma contributes to the reproduction of power and control relations, as well as on how it perpetuates racial, income, and gender disparities (Lichtenstein 2012; Parker and Aggleton 2003). All of these shortfalls, in the most utilized conceptualizations of stigma, highlight a major gap that needs to be closed if an accurate and complete definition of stigma is to be developed (Lichtenstein 2012; Parker and Aggleton 2003).

Stigma is a social process that involves othering, blaming and shaming (Deacon 2006). Additionally, power relations play a critical role in the practice of stigmatization (Deacon 2006; Parker and Aggleton 2003). In her research, Deacon (2006:421) found an illness is considered stigmatized when it is "constructed as preventable or controllable, [the] 'immoral' behaviours causing the illness are identified [and] associated with 'carriers' of the illness in other groups…, certain people are … blamed for their own infection, [and] status loss is projected onto the 'other,' which may (or may not) result in disadvantage to them" (Deacon 2006:421). Therefore, stigma, whether a condition or an identity, does not have to give rise to discrimination in order to be harmful or have a negative effect (Deacon 2006). Stigma can be internalized, bring about status loss, result in not getting tested or proper healthcare for a disease, and/or lead to a poor quality of life. Conversely, discrimination can be the consequence of stigma, but it can also be an

outcome of a fear of contagion, concern about limited resources, sexism, racism, homophobia, et cetera (Deacon et al. 2005).

Through her further development of the concept, Lichtenstein (2012) explains that stigma also possesses a colonizing quality. It is colonizing, "because [stigma] can rapidly 'infect' a population through rumor and word-of-mouth, the media, public health warnings, and historical representations from other epidemics" (Lichtenstein 2012:37). Additionally, stigma is colonizing when it is utilized as a weapon during wars between cultures or as part of an "invading force" (Lichtenstein 2012:37). Lichtenstein (2012) conceptualizes stigma as fluid and changing, in order to account for the significant shortcoming of Goffman's (1986) theoretical formulation of stigma into three discrete, mutually-exclusive categories that remain fixed across time. By conceptualizing stigma in this manner, Lichtenstein (2012) moves beyond the simple and flat understanding of stigma as a set of attributes that violate social norms, and incorporates history, culture, and social structure into the theoretical framework.

How stigma is defined has a great deal of influence over how its operation is understood and how it should be addressed. By looking at stigma as a problem of fear and blame, rather than an issue of ignorance and/or social control, one is able to get away from models of stigma typically relying on individualism and/or functionalism (Deacon et al. 2005). "Functionalist arguments, in which the effect of something is also defined as its cause or an essential part of its nature, have limitations because they are non-disprovable, circular arguments" (Deacon et al. 2005:3). The causes of stigma need to be

separated from its effects, because "not all stigmatization leads to actual discrimination and not all discrimination is caused by stigma" (Deacon et al. 2005:29).

Manzo (2004) furthers the argument that the concept of stigma is over-used and under-defined in both sociology and other behavioral sciences. In his research, he presents seven qualities that would designate a phenomenon as being appropriately classified as "stigmatizing" and would aid in addressing its lack of specification and potential misuse (Manzo 2004). The seven underlying conditions that lead to stigmatization include "visibility, severity, contagiousness, culpability, difference, incompetence, and deviance" (Manzo 2004:406). More specifically, visibility entails "being visually notable," severity involves being lethal or incapacitating, contagiousness means being or seeming to be communicable, culpability "implies blame or delict," difference being uncommon in certain contexts, incompetence "reflect[s] frailty [thus] negating social and interactional competence, and deviance indicates an attachment to an "alternative lifestyle" (Manzo 2004:407). This breakdown is intended to question and potentially stop the use of the concept stigma as simply "editorial gloss," or another form of academic jargon (Manzo 2004:413). Furthermore, it is meant to help ensure that the designation of stigma is not something simply chosen by scientists, but also a depiction that feels "real" and meaningful to the research participants themselves (Manzo 2004). Manzo's (2004) examination shows that a concept is of no use in understanding the struggles faced by a particular group of people, if it is a scientific creation rather than a real-world phenomenon.

Disease-Related Stigma

Disease stigma is an "ideology that identifies and links the presence of a biological disease agent (or any physical sign of a disease) to negatively defined behaviours or groups in society" (Deacon et al. 2005:49). Disease stigma is setting-based in that "different cultural, biological, situational, social or political contexts also influence the content and intensity of stigmatizing beliefs" (Deacon et al. 2005:50). Furthermore, the harshness of disease-related stigma can "wax and wane depending on the era … or circumstances," so disease stigma is an ever-evolving social and cultural phenomenon (Lichtenstein 2012:31). When an undesirable health status is discovered, either based on physical signs or disclosure, the sick person quickly becomes isolated (Deacon, et al. 2005; Herek and Capitanio 1998; Parker and Aggleton 2003). This is because others are afraid that the stigma and/or the disease may be transferred to them through association or contact (Herek and Capitanio 1998; Kurzban and Leary 2001; Phillips, Benoit, Hallgrimsdottir, and Vallance 2012; Pontikes, Negro, and Rao 2010). Once a stigmatized individual becomes isolated, a number of deleterious effects take hold that dramatically jeopardizes the well-being of that person.

Disease-related stigma can be particularly stressful for the recipients of the stigma. "Not only are [the stigmatized] at risk to develop other stress-related illnesses, but the clinical course of the stigmatised illness itself may be worsened and other outcomes affected, such as the ability to work or lead a normal life" (Link and Phelan 2006:529; Reidpath et al. 2005). The fear of labeling can cause people to delay or avoid treatment, and those already labeled may stop treatment or become non-compliant to distance themselves from the stigmatizing label (Link and Phelan 2006; Reidpath et al.

2005). Additionally, disease-related stigma puts people at significant social disadvantage, especially when it comes to knowledge, money, power, prestige, social connections, access to protective strategies, and means to avoid risks, so the burden they experience from disease or disability is only intensified (Link and Phelan 2006). Furthermore, since apparent health encourages reciprocity and social exchange (Krupp et al. 2011), those who are sick have reduced social value due to their poor health (Reidpath et al. 2005). These individuals consequently have a lesser ability to engage in reciprocal exchange, (likely due to perceived and/or actual depletions of resources from astronomical health expenditures) and therefore are denied access to both community membership and needed resources (Ciric 2013; Reidpath et al. 2005). Ultimately, stigma causes intense suffering and even death, so real strides cannot be made in health preventions, interventions, and treatments without putting significant efforts, research, and resources towards confronting and stamping out stigma (Link and Phelan 2006).

The Inhibiting Effects of Disease-Related Stigma

It is critical to public health to have an understanding of disease stigma, because it is a major inhibitor of disclosure of health conditions and behaviors. Humans are social beings, and disease stigma threatens a person's identity as being "normal" (Balfe and Brugha 2010). Not all diseases are stigmatized or at least stigmatized to the same degree, however. Diseases that are frequently stigmatized are those that are the consequence of socially deviant behavior, feared due to a lack of knowledge or understanding, and/or serve as a designation of immorality. Carrying the designation of infected for stigmatized

diseases can lead to the development of what Goffman (1986) terms a "spoiled identity," which becomes difficult from which to socially recover.

Those with a stigmatized disease may end up experiencing social isolation (Golden et al. 2006), social rejection (Golden et al. 2006), expulsion from certain social worlds and contexts (Murphy 1989), cruel humor (Inhorn 1986), increased levels of anxiety, loneliness, and depressive symptoms (Courtenay-Quirk et al. 2006), as well as avoidant coping strategies and thoughts of suicide if their disease status becomes known (Courtenay-Quirk et al. 2006). Furthermore, stigmatization can prevent people from getting proper testing and treatment, as well as hurt if not destroy familial, intimate, and other sorts of interpersonal relationships (Gilbert and Walker 2010). As a result, those who discover they are infected with a stigmatized disease often avoid disclosure all together or only disclose to "a select group of trusted 'insiders'" (Balfe and Brugha 2010; Inhorn 1986:62). This is only possible if the disease is not visibly apparent. Some diseases leave visible markers either right away or later on that are hard to disguise.

For those with diseases that are not outwardly perceptible, a complicated game of concealment and "passing" as healthy begins (Nack 2000). However, keeping one's health status or behaviors secret can become emotionally draining and challenging, practically speaking, to navigate (Balfe and Brugha 2010; Gilbert and Walker 2010). Without some sort of outlet or social support system, those trying to hide stigmatized diseases not only suffer from the symptoms of their disease, but they also acquire detrimental health conditions because of the stress induced by trying to hide their disease status (Link and Phelan 2006; Reidpath et al. 2005). Often people who suffer from

stigmatized diseases will join self-help or support groups, in order to cope and have a place where they can be comforted by others like themselves (Inhorn 1986). Disease stigma serves as a major barrier to progress in disease eradication and awareness. Susan Sontag (1978:58) wrote that "nothing is more punitive than to give a disease a meaning – that meaning being invariably a moralistic one." Stigmatization is a social process that further punishes the already ill, and serves only to exacerbate the spread and severity of disease.

The Stigmatization of an HIV Positive Status

Being HIV positive is a social marker of deviation from accepted conventions in many societies, including the United States, and is stigmatized as a result. Since HIV is primarily contracted through intravenous drug use and/or unprotected sexual practices, people of a community may feel it is appropriate to judge and blame those who engage in socially reprehensible and taboo behaviors (Herek and Capitanio 1993; Herek et al. 2002). Furthermore, due to a lack of knowledge and awareness regarding HIV contraction, people in a community may avoid or distance themselves from those who are HIV positive to protect themselves physically from the perceived threat of illness and socially from stigma by association (Herek and Capitanio 1998; Herek et al. 2002; Deacon et al. 2005; Herek et al. 2005; Visser et al. 2006; Pontikes et al. 2010).

HIV stigma does not only exist at the individual level, however. The "shared social constructions and discourses" of a community can tremendously impact individual behavior and attitudes (Visser et al. 2006:45). In their work on HIV stigma in South Africa, Visser et al. (2006) delineate between what they term "personal stigma" and

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"perceived community stigma." Personal stigma centers on an "individual's attitude based on personal experiences," whereas perceived community stigma "focuses on the observation of the reaction of other people in the community" (Visser et al. 2006:45). This distinction is important, because it is possible that perceived community stigma may play a more critical role in determining behavioral patterns than does the personal stigma held by individuals (Visser et al. 2006).

Layered Stigma and Its Consequences on the HIV Epidemic
Reidpath and Chan (2005) suggest in their research that HIV-related stigma is layered with other stigmatized identities or statuses rather than a single entity in and of itself. These researchers state that "disentangling the layered nature of HIV stigma [is] crucial because it is only through understanding the complexity of it that comprehensively effective policies and interventions can be developed" (Reidpath and Chan 2005:427). The layering of stigma involves the co-occurrence of stigmatizing statuses. To start, each status possesses its own unique stigma. Then there is what is referred to as shared stigma, which is the degree to which the two unique stigmas overlap to create another layer of combined stigma. Lastly, there is what is referred to as synergistic stigma, which is a fourth layer of stigma that emerges when being part of two or more stigmatized statuses is worse than the sum of the stigma associated with each status separately. It is important to note that the stigma associated with two characteristics, shared stigma, and the presence/absence and degree of synergistic stigma are all dependent on social norms, cultural values, and environmental circumstances. This is essential to consider, because these four forms of stigma do not exist in a

universal vacuum, and thus must be understood in their appropriate social, cultural, and environmental contexts.

A good example to explain this theoretical construct is looking at the stigma experienced by an HIV positive person who is homosexual. This person would theoretically experience stigma that has 4 layers according to Reidpath and Chan (2005). The first layer would consist of stigma uniquely associated with an HIV positive status. The second layer would be stigma uniquely associated with being homosexual. The third layer of stigma would be what Reidpath and Chan (2005) refer to as shared stigma, which is a layer of stigma that is due to the overlap of the HIV positive status stigma and the homosexual identity stigma. The fourth and final layer of stigma, known as synergistic or compounded stigma, is a layer of stigma that emerges when being both HIV positive and homosexual is worse than the simple addition of the stigma associated with each characteristic in isolation (Reidpath and Chan 2005).

The conceptualization of layered stigma presented is critical to the research undertaken here. It provides a theoretical foundation for the complexity of stigma experienced for MSM from different racial and ethnic backgrounds. Furthermore, it helps explain why the form and intensity of the different layers of stigma may vary for groups who experience intersectional invisibility.

Theorizing the Construct: Perceived Community HIV/AIDS Stigma

Perceived community HIV/AIDS stigma has a powerful impact on the HIV/AIDS epidemic, and yet there is no scholarly research published on it in the United States context, and only one study published studying a South African community (Visser et al.

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2006). In addition, the social science literature that does exist on HIV/AIDS in the

United States has become dated. A large proportion of the newer scholarly HIV/AIDS

research is published in the fields of medicine and public health, and that literature

typically places an emphasis on incidence, prevalence, and risk behaviors, without much

consideration of the structural, institutional, and social factors that make individuals and

groups vulnerable to HIV infection. This is particularly problematic, because without

addressing the current social aspects and stigma associated with HIV more thoroughly,

HIV will remain a disease of fear, shame, and blame that infects approximately 50,000

new people each year (Rana and Parikh 2014; CDC 2015e).

In my study, I explored the processes that lead to the perceived community

HIV/AIDS stigma of Black, White, and Hispanic MSM. Since gay men were some of the

first cases of HIV/AIDS in the United States, and AIDS was initially referred to as Gay-

Related Immune Deficiency (GRID), a homophobic and inappropriate descriptor of the

disease, many MSM are acutely aware of both the stigma against PLWHA as well as gay,

bisexual, and other MSM (CDC 1982; Scarce 2014). In addition, though MSM are not

the only group disproportionately infected and affected by the disease, they are the most

disproportionately infected and affected in the United States (CDC 2012b; CDC 2015c).

To start with, social support was expected to directly and indirectly affect

perceived community HIV/AIDS stigma. According Social Support Theory, "social

support serves to protect individuals against the negative effects of stressors by leading

them to interpret stressful occasions less negatively" (Galvan et al. 2008:425; Lakey and

Cohen 2000). Therefore, the higher satisfaction with the social support from friends and

family members MSM reported, the less negative it was expected they would likely perceive community HIV/AIDS stigma as well as community attitudes towards gay men. In addition, previous research shows that levels of social support influence levels of self-acceptance, so the degree to which MSM feel supported by friends and family was expected to affect their acceptance of themselves (Vincke and Bolton 1994). Therefore, it is likely that MSM who feel more satisfied with the social support they receive are likely to experience greater levels of self-acceptance of themselves as people.

The next concept that was expected to indirectly affect perceived community HIV/AIDS stigma was self-acceptance. Social support was predicted to influence self-acceptance in that men who felt dissatisfied with the levels of social support they received would likely possess lower levels of self-acceptance and potentially vice versa. From there though, self-acceptance framed how gay, bisexual and other MSM perceived community attitudes towards gay men. Similar to the concept of social support, it was considered likely that MSM with low levels of self-acceptance were likely to perceive their community to have negative attitudes towards gay men, while MSM with greater self-acceptance were likely to perceive community attitudes towards gay men in a more positive light.

Perceived attitudes towards gay men, the third concept in this process, was expected to directly affect perceived community HIV/AIDS stigma. I expected the perceptions of community attitudes reported would be influenced by the satisfaction with social support and self-acceptance as stated above. From there, the community perceptions that resulted were predicted to influence the perceptions of community

HIV/AIDS stigma. This relationship likely results because of attitudes towards male homosexuality in the United States that have historically and continue to be significantly tied to the HIV/AIDS stigma perceived in communities (CDC 1982; Reidpath and Chan (2005); Scarce 2014). Therefore, all these concepts taken together (i.e. MSM who felt unsatisfied with the levels of social support they receive and struggled with acceptance of themselves), were thought to likely report having more negative evaluations of how their community views gay men and in turn how they viewed PLWHA.

The fourth concept, HIV knowledge, was expected to affect perceived community HIV/AIDS stigma both directly and indirectly. Previous research has found that "lack of HIV-related knowledge and high misconceptions correlate with fear of causal transmission and high levels of HIV-related stigma" (Herek, Capitanio, and Widaman 2002; Ogden and Nyblade 2005; Visser et al. 2008:5). As a consequence, I hypothesized HIV knowledge to influence both the stigma MSM personally felt towards PLWHA, as well as how they perceived community HIV/AIDS stigma. In both instances, MSM with high levels of HIV knowledge were thought to be likely to express lower levels of personal HIV/AIDS stigma while at the same time report higher levels of perceived community HIV/AIDS stigma. This was expected to be due to the fact that they were familiar with the inaccuracies in knowledge that existed in the larger community and society, and though they did not personally follow these as fact, they were aware that many community members did and therefore inferred greater community HIV/AIDS stigma due to a lack of knowledge.

In addition to affecting personal and perceived community HIV/AIDS stigma, HIV knowledge was expected to predict whether or not MSM in the sample had ever been tested for HIV. Previous research found that individuals who had been tested for HIV before possessed more knowledge about HIV than those who have never been tested (Haile, Chambers, and Garrison 2007; Scott-Sheldon, et al. 2013). Therefore, MSM who possessed more HIV knowledge were thought to be more likely to have ever been tested for HIV than MSM who had never been tested for HIV.

Personal HIV/AIDS stigma, the fifth concept was expected to directly influence perceived community HIV/AIDS stigma, because one's own stigma tends to shade one's view of others' stigma. In addition, scholarly research shows that individuals tend to rate their personal stigma lower than that which they perceive in the community, so an important relationship exists between the two constructs (Visser et al. 2006). Therefore, those with low levels of personal HIV/AIDS stigma were expected to report much higher levels of perceived community HIV/AIDS stigma than those with high levels of personal HIV/AIDS stigma, even though both groups were expected to report perceived community HIV/AIDS stigma levels that were some degree higher than their personal HIV/AIDS stigma levels.

The sixth concept in this model was having ever been tested for HIV. It was expected to both directly and indirectly affect perceived community HIV/AIDS stigma. Previous research has shown that individuals who had been tested for HIV in the past had shown significantly lower levels of stigma and discrimination than those who had never been tested for HIV before (Tenkorang and Owusu 2013). Therefore, in this study it was

thought to make sense that MSM who had ever tested for HIV before would report lower levels of personal HIV/AIDS stigma, because they understood the disease better, and higher levels of perceived community HIV/AIDS stigma, because they recognized that a great deal of the larger population still possessed a lot of misinformation about and fear of HIV.

In summary, this dissertation tested 11 specific hypotheses:

- MSM who report greater satisfaction with social support from their friends and family will perceive less community HIV/AIDS stigma.

- MSM who report greater satisfaction with social support from friends and family will report greater levels of self-acceptance.

- MSM who report greater satisfaction with social support from friends and family will perceive community attitudes towards gay men more positive.

- MSM who report greater self-acceptance will perceive community attitudes towards gay men as more positive.

- MSM who perceive community attitudes towards gay men as more positive will perceive less community HIV/AIDS stigma.

- MSM with higher levels of HIV knowledge will perceive more community HIV/AIDS stigma.

- MSM with higher HIV knowledge will report lower levels of personal HIV/AIDS stigma.

- MSM with higher levels of HIV knowledge will be more likely to have ever been tested for HIV.

- MSM with lower levels of personal HIV/AIDS stigma will perceive more community HIV/AIDS stigma than MSM with high levels of personal HIV/AIDS stigma.

- MSM who have ever been tested for HIV will report lower levels of personal HIV/AIDS stigma.

- MSM who have ever been tested for HIV will perceive more community HIV/AIDS stigma than MSM who had never been tested for HIV.

See Figure 1 below for a graphical depiction of the theoretical model and hypotheses.
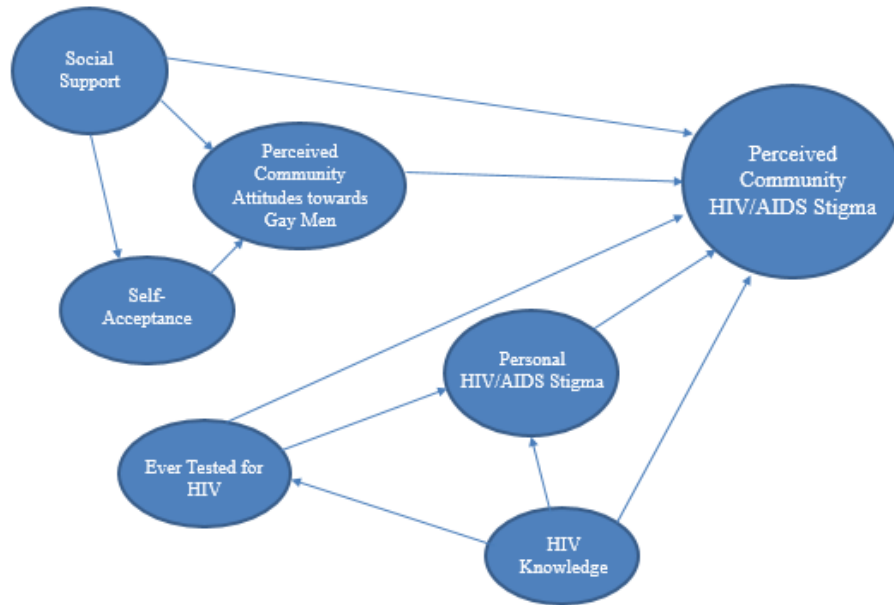
Figure 1: Theorized Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for Full Sample

In addition to examining perceived community HIV/AIDS stigma model with my full study sample, I tested this model across race/ethnicity, because I wanted to investigate if significant differences existed in perceived community HIV/AIDS stigma across Black, White, and Hispanic MSM. Since the Black and Hispanic communities in the United States are disproportionately affected by the HIV/AIDS epidemic, and the majority of new HIV infections are amongst MSM in these racial/ethnic communities,

there was a strong possibility that differences existed in perceived community HIV/AIDS

stigma (CDC 2015a; CDC 2015d). Unfortunately, little current research exists to

measure perceived community stigma generally, never mind across racial/ethnic groups.

Therefore, exploring this outcome was important, because it had the potential to uncover

the social side of HIV/AIDS that perpetuates the epidemic and fuels the disproportionate

infection rates amongst Black and Hispanic MSM. This portion of my research was

expected to aid in filling the gap of empirical research that exists on what factors impact

perceived community HIV/AIDS stigma in the United States as well as how those factors

may vary by race/ethnicity. See Figure 2 below for a graphical depiction of the

theoretical model proposed for each racial/ethnic group in this study.
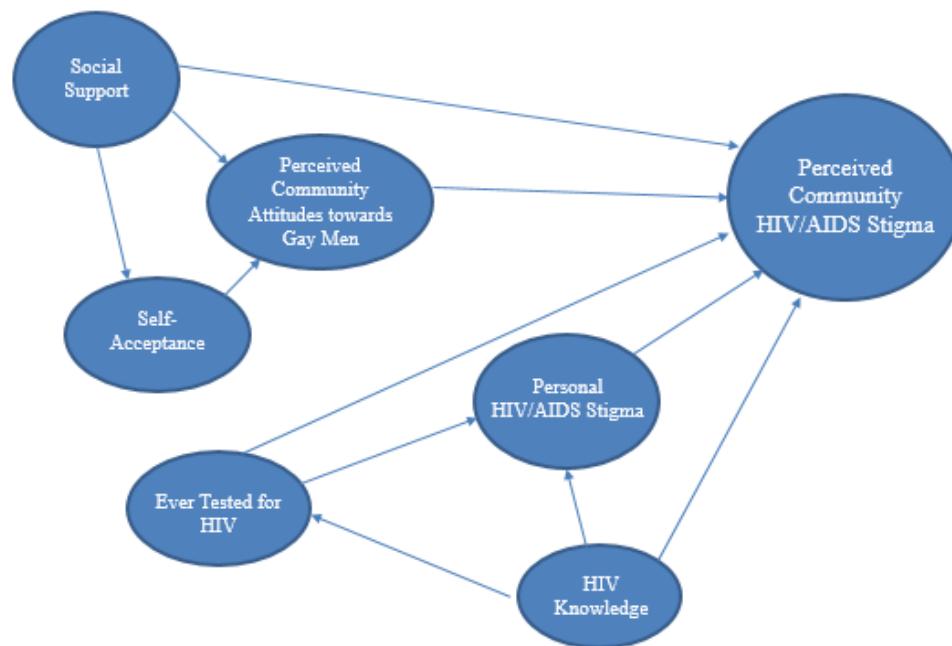
Figure 2: Theorized Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for Each Racial/Ethnic Group

My research contributes to the larger scholarly literature on HIV/AIDS by studying MSM as a heterogeneous group with potentially unique and complicated factors influencing their perceived community HIV/AIDS stigma. Little consideration is given in the existing scholarly literature as to how other marginalized intersecting identities (i.e. race/ethnicity), and the inequities that may result as a consequence of them, actually affect the likelihood of a particular person being exposed to HIV (Watkins-Hayes 2014). The lack of the application of intersectionality theory, therefore results in Black and Hispanic MSM becoming "doubly marginalized" (Purdie-Vaughns and Eibach 2008:389). This marginalization, both by the larger U.S. society as well as by the respective constituent groups of which these men are a part, leads Black and Hispanic MSM to rarely have their experiences heard by policy makers, public leaders, and community advocacy groups (Purdie-Vaughns and Eibach 2008). The little that is known about Black and Hispanic MSM "is more anecdotal than analytical," and therefore is not enough to properly develop culturally sensitive programming that supports the specific and potential unique needs of these groups (Hill 2013:210; Purdie-Vaughns and Eibach 2008).

This dissertation theorizes the various factors that directly and indirectly influenced perceived community HIV/AIDS stigma amongst MSM in the Washington, DC Metropolitan area. Exploring each racial and ethnic group separately was expected to help determine if differences did exist between White, Black, and Hispanic MSM. In the case that significant variation was found, I thought it would be interesting and beneficial to future research as well as public health programming to have a better understanding of

those differences. In the next chapter I discuss the data collection, sampling,

measurement and analytic strategies employed in this research.

CHAPTER THREE: METHODS

In this chapter I discuss the research methodology utilized in this study to understand perceived community HIV/AIDS stigma amongst Washington, DC Area MSM. I begin by discussing the data collection process, including both the mode of data collection as well as the incentives provided to qualified participants. Next, I describe the research sample. This section outlines the sampling strategy used to recruit participants, the criteria used to determine who was eligible to participate, and timeframe during which data collection took place. Afterwards, I describe the content of the survey instrument and how each theoretical concept was measured within the instrument. Finally, I close this chapter with a discussion of my analysis strategy. This portion provides a detailed account of how my variables were coded and what statistical tests I employed to examine my theoretical models.

Research Location

This study was conducted in the Washington, DC Metropolitan area, because historically a great deal has happened in this region surrounding LGBTQ rights, and Washington, DC is one of the hardest hit cities by HIV/AIDS in the United States (Kaiser Family Foundation 2012). Washington, DC has long been a city full of LGBTQ people working for the United States in order to make a difference in politics or American society as a whole (Rule 2015). Though the Stonewall Riots were the spark that ignited

the modern LGBTQ Movement in the United States, most of the groundwork for this movement was actually laid in Washington, DC decades earlier (Rule 2015). Prior to the Joseph McCarthy era, Washington, DC was very much a gay city (Rule 2015). During this era, however, many LGBTQ government employees and contractors lost their jobs or were denied employment, due to a moral panic started with the mainstream American culture, eventually termed the "Lavender Scare" (Rule 2015). The Lavender Scare inspired LGBTQ people or organize, and the first gay rights demonstrations took place in 1965 in Washington, DC and Philadelphia, PA (Morris N.d.). The momentum of this movement built, as the Lavender Scare continued until the 1970's (Rule 2015). In 1979, the first march on Washington for gay rights took place (Morris N.d.). Such marches and demonstrations continued throughout the 1980's and 1990's (Morris N.d.). Today, LGBTQ people continue to organize, march, and protest in Washington, DC to promote LGBTQ equality in marriage, employment, healthcare, any many other basic human rights (Rule 2015).

Washington, DC is a central hub for a great deal of policy and research surrounding HIV/AIDS, but it also a city whose residents have been long effected by the HIV/AIDS epidemic. The HIV/AIDS epidemic in Washington, DC is "on par with some developing nations," with 2.7% of the population living with HIV (Kaiser Family Foundation 2012:1). To put this into perspective, UNAIDS defines a "generalized" epidemic exists if the HIV prevalence in an area is greater than 1% (Kaiser Family Foundation 2012). Additionally, Washington, DC has the "highest AIDS diagnosis rate of any state in the U.S." (Kaiser Family Foundation 2012:1). Though renewed efforts to

tackle the epidemic have been taken on by the Washington, DC government and a number of community organizations, challenges still remain (Kaiser Family Foundation 2012). Some recent improvements include a 60% decrease in new HIV diagnoses, a linkage to care for 80% of HIV positive patients, and access to testing through the use of mobile vans, at community events, in night clubs, and even at the Department of Motor Vehicles (Curry 2015). However, D.C.'s prevalence rate still hovers around 2.5%, and particularly high for Black MSM, so much more work still needs to be done (Curry 2015).

Given the history of fighting for LGBTQ rights and the still staggering HIV prevalence rates in Washington, DC, I thought this location was ideal for conducting a study exploring perceived community HIV/AIDS stigma. Additionally, it is important to note that Washington, DC's population is composed of 47% Black residents, 36% White residents, and 11% Hispanic residents, and the Washington, DC Metropolitan area is composed of 46% White residents, 25% Black residents, and 15% Hispanic residents (U.S. Census Bureau 2015a; U.S. Census Bureau 2015b). The racial/ethnic make-up of this region also makes it ideal for exploring potential differences in factors influencing perceived community HIV/AIDS stigma for White, Black, and Hispanic MSM.

Data Collection

The survey for this study was administered over the Internet, because previous research has found that web administration of surveys increases the level of reporting of sensitive information and accuracy of responses compared to telephone surveys or mixed-mode questionnaires (Pealer, Weiler, Pigg, Miller et al. 2001; Kreuter et al. 2008).

A research topic is considered sensitive when it "potentially poses for those involved a substantial threat, the emergence of which renders problematic for the researcher and/or researched the collection, holding, and/or dissemination of research data" (Lee and Renzetti 1993:5). A topic of study is not inherently sensitive, but it is the context and environment in which it exists that is sensitive (Lee and Renzetti 1993; Elam and Fenton 2003).

There are three main ways in which a topic might be deemed threatening; that is if it deals with intrusion, sanction, and/or power (Elam and Fenton 2003; Lee and Renzetti 1993). Intrusion involves the research encroaching upon "the private sphere or delv[ing] into some deeply personal experience" of the participant (Lee and Renzetti 1993: 6). Sanction entails the risk of punishment or repercussions for disclosure when the study deals with deviance or matters of social control (Lee and Renzetti 1993). Finally, power relates to an imbalance of authority between either the researcher and the participants or the participants and the society as a whole.

The presence of sensitivity can impact the design, recruitment, and interviewing of participants as well as the validity and reliability of the study's findings (Elam and Fenton 2003). Furthermore, sensitivity, if not handled with care and consideration, can result in serious consequences or long-lasting suffering for the participant well after the research is complete (Lee and Renzetti 1993). Therefore, for this study I chose a survey instrument and survey administration mode that would allow participants to maintain anonymity, and therefore reduce the threat of sensitive information disclosure.

Potential participants for this research received a survey link via an Internet advertisement. When participants clicked the survey link, they saw an informed consent page. The informed consent page told participants that the survey was meant to study their perspectives and health behaviors of Black, White, and Hispanic men, who date or prefer the company of other men, and who live in the Washington, DC Metropolitan area. Once participants finished reading the consent page, they were asked to give their consent to participate, by clicking the option "I agree to participate in this survey." It was decided to do consent online, without a participant's signature, because participants were going to answer sensitive questions about their perspectives and personal health behaviors, and the informed consent sheet would have been the only link connecting research participants to the study.

Once the participants consented to participate, they were asked a series of demographic filter questions to ensure they qualified for the study. Any potential participant who did not fit the criteria for the target population was thanked for their time and informed that they did not fit the target population of this study. Once a participant qualified, he was then guided to complete the remainder of the survey.

Upon completion of the survey, participants were presented with a debriefing page. The debriefing page further assured participants that the information they provided was strictly confidential, securely stored, and would only be presented in the aggregate in any resulting reports, papers, or presentations. Additionally, it contained information on where participants could access physical or mental health services, if they felt they needed them. Finally, participants were provided with the contact information for both

the principle investigator and co-principle investigator of this project, in case they had any questions or concerns regarding the research.

Following the debriefing statement, participants were offered the opportunity to receive a $20 electronic Amazon gift card as a token of appreciation for completing the survey. If participants wanted to receive the electronic Amazon gift card, they were asked to click a link to a completely separate survey to type an e-mail address where they could receive the electronic Amazon gift card. No other information was required for the participant to receive the electronic Amazon gift card. Participants were informed before choosing to receive the electronic Amazon gift card that all of their survey data was stored in a separate, secure file that could not be connected in any way to their e-mail address. Once participants who wanted to receive the electronic Amazon gift card provided their e-mail addresses, they were thanked again and informed that the study was complete.

All data gathered for this study were collected through the web-based survey authoring tool Survey Monkey. Survey Monkey is the world leader in providing web-based survey solutions. It possesses a complete platform for online data collection with advanced features such as branching, piping, and question randomization. Finally, Survey Monkey utilizes Secure Sockets Layer (SSL) and Transport Layer Security (TLS) encryption and multi-machine backup, which keeps all collected data confidential and secure.

In order to ensure there were no duplicate surveys from the same respondent, I made sure the multiple response option category in Survey Monkey was set to off. This

function only allows respondents to answer a survey once per browser. However, to additionally certain there was no duplicate data, I also checked the para data collected by Survey Monkey, such as IP addresses along with several other measures.

Once the survey data collection process was complete, all data were downloaded from Survey Monkey into SPSS to conduct data analysis. All of the e-mail addresses provided in the separate survey were downloaded into Microsoft Excel, and $20 electronic Amazon gift cards were distributed to each participant who provided an e-mail address. The $20 Amazon gift cards were purchased from GiftCards.com. They were sent out electronically in batches of 100 each day, until all gift cards were dispersed, because that was the maximum distribution capacity of the vendor.

Research Sample

In order to be included in this research, participants had to self-identify as Black, White, or Hispanic. In addition, participants had to report their sex at birth as being male, and have a self-identified gender of either male or gender queer. Furthermore, for accurate comparison of responses, all participants were required to be HIV negative and live in the mid-Atlantic region of the United States (more specifically, Maryland, Washington, DC, and Northern Virginia.) In order to determine if participants lived in Maryland, Washington, DC or Northern Virginia, participants were required to provide their zip code. Finally, participants had to self-identify as either homosexual or bisexual, and report that they had had a sexual encounter with another man in the last year. Participants who did not fit these criteria were thanked for their time and informed that they were not part of the target population for this research.

I recruited participants for this study using an Internet-based recruitment strategy. Internet-based recruitment was utilized because it allowed me to geo-target advertisements to individuals based on their location. More specifically, I placed advertisements on the Washington, DC region Craig's List page. Advertisements were posted in the classified sections for Maryland, Northern Virginia, and Washington, DC. The classified section was composed of a variety of categories, and some of the advertisements were placed in the community section under groups as well as general community. The rest of the advertisements were placed in the personal/romance section under rants and raves. Participants were offered a $20 electronic Amazon gift card as compensation for their participation.

Due to restrictions with the Survey Monkey software skip patterns, I could only accept participants who identified as gay or bisexual. This did not seem to be overly problematic, but it is important to note, because this study likely does not include MSM who are on the "down low" or have sex with other men, but identify as heterosexual.

All data for this study were collected in November 2015. I received an overwhelming response to the Craig's List advertisements, and I suspect it was because a form of snowball sampling occurred. More specifically, it seemed as though MSM individuals who found the survey on Craig's List, passed along the information to other MSM friends and acquaintances, thus resulting in a rapid dissemination of the survey link amongst White, Black, and Hispanic MSM throughout the Washington, DC Metropolitan area.

When enough White and Hispanic MSM participants were sampled, I re-programmed the survey instrument skip patterns to only allow Black, gay and bisexual men to participate in the study. This change enabled a statistically suitable sample of Black MSM to be collected (i.e. $N > 100$), so that meaningful comparisons and analyses could be conducted across all three groups.

The final research sample was diverse on a number of characteristics. In order to better inform the reader of the overall composition of the final research sample, I calculated some descriptive statistics and presented them in Table 1. Percentages were calculated for participants' sexual orientation, race/ethnicity, and student status, since all of these questions were nominal. Conversely, since age, education, religiosity, and household income were all measured as continuous variables, the mean, standard deviation, minimum, and maximum were calculated for each of them.

Table 1: Descriptive Statistics for the Final Research Sample ($N = 472$)

Variables	Percentage	Mean	Standard Deviation	Minimum	Maximum
Sexual Orientation:					
Homosexual/Gay	98.52				
Bisexual	1.48				
Race/Ethnicity:					
White	44.92				
Black	26.91				
Hispanic	28.18				
Employment:					
Full-Time	84.96				
Part-Time	12.50				
Looking	1.69				
Not Looking	.85				
Age[1]:		2.43	.71	1.00	5.00
Education[2]:		5.43	1.26	2.00	8.00
Student:					
Yes	16.10				
No	83.90				
Religiosity:		3.11	.94	1.00	4.00
Total Household Income[3]:		4.82	1.14	1.00	7.00

1: Age was treated as a continuous variable in the analysis where 1 = 18-24, 2 = 25-34, 3 = 35-44, 4 = 45-54, 5 = 55-64, 6 = 65-74, and 7 = 75+.
2: Education was treated as a continuous variable in the analysis where 1 = less than 9th grade, 2 = 9th to 12th grade (no diploma), 3 = High School Graduate (including GED), 4 = Some college, no degree, 5 = Associate's degree, 6 = Bachelor's degree, 7 = Master's degree, 8 = Doctoral degree, 9 = Professional Degree.
3: Total Household Income was treated as a continuous variable in the analysis where 1 = Under $15,000, 2 = $15,000-$34,999, 3 = $35,000-$49,999, 4 = $50,000-$74,999, 5 = $75,000-$99,999, 6 = $100,000-$149,999, 7 = $150,000 or more.

Of all the participants in this study, 98.5% identified as homosexual/gay, while 1.5% identified as bisexual. The racial/ethnic make-up of this study sample was approximately 45% White, 27% Black, and 28% Hispanic. The vast majority of participants were employed full-time (85%), while the second largest employment group was part-time employment (12.5%). Less than 2% of the sample was unemployed and

looking for work and less than 1% was unemployed and not looking for work. Finally,

16% of the study sample identified that they were a student.

The mean age of the sample in this research was between the 25-34 years of age group

and 35-44 years of age group, leaning a little closer to the 25-34 age group. The range of

age groups represented in this study was from 18-24 years of age to 55-64 years of age.

The average level of education for participants was between an Associate's Degree and a

Bachelor's Degree, with a mean of 5.43 and a standard deviation of 1.26. Education was

somewhat dispersed though, with a range from 9th-12th grade (no diploma) to Doctoral

Degree. On average participants in this study identified as somewhat religious with a

mean of 3.11 and a standard deviation of .94. However, religiosity amongst the sample

did range from not at all religious to very religious. Lastly, household income amongst

participants was on the higher end for this sample. The average household income for

participants was between the ranges of $50,000 - $74,999 and $75,000 - $99,999, leaning

closer towards the latter. Despite this though, it is important to note that participant

household income ranged from under $15,000 to $150,000 or more a year, so there was

some economic diversity in this sample.

Measures

This research specifically measured satisfaction with social support, self-acceptance,

HIV knowledge, personal HIV/AIDS stigma, perceived community HIV/AIDS stigma,

and perceived community attitudes towards gay men, and if participants had ever been

tested for HIV. The questionnaire utilized in my research was derived from a number of

previously developed and rigorously tested survey instruments. These measures were

designed to measure the constructs of satisfaction with social support, self-acceptance, perceived community attitudes towards gay men, HIV knowledge, personal HIV/AIDS stigma, perceived community HIV/AIDS stigma, ever being tested for HIV. Finally, the relationships between these constructs were explored and demographic data were collected to uncover if any differences existed between Black, White, and Hispanic MSM in the Washington, DC Metropolitan area.

The following discussion will breakdown the measurement of the key outcome variable as well as the predictor variables for the outcome variable. The key outcome variable in this study included perceived community HIV/AIDS stigma. The predictor variables for this outcome variable were satisfaction with social support, self-acceptance, perceived community attitudes towards gay men, personal HIV/AIDS stigma, HIV knowledge, and ever been tested for HIV. Hispanic/Latino ethnic identity and race were the main explanatory variables for perceived community HIV/AIDS stigma. Finally, mean substitution was used in cases where respondents were missing small amounts of data, because SPSS AMOS requires complete data in order to conduct path analyses.

Perceived Community HIV/AIDS Stigma

The construct of perceived community HIV/AIDS stigma was defined in this research as what a respondent observes as most people in their community's reactions towards people living with HIV/AIDS (PLWHA). It was measured through the use of a set of survey questions developed by Visser et al. (2006). The term community was left open for respondents to define for themselves, so that they could respond to the survey

questions based on the community with which they most identify. This segment of the

survey instrument was framed by an introduction explaining to participants that they

would receive the same set of questions as they just answered (i.e. in the personal

HIV/AIDS stigma question set), but that they should answer them based on what they

thought their community's perceptions and reactions to people living with HIV/AIDS

were, not their own. The content of the questions asked included the human rights of,

personal interaction with, and judgment and blame of PLWHA. The survey instrument

contained a total of 17 questions, and the answer options were part of a 4-point Likert

scale ranging from 1 = strong agree to 4 = strongly disagree. Some examples of the

perceived community HIV/AIDS stigma questions participants answered about their

community included "The human rights of HIV positive people should be protected just

like everybody else's," "Afraid to be around a person with HIV," and "People who got

HIV through sex or drugs got what they deserve."

Initially, an exploratory factor analysis was conducted to determine if the three

categories of perceived community HIV/AIDS stigma questions (i.e. human rights,

personal interactions, and judgment and blame) should be included as three separate or a

single component in the analysis. After completing the exploratory factor analysis, it was

determined that the questions did not align as separate factors. Therefore, they were

taken together to form the composite of perceived community HIV/AIDS stigma in this

study.

In the next phase of the analysis, statements that were stigmatizing towards

PLWHA were reversed scored, so that a high number on a question indicated agreement

and thus high levels of perceived community HIV/AIDS stigma against PLWHA. Once the reverse scoring was complete, an average summative index was created from the 17 perceived community HIV/AIDS stigma questions asked to form the observed variable perceived community HIV/AIDS stigma. The average summative index ranged from 1 to 4, where 1 equaled very low levels of perceived community HIV/AIDS stigma and 4 equaled very high levels of perceived community HIV/AIDS stigma. Finally, the Cronbach's alpha for all of the perceived community HIV/AIDS stigma survey questions used to create the average summative index was .858.

Social Support
The definition of the social support concept utilized for this research was drawn from the work of Cobb (1976). He states social support is when an individual believes he/she is "cared for and loved, esteemed, and a member of a network of mutual obligations" (Cobb 1976:300). Since it is difficult to measure actual social support from a self-report survey, in this study participants were asked to report their general satisfaction with the overall social support they receive from friends and family members. This question used a 4-point Likert scale that ranged from very dissatisfied to very satisfied and also had an "I prefer not to answer" option available to participants as well. In the analysis, this question was included as a continuous measure of satisfaction with social support from friends and family in one's life. Furthermore, all respondents who were missing data or selected "I prefer not to answer" had their response replaced with the sample mean. Of all the respondents, only 1 respondent was missing data and 3

respondents answered "I prefer not to answer," so only 4 cases were replaced with the sample mean.

Self-Acceptance

The construct of self-acceptance employed in this study derives its meaning from the research by Shepard (1979). She claims self-acceptance is "an individual's satisfaction and happiness with himself" (Shepard 1979:140). In addition, "self-acceptance involves self-understanding, a realistic, albeit subjective, awareness of one's strengths and weaknesses" (Shepard 1979:140). In other words, a person with a strong sense of self-acceptance is aware of his/her strengths as well as weaknesses and values him/herself (Shepard 1979). In this research, self-acceptance was measured in a single question asking participants how comfortable they were with who they were. This question ranged from 1 – 10, where 1 equaled no acceptance and 10 equaled complete acceptance, with "I prefer not to answer" as an option outside of the scale.

In the analysis, this question was included as a continuous measure of self-acceptance. Additionally, in order to address the issue of missing data, any participants who skipped the question or answered "I preferred not to answer" had their responses replaced with the sample mean. The sample mean was substituted for 2 cases in the self-acceptance rating question.

HIV Knowledge

The HIV knowledge construct in this study was measured as a respondent's understanding of HIV "disease transmission and self-protective behaviors" (Carey and Schroder 2002:172). It was measured using the HIV-Knowledge Questionnaire

developed by Carey and Schroder (2002). This questionnaire is composed of 18

true/false questions. Some examples of the true/false questions asked include "People

who have been infected with HIV quickly show serious signs of being infected," "There

is a vaccine that can stop adults from getting HIV," and "Having sex with more than one

partner can increase a person's chance of being infected with HIV." In the analysis, a

summative index was created based on participants' responses to the true/false question

statements. All questions were coded so that a correct response received a 1 and an

incorrect response receives a 0. The summative index ranged from 0 to 18, where 0

equaled low HIV knowledge and 18 equaled high HIV knowledge. Any questions that

were missing responses were coded as a 0.

Perceived Community Attitudes towards Gay Men

  The construct of perceived community attitudes towards gay men was measured

through the use of Herek's (1988) Attitudes towards Gay Men questionnaire. These

questions were framed to participants with an introduction asking respondents to state

whether they think most people in their community would strongly agree, agree, disagree,

or strongly disagree with the statements provided in the survey instrument. Respondents

were specifically asked not to share their own personal reactions. As with perceived

community HIV/AIDS stigma, the term community was left open for respondents to

define for themselves, so that they could respond to the survey questions based on the

community with which they most identify. The survey instrument was composed of 10

questions asking about various perspectives on male homosexuality. Some examples of

the questions include "Male homosexuals should not be allowed to teach school," "Male

homosexuality is a perversion," and "Just as in other species, male homosexuality is a natural expression of sexuality in human men."

In the analysis, statements that were stigmatizing towards homosexual men were reversed scored, so that a high number on a question indicated agreement and thus high levels of perceived community stigma against gay men. Once the reverse scoring was complete, an average summative index was created, ranging from 1 to 5, where 1 was extremely low levels of perceived community stigma against homosexual men, while 5 indicated very high levels of perceived community stigma against homosexual men. The Cronbach's alpha for the perceived community attitudes towards gay men items was .651. The average index was included in the analysis as an observed predictor variable.

Personal HIV/AIDS Stigma

The personal HIV/AIDS stigma construct was measured in this research utilizing survey questions developed by Visser, Makin, and Lehobye (2006). Borrowing from the definition by Visser et al. (2006), I defined personal HIV/AIDS stigma as an individual's attitudes towards people living with HIV/AIDS based on his/her own personal experiences. The questions for this construct were framed with an introduction asking participants to state their personal opinions about various statements discussing HIV positive people. As mentioned with the perceived community HIV/AIDS stigma questions, the content of the personal HIV/AIDS stigma questions asked included topics related to the human rights of, personal interaction with, and judgment and blame of PLWHA. Again, after conducting an exploratory factor analysis for this set of questions, the questions did not align as separate factors, so they were taken together to form the

composite personal HIV/AIDS stigma. The survey instrument contained a total of 17

questions, and the answer options were part of a 4-point Likert scale ranging from 1 =

strong agree to 4 = strongly disagree. Some examples of the personal HIV/AIDS stigma

questions participants answered about themselves included "HIV positive people deserve

as much respect as anyone else," "Feel uncomfortable around someone with HIV," and

"HIV is punishment for bad behavior."

In the analysis, statements that were stigmatizing towards PLWHA were reversed

scored, so that a high number on a question indicated agreement and thus high levels of

personal HIV/AIDS stigma against PLWHA. Once the reverse scoring was complete, an

average summative index was created for personal HIV/AIDS stigma ranging from 1 to

4. A score of 1 equaled very low personal HIV/AIDS stigma and 4 equaled very high

personal HIV/AIDS stigma. The Cronbach's alpha for this survey instrument was .888.

This average index was included in the analysis as an observed predictor variable called

personal HIV/AIDS stigma.

Ever Tested for HIV

Lastly, the ever tested for HIV component was measured through a survey

question asking participants "Have you EVER been tested for HIV-infection?" The

answer options were yes, no, I don't know, and I prefer not to answer. This question was

taken from Sexual Behavior Practices (Rosenberger et al. 2011) and Sexual Health

Practices (Rosenberger et al. 2012) survey instruments.

Since this was a nominal variable, it needed to be recoded into a dummy variable

in order to be included in the analysis. Since I thought participants who knew they had

been tested for HIV before were likely different in some meaningful way from those who

had never been tested before, I decided that participants who answered yes, were coded

as a 1, and all other participants, including the don't know and preferred not to answer

respondents, were coded as a 0. Once the coding of the dummy variable was complete,

this new dummy variable was included into the analysis as a continuous variable ranging

from 0 to 1.

Main Explanatory Variables

The main explanatory variable in this research is race/ethnicity. The

race/ethnicity variable includes the racial categories of Black and White, and the ethnic

identity Hispanic/Latino. Race and Hispanic/Latino ethnic identity were combined into

one variable in order to be comparable to the Center for Disease Control and Prevention's

(CDC's) HIV statistics amongst MSM. Race/ethnicity is a main explanatory variable in

this research, because there is the potential that it plays a meaningful role in perceived

community HIV/AIDS stigma. Furthermore, since there is little empirical research that

compares Black, White, and Hispanic on the factors mentioned above, there is a need to

explore this possibility, and fill this hole in the literature.

Race and Hispanic/Latino Ethnic Identity

In this study, the Hispanic/Latino ethnic identity question asked "Are you

Hispanic or Latino?" with the answer options yes, no, and I am not sure. Then following

this question, the race question asked "Which of the following categories would you use

to best describe your race?" and gave the options White, Black/African American, Asian,

American Indian/Alaskan Native, Native Hawaiian/Other Pacific Islander, other, and I

prefer not to answer. Since only men who identified as "White" or "Black/African

American" qualified for participation, all respondents fit into one of these two racial categories.

As mentioned previously, since the CDC categorizes MSM using a combined race and Hispanic/Latino ethnicity identity category, in my research the two were also combined to create a race/ethnicity variable, so that data from this study could be compared to larger national statistics. More specifically, when I constructed the race/ethnic identity variable, I coded men who answered "yes" to the Hispanic/Latino ethnic identity question as Hispanic. In addition, for men who answered "no" to the Hispanic/Latino ethnic identity question and "White" for the race question, I coded them as White. And finally, for men who answered "no" to the Hispanic/Latino ethnic identity question and "Black/African American" for the race question I coded them as Black.

In the analysis, this combined race/ethnic identity variable was transformed into three dummy variables for the full sample analysis to allow for controlling race/ethnicity. White MSM served as the reference category, and therefore only the Black MSM and Hispanic MSM dummy variables were added into the full sample path analysis as controls on certain predictor variables.

Analytic Strategy

In order to answer the research questions posed in this study, I transformed and/or created all the variables necessary to conduct the analysis using SPSS Statistics 23. Once this was completed, I utilized listwise deletion and mean substitution, as outlined in the discussion above, to address the problem of missing as well as "I don't know" and "I prefer not to answer" data. Following this process, I began my analysis by calculating

descriptive statistics for the outcome and predictor variables in this study for the entire

sample, and then broken out by race/ethnicity. Then, in order to evaluate significant

differences in the outcome and predictor variables between race/ethnic groups, I executed

a series of two-sample t-tests comparing each combination of racial/ethnic groups.

Lastly, I concluded my analysis by conducting a series of path analyses utilizing SPSS

Amos 23 software.

Path analysis was developed by Sewall Wright (1921; 1934; 1960) in order to

examine the direct and indirect effects of variables. It is in essence an extension of

multiple regression analysis. Path analysis includes several regression equations, and

allows researchers to test the "direct, indirect, and correlated effects among the observed

variables in a theoretical model" (Schumacker and Lomax 2016: 69). Unlike in multiple

regression where a single dependent variable is regressed on all the independent

variables, path analysis contains one or more regression equations that are simultaneously

analyzed based on the variable relationships specified in the path model (Schumacker and

Lomax 2016). Lastly, path analysis is a statistical method used to "test theoretical

models that depict relations amongst variables" (Schumacker and Lomax 2016:69). It is

not a technique used to model causal relationships.

Path analysis has a number of assumptions. The first assumption is that the

relationships between variables are linear (Garson 2014). The second assumption is that

all variables in are interval (Garson 2014). However, "as in other forms of regression

modeling, it is common to use dichotomies and ordinal data in practice" (Garson

2014:57). The third assumption is that residuals, which include measurement error plus

unmeasured variables, are uncorrelated. The fourth assumption is that multicollinearity is low. The fifth assumption is that "all arrows flow one way, with no feedback looping" (Garson 2014:60). This is known as recursivity.

The goodness of fit of a path model can be determined by a number of statistical measures. Due to the large size of my sample, I decided to use four different goodness of fit indices to ensure that I specified good fitting path models. Goodness of fit indices or measures are statistical tests conducted in order to see if one model is a better representation of the data versus another possible model. For my analysis, I utilized the following indices: (1) the chi-square test (CMIN), (2) the root mean square error of approximation (RMSEA), (3) the comparative fit index (CFI), and (4) the Tucker-Lewis Index (TLI). I selected the RMSEA, CFI, and TLI indices in addition to the chi-square test because they are less sensitive to sample size. In Chapter 5, I elaborate further on how I used these measures to evaluate my theorized path models and determine if modifications were necessary.

I chose path analysis as my statistical tool because it enabled me to test both the direct and indirect effects of my predictor variables on my outcome variable: perceived community HIV/AIDS stigma. In addition, path analysis allowed me to specify theoretically meaningful relationships between my variables, which is not a possibility in a "single additive regression model" (Schumacker and Lomax 2016:82). Moreover, variables in a path analysis can be both independent and dependent, while variables in a regression analysis may only be independent or dependent (Suhr 2008). This flexibility allowed for the understanding of more nuanced relationships between my variables.

Finally, path analysis permits the researcher to "recognize the imperfect nature of [his/her] measures," by accounting for error in the specified path models, while regression assumes measurement occurs without error and thus does not have this capability (Suhr 2008:2).

The theoretical model I developed indicate embedded relationships which do not lend themselves to standard multivariate models. Path analysis is appropriate because it allows an examination of causal routes among the concepts according to the theoretical expectations. Additionally, I used a linear regression based modeling technique. Some could argue that the non-interval nature of the dependent variable, and its limited count would make ordered logit modeling more appropriate. However, because it is relatively normative to use linear modeling in Likert scaling, and because ordinary least-squares (OLS) regression provides robust room for errors in assumptions, it is used here. In future modeling, I will consider whether the assumptions of linearity (and other assumptions required for linear modeling such as independence of error terms) have been satisfied. Finally, running these models assuming ordinal or nominal level variables can assess whether there is indeed a better fit for the data. I expect that results will be robust across modeling techniques, but this is slated for future work.

I tested the perceived community HIV/AIDS stigma path model for the entire research sample, as outlined above. In order to test this model, I imported the study data into the SPSS Amos software. The SPSS Amos software then calculated the sample correlation matrix for perceived community HIV/AIDS stigma. Following this, I utilized the tools in SPSS Amos to recreate the model as drawn in Figure 1. In the process of re-

drawing the model, I added all necessary error terms, as well as utilized bootstrapping

methods since they best test indirect effects. Once the path model was properly specified

in SPSS Amos, I ran the path analysis, examined the path coefficients, and evaluated the

goodness of fit indices mentioned above to determine if the path model was a good

representation of the sample data. Since the initial version of my full sample path model

was not a good fit, I utilized the modification indices provided by SPSS Amos to make

adjustments. Modification indices are suggested additional pathways provided to a

researcher when more pathways are needed to improve a model's fit. After adding

pathways through an iterative process, and making sure my goodness of fit measures

indicated a properly fitted model, I proceeded to the next phase of my analysis.

In the next phase of my analysis, I tested the path model for perceived community

HIV/AIDS stigma for each racial/ethnic group in the sample (i.e. Black, White, and

Hispanic) separately. I used the same procedure outlined above for the path models

broken out by each racial/ethnic group. Once a good fitting model was specified for each

racial/ethnic group, I concluded my data analysis.

CHAPTER FOUR: DESCRIPTIVE STATISTICS

This chapter serves the purpose of describing all of the variables utilized in this research. First, I begin by discussing the outcome and predictor variables of the entire research sample. Then I outline the means and standard deviations or percentages for all of the outcome and predictor variables separated out by race/ethnicity. Next, I conduct two-sample *t*-tests for the outcome and predictor variables by race/ethnicity, in order to determine where significant differences exist between the groups.   Finally, once the examination of all the descriptive statistics and *t*-tests are complete, I present some concluding remarks and then transition to the next chapter dealing with the inferential statistics conducted for this research.

Descriptive Statistics for the Outcome Variable

The outcome variable in this research was perceived community HIV/AIDS stigma. Perceived community HIV/AIDS stigma was measured as an average summative index. Since perceived community HIV/AIDS stigma was a continuous variable, the mean, standard deviation, minimum, maximum, and Cronbach's alpha were calculated for it.

Table 2 shows that the sample in this study perceives their community does possess some stigma towards people who live with HIV/AIDS, with a mean of 2.59 and a standard deviation of .54. The scores overall ranged from 1.35 and 3.76. These statistics

taken together indicate some variation in perceptions, but not a great deal. Furthermore,

the Cronbach's alpha score of .86 indicates that items used to measure perceived

community HIV/AIDS stigma are internally consistent, and thus a very reliable measure

of the construct perceived community HIV/AIDS stigma.

Table 2: Descriptive Statistics for the Outcome Variable ($N = 472$)

Variables	Cronbach's Alpha (α)	Percentage	Mean	Standard Deviation	Minimum	Maximum
Perceived Community HIV/AIDS Stigma:	.86		2.59	.54	1.35	3.76

Descriptive Statistics for the Predictor Variables

The predictor variables for this research included satisfaction with social support,

self-acceptance, HIV knowledge, perceived community attitudes towards gay men,

personal HIV/AIDS stigma, ever being tested for HIV, and race/ethnicity. Satisfaction

with social support from friends and family was measured using a single survey question.

Self-acceptance was also measured using a single survey question where respondents

rated how much they accepted themselves. The HIV knowledge measure included a set

of 18 true/false questions, where respondents received a summative score of the number

of correct responses they gave. The perceived community attitudes towards gay men

construct was created by calculating an average summative index. Personal HIV/AIDS

stigma was also formed by calculating an average summative index. Lastly, ever been

tested for HIV was measured using a single survey question.

All of the predictor variables were continuous measures, with the exception of ever being tested for HIV and race/ethnicity, therefore, a mean, standard deviation, minimum and maximum were calculated for each of these variables. For ever being tested for HIV and race/ethnicity percentages were provided since the former was a dummy variable and the latter was a categorical variable. Additionally, since personal HIV/AIDS stigma and perceived community attitudes towards gay men were both created from average summative indices, Cronbach's alphas were calculated for each as well.

Table 3 shows that the average participant was somewhat satisfied with the amount of social support he received from his friends and family members with a mean of 2.78 and a standard deviation of 1.13. This measure had a minimum of 1.00 and a maximum of 4.00, which reached the full range of the measurement scale. As far as self-acceptance, the results were all positive to varying degrees. More specifically, the average participant agreed that he was a person of worth with a mean of 3.15 and a standard deviation of .59. Additionally, the average participant agreed he had a positive attitude towards himself with a mean of 3.10 and a standard deviation of .69. Both of these questions had a minimum of 1.00 and a maximum of 4.00. Finally, the average participant expressed having some comfort (i.e. self-acceptance) with himself, with a mean of 6.77 and a standard deviation of 1.81. The self-acceptance question had a great deal of dispersion, and ranged from 1.00 to 10.00.

Interestingly, Table 3 shows that the average HIV knowledge score was 9.23 correct answers, which turns out to be a percentage score of 51%. This statistic shows

that the participants as a whole possessed some, but not a great deal of knowledge of HIV. The standard deviation for HIV knowledge was also high at 2.60, and the range of scores went from 1 to 17 (out of a possible 18 correct responses).

This study found that participants thought their communities had somewhat positive to neutral attitudes towards gay men (See Table 3). The mean for this average summative index was 2.81 and the standard deviation was .58. The minimum and maximum values reported were 1.30 and 5.00 respectively. Finally, perceived community attitudes towards gay men had a Cronbach's alpha of .65, indicating that the items used to build this construct were internally consistent, and thus a reliable measure.

Based on the results presented in Table 3, the personal HIV/AIDS stigma expressed by the participants was between low and moderate with a mean of 2.48 and a standard deviation of .56. However, this measure did not show a lot of dispersion between respondents. The range of scores went from 1.47 to 3.29. Lastly, the construct of personal HIV/AIDS stigma had a Cronbach's alpha of .89, showing it is internally consistent and a very reliable measure.

The predictor variable ever being tested for HIV, presented in Table 3, was a dichotomous dummy variable. As a result, responses ranged only from 0 (never tested for HIV before) to 1 (tested for HIV at least once before). In this study, about 68% of all respondents had been tested for HIV at least once before.

The final predictor variable in this study was race/ethnicity. Of all of the participants in this study, approximately 45% identified as White, while 27% identified as Black, and 28% identified as Hispanic. The data is presented in Table 3 below.

Table 3: Descriptive Statistics for the Predictor Variables ($N = 472$)

Variables	Cronbach's Alpha (α)	Percentage	Mean	Standard Deviation	Minimum	Maximum
Satisfaction with Social Support:			2.78	1.13	1.00	4.00
Self-Acceptance			6.77	1.81	1.00	10.00
HIV Knowledge (Possible Score of 18):			9.23	2.60	1.00	17.00
Perceived Community Attitudes towards Gay Men:	.65		2.81	.58	1.30	5.00
Personal HIV/AIDS Stigma:	.89		2.48	.56	1.47	3.29
Ever Tested for HIV:		67.60			0	1
Race/Ethnicity:						
White		44.92				
Black		26.91				
Hispanic		28.18				

Descriptive Statistics and Two-Sample *T*-Tests for the Outcome Variables Broken Down by Race/Ethnicity

Table 4 presents the mean and standard deviation or percentage for the outcome

variable, broken down by race/ethnicity, while Table 5 presents the *t*-statistic, degrees of

freedom (*df*), and *p*-value for each racial/ethnic group combination for the outcome

variable.   For the outcome variable perceived community HIV/AIDS stigma, Black and

Hispanic participants reported perceiving moderate levels of HIV/AIDS stigma in their

communities with means of 2.85 (*SD* = .28) and 2.82 (*SD* = .25) respectively. However,

amongst White participants, the reported perception of community HIV/AIDS stigma

was somewhat lower with a mean of 2.30, but with somewhat more variation with a

standard deviation of .63.

In order to test if these differences in perceived community HIV/AIDS stigma,

between racial/ethnic groups, were statistically significant two-sample *t*-tests were

conducted. Black participants reported significantly higher levels of perceived

community HIV/AIDS stigma compared to White participants ($t(337) = -9.36, p = .000$).

Hispanic participants also reported significantly higher perceived community HIV/AIDS

stigma compared to White participants ($t(343) = 9.14, p = .000$). However, reports of

perceived community HIV/AIDS stigma were not significantly different between Black

and Hispanic participants ($t(258) = .90, p = .367$). These results suggest that the Black

and Hispanic participants in this study perceived higher levels of community HIV/AIDS

stigma compared to the levels reported by White participants.

Table 4: Means and Standard Deviations/Percentages for the Outcome Variable Broken Down
by Race/Ethnicity (*N* = 472)

Variables	White (*N* = 212) Mean (*SD*)/ Percentage	Black (*N* = 127) Mean (*SD*)/ Percentage	Hispanic (*N* = 133) Mean (*SD*)/ Percentage
Perceived Community HIV/AIDS Stigma:	2.30 (.63)	2.85 (.28)	2.82 (.25)

Table 5: Two-Sample *t*-Tests Comparing Each Racial/Ethnic Group Combination by the Outcome Variable

Variables	*t*-statistic	*df*	*p*-value
Perceived Community HIV/AIDS Stigma:			
White – Black	-9.36	337	.000***
Black – Hispanic	.90	258	.367
Hispanic – White	9.14	343	.000***

* = *p* < .05
** = *p* < .01
*** = *p* < .001

Descriptive Statistics and Two-Sample *T*-Tests for the Predictor Variables Broken Down by Race/Ethnicity

Table 6 presents the mean and standard deviation for each of the predictor variables, broken down by race/ethnicity while Table 7 presents the *t*-statistic, degrees of freedom (*df*), and *p*-value for each racial/ethnic group combination for each predictor variable. For the first predictor variable, satisfaction with social support received from friends and family, Whites and Hispanics reported between being somewhat dissatisfied and somewhat satisfied with means 2.61 and 2.68 and standard deviations of 1.28 and 1.02 respectively. Black participants, on the other hand, expressed the highest mean satisfaction with social support with a mean of 3.15 and a standard deviation of .84. In other words, Blacks were on average slightly more than somewhat satisfied with the social support they received from family and friends.

In order to test the statistical significance of the aforementioned means and standard deviations for satisfaction with social support received from friends and family, two-sample t-tests were conducted. Results, as shown in Table 7, show that Black participants showed significantly higher satisfaction with social support compared to both White participants ($t(337) = -4.20, p = .000$) and Hispanic participants ($t(258) = 4.01, p = .000$). Satisfaction with social support was not significantly different between Hispanic and White participants ($t(343) = .51, p = .607$).

Level of self-acceptance, the second predictor variable in Table 6, was pretty similar between White and Black participants, but a bit higher for Hispanic participants. The standard deviations were also pretty high for all three racial/ethnic groups. As shown in Table 6, Hispanics had an average self-acceptance of 7.02 and a standard deviation of 1.89, while Blacks had an average self-acceptance of 6.71 and a standard deviation of 1.52, and Whites had an average self-acceptance of 6.66 with a standard deviation of 1.92. Again, as Table 7 indicates, when groups were compared to one another to test for statistically significant differences, no differences were found between any of the groups.

The third predictor variable in Table 6 is HIV knowledge. Average levels of HIV knowledge were pretty similar between all three racial/ethnic groups. Additionally, all three racial/ethnic groups had high standard deviations for HIV knowledge, showing a great deal of variation in HIV knowledge within each racial/ethnic group. White participants had the highest mean number of correct answers with 9.61 or 53% and a standard deviation of 2.62. The next highest mean number of correct answers was

amongst Black participants with 9.29 or 52% and a standard deviation of 2.83. Hispanic participants had the lowest mean number of correct answers with 8.57 or 48% and a standard deviation of 2.18. These descriptive statistics show that average knowledge about HIV was pretty low in all three racial/ethnic groups, and that knowledge within each group varied pretty substantially.

Though the mean scores for HIV Knowledge were pretty close between racial/ethnic groups in this study, I wanted to test if there were in fact any statistically significant differences (See Table 7). After conducting several two-sample t-tests, I found that White participants ($t(343) = -3.83$, $p = .000$) and Black participants ($t(258) = 2.30$, $p = .022$) had significantly more HIV knowledge than Hispanic participants. However, when compared to one another, Black and White participants did not have significantly different levels of HIV knowledge ($t(337) = 1.06$, $p = .289$).

Perceived community attitudes towards gay men is the fourth predictor variable in Table 6. Participants from all three racial/ethnic groups stated that their community had somewhat positive to neutral attitudes towards gay men. However, of the three groups, Hispanic participants reported perceptions that their communities had the most neutral attitudes towards gay men with a mean of 2.97 and a standard deviation of .57. The next most neutral perceived community attitudes towards gay men were reported by Black participants with a mean of 2.86 and a standard deviation of .77. The most positive of the perceived community attitudes towards gay men were given by White participants, with a mean of 2.69 and a standard deviation of .42. These means and standard deviations were compared to determine if the differences between groups in perceived community

attitudes towards gay men were statistically different. In Table 7 results show that White

participants perceived the community to have significantly more positive attitudes

towards gay man compared to both Black participants ($t(337) = -2.66$, $p = .008$) and

Hispanic participants ($t(343) = 5.20$, $p = .000$). No significant differences in perceived

community attitudes towards gay men were found between Black and Hispanic

participants ($t(258) = -1.26$, $p = .207$).

The sixth predictor variable in Table 6, personal HIV/AIDS stigma, was similar

between Black and Hispanic participants, but somewhat lower amongst White

participants. Hispanics had an average personal HIV/AIDS stigma score of 2.70 and a

standard deviation of .40, while Blacks had an average personal HIV/AIDS stigma score

of 2.60 and a standard deviation of .45. Both of these scores were between low and

moderate levels of personal HIV/AIDS stigma, leaning more towards moderate.

However, Whites had an average personal HIV/AIDS stigma score of 2.27 with a

standard deviation of .63, which was also between low and moderate levels of personal

HIV/AIDS stigma, but closer to low levels. After comparing personal HIV/AIDS stigma

scores between groups, Table 7 shows that Hispanic participants ($t(343) = 7.07$, $p = .000$)

and Black participants ($t(337) = -5.25$, $p = .000$) had significantly higher personal

HIV/AIDS stigma compared to White participants. No significant differences in personal

HIV/AIDS stigma were found between Black and Hispanic participants ($t(258) = -1.82$, p

$= .070$).

Ever being tested for HIV, the seventh and final predictor variable in Table 6,

varied a great deal across racial/ethnic groups. Of all the White respondents who

participated in this study, about 71% had ever been tested for HIV. Amongst Hispanic

participants, only approximately 41% had ever been tested for HIV. Finally, Black

participants in this study had the highest percentage of ever being tested for HIV at about

90%.

In order to determine if meaningful differences existed between racial/ethnic

groups in this study, two-sample t-test analyses were conducted. Table 7 displays the

results of these statistical examinations, and indicates statistically significantly

differences existed between all three racial/ethnic groups as far as ever being tested for

HIV. More specifically, White participants had significantly lower rates of ever being

tested for HIV than Black participants ($t(337) = -4.09$, $p = .000$) and significantly higher

rates of ever being tested for HIV than Hispanic participants ($t(258) = 9.62$, $p = .000$).

Furthermore, Hispanic MSM participants had significantly lower rates of ever being

tested for HIV than White participants($t(343) = -5.90$, $p = .000$).

Table 6: Means and Standard Deviations for the Predictor Variables Broken Down by Race/Ethnicity ($N = 472$)

Variables	White ($N = 212$) Mean (*SD*)/ Percentage	Black ($N = 127$) Mean (*SD*)/ Percentage	Hispanic ($N = 133$) Mean (*SD*)/ Percentage
Satisfaction with Social Support:	2.61 (1.28)	3.15 (.84)	2.68 (1.02)
Self-Acceptance:	6.66 (1.92)	6.71 (1.52)	7.02 (1.89)
HIV Knowledge (Possible Score of 18):	9.61 (2.62)	9.29 (2.83)	8.57 (2.18)
Perceived Community Attitudes towards Gay Men:	2.69 (.42)	2.86 (.77)	2.97 (.57)
Personal HIV/AIDS Stigma:	2.27 (.63)	2.60 (.45)	2.70 (.40)
Ever Tested for HIV:	71.20	89.80	40.60

Table 7: Two-Sample *t*-Tests Comparing Each Racial/Ethnic Group Combination Across Each Predictor Variable

Variables	*t*-statistic	*df*	*p*-value
Satisfaction with Social Support:			
White – Black	-4.20	337	.000***
Black – Hispanic	4.01	258	.000***
Hispanic – White	.51	343	.607
Self-Acceptance:			
White – Black	-.25	337	.801
Black – Hispanic	-1.44	258	.153
Hispanic – White	1.69	343	.092
HIV Knowledge:			
White – Black	1.06	337	.289
Black – Hispanic	2.30	258	.022*
Hispanic – White	-3.83	343	.000***
Perceived Community Attitudes towards Gay Men:			
White – Black	-2.66	337	.008**
Black – Hispanic	-1.26	258	.207
Hispanic – White	5.20	343	.000***
Personal HIV/AIDS Stigma:			
White – Black	-5.25	337	.000***
Black – Hispanic	-1.82	258	.070
Hispanic – White	7.07	343	.000***
Ever Tested for HIV:			
White – Black	-4.09	337	.000***
Black – Hispanic	9.62	258	.000***
Hispanic – White	-5.90	343	.000***

* = $p < .05$
** = $p < .01$
*** = $p < .001$

Conclusion

In this chapter I provided in-depth descriptions of all of the outcome and predictor

variables utilized in this study first for the entire sample, and then broken down by

race/ethnicity. Results showed that respondents across race/ethnicity on average

perceived some HIV/AIDS stigma in their communities, with Black and Hispanic

participants perceiving significantly more community HIV/AIDS stigma than White participants.

Some other notable results were that participants across race/ethnicity had low to moderate mean levels of personal HIV/AIDS stigma, with Black and Hispanic participants having significantly higher personal HIV/AIDS stigma compared to White participants. In addition, all groups on average possessed only low to moderate levels of HIV knowledge, but of the three racial/ethnic groups White participants showed significantly more HIV knowledge compare to Black and Hispanic participants. Moreover, the average participant, regardless of race/ethnicity expressed that he perceived his community had between neutral and somewhat positive attitudes towards gay men, but White participants reported significantly less positive perceived community attitudes towards gay men compared to Black and Hispanic participants. Lastly, significantly more Black participants had ever been tested for HIV than White and Hispanic participants.

Though these descriptive statistics and t-test comparisons are fascinating and informative in and of themselves, it is even more interesting and meaningful to understand how all of these variables relate to one another and affect the outcome variable of perceived community HIV/AIDS stigma. In the next chapter I present the statistical results from the two path models I theorized in Chapter 2 of this dissertation. The path models will shed light on the nuanced roles each predictor variable plays on the outcome variable, and give a more complete picture of how perceived community HIV/AIDS stigma develops.

CHAPTER FIVE: PATH ANALYSIS

In this chapter I discuss the path analyses I conducted for perceived community HIV/AIDS stigma for both the full research sample as well as for each racial/ethnic group. I begin by discussing the goodness of fit measures I used to evaluate my path models and determine if modifications were necessary. Next, I present my theorized path model for the full sample, the goodness of fit measures, a discussion of why my model required modifications, the modifications indices used to adjust the model, and finally my modified model with an explanation of each pathway. Afterwards, I repeat the same process, but for each of the racial/ethnic groups examined separately. Finally, I close the chapter with some concluding remarks and transition to the discussion chapter that will explore the outcomes and limitations of this research in more depth.

Goodness of Fit Measures Utilized in This Study

In order to examine the theoretical models presented in Figure 1 and Figure 2, I utilized SPSS AMOS 23 to conduct path analyses for both the full sample of MSM respondents as well as for White, Black, and Hispanic MSM separately. I measured the overall fit of each model using four different goodness of fit indices. Goodness of fit indices or measures are statistical tests conducted in order to see if one model is a better representation of the data versus another possible model. For my analysis, I utilized the following indices: (1) the chi-square test (CMIN), (2) the root mean square error of

approximation (RMSEA), (3) the comparative fit index (CFI), and (4) the Tucker-Lewis

Index (TLI). I selected the RMSEA, CFI, and TLI indices in addition to the chi-square

test because they are less sensitive to sample size. Later in the chapter I document how I

used these measures in order to evaluate my theorized path models and determine if

modifications were necessary.

Previous uses of the chi-square test claim that the chi-square statistic should not

be significant if the model is a good fit (Garson 2015). However, this is not necessarily

the case in models with large samples sizes. When a study has a large sample, very small

differences can lead to significance of the chi-square statistic. Therefore, in this study, I

also utilized Hoelter's critical N to evaluate whether the sample size of each model was

adequate to use the chi-square test as a criterion for model fit. For each model, if the

sample size was much larger than the Hoelter's critical N, then I accepted the model, as

long as the RMSEA, CFI, and TLI goodness of fit measures were acceptable (Garson

2015).

The RMSEA goodness of fit measure rewards for a large sample size, but

penalizes for model complexity. A good fitting model has an RMSEA less than .05 and a

p-value of close fit (PCLOSE) has a non-significant value, or a value greater than .05.

However, in exploratory research an RMSEA less than .10 is adequate (Garson 2015).

Finally, for both the CFI and TLI goodness of fit measures, a model is a good fit

if it has a CFI and TLI of .95 or greater. However, in cases where research is more

exploratory, a CFI and TLI of .90 are accepted as an adequate model fit. The CFI is an

incremental goodness of fit measure, and one of the most widely used ones. CFI is often

recommended, because it is "independent of model complexity and sample size and [is] not closely correlated with chi-square" (Garson 2015:373). The TLI is a proportionate improvement of fit measure similar to the CFI. However, the TLI "imposes a greater penalty for model complexity," and as a result will always be lower than the CFI (Garson 2015:375).

Path Analyses for Perceived Community HIV/AIDS Stigma: Full Sample

Initial Path Model: Full Sample

To begin the examination of the relationships of the variables leading to perceived community HIV/AIDS stigma proposed earlier in Figure 1, I conducted a path analysis with the entire sample of MSM in my study. This analysis included controlling for race/ethnicity on the key variables of ever being tested for HIV, personal HIV/AIDS stigma, and perceived community HIV/AIDS stigma. The reference category for race/ethnicity was White, which is why only Black and Hispanic are shown as variables in the model. I also added covariances between the following pairs of observed variables: Black and Hispanic, Black and social support, Black and HIV knowledge, Hispanic and social support, and Hispanic and HIV knowledge. Covariance measures how the changes in one variable are related to the changes in a second variable. Covariances are added in a path analysis in order to separate out any disturbances the relationship between the two variables may have on the paths between the predictor and outcome variables. Figure 3 below shows all of the paths with their respective coefficients for the initially proposed model.

The reference category for race/ethnicity in this model was White. Additionally, covariances were included for Black and Hispanic, Black and Social Support, Black and HIV Knowledge, Hispanic and Social Support, and Hispanic and HIV knowledge.

* = p < .05
** = p < .01
*** = p < .001
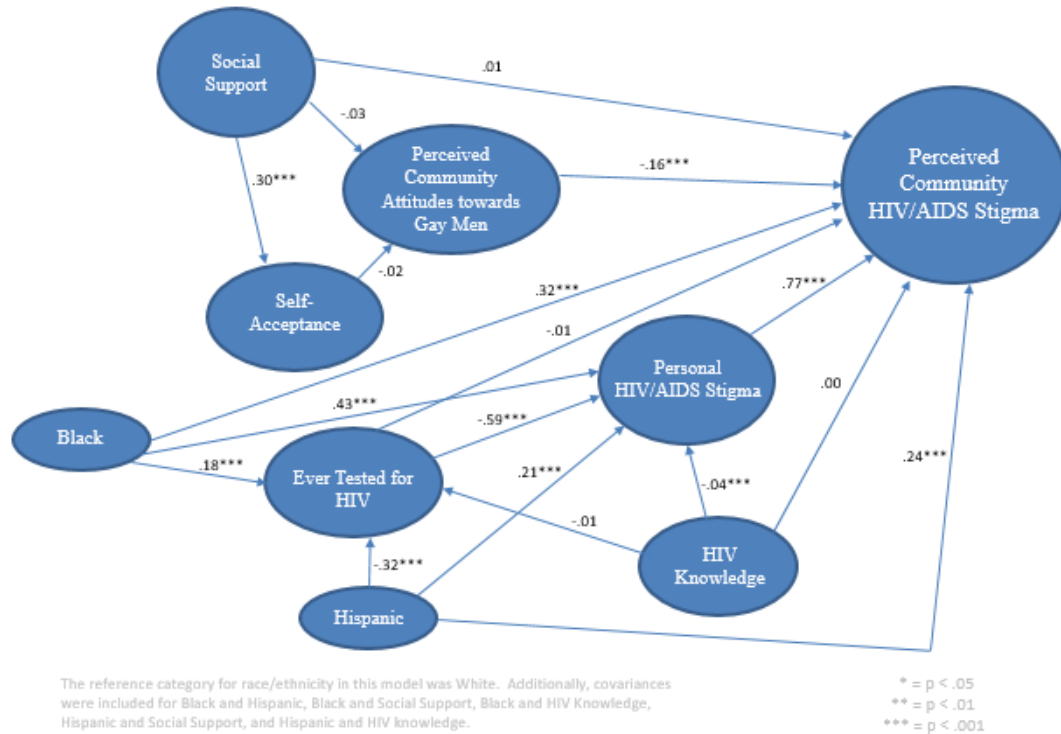
Figure 3: Initial Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for Full Sample

As you can see, the pathway between each variable in the model in Figure 3 has a regression coefficient and statistical significance indicator associated with it. In order to ease the reading and interpretation of these coefficients, I created Table 8 below, which presents the regression coefficient, standard error, and *p*-value for each pathway. The regression coefficients show the direct effects of each variable on a second variable. The standard errors serve as measures of the statistical accuracy of the regression coefficient estimate and are the standard deviations of the sampling distribution of the statistics measured in this study. Finally, the *p*-value, which is typically used for statistical hypothesis testing, measures the chances of obtaining a result equal to or more extreme

than what was observed for each connected variable. In this study, a p-value of .05 or

less was deemed a statistically significant finding.

Table 8: Regression Coefficients, Standard Errors, and p-Values for the Initial Perceived Community
HIV/AIDS Stigma Path Model with the Full Sample

Variable Name		Variable Name	Estimate	SE	p-value
Social Support	→	Self-Acceptance	.297	.073	***
HIV Knowledge	→	Ever Tested for HIV	-.014	.008	.074
Black	→	Ever Tested for HIV	.181	.048	***
Hispanic	→	Ever Tested for HIV	-.321	.048	***
Social Support	→	Perceived Community Attitudes towards Gay Men	-.025	.024	.295
Self-Acceptance	→	Perceived Community Attitudes towards Gay Men	-.021	.015	.164
HIV Knowledge	→	Personal HIV AIDS Stigma	-.041	.008	***
Ever Tested for HIV	→	Personal HIV/AIDS Stigma	-.589	.048	***
Hispanic	→	Personal HIV/AIDS Stigma	.206	.053	***
Black	→	Personal HIV/AIDS Stigma	.430	.051	***
Social Support	→	Perceived Community HIV/AIDS Stigma	.008	.012	.503
Perceived Community Attitudes towards Gay Men	→	Perceived Community HIV/AIDS Stigma	-.155	.023	***
HIV Knowledge	→	Perceived Community HIV/AIDS Stigma	.003	.005	.540
Personal HIV/AIDS Stigma	→	Perceived Community HIV/AIDS Stigma	.768	.030	***
Ever Tested for HIV	→	Perceived Community HIV/AIDS Stigma	-.012	.036	.730
Black	→	Perceived Community HIV/AIDS Stigma	.324	.036	***
Hispanic	→	Perceived Community HIV/AIDS Stigma	.238	.035	***
Black	⇔	Hispanic	-.077	.010	***
HIV Knowledge	⇔	Hispanic	-.203	.055	***
HIV Knowledge	⇔	Black	.056	.052	.278
Social Support	⇔	Black	.104	.023	***
Social Support	⇔	Hispanic	-.042	.023	.071

*** indicates p < .001.

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Results from all four measure of fit indices I utilized indicated that the theorized

path model was a poor fitting model. The chi-square for this model was 292.875 with

degrees of freedom of 14 and a *p*-value of .000. This indicates a poor-fitting model,

because the "model-implied covariance matrix is … significantly different from the

observed covariance matrix" (Garson 2014:31). However, the chi-square is very

conservative, especially when there is a large sample. Therefore, I examined other

measures of fit as well.

The CFI and TLI are both measures of fit that compare the "existing model fit

with a null (independence) model" (Garson 2015:373). For this model, the CFI was .777

and the TLI was .427. A CFI and a TLI of .95 are considered a good fit for confirmatory

analyses, and a CFI and TLI of .90 are deemed an adequate fit for exploratory analyses.

Since the CFI and the TLI in both of these models fell well below even .90, this indicated

to me that the model was a very poor fit and needed to be re-specified.

The "RMSEA is a popular measure of fit, partly because it does not require

comparison with a null model" (Garson 2015: 364). A model is a good fit if the RMSEA

is less than or equal to .05 and the PCLOSE non-significant, or greater than .05. For this

model, the RMSEA was .206 and the PCLOSE was .000, signifying a very poor fitting

model.

Since all four goodness of fit measures designated the proposed model as a poor-

fitting model, I determined that this model needed to be re-specified utilizing the

modification indices and parameter changes provided by AMOS. "Modification indices

(MI) are used in conjunction with parameter change coefficients to judge whether the

model would be improved significantly by adding arrows" (Garson 2015:25).

Modification indices are suggested arrows or pathways provided to a researcher when he or she needs to improve a model's fit, while parameter changes are estimates of how much the path coefficient will change with the addition of a particular arrow (Garson 2015). The larger an MI is, the more adding the pathway will improve the fit of the model (Garson 2014). The "usual threshold" for adding an arrow to a path model is an MI of at least 4.0, however, there are exceptions to this rule (Garson 2014). Table 9 below provides the modification indices and parameter changes used to re-specify the full sample model in my study.

Table 9: Modification Indices and Parameter Change Values for the Initial Perceived Community HIV/AIDS Stigma Path Model with the Full Sample

Variable Name		Variable Name	Modification Index	Parameter Change
Hispanic	→	Self-Acceptance	4.256	.376
Black	→	Self-Acceptance	1.652	-.237
HIV Knowledge	→	Self-Acceptance	7.556	-.087
Ever Tested for HIV	→	Self-Acceptance	19.134	.767
Social Support	→	Ever Tested for HIV	5.957	.043
Self-Acceptance	→	Ever Tested for HIV	34.138	.064
Hispanic	→	Perceived Community Attitudes towards Gay Men	13.184	.215
Black	→	Perceived Community Attitudes towards Gay Men	1.561	.075
HIV Knowledge	→	Perceived Community Attitudes towards Gay Men	9.890	-.032
Ever Tested for HIV	→	Perceived Community Attitudes towards Gay Men	19.079	-.249
Personal HIV/AIDS Stigma	→	Perceived Community Attitudes towards Gay Men	132.669	.552
Self-Acceptance	→	Personal HIV/AIDS Stigma	41.951	-.074
Perceived Community Attitudes towards Gay Men	→	Perceived Community HIV/AIDS Stigma	98.725	.354
Self-Acceptance	→	Perceived Community HIV/AIDS Stigma	.084	.002

Modified Path Model: Full Sample

In order to determine where paths should be added to the full sample model of

perceived community HIV/AIDS stigma, I utilized the modification indices (MIs)

provided in AMOS and shown above to explore adding arrows to the model. I began

adding arrows that had MIs that were above "the usual threshold of 4.0" (Garson 2014:

35). Through an iterative process, I gradually added paths until there were no more MIs

that were substantially large enough to warrant adding additional paths. Once the process

of adding arrows was complete, I went through my model and engaged in what is known

as the "model-trimming process" (Garson 2014:35). Model-trimming entails removing

paths that have coefficients that are not statistically significant. I again utilized an

iterative process to do my model-trimming, and thus came up with the final version of my

modified model for the full sample presented in Figure 4.
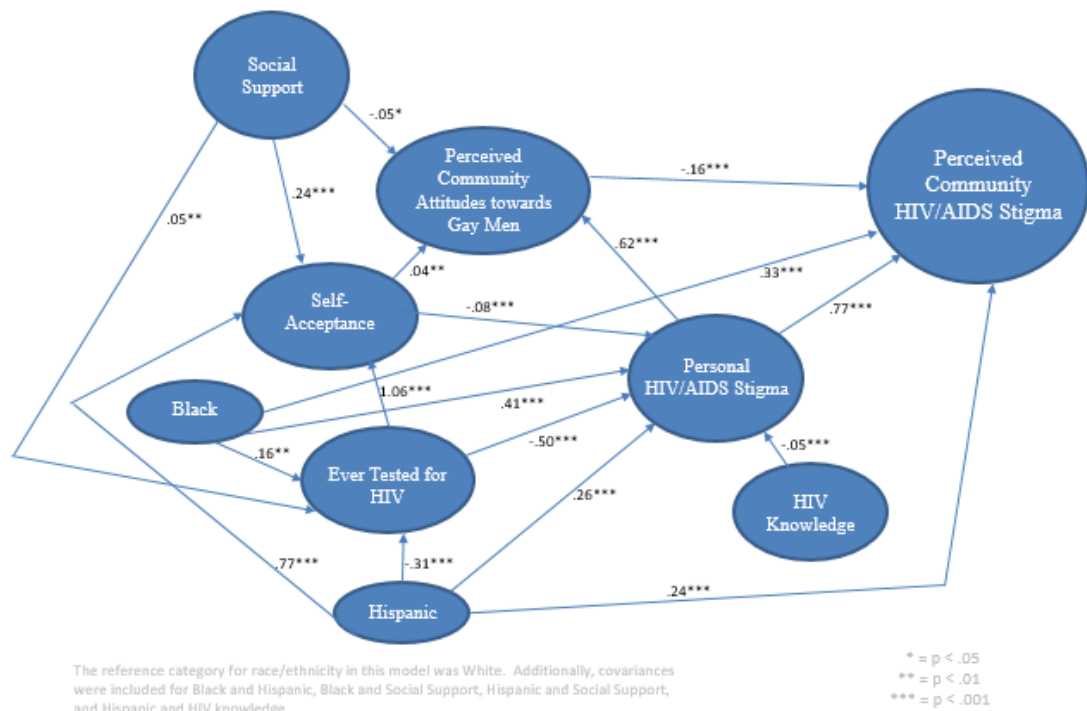
Figure 4: Modified Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for Full Sample

I utilized the same four goodness of fit indices employed for my initial full sample

model. As with the initial model, my reference category for the control variable of

race/ethnicity was White. However, in this modified model, I also controlled for

Hispanic ethnicity in the self-acceptance equation, and only had covariances between the

following pairs of observed variables: Black and Hispanic, Black and social support, Hispanic and social support, and Hispanic and HIV knowledge. See Table 10 for more details.

The chi-square for the modified full sample model was 26.949, with degrees of freedom of 14, and a p-value of .020. At initial glance this may indicate a poor-fitting model. However, when I examined the Hoelter's critical N, which is used to determine if the study sample size is adequate to utilize the model chi square, I found the Hoelter's critical N was 414, and my sample size was 472. Since my sample size was larger than the Hoelter's critical N, I continued with my goodness of fit testing (Garson 2015).

Next I calculated the CFI and the TLI for the modified full sample model. The CFI was .990 and the TLI was .973. Since the CFI and the TLI were both above .95, I concluded that thus far my model was a good fit. The RMSEA for this model was .044 and the PCLOSE was .611. Since the RMSEA was less than .05, and the PCLOSE was greater than .05 and non-significant, I determined that my modified full sample model was a good fit.

All paths in the modified full sample path model were statistically significant, with the exception of the covariance between social support and Hispanic ethnicity. See Table 10 below for the regression coefficients, standard errors, and p-values of all the direct effects on the modified perceived community HIV/AIDS Stigma path model for the full sample. For all the indirect effects of this model, see Table 11.

Table 10: Regression Coefficients, Standard Errors, and *p*-Values for the Modified Perceived Community HIV/AIDS Stigma Path Model with the Full Sample

Variable Name		Variable Name	Estimate	SE	*p*-value
Hispanic	→	Self-Acceptance	.766	.188	***
Social Support	→	Self-Acceptance	.240	.071	***
Social Support	→	Ever Tested for HIV	.050	.018	.005
Black	→	Ever Tested for HIV	.159	.049	.001
Hispanic	→	Ever Tested for HIV	-.310	.047	***
Social Support	→	Perceived Community Attitudes towards Gay Men	-.047	.020	.019
Personal HIV/AIDS Stigma	→	Perceived Community Attitudes towards Gay Men	.616	.042	***
Ever Tested for HIV	→	Self-Acceptance	1.056	.183	***
Self-Acceptance	→	Perceived Community Attitudes towards Gay Men	.042	.013	.001
HIV Knowledge	→	Personal HIV AIDS Stigma	-.049	.008	***
Ever Tested for HIV	→	Personal HIV/AIDS Stigma	-.495	.048	***
Self-Acceptance	→	Personal HIV/AIDS Stigma	-.082	.011	***
Hispanic	→	Personal HIV/AIDS Stigma	.257	.051	***
Black	→	Personal HIV/AIDS Stigma	.414	.049	***
Perceived Community Attitudes towards Gay Men	→	Perceived Community HIV/AIDS Stigma	-.158	.028	***
Personal HIV/AIDS Stigma	→	Perceived Community HIV/AIDS Stigma	.771	.030	***
Black	→	Perceived Community HIV/AIDS Stigma	.325	.034	***
Hispanic	→	Perceived Community HIV/AIDS Stigma	.238	.034	***
Black	⇔	Hispanic	-.075	.010	***
HIV Knowledge	⇔	Hispanic	-.181	.050	***
Social Support	⇔	Black	.100	.023	***
Social Support	⇔	Hispanic	-.040	.023	.082

*** indicates p < .001.

Table 11: Indirect Effects and (*p*-Values) for the Modified Perceived Community HIV/AIDS Stigma Path Model for the Full Sample

	Hispanic	Black	HIV Knowledge	Social Support	Ever Tested for HIV	Self-Acceptance	Personal HIV/AIDS Stigma	Perceived Community HIV/AIDS Stigma
Ever Tested for HIV	---	---	---	---	---	---	---	---
Self-Acceptance	-.327 (.002)	.167 (.002)	---	.053 (.004)	---	---	---	---
Personal HIV/AIDS Stigma	.117 (.004)	-.092 (.002)	---	-.049 (.002)	-.087 (.002)	---	---	---
Perceived Community Attitudes towards Gay Men	.249 (.002)	.205 (.002)	-.030 (.002)	-.018 (.008)	-.314 (.002)	-.051 (.002)	---	---
Perceived Community HIV/AIDS Stigma	.249 (.002)	.216 (.002)	-.033 (.002)	-.028 (.002)	-.399 (.002)	-.062 (.002)	-.097 (.003)	---

In the modified perceived community HIV/AIDS stigma path model for the full research sample, satisfaction with social support did not have a direct effect on perceived community HIV/AIDS stigma. However, satisfaction with social support did have statistically significant direct effects on self-acceptance and perceived community attitudes towards gay men. More specifically, the greater satisfaction participants reported with the social support in their lives, the more acceptance they had for themselves ($\beta = .24$, $p < .001$). In addition, the more satisfaction participants had with their social support, the less negative they perceived the attitudes of their community towards gay men ($\beta = -.05$, $p < .05$). Furthermore, the greater satisfaction participants reported with their social support, the more likely they were to have ever been tested for HIV ($\beta = .05$, $p < .01$). Finally, as far as indirect effects on the outcome variable perceived community HIV/AIDS stigma, satisfaction with social support did have a negative indirect effect mediated through the variables of perceived community attitudes towards gay men, self-acceptance, ever being tested for HIV, and personal HIV/AIDS stigma ($\beta = -.028$, $p < .01$).

Self-acceptance also did not have a direct effect on perceived community HIV/AIDS stigma. However, it did have direct effects on perceived community attitudes towards gay men and personal HIV/AIDS stigma. More specifically, participants who reported greater acceptance of themselves also perceived their community to have more negative attitudes towards gay men ($\beta = .04$, $p < .01$), and reported having lower personal HIV/AIDS stigma ($\beta = -.08$, $p < .001$). The former may be, because as MSM in the United States work through the process of accepting themselves and their sexual identity,

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they encounter or witness increased stigma against homosexuality in their community, and thus their perceptions of how accepting their community is changes. The latter may be due to the fact that MSM who are more accepting of themselves, understand more about their sexuality and HIV, and therefore do not judge people with the virus as harshly. Lastly, self-acceptance had an indirect effect on perceived community HIV/AIDS stigma mediated through perceived community attitudes towards gay men as well as personal HIV/AIDS stigma ($\beta = -.062$, $p < .01$).

Ever being tested for HIV also did not have a direct effect on perceived community HIV/AIDS stigma. Though, it did have direct effects on self-acceptance and personal HIV/AIDS stigma. In other words, participants who had ever been tested of HIV, tended to be more accepting of themselves ($\beta = 1.06$, $p < .001$), and reported having lower levels of personal HIV/AIDS stigma ($\beta = -.50$, $p < .001$). The former outcome may be due to the possibility that men who go get tested for HIV may learn more about their sexual identity through the process of testing, and thus come to accept themselves more. The latter outcome is very logical, because participants who get tested for HIV, likely gain more information about the disease, may meet people who are HIV positive, which humanizes the disease, and therefore this together leads them to treat people who are HIV positive in a less stigmatizing manner. Finally, ever being tested for HIV did have an indirect effect on perceived community HIV/AIDS stigma, which was mediated through self-acceptance as well as personal HIV/AIDS stigma ($\beta = -.399$, $p < .01$).

Personal HIV/AIDS stigma had a strong positive direct effect on perceived community HIV/AIDS stigma ($\beta = .77$, $p < .001$). Participants who had low levels of

personal HIV/AIDS stigma also reported perceiving low levels of perceived community

HIV/AIDS stigma, and vice versa. This may be because people who have lower levels of

HIV/AIDS stigma may understand the disease better and may be associated with people

who either have the disease or share their perspectives on the disease, so they therefore

perceive less HIV/AIDS stigma in their community. The opposite is also reasonable that

someone with higher personal HIV/AIDS stigma may have a lower understanding of the

disease, be surrounded by people who also possess great HIV/AIDS stigma and lower

understanding of the disease, so they perceive HIV/AIDS stigma to be greater in their

community overall. Personal HIV/AIDS stigma also had a direct effect on perceived

community attitudes toward gay men ($\beta = .62$, $p < .001$). More specifically, participants

who possessed less HIV/AIDS stigma also perceived their community to have less

negative attitudes towards gay men. Since HIV and sexual identity are so intertwined in

the United States, and many of the early HIV prevention and intervention efforts started

in gay communities, this result is not surprising. MSM with less HIV/AIDS stigma are

likely part of communities that are accepting of homosexuality and provide education on

STIs as well as resources for care and support, so stigma towards sexual identity as well

as HIV are likely to be lower.

Perceived community attitudes towards gay men had a strong negative direct

effect on perceived community HIV/AIDS stigma ($\beta = -.16$, $p < .001$). In other words,

participants who reported less negative attitudes towards gay men, expressed perceiving

greater HIV/AIDS stigma in their communities. This may be the result of the changing

social landscape on LGBTQ equality in the United States, while at the same time a lack

of discussion about and education around HIV. HIV is not being made into the same priority as it was in the late 1980's through the 1990's. As a result, a great deal of misinformation, shame, and blame surround HIV and perpetuate the illness, even during a time when we are seeing an increasing acceptance of diverse identities and abilities in the United States.

HIV knowledge did not have a direct effect on perceived community HIV/AIDS stigma, but it did have a strong negative direct effect on personal HIV/AIDS stigma (β = -.05, $p < .001$). Participants with higher levels of HIV knowledge possessed lower levels of personal HIV/AIDS stigma. This is reasonable, because a great deal of stigma and fear around HIV/AIDS stems from misinformation. Also, as mentioned above, the lack of prioritization of HIV in public dialogues and education has led to a reduction in HIV/AIDS knowledge, and thus a resurgence in the stigma that permeates the disease. Finally, HIV knowledge had an indirect effect on perceived community HIV/AIDS stigma that was mediated through personal HIV/AIDS stigma (β = -.033, $p < .01$).

The racial/ethnic categories of Black and Hispanic, as compared to the reference category of White both had direct effects on perceived community HIV/AIDS stigma, as well as on several other variables. The racial identity of Black had a strong positive direct effect on perceived community stigma, indicating that those participants who identified as Black perceived great HIV/AIDS stigma in their communities compared to White participants (β = .33, $p < .001$). Given the previous literature on HIV/AIDS stigma in Black communities of the United States, this finding makes a great deal of sense. In addition, participants who identified as Black also were significantly more likely to report

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having ever been tested for HIV than their White counterparts ($\beta = .16$, $p < .01$). This is reasonable given the disproportionate burden HIV/AIDS has had on Black communities in the United States and recent efforts to promote testing in Black communities. Lastly, respondents who identified as Black also reported having higher levels of personal HIV/AIDS stigma than their White counterparts ($\beta = .41$, $p < .001$). This is reasonable, because as argued earlier, if respondents do not have access to information on HIV and are surrounded by others with high levels of HIV/AIDS stigma, it is not surprising that they too would possess high levels of HIV/AIDS stigma as well.

As for participants who identified with the ethnicity Hispanic, there was a strong, positive direct effect of identifying as Hispanic with perceived community HIV/AIDS stigma. In other words, participants who identified as Hispanic also reported perceiving high levels of HIV/AIDS stigma in their communities compared to their White counterparts. This may be due to the moral judgements that are often attached to HIV as a disease, as well as the association of HIV with homosexuality. Participants who identified as Hispanic also reported higher levels of personal HIV/AIDS stigma than White participants ($\beta = .26$, $p < .001$). Due to the association of HIV with immorality, Hispanic participants may not have as much knowledge about HIV and may be surrounded by others with higher levels of HIV/AIDS stigma, so it is not surprising they may be more likely than White participants to have higher levels of HIV/AIDS stigma. Interestingly, Hispanic participants were also less likely to have ever been tested for HIV ($\beta = -.31$, $p < .001$), which may shed light on issues relating to access to care, as well as a lack of information around the need to be tested. Furthermore, participants who reported

being Hispanic also reported having higher levels of self-acceptance than their White counterparts ($\beta = .77$, $p < .001$). This result may be due to how self-identity and self-acceptance are fostered in certain Hispanic cultures, thus promoting a strong sense and acceptance of self.

The modified perceived community HIV/AIDS stigma path model I presented above shows a complex interplay of various variables that affect how much HIV/AIDS stigma MSM perceive in their communities as a whole. However, in the next sections I will examine these same path models separately by race/ethnicity in order to determine whether there are in fact racial/ethnic differences amongst MSM when it comes to perceived community HIV/AIDS stigma.

Path Analyses for Perceived Community HIV/AIDS Stigma: Black MSM

Initial Path Model: Black MSM

For the next phase of my analysis, I separated my data by racial/ethnic group, and tested my theorized path model for each racial/ethnic group separately. The theorized path model for each racial/ethnic group was the same as that for the full sample without the need to control for race/ethnicity. I began this process by looking at the data for Black MSM. Figure 5 below shows all of the paths with their respective coefficients for the initially proposed model.
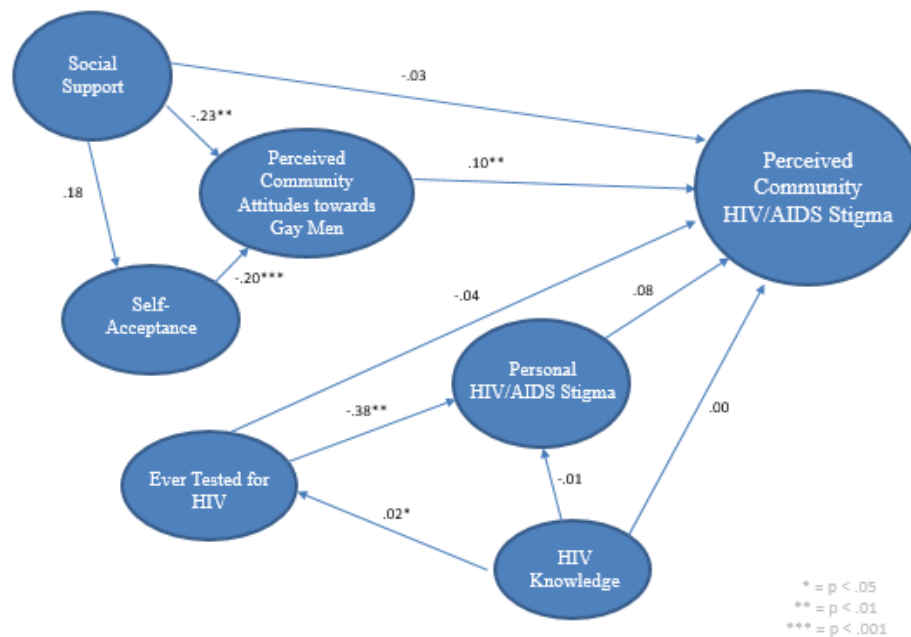
Figure 5 : Initial Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for Black MSM

As you can see, the pathway between each variable in the model in Figure 5 has a regression coefficient and statistical significance indicator associated with it. In order to ease the reading and interpretation of these coefficients, I created Table 12 below, which presents the regression coefficient, standard error, and *p*-value for each pathway. As stated previously, a *p*-value of .05 or less was deemed a statistically significant finding in this study.

Table 12: Regression Coefficients, Standard Errors, and *p*-Values for the Initial Perceived Community HIV/AIDS Stigma Path Model with Black MSM

Variable Name		Variable Name	Estimate	SE	*p*-value
Social Support	→	Self-Acceptance	.183	.161	.257
HIV Knowledge	→	Ever Tested for HIV	.019	.009	.048
Social Support	→	Perceived Community Attitudes towards Gay Men	-.231	.072	.001
Self-Acceptance	→	Perceived Community Attitudes towards Gay Men	-.196	.039	***
HIV Knowledge	→	Personal HIV AIDS Stigma	-.013	.014	.357
Ever Tested for HIV	→	Personal HIV/AIDS Stigma	-.375	.129	.004
Social Support	→	Perceived Community HIV/AIDS Stigma	-.027	.029	.356
Perceived Community Attitudes towards Gay Men	→	Perceived Community HIV/AIDS Stigma	.098	.032	.002
HIV Knowledge	→	Perceived Community HIV/AIDS Stigma	.002	.008	.837
Personal HIV/AIDS Stigma	→	Perceived Community HIV/AIDS Stigma	.076	.053	.154
Ever Tested for HIV	→	Perceived Community HIV/AIDS Stigma	-.038	.080	.632

*** indicates p < .001.

Results from all four measure of fit indices I utilized indicated that the theorized path model for Black MSM was a poor fitting model. The chi-square for this model was 115.734 with degrees of freedom of 10 and a *p*-value of .000. This indicates a poor-fitting model, because the *p*-value is statistically significant, when it should be non-significant. However, the chi-square is very conservative, especially when there is a large sample. Therefore, I examined other measures of fit as well.

For this model, the CFI was .359 and the TLI was -.347. A CFI and a TLI of .95 are considered a good fit for confirmatory analyses, and a CFI and TLI of .90 are deemed an adequate fit for exploratory analyses. Since both the CFI and the TLI in this model

fell well below even .90, this indicated to me that the model was a very poor fit and needed to be re-specified.

Lastly, the RMSEA was calculated as the final goodness of fit measure examined for this model. A model is a good fit if the RMSEA is less than or equal to .05 and the PCLOSE is non-significant, or greater than .05. For this model, the RMSEA was .290 and the PCLOSE was .000. Therefore, this final goodness of fit model further confirmed a very poor fitting model.

Since all four goodness of fit measures designated the proposed model as a poor-fitting model, I determined that this model needed to be re-specified utilizing the modification indices and parameter changes provided by AMOS. Table 13 below provides the modification indices and parameter changes used to re-specify the full sample model in my study.

Table 13: Modification Indices and Parameter Change Values for the Initial Perceived Community HIV/AIDS Stigma Path Model with Black MSM

Variable Name		Variable Name	Modification Index	Parameter Change
HIV Knowledge	→	Self-Acceptance	.165	.019
Ever Tested for HIV	→	Self-Acceptance	.178	.187
Social Support	→	Ever Tested for HIV	.303	.018
Self-Acceptance	→	Ever Tested for HIV	.169	.007
HIV Knowledge	→	Perceived Community Attitudes towards Gay Men	10.555	.069
Ever Tested for HIV	→	Perceived Community Attitudes towards Gay Men	.968	-.193
Personal HIV/AIDS Stigma	→	Perceived Community Attitudes towards Gay Men	27.003	.687
Self-Acceptance	→	Personal HIV/AIDS Stigma	31.594	-.143
Social Support	→	Personal HIV/AIDS Stigma	.562	-.035
Perceived Community Attitudes towards Gay Men	→	Personal HIV/AIDS Stigma	50.711	.359
Self-Acceptance	→	Perceived Community HIV/AIDS Stigma	.439	.010

Modified Path Model: Black MSM

In order to determine where paths should be added to the Black MSM path model of perceived community HIV/AIDS stigma, I utilized the modification indices (MIs) provided in AMOS and shown above to determine where arrows should be added. I began introducing new arrows that had MIs that were above "the usual threshold of 4.0" (Garson 2014: 35). Through an iterative process, I gradually added paths until there were no more MIs that were substantially large enough to warrant adding additional paths. Once the process of adding arrows was complete, I went through my model and began trimming paths that were not statistically significant. I again utilized an iterative process

to do my model-trimming, and thus came up with the final version of my modified model

for the Black MSM participants presented in Figure 6.
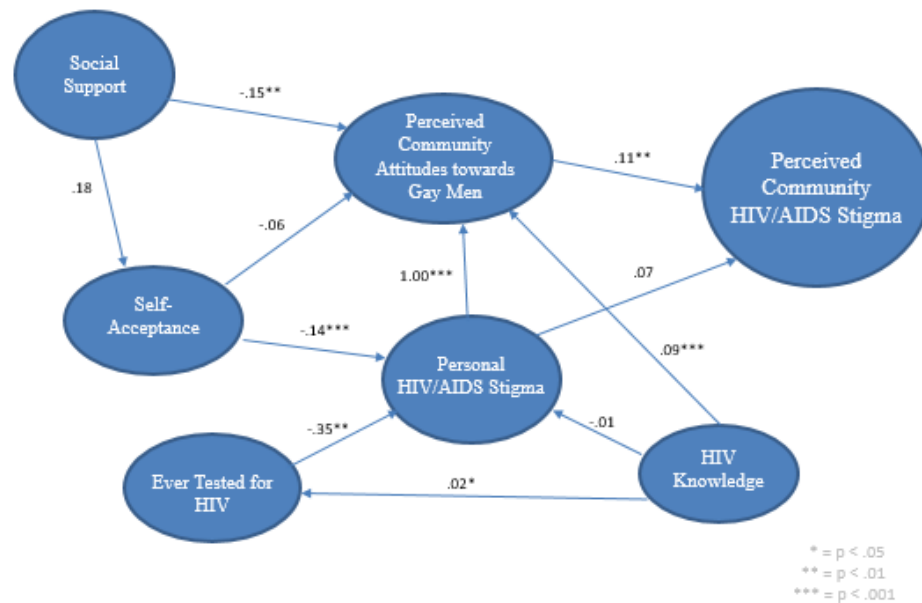

Figure 6 : Modified Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for Black MSM

I utilized the same four goodness of fit indices employed for my initial Black

MSM model. The chi-square for the modified Black MSM model was 10.740, with

degrees of freedom of 10, and a p-value of .378. Since the p-value was greater than .05,

and thus not statistically significant, this indicated to me that this was a good fitting

model for the Black MSM subsample. When I looked at the Hoelter's critical N, I saw

that it was 215, which is well above the subsample count of 127 for Black MSM.

Therefore, the chi-square test was appropriate to use to determine goodness of fit of the

Black MSM sub-segment of my study sample. However, to ensure a proper fit of the

model, I also examined the three other goodness of fit measures utilized for the initial

model of Black MSM.

I continued my validation of the goodness of fit of this modified Black MSM

model by looking at the CFI and the TLI. The CFI was .996 and the TLI was .991. Since

the CFI and the TLI were both above .95, I took this as further evidence that thus far my

model was a good fit. Finally, I inspected the RMSEA and PCLOSE for this model.

They were .024 and .620 respectively. Since the RMSEA was less than .05, and the

PCLOSE was greater than .05 and non-significant, I determined with certainty that my

modified Black MSM model was a good fit.

All paths in the modified Black MSM path model were statistically significant,

with the exception of the paths between social support and self-acceptance, HIV

knowledge and personal HIV/AIDS stigma, self-acceptance and perceived community

attitudes towards gay men, and personal HIV/AIDS stigma and perceived community

HIV/AIDS stigma. See Table 14 below for the regression coefficients, standard errors,

and *p*-values of all the direct effects on the modified perceived community HIV/AIDS

Stigma path model for the Black MSM sub-sample. For all the indirect effects of this

model, see Table 15.

Table 14: Regression Coefficients, Standard Errors, and *p*-Values for the Modified Perceived Community HIV/AIDS Stigma Path Model with Black MSM

Variable Name		Variable Name	Estimate	SE	*p*-value
Social Support	→	Self-Acceptance	.183	.161	.257
HIV Knowledge	→	Ever Tested for HIV	.019	.009	.048
Social Support	→	Perceived Community Attitudes towards Gay Men	-.152	.054	.005
Self-Acceptance	→	Perceived Community Attitudes towards Gay Men	-.057	.034	.095
Personal HIV/AIDS Stigma	→	Perceived Community Attitudes towards Gay Men	.996	.116	***
HIV Knowledge	→	Perceived Community Attitudes towards Gay Men	.093	.016	**143*
HIV Knowledge	→	Personal HIV/AIDS Stigma	-.012	.012	.300
Ever Tested for HIV	→	Personal HIV/AIDS Stigma	-.349	.112	.002
Self-Acceptance	→	Personal HIV/AIDS Stigma	-.143	.022	***
Perceived Community Attitudes towards Gay Men	→	Perceived Community HIV/AIDS Stigma	.113	.039	.004
Personal HIV/AIDS Stigma	→	Perceived Community HIV/AIDS Stigma	.069	.066	.293

*** indicates p < .001

Table 15: Indirect Effects and (*p*-Values) for the Modified Perceived Community HIV/AIDS Stigma Path Model for Black MSM

	HIV Knowledge	Social Support	Ever Tested for HIV	Self-Acceptance	Personal HIV/AIDS Stigma	Perceived Community Attitudes towards Gay Men
Ever Tested for HIV	---	---	---	---	---	---
Self-Acceptance	---	---	---	---	---	---
Personal HIV/AIDS Stigma	-.007 (.050)	-.026 (.288)	---	---	---	---
Perceived Community Attitudes towards Gay Men	-.019 (.183)	-.036 (.288)	-.348 (.003)	-.142 (.002)	---	---
Perceived Community HIV/AIDS Stigma	.007 (.386)	-.023 (.084)	-.063 (.024)	-.032 (.004)	.112 (.125)	---

In the modified perceived community HIV/AIDS stigma path model for Black MSM, satisfaction with social support did not have a direct effect on perceived community HIV/AIDS stigma. However, satisfaction with social support did have a statistically significant direct effect on perceived community attitudes towards gay men. More specifically, Black MSM participants who were more satisfied with their social support, reported perceiving their community had less negative attitudes towards gay men ($\beta = -.152$, $p < .01$). The path between satisfaction with social support and self-acceptance was not statistically significant in this model, but was important to the overall fit of the model, so it was kept ($\beta = .183$, $p = .257$). Finally, as far as indirect effects on the outcome variable perceived community HIV/AIDS stigma, satisfaction with social

support did have a negative indirect effect mediated through the variables of perceived community attitudes towards gay men, self-acceptance, and personal HIV/AIDS stigma ($\beta = -.023$, $p = .084$). However, this indirect effect was not statistically significant.

Self-acceptance also did not have a direct effect on perceived community HIV/AIDS stigma. However, it did have direct effects on perceived community attitudes towards gay men and personal HIV/AIDS stigma. More specifically, participants who reported greater acceptance of themselves also perceived their community to have more negative attitudes towards gay men ($\beta = -.057$, $p = .095$), and reported having lower personal HIV/AIDS stigma ($\beta = -.143$, $p < .001$). The former was not quite statistically significant, but was also important to the overall fit of the model, so it was retained in the model. The latter was statistically significant and may be due to the fact that MSM who are more accepting of themselves, understand more about their sexuality and HIV, and therefore do not judge people with the virus as harshly. Lastly, self-acceptance had an indirect effect on perceived community HIV/AIDS stigma mediated through perceived community attitudes towards gay men as well as personal HIV/AIDS stigma ($\beta = -.032$, $p < .01$).

Ever being tested for HIV also did not have a direct effect on perceived community HIV/AIDS stigma. Though, it did have a direct effect on personal HIV/AIDS stigma. Participants who had ever been tested for HIV reported having lower levels of personal HIV/AIDS stigma, but this finding was not statistically significant ($\beta = -.012$, $p = .300$). Finally, ever being tested for HIV did have an indirect effect on perceived

community HIV/AIDS stigma, which was mediated through personal HIV/AIDS stigma

(β = -.063, p < .05).

Personal HIV/AIDS stigma had a positive effect on perceived community

HIV/AIDS stigma, but it was not statistically significant (β = .069, p = .293). Personal

HIV/AIDS stigma also had a direct effect on perceived community attitudes toward gay

men (β = .996, p < .001). More specifically, participants who possessed less HIV/AIDS

stigma also perceived their community to have less negative attitudes towards gay men.

This is interesting, because some Black MSM experience or witness homophobia in the

Black community, because of the important role the church plays in that racial

community, and how homosexuality is viewed by certain religious organizations.

Additionally, Black communities are some of the hardest hit by the HIV/AIDS epidemic

in the United States, so there is a lot of fear and misinformation around the illness.

Furthermore, when you look historically at the rise of HIV/AIDS in the Black

community, male homosexuality was blamed as the culprit for the proliferation of the

disease. However, Black MSM who do not possess as much stigma against HIV positive

people, may also be surrounded by individuals who are accepting of diverse sexual

identities, and thus they perceive less negative attitudes towards gay men within what

they define as their community. Lastly, personal HIV/AIDS stigma had an indirect effect

on perceived community HIV/AIDS stigma through the variable perceived community

attitudes towards gay men, but it was not statistically significant (β = .112, p = .125).

Perceived community attitudes towards gay men had a strong positive direct

effect on perceived community HIV/AIDS stigma (β = .113, p < .01). In other words,

participants who reported less negative attitudes towards gay men, expressed perceiving

less HIV/AIDS stigma in their communities. This may be the result of the changing

social landscape on LGBTQ equality in the United States, as well as the increased

awareness, access to testing, and educational outreach that has been developed around

HIV/AIDS in the Black community. Though HIV is not being made into the same

priority as it was in the late 1980's through the 1990's in the larger U.S. society, it is a

topic of more conversations in certain racial/ethnic groups. A great deal of

misinformation, shame, and blame continues to surround HIV, but these findings may

indicate some changes in the Black community, especially as people learn more about the

disease and have personal connections to people who are infected or affected.

HIV knowledge did not have a direct effect on perceived community HIV/AIDS

stigma, but it did have a negative direct effect on personal HIV/AIDS stigma (β = -.012, p

= .300), and a positive effect on both ever being tested for HIV (β = .019, p < .05) and

perceived community attitudes towards gay men (β = .093, p < .001). The effect of HIV

knowledge on personal HIV/AIDS stigma was not statistically significant, but its effects

on ever being tested for HIV and perceived community attitudes towards gay men were

statistically significant. Participants with higher levels of HIV knowledge were more

likely to have ever been tested for HIV. This is reasonable, because those who

understand the disease better are more likely to see the importance of testing and get

tested than those who do not understand it as well. Moreover, Black MSM who

possessed more HIV knowledge also perceived more negative community attitudes

towards gay men, which is logical in light of the history of HIV in the United States. It is

likely that Black MSM who know more about HIV understand the history behind it, and

therefore are well aware of how gay and bisexual men were blamed for the spread of HIV

in the United States in the early 1980's. This understanding as well as the bias and stigma

they come into contact with in their own lives may be shaping this particular relationship

for Black MSM. Finally, HIV knowledge had an indirect effect on perceived community

HIV/AIDS stigma that was mediated through ever being tested for HIV, personal

HIV/AIDS stigma, and perceived community attitudes toward gay men, but it was not

statistically significant ($\beta = .007$, $p = .386$).

The modified perceived community HIV/AIDS stigma path model I presented

above shows a complex interplay of various variables that affect how much HIV/AIDS

stigma Black MSM perceive in their communities. In the next section I will examine

these same path models looking at Hispanic MSM, and determine whether the

relationships between the predictor variables for perceived community HIV/AIDS stigma

are similar or different from those of Black MSM and the sample as a whole.

Path Analyses for Perceived Community HIV/AIDS Stigma: Hispanic MSM

Initial Path Model: Hispanic MSM

Continuing with my analysis of perceived community HIV/AIDS stigma with

each racial/ethnic group, I next examined the theorized path model for Hispanic MSM.

More specifically, I tested the initial path model tested for Black MSM with Hispanic

MSM. Figure 7 below shows all of the paths with their respective coefficients for the

initially proposed model.
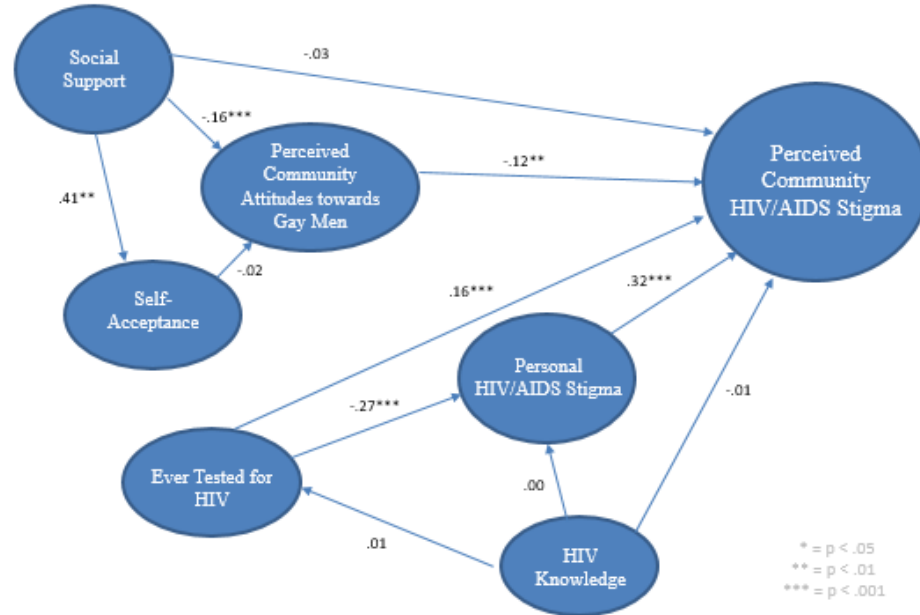
Figure 7: Initial Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for Hispanic MSM

As you can see, the pathway between each variable in the model in Figure 7 has a regression coefficient and statistical significance indicator associated with it. In order to ease the reading and interpretation of these coefficients, I created Table 16 below, which presents the regression coefficient, standard error, and *p*-value for each pathway. As stated previously, a *p*-value of .05 or less was deemed a statistically significant finding in this study.

Table 16: Regression Coefficients, Standard Errors, and *p*-Values for the Initial Perceived Community HIV/AIDS Stigma Path Model with Hispanic MSM

Variable Name		Variable Name	Estimate	SE	*p*-value
Social Support	→	Self-Acceptance	.406	.157	.010
HIV Knowledge	→	Ever Tested for HIV	.010	.020	.619
Social Support	→	Perceived Community Attitudes towards Gay Men	-.158	.047	***
Self-Acceptance	→	Perceived Community Attitudes towards Gay Men	-.024	.026	.358
HIV Knowledge	→	Personal HIV/AIDS Stigma	.001	.015	.954
Ever Tested for HIV	→	Personal HIV/AIDS Stigma	-.273	.066	***
Social Support	→	Perceived Community HIV/AIDS Stigma	-.029	.020	.149
Perceived Community Attitudes towards Gay Men	→	Perceived Community HIV/AIDS Stigma	-.115	.036	.002
HIV Knowledge	→	Perceived Community HIV/AIDS Stigma	-.007	.009	.465
Personal HIV/AIDS Stigma	→	Perceived Community HIV/AIDS Stigma	.315	.053	***
Ever Tested for HIV	→	Perceived Community HIV/AIDS Stigma	.163	.043	***

*** indicates p < .001

Results from all four measure of fit indices I utilized indicated that the theorized path model for Hispanic MSM was a poor fitting model. The chi-square for this model was 161.549 with degrees of freedom of 10 and a *p*-value of .000. This indicates a poor-fitting model, because the *p*-value is statistically significant, when it should be non-significant. However, the chi-square is very conservative, especially when there is a large sample. Therefore, I examined other measures of fit as well.

For this model, the CFI was .255 and the TLI was -.564. A CFI and a TLI of .95 are considered a good fit for confirmatory analyses, and a CFI and TLI of .90 are deemed an adequate fit for exploratory analyses. Since both the CFI and the TLI in this model

fell well below even .90, this indicated to me that the model was a very poor fit and needed to be re-specified.

Lastly, the RMSEA was calculated as the final goodness of fit measure examined for this model. A model is a good fit if the RMSEA is less than or equal to .05 and the PCLOSE is non-significant, or greater than .05. For this model, the RMSEA was .339 and the PCLOSE was .000. Therefore, this final goodness of fit model further confirmed a very poor fitting model.

Since all four goodness of fit measures designated the proposed model as a poor-fitting model, I determined that this model needed to be re-specified utilizing the modification indices and parameter changes provided by AMOS. Table 17 below provides the modification indices and parameter changes used to re-specify the Hispanic MSM model in my study.

Table 17: Modification Indices and Parameter Change Values for the Initial Perceived Community HIV/AIDS Stigma Path Model with Hispanic MSM

Variable Name		Variable Name	Modification Index	Parameter Change
Social Support	→	Ever Tested for HIV	22.354	.198
Self-Acceptance	→	Ever Tested for HIV	4.714	.049
Ever Tested for HIV	→	Self-Acceptance	1.351	.379
Social Support	→	Personal HIV/AIDS Stigma	.281	-.017
Self-Acceptance	→	Personal HIV/AIDS Stigma	1.967	024
Perceived Community Attitudes towards Gay Men	→	Personal HIV/AIDS Stigma	51.391	.408
HIV Knowledge	→	Perceived Community Attitudes towards Gay Men	.054	.005
Ever Tested for HIV	→	Perceived Community Attitudes towards Gay Men	18.754	-.415
Personal HIV/AIDS Stigma	→	Perceived Community Attitudes towards Gay Men	72.642	1.014
Self-Acceptance	→	Perceived Community HIV/AIDS Stigma	5.767	.025

Modified Path Model: Hispanic MSM

In order to determine where paths should be added to the Hispanic MSM path model of perceived community HIV/AIDS stigma, I utilized the modification indices (MIs) provided in AMOS and shown above to determine where paths should be added. I began introducing new paths that had MIs that were above "the usual threshold of 4.0" (Garson 2014: 35). Through an iterative process, I gradually added paths until there were no more MIs that were substantially large enough to warrant adding additional paths. Once the process of adding paths was complete, I went through my model and began trimming paths that were not statistically significant. I again utilized an iterative process to do my model-trimming, and thus came up with the final version of my modified model for the Hispanic MSM participants presented in Figure 8.
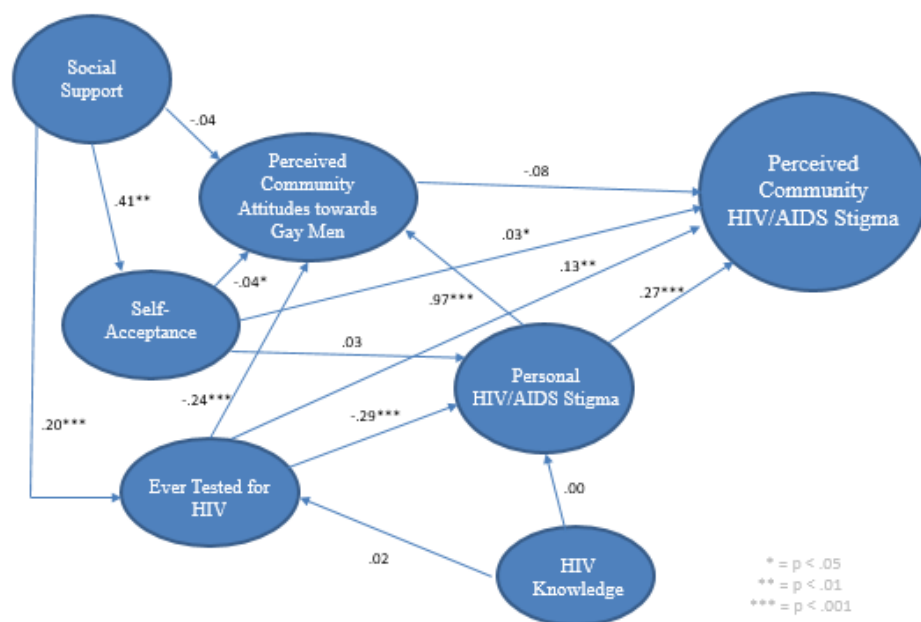
Figure 8: Modified Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for Hispanic MSM

I utilized the same four goodness of fit indices employed for my initial full sample model. The chi-square for the modified Hispanic MSM model was 7.134, with degrees of freedom of 7, and a *p*-value of .415. Since the *p*-value was greater than .05, and thus not statistically significant, this indicated to me that this was a good fitting model for the Hispanic MSM subsample. When I looked at the Hoelter's critical N, I saw that it was 261, which is well above the subsample count of 133 for Hispanic MSM. Therefore, the chi-square test was appropriate to use to determine goodness of fit of the Hispanic MSM sub-segment of my study sample. However, to ensure a proper fit of the model, I also examined the three other goodness of fit measures utilized for the initial model of Hispanic MSM.

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I continued my validation of the goodness of fit of this modified Hispanic MSM

model by looking at the CFI and the TLI. The CFI was .999 and the TLI was .998. Since

the CFI and the TLI were both above .95, I took this as further evidence that thus far my

model was a good fit. Finally, I inspected the RMSEA and PCLOSE for this model.

They were .012 and .624 respectively. Since the RMSEA was less than .05, and the

PCLOSE was greater than .05 and non-significant, I determined with certainty that my

modified Hispanic MSM model was a good fit.

All paths in the modified Hispanic MSM path model were statistically significant,

with the exception of the paths between HIV knowledge and ever been tested for HIV,

self-acceptance and perceived community attitudes towards gay men, HIV knowledge

and personal HIV/AIDS stigma, social support and perceived community HIV/AIDS

stigma, and HIV knowledge and perceived community HIV/AIDS stigma. See Table 18

below for the regression coefficients, standard errors, and *p*-values of all the direct effects

on the modified perceived community HIV/AIDS stigma path model for the Hispanic

MSM sub-sample. For all the indirect effects of this model, see Table 19.

Table 18: Regression Coefficients, Standard Errors, and *p*-Values for the Modified Perceived Community HIV/AIDS Stigma Path Model with Hispanic MSM

Variable Name		Variable Name	Estimate	SE	*p*-value
Social Support	→	Self-Acceptance	.406	.157	.010
HIV Knowledge	→	Ever Tested for HIV	.015	.018	.390
Social Support	→	Ever Tested for HIV	.199	.038	***
HIV Knowledge	→	Personal HIV/AIDS Stigma	.001	.015	.935
Self-Acceptance	→	Personal HIV/AIDS Stigma	.025	.017	.144
Ever Tested for HIV	→	Personal HIV/AIDS Stigma	-.291	.066	***
Social Support	→	Perceived Community Attitudes towards Gay Men	-.036	.032	.263
Self-Acceptance	→	Perceived Community Attitudes towards Gay Men	-.036	.016	.024
Personal HIV/AIDS Stigma	→	Perceived Community Attitudes towards Gay Men	.972	.080	***
Ever Tested for HIV	→	Perceived Community Attitudes towards Gay Men	-.244	.069	***
Perceived Community Attitudes towards Gay Men	→	Perceived Community HIV/AIDS Stigma	-.080	.058	.166
Personal HIV/AIDS Stigma	→	Perceived Community HIV/AIDS Stigma	.269	.077	***
Ever Tested for HIV	→	Perceived Community HIV/AIDS Stigma	.125	.046	.006
Self-Acceptance	→	Perceived Community HIV/AIDS Stigma	.026	.011	.017

*** indicates p < .001

Table 19: Indirect Effects and (*p*-Values) for the Modified Perceived Community HIV/AIDS Stigma Path Model for Hispanic MSM

	HIV Knowledge	Social Support	Ever Tested for HIV	Self-Acceptance	Personal HIV/AIDS Stigma	Perceived Community Attitudes towards Gay Men
Ever Tested for HIV	---	---	---	---	---	---
Self-Acceptance	---	---	---	---	---	---
Personal HIV/AIDS Stigma	-.004 (.361)	-.048 (.004)	---	---	---	---
Perceived Community Attitudes towards Gay Men	-.007 (.685)	-.109 (.002)	-.283 (.002)	.024 (.073)	---	---
Perceived Community HIV/AIDS Stigma	.002 (.688)	.034 (.005)	-.036 (.058)	.008 (.077)	-.078 (.276)	---

In the modified perceived community HIV/AIDS stigma path model for Hispanic MSM, satisfaction with social support did not have a direct effect on perceived community HIV/AIDS stigma. However, satisfaction with social support did have statistically significant direct effects on self-acceptance and ever being tested for HIV. More specifically, Hispanic MSM participants who were more satisfied with their social support, reported having greater acceptance of themselves ($\beta = .406$, $p < .01$) and were more likely to have ever been tested for HIV ($\beta = .199$, $p < .001$). The path between satisfaction with social support and perceived community attitudes towards gay men was not statistically significant in this model, but was important to the overall fit of the model,

so it was kept (β = -.036, p = .263). Finally, as far as indirect effects on the outcome variable perceived community HIV/AIDS stigma, satisfaction with social support did have an indirect effect mediated through the variables of perceived community attitudes towards gay men, self-acceptance, and ever being tested for HIV (β = .034, p < .01). This indirect effect was statistically significant.

Self-acceptance did have a direct effect on perceived community HIV/AIDS stigma. In fact, the more self-acceptance Hispanic MSM reported, the more HIV/AIDS stigma they perceived in their community (β = .026, p < .05). This may be, because as Hispanic MSM move through the process of figuring out who they are and accepting themselves, they are more likely to develop connections with other MSM. Through these connections, they may encounter MSM who are HIV positive, and as a result develop a keener awareness of the amount of stigma experienced by HIV positive people.

Self-acceptance also had a direct effect on perceived community attitudes towards gay men. More specifically, participants who reported greater acceptance of themselves also perceived their community to have less negative attitudes towards gay men (β = -.036, p < .05). This effect was statistically significant and may illustrate that for Hispanic MSM self-acceptance plays a large role in shaping how they perceive others in their community view men like them. This outcome may also be due to more self-accepting Hispanic MSM immersing themselves in a community that includes more gay and bisexual men or at least more people who have positive attitudes towards gay and bisexual men.

Moreover, self-acceptance had a direct effect on personal HIV/AIDS stigma ($\beta =$ .025, $p = .144$). This effect was not statistically significant. However, since this path was important to the overall fit of the larger model, it was kept.

Finally, self-acceptance had an indirect effect on perceived community HIV/AIDS stigma. This effect was mediated through perceived community attitudes towards gay men as well as through personal HIV/AIDS stigma. This indirect effect was not statistically significant though ($\beta = .008$, $p = .077$).

Ever being tested for HIV also had a direct effect on perceived community HIV/AIDS stigma. More specifically, Hispanic MSM who had ever been tested for HIV perceived greater HIV/AIDS stigma in their community than Hispanic MSM who had never been tested before (($\beta = .125$, $p < .01$). This is reasonable, because MSM in this group who had been tested, likely have a better understanding of HIV and are likely more aware of the social stigma faced by HIV positive people.

Ever being tested for HIV also had direct effects on personal HIV/AIDS stigma as well as perceived community attitudes towards gay men. Hispanic MSM who had been tested for HIV perceived their community to have less negative attitudes towards gay men ($\beta = -.244$, $p < .001$), and reported less personal HIV/AIDS stigma ($\beta = -.291$, $p < .001$). The former outcome may be due to community association differences between Hispanic MSM who have been tested for HIV and Hispanic MSM who have never been tested for HIV. In other words, Hispanic MSM who have been tested for HIV before, may be a part of communities that are more accepting of homosexuality than Hispanic MSM who have never been tested for HIV before, thus explaining the perception of less

negative attitudes towards gay men. The latter outcome is reasonable, because

participants who get tested for HIV, likely gain more information about the disease, may

meet people who are HIV positive, which humanizes the disease, and therefore this

together leads them to treat people who are HIV positive in a less stigmatizing manner.

Lastly, ever being tested for HIV had an indirect effect on perceived community

HIV/AIDS stigma (β = -.036, p = .058). This effect was mediated through the variables

of perceived community attitudes towards gay men and personal HIV/AIDS stigma.

However, this indirect effect was not statistically significant.

Personal HIV/AIDS stigma had a positive effect on perceived community

HIV/AIDS stigma, and it was statistically significant (β = .269, p <.001). More

specifically, the less HIV/AIDS stigma Hispanic MSM personally reported, the less

HIV/AIDS stigma they perceived their community to possess. This may be because

Hispanic MSM who have lower levels of HIV/AIDS stigma may understand the disease

better and may be associated with people who either have the disease or share their

perspectives on the disease, so they therefore perceive less HIV/AIDS stigma in their

community.   Personal HIV/AIDS stigma also had a direct effect on perceived

community attitudes toward gay men (β = .972, p < .001). In other words, Hispanic

MSM who possessed less HIV/AIDS stigma also perceived their community to have less

negative attitudes towards gay men. This is interesting, because some Hispanic MSM

may experience or witness homophobia in some of their Hispanic cultural groups,

because of the important roles religion and traditional gender roles (i.e. "machismo) play

in some of those ethnic communities. However, Hispanic MSM who do not possess as

much stigma against HIV positive people, may also be surrounded by individuals who are accepting of diverse sexual identities, and thus they perceive less negative attitudes towards gay men within what they define as their community. Lastly, personal HIV/AIDS stigma had an indirect effect on perceived community HIV/AIDS stigma through the variable perceived community attitudes towards gay men, but it was not statistically significant ($\beta = -.078$, $p = .276$).

Perceived community attitudes towards gay men had a direct effect on perceived community HIV/AIDS stigma, but it was not statistically significant ($\beta = -.080$, $p = .166$). However, I kept this path in the model, because it was important to the overall fit. Perceived community attitudes towards gay men did not have any indirect effects on perceived community HIV/AIDS stigma.

HIV knowledge did not have a direct effect on perceived community HIV/AIDS stigma, but it did have a positive direct effect on personal HIV/AIDS stigma ($\beta = .001$, $p = .935$), and a positive effect on ever being tested for HIV ($\beta = .015$, $p = .390$). Neither of these effects was statistically significant, but they were kept, because they were found to be important to the overall fit of the model. Finally, HIV knowledge had an indirect effect on perceived community HIV/AIDS stigma that was mediated through ever being tested for HIV, personal HIV/AIDS stigma, and perceived community attitudes toward gay men, but it was not statistically significant ($\beta = .002$, $p = .688$).

The modified perceived community HIV/AIDS stigma path model I presented above shows a complex interplay of various variables that effect how much HIV/AIDS stigma Hispanic MSM perceive in their communities. In the final section I will examine

these same path models looking at White MSM, and determine whether the relationships

between the predictor variables for perceived community HIV/AIDS stigma are similar

or different from those of Black MSM, Hispanic MSM, and the sample as a whole.

Path Analyses for Perceived Community HIV/AIDS Stigma: White MSM
Initial Path Model: White MSM

I concluded my analysis of perceived community HIV/AIDS stigma with each

racial/ethnic group, by examining the theorized path model for White MSM. More

specifically, I tested the initial path model tested for both Black and Hispanic MSM, and

tested it with the White MSM in my sample. Figure 9 below shows all of the paths with

their respective coefficients for the initially proposed model.
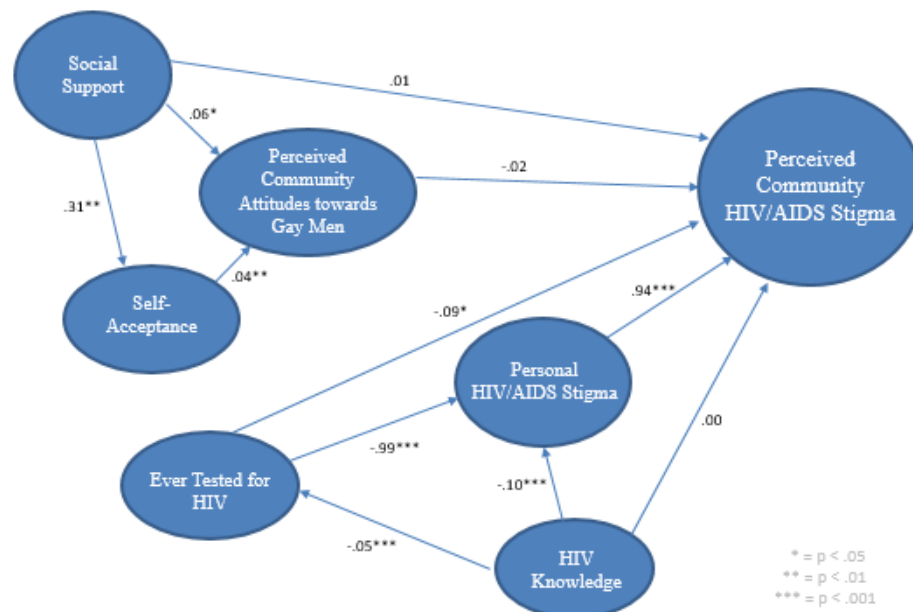
Figure 9: Initial Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for White MSM

As you can see, the pathway between each variable in the model in Figure 9 has a regression coefficient and statistical significance indicator associated with it. In order to ease the reading and interpretation of these coefficients, I created Table 20 below, which presents the regression coefficient, standard error, and *p*-value for each pathway. As stated previously, a *p*-value of .05 or less was deemed a statistically significant finding in this study.

Table 20: Regression Coefficients, Standard Errors, and *p*-Values for the Initial Perceived Community HIV/AIDS Stigma Path Model with White MSM

Variable Name		Variable Name	Estimate	SE	*p*-value
Social Support	→	Self-Acceptance	.310	.101	.002
HIV Knowledge	→	Ever Tested for HIV	-.047	.011	***
Social Support	→	Perceived Community Attitudes towards Gay Men	.055	.022	.012
Self-Acceptance	→	Perceived Community Attitudes towards Gay Men	.040	.015	.007
HIV Knowledge	→	Personal HIV/AIDS Stigma	-.103	.012	***
Ever Tested for HIV	→	Personal HIV/AIDS Stigma	-.993	.067	***
Social Support	→	Perceived Community HIV/AIDS Stigma	.009	.009	.335
Perceived Community Attitudes towards Gay Men	→	Perceived Community HIV/AIDS Stigma	-.016	.028	.553
HIV Knowledge	→	Perceived Community HIV/AIDS Stigma	.002	.005	.674
Personal HIV/AIDS Stigma	→	Perceived Community HIV/AIDS Stigma	.939	.026	***
Ever Tested for HIV	→	Perceived Community HIV/AIDS Stigma	-.092	.037	.012

*** indicates p < .001

Results from all four measure of fit indices I utilized indicated that the theorized path model for White MSM was a poor fitting model. The chi-square for this model was 314.176 with degrees of freedom of 10 and a *p*-value of .000. This indicates a poor-fitting model, because the *p*-value is statistically significant, when it should be non-significant. However, the chi-square is very conservative, especially when there is a large sample. Therefore, I examined other measures of fit as well.

For this model, the CFI was .715 and the TLI was .402. A CFI and a TLI of .95 are considered a good fit for confirmatory analyses, and a CFI and TLI of .90 are deemed an adequate fit for exploratory analyses. Since both the CFI and the TLI in this model

fell well below even .90, this indicated to me that the model was a very poor fit and needed to be re-specified.

Lastly, the RMSEA was calculated as the final goodness of fit measure examined for this model. A model is a good fit if the RMSEA is less than or equal to .05 and the PCLOSE is non-significant, or greater than .05. For this model, the RMSEA was .380 and the PCLOSE was .000. Therefore, this final goodness of fit measure further confirmed a very poor fitting model.

Since all four goodness of fit measures designated the proposed model as a poor-fitting model, I determined that this model needed to be re-specified utilizing the modification indices and parameter changes provided by AMOS. Table 21 below provides the modification indices and parameter changes used to re-specify the White MSM model in my study.

Table 21: Modification Indices and Parameter Change Values for the Initial Perceived Community
HIV/AIDS Stigma Path Model with White MSM

Variable Name		Variable Name	Modification Index	Parameter Change
Social Support	→	Ever Tested for HIV	.387	-.015
Self-Acceptance	→	Ever Tested for HIV	26.685	.081
HIV Knowledge	→	Self-Acceptance	14.651	-.188
Ever Tested for HIV	→	Self-Acceptance	38.977	1.776
Social Support	→	Personal HIV/AIDS Stigma	1.115	-.024
Self-Acceptance	→	Personal HIV/AIDS Stigma	45.850	-.104
Perceived Community Attitudes towards Gay Men	→	Personal HIV/AIDS Stigma	4.415	.149
HIV Knowledge	→	Perceived Community Attitudes towards Gay Men	82.175	-.095
Ever Tested for HIV	→	Perceived Community Attitudes towards Gay Men	5.041	-.136
Personal HIV/AIDS Stigma	→	Perceived Community Attitudes towards Gay Men	64.003	.351
Self-Acceptance	→	Perceived Community HIV/AIDS Stigma	.148	-.002

Modified Path Model: White MSM

In order to determine where paths should be added to the White MSM path model

of perceived community HIV/AIDS stigma, I utilized the modification indices (MIs)

provided in AMOS and shown above to determine where arrows should be added. I

began introducing new paths that had MIs that were above "the usual threshold of 4.0"

(Garson 2014: 35). Through an iterative process, I gradually added paths until there were

no more MIs that were substantially large enough to warrant adding additional paths.

Once the process of adding paths was complete, I went through my model and began

trimming paths that were not statistically significant. I again utilized an iterative process

to do my model-trimming, and thus came up with the final version of my modified model

for the White MSM participants presented in Figure 10.
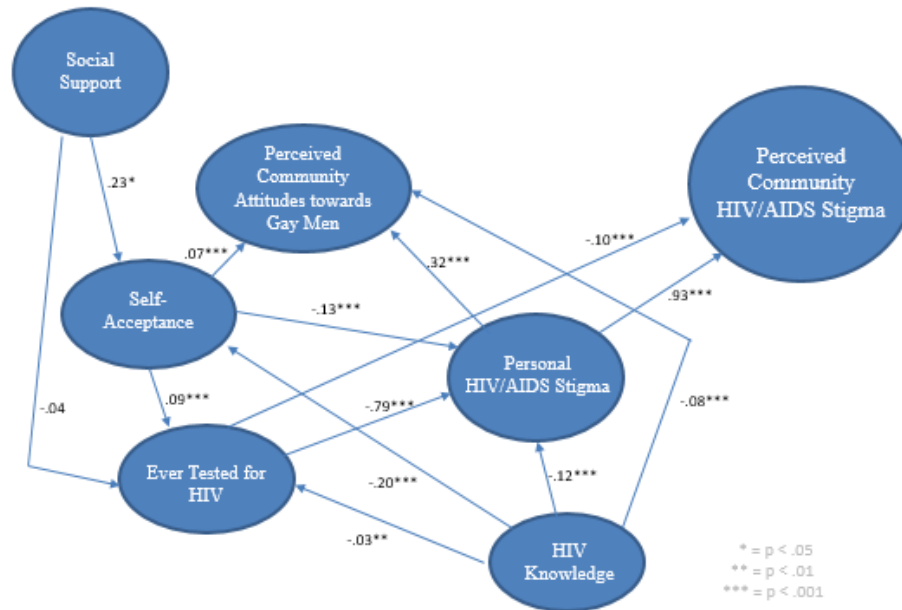
Figure 10: Modified Model of Self-Report Social Attitudes, HIV Knowledge, and HIV Testing Status Influencing Perceived Community HIV/AIDS Stigma for White MSM

I utilized the same four goodness of fit indices employed for my initial full sample

model. The chi-square for the modified full sample model was 12.436, with degrees of

freedom of 8, and a *p*-value of .133. Since the *p*-value was greater than .05, and thus not

statistically significant, this indicated to me that this was a good fitting model for the

White MSM subsample. When I looked at the Hoelter's critical N, I saw that it was 264,

which was well above the subsample count of 212 for White MSM. Therefore, the chi-square test was appropriate to use to determine goodness of fit of the White MSM sub-segment of my study sample. However, to ensure a proper fit of the model, I also examined the three other goodness of fit measures utilized for the initial model of White MSM.

I continued my validation of the goodness of fit of this modified White MSM model by looking at the CFI and the TLI. The CFI was .996 and the TLI was .989. Since the CFI and the TLI were both above .95, I took this as further evidence that thus far my model was a good fit. Finally, I inspected the RMSEA and PCLOSE for this model. They were .051 and .427 respectively. Since the RMSEA was less than .10, and the PCLOSE was greater than .05 and non-significant, this model was an adequate fit for this particular goodness of fit measure. Taking the chi-square, CFI, TLI, and RMSEA together, I determined that overall my modified White MSM model was a good fit.

All paths in the modified White MSM path model were statistically significant, with the exception of the path between social support and ever being tested for HIV. See Table 22 below for the regression coefficients, standard errors, and *p*-values of all the direct effects on the modified perceived community HIV/AIDS stigma path model for the White MSM sub-sample. For all the indirect effects of this model, see Table 23.

Table 22: Regression Coefficients, Standard Errors, and *p*-Values for the Modified Perceived Community HIV/AIDS Stigma Path Model with White MSM

Variable Name		Variable Name	Estimate	SE	*p*-value
Social Support	→	Self-Acceptance	.232	.097	.017
HIV Knowledge	→	Self-Acceptance	-.196	.047	***
HIV Knowledge	→	Ever Tested for HIV	-.030	.011	.007
Self-Acceptance	→	Ever Tested for HIV	.093	.015	***
Social Support	→	Ever Tested for HIV	-.037	.022	.094
HIV Knowledge	→	Personal HIV/AIDS Stigma	-.122	.010	***
Self-Acceptance	→	Personal HIV/AIDS Stigma	-.132	.015	***
Ever Tested for HIV	→	Personal HIV/AIDS Stigma	-.786	.062	***
Self-Acceptance	→	Perceived Community Attitudes towards Gay Men	.068	.012	***
Personal HIV/AIDS Stigma	→	Perceived Community HIV/AIDS Stigma	.927	.022	***
Personal HIV/AIDS Stigma	→	Perceived Community Attitudes towards Gay Men	.323	.037	***
Ever Tested for HIV	→	Perceived Community HIV/AIDS Stigma	-.104	.031	***
HIV Knowledge	→	Perceived Community Attitudes towards Gay Men	-.076	.008	***

*** indicates p < .001

Table 23: Indirect Effects and (*p*-Values) for the Modified Perceived Community HIV/AIDS Stigma Path Model for White MSM

	HIV Knowledge	Social Support	Self-Acceptance	Ever Tested for HIV	Personal HIV/AIDS Stigma
Self-Acceptance	---	---	---	---	---
Ever Tested for HIV	-.018 (.002)	.022 (.006)	---	---	---
Personal HIV/AIDS Stigma	.064 (.002)	-.019 (.419)	-.073 (.002)	---	---
Perceived Community HIV/AIDS Stigma	-.049 (.013)	-.016 (.508)	-.200 (.002)	-.729 (.002)	---
Perceived Community Attitudes towards Gay Men	-.032 (.002)	.010 (.149)	-.066 (.002)	-.254 (.002)	---

In the modified perceived community HIV/AIDS stigma path model for White

MSM, satisfaction with social support did not have a direct effect on perceived

community HIV/AIDS stigma. However, satisfaction with social support did have a

statistically significant direct effect on self-acceptance ($\beta = .232$, $p < .05$). In other

words, White MSM who were more satisfied with their social support, reported having

greater self-acceptance than White MSM who were less satisfied with their social

support. This result is very logical, because people who feel they have a good social

support system, are more likely to accept themselves for who they are. Furthermore,

satisfaction with social support also had a negative direct effect with ever being tested for

HIV, but this result was not statistically significant ($\beta = -.037$, $p = .094$). Though this

path was not statistically significant, it was important to the overall fit of the model, so it

was kept. Finally, satisfaction with social support did have a positive indirect effect on perceived community HIV/AIDS stigma mediated through the variables of self-acceptance, ever being tested for HIV, and personal HIV/AIDS stigma ($\beta = .010$, $p = .149$). However, this indirect effect was not statistically significant.

Self-acceptance also did not have a direct effect on perceived community HIV/AIDS stigma. However, it did have direct effects on perceived community attitudes towards gay men, personal HIV/AIDS stigma, and ever being tested for HIV. More specifically, participants who reported greater acceptance of themselves also perceived their community to have more negative attitudes towards gay men ($\beta = .068$, $p < .001$), reported having lower personal HIV/AIDS stigma ($\beta = -.132$, $p < .001$), and were more likely to have ever been tested for HIV ($\beta = .093$, $p < .001$). All of these results were statistically significant.

The significant path between self-acceptance and perceived community attitudes towards gay men is interesting, and may illustrate that as White MSM come to accept themselves and their sexual identities, they are more likely to witness and/or be the recipients of homophobic attitudes and actions, thus leading them to perceive their community to possess more negative attitudes towards gay men.   Additionally, the statistically significant connection between self-acceptance and personal HIV/AIDS stigma may be due to the fact that MSM who are more accepting of themselves, understand more about their sexuality and HIV, and therefore do not judge people with the virus as harshly. Moreover, the significant result between self-acceptance and ever being tested for HIV may be, because as White MSM develop acceptance for themselves,

they may become more connected to the LGBTQ community, which historically has done a tremendous amount of outreach around HIV prevention and intervention. This exposure in-turn may encourage White MSM who are integrated into the LGBTQ community to get tested as part of their regular preventative health care. Lastly, self-acceptance had an indirect effect on perceived community HIV/AIDS stigma mediated through ever being tested for HIV as well as personal HIV/AIDS stigma (β = -.066, p < .01). This indirect effect was also statistically significant.

Ever being tested for HIV also did have a statistically significant negative direct effect on perceived community HIV/AIDS stigma for White MSM (β = -.104, p < .001). In other words, White MSM who had been tested for HIV before perceived less HIV/AIDS stigma in their community, than White MSM who had never been tested before. This outcome may have occurred, because White MSM who have been tested for HIV may be members of a community that understands more about HIV, knows individuals who are HIV positive, and as a result is more accepting of people with a positive sero-status. Whereas, White MSM who have never been tested, may be surrounded by others in their community who also have not been tested or lack and understanding of HIV, and thus are more likely to hold stigmatizing attitudes towards HIV positive people.

Ever being tested for HIV also had a statistically significant negative effect on personal HIV/AIDS stigma for White MSM (β = -.786, p < .001). More specifically, White MSM who had ever been tested for HIV possessed less stigma towards people living with HIV/AIDS than White MSM that had never been tested for HIV. This is

logical, because White MSM who have been tested for HIV likely have a more accurate understanding of HIV, due to receiving information during testing. They also may have met or know individuals who are HIV positive, which humanizes the disease, and may contribute to less stigmatizing attitudes.

Lastly, ever being tested for HIV did have an indirect effect on perceived community HIV/AIDS stigma among White MSM (β = -.254, p < .01). This indirect effect was mediated through the predictor variable personal HIV/AIDS stigma, and was statistically significant.

Personal HIV/AIDS stigma had a positive direct effect on perceived community HIV/AIDS stigma, and was statistically significant (β = .927, p < .001). In other words, White MSM who expressed less personal HIV/AIDS stigma, also perceived less HIV/AIDS stigma in their community, and vice versa. This result may show that White MSM tend to be members of communities that share similar beliefs and attitudes to themselves regarding people living with HIV/AIDS, or at the very least perceive their communities share their same beliefs and attitudes towards people living with HIV/AIDS as themselves.

Personal HIV/AIDS stigma also had a direct effect on perceived community attitudes toward gay men (β = .323, p < .001). More specifically, participants who possessed less HIV/AIDS stigma also perceived their community to have less negative attitudes towards gay men. This is interesting, because when you look historically at the rise of HIV/AIDS in the United States, male homosexuality was blamed as the culprit for the proliferation of the disease. However, White MSM who do not possess as much

stigma against HIV positive people, may also be surrounded by individuals who are accepting of diverse sexual identities, and thus they perceive less negative attitudes towards gay men within what they define as their community. Finally, personal HIV/AIDS stigma did not have an indirect effect on perceived community HIV/AIDS stigma.

Perceived community attitudes towards gay men did not have a direct effect on perceived community HIV/AIDS stigma for White MSM. Additionally, there were no indirect effects of perceived community attitudes towards gay men on perceived community HIV/AIDS stigma for White MSM either.

HIV knowledge did not have a direct effect on perceived community HIV/AIDS stigma. However, it did have negative direct effects on personal HIV/AIDS stigma ($\beta = -.122$, $p < .001$), perceived community attitudes towards gay men ($\beta = -.076$, $p < .001$), self-acceptance ($\beta = -.196$, $p < .001$), and ever being tested for HIV ($\beta = -.030$, $p < .01$) for White MSM. All of these direct effects were statistically significant.

Participants who possessed greater HIV knowledge, has lower levels of personal HIV/AIDS stigma, perceived their community had less negative attitudes towards gay men, reported lower levels of self-acceptance, and were less likely to ever have been tested for HIV. It is very logical that more HIV knowledge would lead to less HIV/AIDS personal stigma, because a great deal of HIV/AIDS stigma is perpetuated by misinformation and fear. White MSM who have a more accurate understanding of HIV would have less to fear, and are likely to be more accepting of people living with HIV/AIDS. The result that White MSM with more HIV knowledge perceived their

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community had less negative attitudes towards gay men, may be a consequence of more

informed White MSM living in communities with people who are more accepting of

various sexual identities and may be more educated. Furthermore, the result that White

MSM with more HIV knowledge reported lower levels of self-acceptance, was

unexpected, but may be a consequence of an internal conflict these men face between

accepting themselves and their identities, knowing very well that they are more

vulnerable to and disproportionately affected by a serious disease like HIV. Lastly, the

outcome of White MSM with more HIV knowledge being less likely to have ever been

tested was also unexpected, but may illustrate that knowledge of HIV alone is not enough

to encourage proper preventative care. There is also the possibility that White MSM who

have more knowledge about HIV, are more concerned about or afraid of getting tested

due to stigma or other social forces, even though they themselves do not express high

levels of stigma towards people living with HIV/AIDS.

HIV knowledge did have a negative indirect effect on perceived community

HIV/AIDS stigma (β = -.049, p < .05). This effect was mediated through the predictor

variables of ever being tested for HIV, self-acceptance, and personal HIV/AIDS stigma.

The result of this effect was statistically significant.

In this chapter I presented the perceived community HIV/AIDS stigma path

models for my entire sample as well as for each racial/ethnic group. These results

showed that nuanced relationships exist between the predictor variables and the outcome

variable of perceived community HIV/AIDS stigma when race/ethnicity is explored

separately. In the next chapter I explore the meaning of these findings and connect them

to the existing literature presented in Chapter 2. I also present arguments for novel

findings that may not be present in previous literature. Finally, I will conclude the

chapter by outlining some of the limitations of this study.

CHAPTER SIX: DISCUSSION

The purpose of this study was to explore various factors that affect perceived community HIV/AIDS stigma among MSM in the Washington, DC Metropolitan area. I aimed to determine if the factors that influence perceived community HIV/AIDS stigma amongst all MSM, were the same across race/ethnicity, or if meaningful differences existed between these groups. Through the use of path analysis, I explored the relationships between my six predictor variables and my outcome variable for my entire research sample, as well as for Black, White, and Hispanic MSM separately. In this chapter, I evaluate outcomes for the full sample in my study. Additionally, I draw comparisons between the final path models for White, Black, and Hispanic MSM, and analyze how each align and depart from the existing literature. Following this, I revisit intersectionality theory, and show its relevance to MSM of different racial/ethnic groups. Finally, I conclude the chapter with a discussion of the limitations of my research.

Outcomes for the Full Sample

The final outcomes for the full sample perceived community HIV/AIDS stigma path model proved to include some interesting findings. Many of the theorized paths were found to be statistically significant, a few of the theorized paths required removal from the model, and finally a handful of new and unexpected paths emerged. As a result,

some of the previous literature was supported by my data, some was disputed, and finally, underexplored areas provided some illuminating insights.

To begin, the theorized pathways for satisfaction with social support were partially supported by my data. More specifically, satisfaction with social support did not directly affect participants reports of perceived community HIV/AIDS stigma, however, it did have a statistically significant indirect effect. Additionally, satisfaction with social support also had an unexpected significant effect on ever been tested for HIV. Taken together, satisfaction with social support influencing perceived community HIV/AIDS stigma through perceived community attitudes towards gay men, self-acceptance, and ever been tested for HIV is logical. Previous research has shown that MSM who are more satisfied with the social support they receive from friends and family exhibit higher levels of self-acceptance (Vincke and Bolton 1994). Furthermore, MSM who are more satisfied with the social support they receive are going to perceive their community has less negative attitudes towards gay men, because the individuals they interact with on a regular basis are supportive. Finally, satisfaction with social support's influence on ever been tested for HIV is logical, though not theorized, because the social support MSM receive from friends and family based on their identities, may also transfer over to encouraging preventative care. This transfer potentially occurs, because someone who feels loved and cared for has a vested interest in taking care of himself, because he values those relationships, and needs to be well in order to effectively maintain them. Plus, MSM may be more willing and empowered to seek out care if they are socially

supported, because they do not fear ostracism due to their sexual identity and know they will have a support system should they discover they are HIV positive.

The pathway for the second concept, self-acceptance was partially supported with the addition of an unexpected pathway. Self-acceptance did only indirectly affect perceived community HIV/AIDS stigma, but this indirect effect was mediated through both perceived community attitudes towards gay men and personal HIV/AIDS stigma, and not just the former. However, contrary to the theoretical mechanism proposed in Chapter 2 that MSM with higher levels of self-acceptance would perceive their community had less negative attitudes towards gay men, and vice versa, the exact opposite was found in the data. MSM who reported higher levels of self-acceptance also stated that they perceived their community had more negative attitudes towards gay men. This may be because as MSM in the United States work through the process of accepting themselves and their sexual identity, they encounter or witness increased stigma against homosexual people in their community, and thus their perceptions of how accepting their community is changes. However, this relationship was someone weak though significant, so further research may be needed to fully understand it. The finding that MSM who accepted themselves more also reported lower levels of personal HIV/AIDS stigma is intriguing, and may be explained by several factors. MSM who are more accepting of themselves, may understand more about their sexuality and HIV, as well as understand the history of HIV and gay men in the United States, and therefore do not hold prejudicial attitudes towards people with the virus.

The theorized pathway for perceived community attitudes towards gay men was supported by my findings. Perceived community attitudes towards gay men directly affected perceived community HIV/AIDS stigma. Earlier research has shown that attitudes towards male homosexuality in the United States have historically and continue to be significantly tied to the HIV/AIDS stigma perceived in communities (CDC 1982; Reidpath and Chan 2005; Scarce 2014). Therefore, this outcome is quite logical, and not unexpected in the least. This connection is also not surprising since MSM are still the group most disproportionately affected by HIV in the United States today (CDC 2015b; CDC 2015c).

The concept of HIV knowledge had only an indirect effect on perceived community HIV/AIDS stigma in the final path model, and therefore only partially supported the pathways originally theorized in Chapter 2. As expected from earlier research, a lack of knowledge about HIV led to higher levels of personal HIV/AIDS stigma amongst respondents (Herek et al. 2002; Ogden and Nyblade 2005; Visser et al. 2008). However, lower levels of HIV knowledge did not translate to significant relationships with ever being tested for HIV or perceived community HIV/AIDS stigma. This may be a consequence of knowledge only translating to personal attitudes (i.e. personal HIV/AIDS stigma) and not actions (i.e. ever being tested for HIV) or perceptions of others' attitudes (perceived community HIV/AIDS stigma).

Personal HIV/AIDS stigma did directly affect perceived community HIV/AIDS stigma, but not in the manner originally theorized. Previous research has shown that individuals tend to rate their personal stigma lower than that which they perceive in the

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community (Visser et al. 2006). Based on this notion I theorized that respondents with low personal HIV/AIDS stigma would report higher levels of perceived community HIV/AIDS stigma than those with high levels of personal HIV/AIDS stigma. However, MSM in my study who reported low levels of personal HIV/AIDS stigma also perceived their community to have low levels of HIV/AIDS stigma. This finding may have to do with respondents belonging to communities that are like-minded to themselves. In other words, individuals with low levels of HIV/AIDS stigma, likely socialize with others who possess low levels of HIV/AIDS stigma, thus leading community perceptions of HIV/AIDS stigma to parallel personal HIV/AIDS stigma levels.

An additional unexpected pathway also emerged between personal HIV/AIDS stigma and perceived community attitudes towards gay men. Respondents who possessed low levels of HIV/AIDS stigma also reported perceiving their community had less negative attitudes towards gay men. This may be due to individual and community understandings of HIV and how it is contracted. MSM with low levels of HIV/AIDS stigma are likely part of communities that are accepting of homosexuality, educated about HIV, and provide education on STIs as well as resources for care and support. As a result, stigma towards sexual identity as well as HIV/AIDS are likely to be lower. Whereas, MSM with high HIV/AIDS stigma, who perceive their communities to have more negative attitudes towards gay men, may be a part of a community that possesses misinformation about HIV. This claim is supported by previous research by the Gay Men's Health Crisis (2009:2) showing "the disproportionate impact of HIV on gay and bisexual men has contributed to anti-gay bias" in the United States.

Resulting pathways for ever been tested for HIV only partially supported the theorized model. There were only indirect effects between ever been tested for HIV and perceived community HIV/AIDS stigma. Earlier research was supported by this study showing that individuals who had been tested for HIV in the past had shown significantly lower levels of stigma than those who had never been tested for HIV (Tenkorang and Owusu 2013). Furthermore, through the process of being tested for HIV, MSM likely gain more information about the disease and meet people who are HIV positive, which humanizes the disease. As a consequence, they treat people who are HIV positive in a less stigmatizing manner.

However, an unexpected pathway also emerged between ever been tested for HIV and self-acceptance. MSM who had ever been tested for HIV before reported higher levels of self-acceptance than MSM who had never been tested for HIV. This outcome may be due to the possibility that men who get tested for HIV may learn more about their sexual identity through the process of testing, and thus come to accept themselves more. MSM who also get tested may meet other MSM, either at the clinic or at community health events they learn about from the clinic, thus building new community relationships and aiding in the journey towards self-acceptance.

Finally, in the full sample model, it was theorized that race/ethnicity should be accounted for on the key variables of ever been tested for HIV, personal HIV/AIDS stigma, and perceived community HIV/AIDS stigma. This was done, because these were the variables where I thought meaningful variation may exist between racial/ethnic groups. This conjecture was supported in the final path model. More specifically, MSM

participants who identified as Black or Hispanic expressed higher levels of personal

HIV/AIDS stigma as well as higher levels of perceived community HIV/AIDS stigma

compared to White MSM. These findings are reasonable, since previous research has

shown that traditional gender roles, homophobia, cultural norms like "machismo" for

some Hispanics and the conservative moralism of religious institutions for some Blacks

perpetuate HIV/AIDS stigma in these communities, thus exacerbating the vulnerability of

Hispanic and Black MSM to contracting HIV (CDC 2015d; Henkel et al. 2008;

Mackenzie 2013; Quinn and Dickson-Gomez 2016).

Interestingly though, when it came to ever being tested for HIV, Black MSM

were more likely to have ever been tested for HIV compared to White MSM, whereas

Hispanic MSM were less likely to have ever been tested for HIV compared to White

MSM. This divergence may be due to the fact that very recent HIV public health

messaging campaigns directed towards Black communities have framed HIV testing as

something everyone in the community should do. Whereas, for Hispanics there is still a

"stigma [that results] from any association with AIDS" (Henkel et al. 2008:1591).

Furthermore, some Hispanic MSM face further barriers such as inadequate or lack of

health insurance, limited accessibility to healthcare, language barriers, and fear of

disclosing immigration status for those who are undocumented (CDC 2015d). This is not

to say Black and White MSM are immune from these barriers, especially if they live in

poverty or have a vulnerable economic situation, but they may manifest themselves

somewhat differently.

Finally, it is important to point out, that compared to White MSM, a pathway emerged for Hispanic MSM to self-acceptance as well. This was not the case for Black MSM compared to White MSM. There may be a cultural phenomenon at play here explaining this unexpected finding. More specifically, self-identity and self-acceptance may be fostered in a manner that is unique to certain Hispanic cultures, thus promoting a sense and acceptance of self that is stronger among Hispanic MSM compared to White MSM. This phenomenon requires further exploration.

Similarities and Differences in Outcomes Across Racial/Ethnic Groups

In order to see if the theorized models held true for MSM in different racial/ethnic groups, separate path models were conducted for each racial/ethnic group. There was some consistency across race/ethnicity, but there were also some substantial differences. These differences give credence to the importance of applying intersectionality theory to this research. I will first outline the similarities across racial/ethnic groups, then I will discuss where the groups diverged and explain potentially why. Finally, I will conclude the section by showing the application of intersectionality theory to my findings.

Similarity of Outcomes by Race/Ethnicity

There were a number of pathways that were common across the Black MSM, Hispanic MSM, and White MSM models. In some cases, a given pathway had the same directionality for all three racial/ethnic groups. However, in other cases, the directionality of the relationship varied from one racial/ethnic group to another.

The first common pathway from satisfaction with social support to self-acceptance had the same directionality for Black, White, and Hispanic MSM. More

specifically, MSM in all three racial or ethnic groups who were more satisfied with the social support they receive from friends and family also exhibited higher levels of self-acceptance. This relationship is reasonable because individuals who are happy with the support they receive, are more likely to feel better about who they are. This outcome was statistically significant for Hispanic and White MSM, but not for Black MSM. This may simply be the consequence of a smaller sample size, or maybe some other underlying process was not explored in this research. Descriptive statistics in Chapter 4 showed Black MSM had the highest average satisfaction with social support rating though, so this relationship warrants further investigation.

The second common pathway between the three racial/ethnic groups was between self-acceptance and perceived community attitudes towards gay men. Interestingly the directionality of this relationship varied by race/ethnicity. For White MSM, the more they accepted themselves the more negative they perceived their community's attitudes towards gay men. However, for both Black and Hispanic MSM, the less they accepted themselves the more negative they perceived their communities' attitudes towards gay men. This finding was important, because in Chapter 4 Black and Hispanic MSM reported perceiving their communities had significantly more negative attitudes towards gay men compared to White MSM. The logical explanation for this result may be that Black and Hispanic MSM with higher levels of self-acceptance have achieved that self-acceptance by being a part of communities that are more tolerant of homosexuality. Whereas, White MSM may remain a part of the same communities throughout the process of achieving self-acceptance, and are more attuned to the homophobia that exists

in their community. Again, it is also important to note here that this pathway was statistically significant for Hispanic and White MSM, but not for Black MSM. The lack of significance may be due to a smaller sample size, or some other underlying process that needs further examination.

The third common pathway between the three racial/ethnic groups was from self-acceptance to personal HIV/AIDS stigma. This pathway also saw divergence in directionality based on racial/ethnic group. For Black and White MSM, the less self-acceptance they possessed, the more personal HIV/AIDS stigma they reported. This is reasonable, because homophobia and traditional notions of masculinity are strong perpetuators of HIV/AIDS stigma, so if White and Black MSM had internalized any of those growing up, they would logically struggle with accepting themselves and possess more HIV/AIDS stigma. As White and Black MSM become more accepting of their identities, likely through being brought into the fold of the LGBTQ community, they are likely to learn more about HIV and meet HIV positive people, which in-turn starts combating the stigma they once held against the disease. Perplexingly though, for Hispanic MSM, more self-acceptance resulted in more personal HIV/AIDS stigma. The results from Chapter 4 showed that Hispanic in this study had the highest average rates of self-acceptance as well as the highest levels of personal HIV/AIDS stigma.   The pathway between self-acceptance and personal HIV/AIDS stigma was not statistically significant, however, so meaningful conclusions cannot be drawn from this relationship.

The fourth common pathway for all three racial/ethnic groups was from ever been tested for HIV and personal HIV/AIDS stigma. This pathway for all three groups

exhibited the same directionality. In other words, Black, White, and Hispanic MSM who had ever been tested for HIV, reported less HIV/AIDS stigma than MSM from all three groups who had never been tested for HIV. This is logical, since when individuals get tested for HIV, they receive educational resources at the testing site, and gain a better understanding of the facts and misconceptions surrounding HIV. Additionally, MSM who have been tested may know in advance or meet people who are HIV positive, which can also help in humanizing HIV and educating people. These relationships were all strong and statistically significant, showing that testing plays a critical role in stigma reduction.

HIV knowledge to personal HIV/AIDS stigma was the fifth common pathway the models for Black, Hispanic and White MSM shared in this study. For Black and Hispanic MSM, HIV knowledge did not have a statistically significant effect on personal HIV/AIDS stigma. However, for White MSM, the more HIV knowledge they possessed, the less personal HIV/AIDS stigma they exhibited. This result was statistically significant, and reasonable, because a better understanding of what does and does not lead to HIV contraction will logically reduce the stigmatizing behaviors and attitudes individuals express towards PLWHA.

The sixth common pathway for all three racial/ethnic groups was from HIV knowledge to ever been tested for HIV. Black and Hispanic MSM participants who had greater HIV knowledge were more likely to have ever been tested for HIV. Whereas, White MSM respondents who exhibited having more knowledge of HIV were less likely to have ever been tested for HIV. The latter result creates a bit of a conundrum, since

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you would expect individuals with more knowledge would be more likely to understand the importance of being tested. However, one explanation may be that there is a disconnect between educational programming reaching White MSM and the messages they are conveying about the importance of HIV testing. For this particular pathway, results were only statistically significant for Black and White MSM though.

The seventh common pathway for Black, White, and Hispanic MSM was from personal HIV/AIDS stigma to perceived community attitudes towards gay men. For all three racial/ethnic groups, the directionality of the relationship was positive. More specifically, MSM how possessed low levels of personal HIV/AIDS stigma, also perceived their communities had less negative attitudes towards gay men, and vice versa. This outcome was statistically significant for all three groups, and may be explained by meaningful differences between MSM with high personal HIV/AIDS stigma and MSM with low personal HIV/AIDS stigma. Individuals with high personal HIV/AIDS stigma may be members of communities where homophobia has a strong presence for religious or moral reasons, and there is a great deal of misinformation surrounding HIV due to lack of education or available resources. As a result, these men possess greater stigma towards PLWHA, and perceive their communities have more negative attitudes towards gay men. While, MSM who possess less stigma against HIV positive people, may be surrounded by individuals who are accepting of diverse sexual identities, and have a better understanding of HIV, and therefore they express lower levels of stigma against PLWHA and perceive less negative attitudes towards gay men within what they define as their communities.

The final common pathway between all three racial/ethnic groups was from

personal HIV/AIDS stigma to perceived community HIV/AIDS stigma. The pathway for

all three groups had the same directionality. In other words, the less personal HIV/AIDS

stigma Black, White, or Hispanic MSM reported, the less HIV/AIDS stigma they

perceived their communities to possess. As mentioned in the full sample discussion, this

contradicted what I initially theorized that individuals with low personal HIV/AIDS

stigma would report high levels of perceived community HIV/AIDS stigma and vice

versa. However, an explanation for this result may be that individuals with low levels of

HIV/AIDS stigma, likely socialize with and live amongst others who possess low levels

of HIV/AIDS stigma, thus leading community perceptions of HIV/AIDS stigma to

parallel personal HIV/AIDS stigma levels. And to the contrary, those with high levels of

personal HIV/AIDS stigma, likely socialize with and live amongst others who possess

high levels of HIV/AIDS stigma, therefore, leading them to perceive high community

HIV/AIDS stigma. It is important to note though that these findings were only

statistically significant for White and Hispanic MSM. For Black MSM a smaller sample

size or another unknown factor may have played a role in the lack of statistical

significance. More research is needed to better parse apart the relationship between

personal HIV/AIDS stigma and perceived community HIV/AIDS stigma for Black MSM.

Differences of Outcomes by Race/Ethnicity
The path models for Black, White, and Hispanic MSM in this study also had a

number of different outcomes across groups. More specifically, there were instances

where two of the three racial/ethnic groups had the same pathway. However, there were

also instances where certain pathways were unique to one of the three racial ethnic groups. For the pathways where two of the three racial/ethnic groups had the same pathway, the directionality was not always the same for both groups. Here I will explore these particular pathways more in-depth.

Both Black and Hispanic MSM models had pathways from social support to perceived community attitudes towards gay men and from perceived community attitudes towards gay men to perceived community HIV/AIDS stigma. For the pathway from social support to perceived community attitudes towards gay men, Black and Hispanic MSM who were more satisfied with the social support they received from friends and family, the less negative they perceived their communities' attitudes towards gay men and vice versa. This is reasonable since Black and Hispanic MSM who have strong social support are likely surrounded by friends, family, and community members who are accepting of homosexual people, thus leaving these men feeling supported. Conversely, Black and Hispanic MSM who are not satisfied with the social support they receive from friends and family, are likely surrounded by people who are not supportive of homosexuality, and as a result these MSM are acutely aware of their negative attitudes towards gay men. This pathway was only statistically significant for Black MSM though, so there may be another unknown factor at play for Hispanic MSM.

For the pathway from perceived community attitudes towards gay men and perceived community HIV/AIDS stigma, Black MSM who perceived their community had less negative attitudes towards gay men, also perceived their community possessed low levels of HIV/AIDS stigma; whereas Black MSM who perceived their community

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had more negative attitudes towards gay men also perceived their community possessed high levels of HIV/AIDS stigma. Previous research has shown that homophobia in some Black communities can leave Black MSM vulnerable to contracting HIV (CDC 2015a; CDC 2015b; Green 2013). This is because a number of African American communities continue to struggle accepting "gay [men] of color" (Green 2013). Therefore, a statistically significant positive relationship between perceived community attitudes towards gay men and perceived community HIV/AIDS stigma is very logical for Black MSM, since sentiments about homosexuality and HIV are greatly intertwined in some Black communities.

Interestingly, for Hispanic MSM, more negative attitudes towards gay men led to less perceived community HIV/AIDS stigma, and less negative attitudes towards gay men led to more perceived community HIV/AIDS stigma. This result was not statistically significant, however, so there may be an unknown factor at play here or the result may simply be due to chance.

The Black MSM and the White MSM models each shared one common pathway, but the directionality for each group was different. This pathway was from HIV knowledge to perceived community attitudes towards gay men. For Black MSM, the more knowledge they had about HIV, the more negative attitudes they perceived their community to have towards gay men. While for White MSM, the more HIV knowledge they had the less negative attitudes they perceived their community to have towards gay men.

The former result was statistically significant, and may be a consequence of the interconnectedness of HIV to homosexuality in some Black communities (Green 2013). Since Black churches played a large role in historically blaming Black male homosexuality for the devastating HIV epidemic in the Black community, it is only logical that Black MSM who learn more about HIV also learn how they as a group were blamed for its spread throughout their racial community (Mackenzie 2013; Quinn and Dickson-Gomez 2016). I will note not all of the Black MSM in my study identified as Christian or religious, but the Black church as a social institution served and continues to serve as an integral source of "identity, history, family, and community life" for many Black people, and therefore is part of the cultural fabric of many black communities more broadly (Quinn and Dickson-Gomez 2016:51).

The latter result for White MSM was also statistically significant. It is a reasonable outcome, because as they learn more about HIV and how it historically affected their community, they see how the illness brought white gay men together, and lead to the development of LGBTQ communities, movements, and educational programs meant to improve the lives of white gay men. Furthermore, White MSM who know more about HIV, may be surrounded by others who know more about HIV and are more accepting of different sexual orientations, therefore they perceive their community possesses less negative attitudes towards gay men. However, it is also possible that the White MSM in my study simply had greater health educational opportunities, which enabled them to have greater HIV knowledge and be surrounded by others with greater HIV knowledge. This relationship may require further in-depth exploration.

Both of the Hispanic and White MSM models shared two common pathways, but the directionality was different for each based on race/ethnicity. The first pathway was from social support to ever been tested for HIV. For Hispanic MSM, the more satisfied they were with the social support they received from friends and family, the more likely they were to have ever been tested for HIV. This pathway was statistically significant and reasonable. More specifically, a connection exists between homosexuality and HIV/AIDS in Hispanic communities, and this connection along with homophobia and traditional gender norms, perpetuates HIV/AIDS stigma in those communities (CDC 2015d; Henkel 2008). This social environment is likely to make Hispanic MSM without much social support avoid HIV testing or care for fear of ostracism, discrimination, or some other negative social repercussion. However, among the Hispanic MSM in this study who were satisfied with the amount of social support they received, this shift in the community cultural norm likely helped erode some of the stigma around HIV/AIDS, and may have encouraged them to get tested. For White MSM, on the other hand, the more satisfied they were with the social support they received from friends and family the less likely they were to be tested. This outcome seemed a bit counter intuitive, and may indicate that White MSM with better social support develop an attitude of "it won't happen to me" when it comes to contracting HIV. However, the more likely culprit is some other unknown factor at play, because this pathway was not statistically significant.

The second pathway was from ever been tested for HIV to perceived community HIV/AIDS stigma. This pathway also had different directionality for White MSM and Hispanic MSM. More specifically, Hispanic MSM who had ever been tested for HIV

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perceived their community to have higher HIV/AIDS stigma compared to Hispanic MSM
who had never been tested for HIV before. This may be a result of these individuals
experiencing or witnessing this stigma by their community when or after getting tested.
It also could be a consequence of learning more about HIV when getting tested, which
then leads to an increased awareness of the misinformation and stigma held by the larger
Hispanic community for which they are a part. Conversely, White MSM who had ever
been tested perceived their community had less HIV/AIDS stigma than did White MSM
who had never been tested before. This outcome may be due to White MSM who have
ever been tested before being members of communities that are more enlightened about
HIV as well as more accepting of people living with the virus and vice versa. For both
Hispanic and White MSM, this pathway was statistically significant.

As far as pathways that were unique to only one racial/ethnic group, there were
four total. The Black MSM model did not have any pathways that were unique to that
racial group. However, the White MSM and Hispanic MSM path models each had two
pathways that were unique to the former racial group and the latter ethnic group.

For Hispanic MSM, the first unique pathway was from ever been tested for HIV
and perceived community attitudes towards gay men. More specifically, Hispanic MSM
who had ever been tested for HIV perceived their community had less negative attitudes
towards gay men, than Hispanic MSM who had never been tested for HIV. Since HIV
and homosexuality are strongly connected in many Hispanic communities, Hispanic
MSM who were ever tested for HIV probably went to get tested because they had a better
social support system that was accepting of homosexuality, provided encouragement for

testing, and/or had resources to offer for testing. The combination of any of these three factors would then potentially lead Hispanic men in these circumstances to perceive their community had less negative attitudes towards gay men. The pathway between ever tested for HIV and perceived community attitudes towards gay men for Hispanic MSM was statistically significant.

The second unique pathway in the Hispanic MSM model, was between self-acceptance and perceived community HIV/AIDS stigma. Interestingly, Hispanic MSM who were more accepting of themselves, also perceived their community to have higher HIV/AIDS stigma, while Hispanic MSM who were less accepting of themselves perceived their community to have lower HIV/AIDS stigma. Again, this pathway may have to do with Hispanic cultural perceptions of homosexuality and how homosexuality tends to be connected to HIV/AIDS. Hispanic MSM who are more accepting of their identities, may be more aware of how their communities stigmatize people living with HIV/AIDS, because the disease is strongly associated with an identity that is important to who they are (i.e. sexual orientation). Whereas, Hispanic MSM who are struggling to accept themselves, may not have this same awareness, because they are focused more on their own internal struggle with who they are and how it is viewed in their community.

For White MSM, the first unique pathway in their model was between self-acceptance and ever been tested for HIV. White MSM who reported higher acceptance of themselves were more likely to have ever been tested for HIV. This is logical and supported by previous literature by Wagner et al. (2012), who also found that MSM who

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were comfortable with their sexual orientation, were also more likely to be tested for HIV. This unique pathway for White MSM was statistically significant.

The second unique pathway for White MSM was from HIV knowledge to self-acceptance. More specifically, White MSM who had more HIV knowledge expressed less self-acceptance, while White MSM with less HIV knowledge expressed more self-acceptance. This outcome seemed a little perplexing initially, but may be explained by the history of the HIV epidemic in the United States beginning primarily with White gay men, as well as by the fact that White MSM have the highest numeric incidence and prevalence rates of HIV in the United States today (CDC 2015b; CDC 2015c). In other words, an increased understanding of HIV by White MSM may have created feelings of cognitive dissonance for them when it comes to accepting all parts of themselves. Whereas White MSM with less knowledge about HIV do not feel the same tension when it comes to accepting who they were, because they are not associating part of who they are to a serious disease epidemic. This unique pathway for White MSM was also statistically significant.

The Role of Intersectionality Theory in Understanding Influencing Factors on Perceived Community HIV/AIDS Stigma by Race/Ethnicity

After thorough examination of the outcomes of my research, it is apparent that intersectionality plays an important role in understanding perceived community HIV/AIDS stigma. As mentioned in Chapter 2, intersectionality is a framework that takes into consideration the roles of identity, difference and disadvantage when examining social problems (Cole 2009). There is a myriad of social, institutional, and structural factors that contribute to inequities in HIV infection, testing, and care

(Watkins-Hayes 2014). My research aimed to explore how the intersecting identities of race/ethnicity and sexual orientation affected which factors shaped perceived community HIV/AIDS stigma for Black, White, and Hispanic MSM.

A major problem with existing HIV/AIDS social science and public health research is that it tends to evaluate social categories in isolation, thus as a monolithic experience that is decontextualized and frequently erroneous for certain portions of a given population (Cole 2009). This practice further creates and reinforces what Purdie-Vaughns and Eibach (2008) refer to as "intersectional invisibility." Intersectional invisibility occurs when an individual with two or more subordinate identities fails to be recognized as part of their constituent groups, because they do not fit the prototypical embodiments of the subordinate groups to which they are a part (Purdie-Vaughns and Eibach 2008). This in turn leaves the individuals who suffer from intersectional invisibility to be excluded and their needs left invisible and unacknowledged (Purdie-Vaughns and Eibach 2008). In most research on MSM, the prototype for this constituent group is White MSM. The majority of research is conducted with this group in mind, and then assumptions are made that the results found are generalizable to all MSM. However, as my research has shown, this is not the case at all. Black and Hispanic MSM have a number of unique experiences when it comes to the factors that influence their perceived community HIV/AIDS stigma. So not making a deliberate effort to investigate and understand those varying experiences does a grave disservice to Black and Hispanic MSM, and leads to prevention, intervention, and social programming efforts that do not meet their needs.

Black and Hispanic MSM frequently experience the following types of intersectional invisibility in the United States: historical invisibility, cultural invisibility, and political invisibility. Black and Hispanic MSM experience historical invisibility in that their experiences have been "deemphasized or misrepresented" in the larger societal history since the beginning of the HIV/AIDS epidemic in the 1980's (Mackenzie 2013; Purdie-Vaughns and Eibach 2008). They experience cultural invisibility, because the cultural representations put out about MSM do not capture their unique experiences (Purdie-Vaughns and Eibach 2008). Finally, Black and Hispanic MSM experience political invisibility, in that proportionate amounts of time and resources are not dedicated to them as members of the constituent group MSM (Purdie-Vaughns and Eibach 2008). This is evidenced by the fact that of the 74 intervention programs currently in the CDC's Compendium of Evidence-Based Behavioral Interventions, only one was developed specifically to meet the needs of Black MSM, and only two have been adapted to support Black and Hispanic MSM (NASTAD and NCSD 2014). Political invisibility is contributing a great deal to the major HIV/AIDS health disparities we are seeing amongst Black and Hispanic MSM.

Unfortunately, it is difficult to compare my findings with existing literature because very little research exists exploring perceived community HIV/AIDS stigma amongst MSM. The majority of existing literature on MSM and HIV/AIDS, focuses on incidence and prevalence rates as well as risk behaviors that increase the chances for contracting HIV. The research that explores social factors putting MSM at risk for contracting HIV, does not specifically present breakouts by race/ethnicity in order to

understand the nuances that may exist between groups. These limitations perpetuate the treatment of all MSM as a homogenous population, which continues to make Black and Hispanic MSM experience intersectional invisibility in the United States.

More broadly, there are institutional and community factors that protect some MSM from HIV vulnerability, while exacerbating that vulnerability for other MSM. These explanations are supported by some literatures in the areas of HIV/AIDS and sexualities. Furthermore, this set of previous research along with my findings help support the rationale for why intersectionality theory is so critical for combating HIV/AIDS amongst MSM as a whole, but also particularly for Black and Hispanic MSM who are disproportionately affected by the disease.

To begin, the LGBT community serves as a safe haven and protective factor against HIV/AIDS for many White MSM (Haile et al. 2014). White MSM are able to find the support and services they need in the LGBT community, even if they have been rejected by communities in which they grew up or of which they once a part. However, the same does not hold true for Black and Hispanic MSM. Previous literature has shown that men of color, including Black and Hispanic MSM, have a less positive experience in the LGBT community due to racism that historically existed and continues to persist in that community (Haile et al. 2014; Han 2007). As a result, Black and Hispanic MSM may look elsewhere, such as their racial/ethnic communities for support and services. Unfortunately for Black and Hispanic MSM, homophobia against MSM is quite strong in many Black and Hispanic communities (Arnold, Rebchook, and Kegeles 2014; Galanti 2003; Haile et al. 2014; Han 2007; Henkel et al. 2008; Jeffries IV, Dodge, and Sandfort

2008; Marin 2003). Potentially facing racism in the LGBT community and homophobia in Black or Hispanic communities, a number of Black and Hispanic MSM are frequently left feeling they are without a community that supports them. Then, to make matters worse, since HIV/AIDS is highly stigmatized in both Black and Hispanic communities and many HIV-prevention efforts targeted towards MSM are located with the LGBT community, Black and Hispanic MSM do not get access to the healthcare, testing, and treatment they need to avoid contracting HIV or control the disease if they already have it.

In many Black communities, the Black church and the family are the two social institutions that serve as the major center of social life (Arnold, Rebchook, and Kegeles 2014; Jeffries IV, Dodge and Sandfort 2008; Quinn and Dickson-Gomez 2016). Black churches are usually protestant, and though not all Black people in the United States are Christian or attend church, they are an important part of the history and social fabric of Black communities (Levin 1984). The Black church and the family are classified by sociologists as secondary social institutions, and as such have served as major catalysts for social change in the United States. Unfortunately for Black MSM, the Black church and the family have also been major sources of homophobia and HIV/AIDS stigma in the Black community (Arnold, Rebchook, and Kegeles 2014; Green 2013). As such, a number of Black MSM have been either silenced or driven out of the very social institutions that could serve as a protective factor for these men (Quinn and Dickson-Gomez 2016).

Much of my data show that perceptions Black MSM have of homophobia and HIV/AIDS stigma in their communities are significantly driven by factors such as social support, self-acceptance, personal HIV/AIDS stigma, HIV knowledge, and ever being tested for HIV. These factors are similar is some ways, but differ in other ways, from how they affect perceptions of community homophobia and HIV/AIDS stigma amongst Hispanic and White MSM. A number of efforts are being put forth to address knowledge and access to testing, but what is lacking are the individual, culturally-tailored, stigma-reduction efforts that could help reincorporate Black MSM into the social fabric of the Black community, while at the same time promoting better use of HIV prevention and intervention healthcare opportunities. Research by Quinn and Dickson-Gomez (2016) also supports this claim. There is tremendous potential to reduce HIV incidence and prevalence in Black communities by confronting individual homophobia and HIV/AIDS. The Black church and the family are two social institutions that have proven throughout history to be powerful forces of social change, and could serve as the perfect settings for individual HIV/AIDS stigma and homophobia reduction. With the right tools and a willingness to grapple with the issues of homophobia and HIV/AIDS stigma, the social institutions of the Black family and the Black church could significantly change the trajectory of the HIV/AIDS epidemic is Black communities for the better, and work towards an AIDS-free generation.

In many Hispanic communities, the family is "the primary unit within Hispanic culture and a strong cultural value" (Galanti 2003:181). In other words, the family is the social institution in Hispanic communities that is the center of social life. Children

typically do not leave home until they are married, and extended families often live in the same household or in separate households that are very close in proximity to one another (Galanti 2003). The Hispanic family is typically larger than the typical American non-Hispanic family, including "aunts, uncles, cousins, and godparents" (Galanti 2003:181). Unfortunately, as in many Black communities, homophobia and HIV/AIDS stigma are very high in Hispanic communities. Homophobia is high, because in many Hispanic cultures homosexuality is defined in terms of gender (Herek and Gonzalez-Rivera 2006). Hispanic "men must constantly prove their masculinity," and since homosexuality does not fit with traditional gender roles and attitudes, Hispanic MSM are rejected as men in many Hispanic communities (Herek and Gonzalez-Rivera 2006; Marin 2003:187). HIV/AIDS stigma is high in Hispanic community, because it is associated with homosexuality and the gay community (Henkel, Brown, and Kalichman 2008). Taken together, this all leads to a "conspiracy of silence" that disempowers and ostracizes Hispanic MSM, and consequently discourages them from getting tested for HIV or receiving care (Galanti 2003; Marin 2003:187).

In my research, I found that factors like social support, self-acceptance, ever being tested for HIV, and personal HIV/AIDS stigma all significantly influenced perceived community homophobia and HIV/AIDS stigma amongst Hispanic MSM. Some of the effects of these factors were similar to and some varied a great deal from how they effected White and Black MSM. Interestingly, some previous research has also shown that family acceptance can serve as a protective factor for Hispanic MSM (Marin 2003). My outcomes also appear to support this notion. Efforts specifically targeted at

reducing individual homophobia and HIV/AIDS stigma through the social institution of the Hispanic family, could help keep Hispanic MSM connected to their families or reincorporate them if they have been disowned in some manner, as well as help in drastically reducing HIV/AIDS within the larger Hispanic community. Using culturally appropriate initiatives to tackle personal homophobia and HIV/AIDS stigma in the Hispanic community, could also drastically increase testing behavior and motivation to seek care throughout the entire community, thus drastically reducing HIV/AIDS incidence and prevalence rates.

Applying intersectionality theory to HIV/AIDS research enables social scientists as well as health practitioners to focus on marginalized and neglected groups in a manner that is more nuanced, culturally appropriate, and representative (Cole 2009). By utilizing intersectionality to explore the factors that influence perceived community HIV/AIDS stigma, I was able to uncover both the commonalities the MSM in my research sample shared, as well as discover where their experiences diverged and required individualized attention and understanding.

Limitations of the Study

My research had several limitations that are important to address. To start, my sample was not representative of all MSM in the United States. It was somewhat skewed more towards MSM with higher incomes and more education. Additionally, the average age of my sample was possibly slightly younger than the MSM population as a whole in the U.S. Moreover, the vast majority of my research sample worked full-time, which may not be proportional to the reality of MSM as group. Finally, since my sample was

drawn from a particular region of the country, my findings may only be applicable to

Black, White, and Hispanic MSM who live in the Washington, DC Metropolitan area of

the United States.

However, despite the limitations for generalizability to all MSM in the U.S., my

sample was pretty representative of the Washington, DC Metropolitan area. According to

the 2015 American Community Survey, the Washington, DC Metropolitan area has a

median age of 36.6 years, a median household income of $93,294, and a population

where 49.4% of its residents have earned a Bachelor's degree or higher (U.S. Census

Bureau 2015b).

Methodologically speaking, my sampling strategy was somewhat limited due

constraints in the survey authoring tool utilized to administer the web survey instrument.

As mentioned in Chapter 3, Survey Monkey was technologically unable to accommodate

the complex skip patterns necessary to effectively recruit the full spectrum of MSM that

exist in the United States. More specifically, men who have sexual encounters with other

men, but identify as heterosexual or another sexual identity other than homosexual or

bisexual were unable to participate in this study. Furthermore, there is a possibility that

men on the "down low" also were not full represented in this study, since it required self-

identifying as homosexual or bisexual.

Lastly, since all of my recruitment was conducted through Craig's List,

participation in this research was only available to MSM who use Craig's List or have

friends or family who use it and were able to share the information. This mode of

recruitment was primarily used because I had minimal financial resources available for

recruitment costs and participant incentives. However, the consequence of this limitation was that most of my participants were MSM who were more technologically savvy, had easy access to the Internet, and knew how to use classified advertising websites like Craig's List. My research is likely missing the perspectives of more socially marginalized MSM, MSM with limited economic resources and/or computer skills, and MSM who do not use classified advertisements like Craig's List.

In this chapter I discussed the outcomes of my research for my entire MSM sample, as well as delved more deeply into the similarities and differences in outcomes across Black, White, and Hispanic MSM. Additionally, I argued the need for the application of intersectionality theory in HIV/AIDS research on MSM, and how the current literature in this area leads to the intersectional invisibility of Black and Hispanic MSM. Furthermore, I showed that a number of my findings were novel and unique due to the lack of research on perceived community HIV/AIDS stigma as well as on MSM of different racial/ethnic groups. Finally, I concluded the chapter outlining some of the limitations of my study.

In the next and final chapter, I will highlight the practical implications as well as the policy implications of my research. In addition, I will provide the reader with some high-level key take away points from my work. Lastly, I will share some suggestions for future directions in research and policy in order to help improve HIV/AIDS health outcomes for MSM of all racial/ethnic groups.

CHAPTER SEVEN: CONCLUSION

The study I conducted and presented here was largely exploratory, due to the lack of literature currently exploring perceived community HIV/AIDS stigma amongst different racial/ethnic groups. However, I hope these findings aid in starting a conversation, body of research, and eventually an actionable agenda that strategically implements intersectionality theory in future HIV/AIDS studies and programs. In this chapter, I present the practical and policy implications of my research. Additionally, I provide some major take away points for researchers, healthcare providers, and public health programming developers. Lastly, I conclude this chapter and my dissertation with a dialogue on future directions for HIV/AIDS stigma research and policy with an emphasis on MSM of different racial/ethnic groups.

Practical Implications

In my research, satisfaction with social support, self-acceptance, ever being tested for HIV, HIV knowledge, perceived community attitudes towards gay men, and personal HIV/AIDS stigma all had a statistically significant effect on perceived community HIV/AIDS stigma for my study sample as a whole. However, after conducting analyses with the Black, Hispanic, and White MSM separately, it was discovered that the effects of the aforementioned factors manifested themselves somewhat differently for each group. This finding indicates that it is necessary to apply intersectionality theory to

HIV/AIDS research and examine race/ethnicity in conjunction with sexuality in a systematic manner and on a consistent basis.

It became apparent from my outcomes that research and programming for HIV/AIDS needs to stop narrowly focusing on access to HIV testing and healthcare alone in the United States. Even if MSM from all different racial/ethnic groups have access to HIV testing and healthcare, it does not mean they will feel comfortable with and empowered to use it. Researchers, healthcare providers, and public health program developers need to create a comprehensive approach to HIV/AIDS reduction that starts with the social factors that perpetuate the disease. More specifically, they need to focus on culturally appropriate and tailored efforts to reduce individual homophobia and HIV/AIDS stigma in Black, Hispanic, White, and LGBTQ communities. I believe committing to this sort of plan would create a feedback loop of sorts. By reducing individual homophobia and HIV/AIDS stigma, researchers, healthcare providers, and public health program developers can increase social support, self-acceptance, and HIV testing amongst MSM, which then will lead to reduced community homophobia and HIV/AIDS stigma. Communities will low levels of homophobia and HIV/AIDS stigma, can then educate new community members and the same process continues.

Policy Implications

One of the greatest barriers to the development of any public health prevention or intervention program is the availability of funding. New research and programming efforts are often told by funding agencies and organizations that their proposals need to be "generalizable" to the entire population. In theory and on the surface this may be

logical. However, when your population is not homogeneous, such a requirement

frequently leaves some portion of that population neglected. As mentioned by Purdie-

Vaughns and Eibach (2008), the portions of these populations are rarely the prototypical

sub-segment of the marginalized group, in the case of this research White MSM, but

rather are the marginalized members of the marginalized group, and thus are rendered

socially invisible. This type of intersectional invisibility is already problematic for

achieving positive health outcomes, but to make matters worse, can further exacerbate

health disparities amongst sub-segments of the population who are already

disproportionately affected by HIV/AIDS, such as Black and Hispanic MSM.

This being said, agencies and organizations that provide the much-needed funding

for HIV/AIDS research and health programs need to re-evaluate their criteria of

"generalizability." In the case of HIV/AIDS amongst MSM, these groups need to forgo

generalizability to the entire MSM population in order to achieve relevancy and improved

results amongst critically effected MSM sub-populations. I am not advocating to stop the

funding of HIV/AIDS research and programs that serve the needs of White MSM and

LGBT communities more broadly, I am only suggesting that those resources be more

evenly distributed, so that Black and Hispanic MSM have their needs met and unique

challenges addressed. When the Center for Disease Control and Prevention, only had 3

programs with any focus on Black and Hispanic MSM as recently as 2014 that is a

serious problem that requires immediate attention (NASTAD and NCSD 2014).

Take Away Points from Research

Now that I have outlined and discussed all of my findings, I would like to take the opportunity to succinctly summarize the key take away points from this research. For my entire research sample, the factors of satisfaction with social support, self-acceptance, ever being tested for HIV, perceived community attitudes towards gay men, personal HIV/AIDS stigma, and HIV knowledge all played a statistically significant role in predicting perceived community HIV/AIDS stigma, and thus should continue to be explored in future research. However, the larger point to be made here is that when the same models were examined for Black, White, and Hispanic MSM separately, the results varied in a multitude of important ways. This indicates that identities matter, and the application of intersectionality theory is a necessity in future HIV/AIDS research on MSM, if it is going to have a meaningful impact and change the trajectory of the epidemic. Homophobia and HIV/AIDS stigma manifest themselves differently in Black and Hispanic communities compared to the White and LGBT communities with which White MSM identify. That being said, if research and programming do not specifically focus on the individual homophobia and HIV/AIDS stigma in Black and Hispanic communities, Black and Hispanic MSM will continue to be disproportionately infected with and affected by HIV/AIDS. The barriers they face will remain, and their needs will continue to be invisible. Black MSM and Hispanic MSM as groups each require and deserve a commitment to research, prevention, and intervention efforts that truly acknowledge and integrate their experiences.

Future Directions for Research and Policy

This area of research has a tremendous amount of potential for growth and development. To start with, this study focused on understanding what factors influence perceived community HIV/AIDS stigma among MSM in the Washington, DC Metropolitan area, and how they are similar and different for Black, White, and Hispanic MSM. It would be interesting to explore why those differences exist, through qualitative in-depth interviews as well as focus groups. Additionally, it would be important to explore how place matters, by investigating how the factors influencing perceived community HIV/AIDS stigma, may be different for Black, White, and Hispanic MSM in cities throughout the United States.

In addition, there are likely a number of other factors that influence perceived community stigma that went unexplored in this study. Due to the increasing complexity of the models examined here, some demographic variables as well as health behaviors were unable to be included and explored. It would be interesting to examine factors such as condom use, sex for resources and resources for sex, internalized homophobia, substance abuse, infection with other STDs, religiosity, and education among others.

Moreover, conducting research and testing programs on the effects of culturally-tailored stigma reduction on health outcomes and HIV/AIDS incidence and prevalence rates amongst Black, White, and Hispanic MSM would be a tremendous extension of this research. There is a great deal of anecdotal evidence showing that stigmas related to sexual identity, race/ethnicity, and HIV status are one of the greatest barriers to successfully combating the HIV/AIDS epidemic. However, by systematically studying these relationships, we could begin to uncover the mechanisms involved in stigma

formation and perpetuation, and begin to develop strategies to dismantle and counter these processes in a culturally appropriate and constructive manner.

Furthermore, other sub-populations of MSM who would be important to measure perceived community HIV/AIDS stigma amongst would be MSM who identify as heterosexual, but have sexual encounters with other men, and men who identify as being on the "down low." According to McCune, Jr. (2014:6) the down low or DL has come to be understood as "a group of problematic black men who sleep with other men while having relationships with wives/girlfriends." Since the population in Washington, DC are almost 50% Black, the experiences of these men may very well be different than those of Black MSM who identify as gay or bisexual in the same city. Understanding the nuances between these different classifications of MSM is another area of greatly needed scientific inquiry.

Finally, future research conducted on perceived community HIV/AIDS stigma amongst Black, White, and Hispanic MSM who are HIV positive is another important area that needs further exploration. My study focused on MSM who had never been told by a healthcare provider they were HIV positive. However, the perceptions of stigma held by HIV positive Black, Hispanic, and White MSM may be quite different from those of HIV negative Black, Hispanic, and White MSM. Therefore, exploring factors that influence perceived community HIV/AIDS stigma amongst HIV positive MSM, broken out by race/ethnicity, would be another fascinating and important direction for this line of research.

APPENDIX: SURVEY INSTRUMENT

Thank you for agreeing to participate in the GMU Men's Sex and Social Perceptions Study. To begin, you will be asked a series of basic questions to determine if you are a part of our target research population. If you are a part of our target research group, you will be asked to complete the rest of this survey, and offered the opportunity to receive a $20 electronic Amazon gift card to compensate you for your time.

What is your present gender identity?

Male
Female
Gender Queer
Transgender Male to Female
Transgender Female to Male
Other (Specify) _____
I Prefer Not to Answer

What sex were you assigned at birth, on your original birth certificate?

Male
Female
Other (Please Specify) _____
I Prefer Not to Answer

Which of the following terms best describes your sexual orientation?

Homosexual/Gay
Bisexual
Heterosexual/Straight
Unsure/Questioning
Pansexual
Asexual
Other (Please specify) _____
I Prefer Not to Answer

Are you Hispanic or Latino?

Yes
No
I am not sure.

Which of the following categories would you use to best describe your race?

White
Black/African American
Asian
American Indian/ Alaskan Native
Native Hawaiian/ Other Pacific Islander
Other (Please Specify) _____
Don't know
I prefer not to answer

Have you had a sexual encounter with a man in the past year? (By sexual encounter we mean have you engaged in deep kissing, genital touching, mutual masturbation, oral genital contact, intercourse or other similar types of behaviors.)

Yes
No
I Don't Know
I Prefer Not to Answer

Have you EVER been tested for HIV-infection?

Yes
No
I Don't Know
I Prefer Not to Answer

If yes to "tested for HIV"
When was the last time you were tested for HIV-infection?

Within the past 30 days
Within the past 3 months
Between 3-6 months ago
Between 6 months – 1year ago
Between 1-2 years ago
Over 2 year ago

Have you been told by a health care provider that you have HIV-infection?

Yes
No
I Don't Know
I Prefer Not to Answer

IF RESPONDENT IS **NOT** A PART OF THE TARGET RESEARCH POPULATION:

Thank you for answering our brief series of questions about yourself. Based on your responses, you are unfortunately not part of the research population we are trying to reach at this time. We thank you for your willingness to participate, and hope you have a wonderful day!

Thank you for answering our brief series of questions about yourself. Based on your responses, you qualify to participate in this research study. The next set of questions will ask you about the social support in your life, and how you feel about yourself as a person. By social support we mean the degree to which you feel like you are cared for, have assistance available from other people when you need or want it, and you are part of an understanding social network or group that recognizes your worth. Please choose the answer responses that best reflect the levels of social support and acceptance of yourself you feel.

In general, how satisfied are you with the overall social support you get from your friends and family members?

Very Dissatisfied
Somewhat Dissatisfied
Somewhat Satisfied
Very Satisfied
I Prefer Not to Answer

Self-acceptance is how much a person is comfortable with being who he/she is. On a scale of 1 to 10, with 1 being no acceptance and 10 being complete acceptance, how much would you say that you accept yourself?

No Acceptance 1
2
3
4
5
6
7
8
9
Complete Acceptance 10
I Prefer Not to Answer

Now we would like to present a segment of questions that discuss the Human Immunodeficiency Virus (HIV). Next to each statement, please state whether you think the statement is true or false. We want to know your perspective, so choose the option that reflects your opinion.

(Scale: True/False)

1) Coughing and sneezing DO NOT spread HIV.
2) A person can get HIV by sharing a glass of water with someone who has HIV.
3) Pulling out the penis before a man climaxes keeps a woman from getting HIV during sex.
4) A woman can get HIV if she has anal sex with a man.
5) Showering, or washing one's genitals after sex keeps a person from getting HIV.
6) All pregnant women infected with HIV will have babies born with AIDS.
7) People who have been infected with HIV quickly show serious signs of being infected.
8) There is a vaccine that can stop adults from getting HIV.
9) People are likely to get HIV by deep kissing, putting their tongue in their partner's mouth, if their partner has HIV.
10) A woman cannot get HIV if she has sex during her period.
11) There is a female condom that can help decrease a woman's chance of getting HIV.
12) A natural skin condom works better against HIV than does a latex condom.
13) A person will NOT get HIV if she or he is taking antibiotics.
14) Having sex with more than one partner can increase a person's chance of being infected with HIV.
15) Taking a test for HIV 1 week after having sex will tell a person if she or he has HIV.
16) A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV.
17) A person can get HIV if having oral sex, mouth on vagina, with a woman./ A person can get HIV if having oral sex, mouth-to-penis, with a man.
18) Using Vaseline or baby oil with condoms lowers the chance of getting HIV.

(4 Point Likert-Scale: Strongly Agree, Agree, Disagree, Strongly Disagree.)

You are doing a great job. In the following section please state whether you strongly agree, agree, disagree, or strongly disagree with the statements provided. We want to know your own personal perceptions of and reactions toward people with HIV/AIDS.

(Human Rights)
1) The human rights of HIV positive people should be protected just like everybody else's.
2) HIV positive people deserve as much respect as anyone else.
3) The needs and rights of people with HIV should be given top priority.
4) The names of people with AIDS should be made public to protect the public health.
5) HIV positive people should not receive free medication- it will cost the country a fortune.
6) Employers will not hire someone with HIV to work for them.

(Personal Interaction)
1) Feel uncomfortable around someone with HIV.
2) Afraid to be around a person with HIV.
3) People with HIV should not take care of other people's children.
4) Will not date a person if it was known that the person has HIV.
5) Will not stay friends when a close friend has HIV.
6) Will be upset if someone with HIV moved in next door.

(Judgment and Blame)
1)   HIV is punishment for bad behavior.
2)   People with HIV should feel ashamed of having HIV.
3)   People who got HIV through sex or drugs got what they deserve.
4)   People with HIV have only themselves to blame.
5)   A person with HIV is not of good moral character.

(4 Point Likert-Scale: Strongly Agree, Agree, Disagree, Strongly Disagree.)

Now we are going to provide you with the same set of statements. Please state whether you think most people in your community strongly agree, agree, disagree, or strongly disagree with the statements provided. We want to know what you think your community's perceptions of and reactions toward people with HIV/AIDS, not yours personally.

(Human Rights)
1) The human rights of HIV positive people should be protected just like everybody else's.
2) HIV positive people deserve as much respect as anyone else.
3) The needs and rights of people with HIV should be given top priority.
4) The names of people with AIDS should be made public to protect the public health.
5) HIV positive people should not receive free medication- it will cost the country a fortune.
6) Employers will not hire someone with HIV to work for them.

(Personal Interaction)
1) Feel uncomfortable around someone with HIV.
2) Afraid to be around a person with HIV.
3) People with HIV should not take care of other people's children.
4) Will not date a person if it was known that the person has HIV.
5) Will not stay friends when a close friend has HIV.
6) Will be upset if someone with HIV moved in next door.

(Judgment and Blame)
1) HIV is punishment for bad behavior.
2) People with HIV should feel ashamed of having HIV.
3) People who got HIV through sex or drugs got what they deserve.
4) People with HIV have only themselves to blame.
5) A person with HIV is not of good moral character.

(5 Point Likert-Scale: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree.)

You are almost done! This next section will ask you some brief questions regarding attitudes toward gay men. Please state whether you think most people in your community strongly agree, agree, disagree, or strongly disagree with the statements provided. We want to know what you think your community's perceptions of and reactions toward gay men are, not yours personally.

1) Male homosexual couples should be allowed to adopt children the same as heterosexual couples.
2) Male homosexuals are disgusting.
3) Male homosexuals should not be allowed to teach school.
4) Male homosexuality is a perversion.
5) Just as in other species, male homosexuality is a natural expression of sexuality in human men.
6) If a man has homosexual feelings, he should do everything he can to overcome them.
7) Members of my community would not be too upset if they learned that their son was a homosexual.
8) Homosexual behavior between two men is just plain wrong.
9) The idea of male homosexual marriages seems ridiculous to my community.
10) Male homosexuality is merely a different kind of lifestyle that should not be condemned.

You have now reached the last set of questions. These questions discuss some basic personal information that will be used for comparison purposes only. Once you have completed this section, you will be done with the survey and offered an opportunity to receive a $20 electronic Amazon gift card for your time.

What is your zip code? (TEXT BOX)

Are you currently employed?

Yes, full-time (35+ hours per week)
Yes, part-time
No, looking for work
No, not looking for work

Which of the following best describes your age?

18-24
25-34
35-44
45-54
55-64
65-74
75+

What was the last grade of school you completed?

Less than 9th grade
9th to 12th grade (no diploma)
High School Graduate (including GED)
Some college, no degree
Associate's degree
Bachelor's degree
Master's degree
Doctoral degree
Professional degree
Don't know
I prefer not to answer

Are you currently a student?

Yes
No

How religious are you?

Very Religious
Somewhat Religious
Not Very Religious
Not at All Religious

What is your religious affiliation? (If you do not have a particular religious affiliation, please feel free to use a term you see fit to describe your religiosity.)

_____.

Which of the following categories best describes your total annual household income before taxes, from all sources? Your best estimate is fine.

Under $15,000
$15,000 - $34,999
$35,000 - $49,999
$50,000 - $74,999
$75,000 - $99,999
$100,000 - $149,999
$150,000 or more

Please use the space below to provide any additional comments, feedback, or experiences you may wish to share with the researchers that were not covered earlier in the survey.
_____
_____
_____

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