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Preinfection Risk Perceptions of Human Immunodeficiency Virus Positive Homosexual and Bisexual Men

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This is to certify that the doctoral dissertation by

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Abstract

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DNP, Chamberlain College of Nursing, 2015

MSN, University of Cincinnati, 2013

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

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Abstract

In 2017, there were 4,949 persons diagnosed with human immunodeficiency virus (HIV), 116,944 persons living with HIV, and 2,044 acquired immunodeficiency syndrome (AIDS) cases in Florida. Of the 4,972 new HIV diagnoses in Florida, 60% were related to male-to-male sexual contact, 4% from intravenous drug use, 2% from male-to-male sexual contact and intravenous drug use, 33% from heterosexual sexual contact, and 1% from other sources. Guided by the health belief model (HBM), this qualitative study sought to understand the lived experiences of HIV positive adult men who have sex with men (MSM) living in Florida, regarding their preinfection perceptions of risk of contracting HIV. The HBM guided this study as it examined health-related decision making and has been used in previous HIV prevention studies. A purposive sample of 11 HIV positive, adult MSM, living in Florida, who were knowledgeable and willing to discuss their HIV perceptions and lived experiences, were interviewed. Data analysis procedures included coding and categorizing the data, validation of the codes, identification of patterns and themes, interpretation of the data, and member checks. Participants had a general knowledge of HIV, and 7 out of the 11 men recognized they were at risk for HIV due to engaging in unprotected sex and substance abuse practices. Seven participants reported having access to HIV prevention tools but that they did not access these tools. All participants reported receiving ongoing health care. Developing HIV prevention programs targeting those engaging in at risk behaviors has the potential to produce positive social change by increasing HIV prevention education, testing opportunities, and treatment options.

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Dedication

This dissertation is dedicated to my mother, Mary Singer; my father, Terry Singer; my brother, Matthew Singer, my extended family, friends, and Jeffrey Raines.

Mom, the support, love, and encouragement you showed me the first 17 years of my life has and will stay with me forever. Your belief in me, demonstration of service to others, commitment to life-long learning, and bravery in the face of a terminal illness has inspired me to always seek opportunity for growth, a willingness to serve others, and an appreciation for life!

Dad, like Mom, you have been an inspiration to me. Your belief in me, the sacrifices you made to provide only the best for your family, and the love you have shown has made me the person that I am today. I am forever grateful!

Matt, I am appreciative of your presence in my life and the support you have shown me. I am grateful to have you in my life and know you are destined for great things!

To my extended family, the support, love, and encouragement you have shown is something that I can never repay. Thank you!

To my friends, thank you for the support that you have shown me in life and throughout my educational journeys.

Last, but not least, thank you Jeff for the support, care, and patience you have afforded me the past few years. Without you, I would not be the person that I am today!

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Second, thank you to my dissertation committee member, Dr. Margaret Harvey. Your willingness to help me develop my research skills, the sharing of your knowledge and experience, and support have been invaluable.

Finally, thank you to all the participants in this study. I am forever grateful to you for your willingness to share your experiences with me. I can only hope that the perspectives you have shared and the knowledge you have helped me generate will bring about beneficial change to all those at risk of or diagnosed with HIV.

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Chapter 1: Introduction to the Study

Introduction

Although there has been a national decline in the number of new human immunodeficiency virus (HIV) diagnoses in the United States, Florida ranks second for the number of new diagnoses and number three for the number of HIV positive residents (Centers for Disease Control and Prevention, 2017; Florida Health, 2018b). In 2017, there were 4,949 persons diagnosed with HIV, 116,944 persons living with HIV, and 2,044 acquired immunodeficiency syndrome (AIDS) cases in Florida (Florida Health, 2018c). The elevated rates of new HIV diagnoses and high concentration of persons living with HIV and AIDS is of concern to health care providers, HIV/AIDS community outreach programs, government officials, public health officials, persons at high-risk of contracting HIV, and community members.

Florida Health (2018c) indicated that 60% of the 4,972 new HIV diagnoses in Florida were related to male-to-male sexual contact, 4% from intravenous drug use, 2% from male-to-male sexual contact and intravenous drug use, 33% from heterosexual sexual contact, and 1% from other sources. Like other areas in Florida, the Tampa-St. Petersburg-Clearwater metropolitan has experienced higher rates of new HIV diagnoses, with 516 new diagnoses occurring in 2016 (AIDSVU, 2018). The Tampa-St. Petersburg-Clearwater metropolitan area is comprised of four counties, including Pinellas, Hillsborough, Hernando, and Pasco counties (United States Census Bureau, 2012). In addition to the high rates of new HIV diagnoses, the four counties identified have a significant population of persons living with HIV (Florida Health, 2018c). To better understand the increased HIV diagnoses in Florida, research was completed to understand the lived experiences of HIV positive adult men who have sex with men (MSM) living in Florida regarding their preinfection perceptions of risk of contracting HIV. Research findings could reduce HIV prevalence rates by delivering customized education to those at risk of HIV, increasing access to barrier devices and preexposure prophylaxis (PrEP) medication, and increasing access to HIV testing and treatment.

Background

The HIV and AIDS epidemic has impacted and continues to impact the United States, especially the southern states (Centers for Disease Control and Prevention, 2018b). Epidemiological research conducted by Reif et al. (2014) found that persons living in southern states, such as Florida, are at higher risk of contracting HIV and developing AIDS than persons living in other areas of the country, due to increased rates of poverty, sexuality-related stigma, and high rates of sexually transmitted infections (STIs). According to the Centers for Disease Control and Prevention (2018b), southern states (i.e., Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia) comprise only 38% of the national population but accounted for more than half of all HIV infections in the United States in 2016. The Centers for Disease Control and Prevention (2018b) identified Florida as a southern state and indicated that Florida has an HIV rate of 28.0 per 100,000 people, which exceeds the overall rate of 16.8 for the other southern states, 11.2 for northeastern states, 10.2 for western states, and 7.5 for midwestern states (Centers for Disease Control and Prevention, 2017). Specifically, in the counties comprising the Tampa-St. Petersburg-Clearwater metropolitan area, there more than 700 HIV positive MSM living in Pinellas County, more than 700 in Hillsborough County, between 201-700 in Pasco County, and between 89-200 in Hernando County (Florida Health, 2018c).

A review of the literature suggested that in the United States, HIV and AIDS has had a significant impact on marginalized and minority persons. Marginalized and minority persons experience higher rates of HIV and AIDS in Florida, with 3,023 (61%) of the 4,949 Floridians diagnosed in the state being MSM (Florida Health, 2018c). In 2017, of the Floridian MSM who received an HIV diagnosis, 4% were between ages 13-19, 37% were between ages 20-29, 27% between ages 30-39, 14% between ages 40-49, and 17% were above the age of 50 (Florida Health, 2018c). Additionally, of the 3,023 Floridian MSM, 28% were White, 31% Black, 39% Hispanic, and 2% from other races (Florida Health, 2018c). Based on these statistics, the focus of this research was on adult MSM living within Florida.

Ethnicity and race can impact HIV and AIDS-related transmission and management. Cairns (2014) found that persons, especially Black and other minority MSM, are at higher risk of contracting HIV than other MSM. Additionally, many Black and other minority MSM are often unaware of their risk of contracting HIV (Cairns, 2014). Basu, Dillon, and Romero-Daza (2016) completed a qualitative research study that sought to understand the impact of culture on HIV and AIDS communication among minority MSM with men of color. The research was completed in Orlando, Florida (Basu et al., 2016). The researchers interviewed 17 African American and Latino MSM and found that while there is a belief by some that African American and Latino MSM have the necessary HIV/AIDS-related knowledge to protect themselves, there is a lack of urgency to act or discuss HIV/AIDS as a larger community (Basu et al., 2016).

Basu et al. (2016) also explored the impact of discrimination and stigma. Through their interviews with the minority men, Basu et al. (2016) found that there is perceived discrimination in not only the greater community but within the participants' own culture (Basu et al., 2016). The participants identified being fearful about disclosing their HIV status and worried about limited access to resources (Basu et al., 2016). Further investigating the impact of stigma and fear of revealing one's HIV status, Rendina, Millar, and Parsons (2018) interviewed 52 HIV positive gay and bisexual men to understand the impact of anticipated and internalized stigma. The researchers found that situations involving internalized HIV stigma were associated with a variety of psychological and emotional responses in participants, including anxiety, depression, anger, and emotion dysregulation (Rendina et al., 2018).

Kubicek, Arauz-Cuadra, and Kipke (2015) researched the attitudes and perceptions of biomedical HIV prevention methods in young MSM (YMSM) especially, young men of color. The researchers interviewed 53 (23 Latino/Hispanic and 30 Black/African Americans) YMSM to understand their perceptions of two biomedical HIV prevention methods (Kubicek et al., 2015). Unlike the findings of Basu et al. (2016), Kubicek et al. (2015) found that many of the participants lacked knowledge of the biomedical HIV prevention interventions but were receptive to their use. Mimiaga et al. (2016) interviewed 90 men of color regarding HIV and the use of PrEP medication and, like Kubicek et al., the study found a knowledge deficit but a willingness to consider PrEP as an HIV prevention strategy. Aholou, Sutton, and Brown (2017) further supported the importance of education through their research that explored the post-HIV testing experiences of African American heterosexual men living in rural Florida. Aholou et al. discovered that as a result of increased HIV education, many of the men implemented risk-reduction strategies and improved their sexual health-related communication with sex partners, family members, and friends.

Sullivan et al. (2014) examined the ethnic and racial disparities that exist in White MSM and Black MSM in Atlanta, Georgia, and how these disparities impact HIV prevalence rates. Researchers recruited an equal number of White and Black MSM and surveyed them regarding sexual practices, the number of sexual partners, the location where they lived, and provided HIV and STI screening (Sullivan et al., 2014). Sullivan et al. found multiple factors that could potentially contribute to the disparities seen among Black and White MSM, including age, sexual identity, level of education, income, employment status, health insurance coverage, access to housing, criminal history, substance abuse, and HIV testing practices. Sullivan et al. indicated that the disparities identified are unique compared to other areas of the United States. It was recommended that additional research be conducted to better understand the complexities of the disparities on individuals, sexual partners and relationships, and at the community level (Sullivan et al., 2014).

Dangerfield, Craddock, Bruce, and Gilreath (2017) completed research to explore HIV testing and health care-use practices of men in the United States. The researchers used a latent class analysis to categorize the men based on their HIV testing practices and health care-service use (Dangerfield et al., 2017). Research findings indicated that many of the men in the sample group did not have routine HIV testing completed and only occasional health care use (Dangerfield et al., 2017). Additional research findings indicated that younger men and Black men are less likely to be tested for HIV or to have regular visits with a primary health care provider (Dangerfield et al., 2017). As Sullivan et al. (2014) indicated, a lack of access to health care is a contributing cause for increased HIV diagnoses.

Socioeconomic factors have been identified as potential sources for the disparities seen in HIV prevalence rates in minorities, especially those residing in the Southern United States (Basu et al., 2016; Carey et al., 2009; Dangerfield et al., 2017; Kalichman et al., 2010; Kubicek et al., 2015; Mimiaga et al., 2016; Reif et al., 2014; Sullivan et al., 2014). Increased rates of poverty, stigma, and STIs were cited by Reif et al. (2014) as contributing to the high number of HIV cases and mortality. Similarly, Cairns (2014) attributed increased rates of HIV in young Black men to poverty, substance abuse, homelessness, incarceration, food insufficiency, and unprotected sex. Food insecurity was found in 50% of 344 HIV positive men and women living in Atlanta, Georgia (Kalichman et al., 2010). Participants who reported food insufficiency were more likely to have higher HIV viral counts, suffer from poorer health, and demonstrate poor medication and treatment compliance (Kalichman et al., 2010). Research by Carey et al. (2009) found that MSM who engage in unprotected anal intercourse (UAI) were more likely to use illicit drugs such as methamphetamines and erectile dysfunction medications.

The health belief model (Rosenstock, Strecher, & Becker, 1988) has been used to research HIV and AIDS-related topics. Research by Leidel, Leslie, Boldy, and Girdler (2017) explored the use of opt-out HIV testing in which patients receive HIV testing by default. Leidel et al. (2017) suggested that the HBM can assist health care providers in implementing effective HIV testing programs and provides insight into how health care providers can better understand their patients' perception of HIV risk. Bakker, Buunk, Siero, and van den Eijnden (1997) used the HBM to understand the factors driving condom use and the risk perception differences between younger and older MSM. It was discovered that younger MSM were more inclined to use a condom when HIV positive individuals were present in their social circle (i.e., cues to action), and they saw perceived benefit to use of a condom (Bakker et al., 1997). Older MSM's decision to use a condom was based on their perception of the prevalence of HIV and their risk of contracting the virus (Bakker et al., 1997).

This study sought to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. While there are many Floridians at-risk of HIV, MSM experience the highest rates of new HIV diagnoses in Florida and the Tampa-St. Petersburg-Clearwater metropolitan area (Florida Health, 2018c). Researchers have used individuals' HIV-related risk perceptions to gauge their understanding of HIV infection (Cairns, 2014). According to Rosenstock et al. (1988), one of the first steps individuals must take before adopting a health-promoting behavior is to understand their risk of illness or injury. Despite MSM experiencing increased HIV diagnoses in Florida, little evidence exists on how Floridian MSM perceive their risk of contracting HIV. The risk perceptions of MSM are of importance, as several socioeconomic and behavioral factors contribute to the increase in HIV diagnoses. Little data exists on how these socioeconomic and behavioral factors impact Floridian MSM. Additionally, a review of the literature found that no research has been conducted on the HIV-related risk perceptions of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV.

Problem Statement

In 2015, the Centers for Disease Control and Prevention (2018c) reported that over 1.1 million Americans were living with HIV infection. From 1987 to 2015, more than 507,300 Americans died from HIV and AIDS (Centers for Disease Control and Prevention, 2018c). In 2015, there were 38,500 HIV diagnoses made in the United States (Centers for Disease Control and Prevention, 2018c). Additionally, between 2010 to 2015, the United States saw an 8% decline in HIV diagnoses (Centers for Disease Control and Prevention, 2018c).

The Centers for Disease Control and Prevention (2018b) indicated that the number of new HIV diagnoses has increased in the southern United States despite an overall national decline. Reif et al. (2014) found that persons residing in states in the southern part of the United States to be at higher risk of contracting HIV and having an HIV infection progress into AIDS. Sullivan et al. (2014) indicated that factors such as poverty, drug abuse, sex trafficking, stigma, food and housing insecurity, lack of health care, and unsafe sex practices (especially in the MSM population) contribute to the increased rates of HIV diagnoses. In 2017, there were 4,949 Floridians diagnosed with HIV (Florida Health, 2018c). According to Florida Health (2018c), of the Floridians diagnosed with HIV, 60% were related to male-to-male sexual contact, 4% from intravenous drug use, 2% from male-to-male sexual contact and intravenous drug use, 33% from heterosexual sexual contact, and 1% from other sources.

In the United States, there are several HIV prevention strategies currently available and in use, including behavioral modification, the taking of pharmacological agents (i.e., PrEP), and the use of barrier devices (Kubicek et al., 2015). Research conducted by Dangerfield et al. (2017) found that HIV prevention strategies and outreach programs best meet the needs of at-risk individuals when the interventions incorporate the beliefs, culture, and needs of the targeted population. Despite an increasing number of MSM diagnosed with HIV, no research was found to have explored the lived experiences of HIV positive men related to their preinfection perceptions of risk of contracting HIV. It is hoped that this research will provide stakeholders in the HIV epidemic with the knowledge to improve prevention efforts (e.g., educational offerings and PrEP), provide at-risk persons with routine HIV screenings, and improve access to treatment and ongoing care.

Purpose of the Study

The purpose of this study was to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. According to Ravitch and Carl (2016), phenomenological qualitative research studies assist in helping to explain and understand the lived experiences of participants. Patton (2015) indicated that qualitative research seeks to examine individuals, groups, and phenomena of interest in their natural state. Researchers collect data to identify themes and concepts, which can then be used to address complex problems (Ravitch & Carl, 2016). A phenomenological approach was used to obtain the perceptions of HIV positive adult MSM. The data collected was in the form of direct quotations from participants' responses to interview questions; allowing participants' voice to be heard to inform a greater understanding of the phenomenon of interest. It is believed that the results of this study can be used by HIV prevention organizations, governmental agencies, and health care providers to develop client-centered and evidence-based community outreach prevention and treatment programs, create health care policies aimed at addressing this issue, advance HIV-related research, and promote the development of new models and theories.

Research Question

The research question (RQ) for this study was *What are the lived experiences of HIV positive adult men who have sex with men living in Florida regarding their preinfection perceptions of risk of contracting HIV?*

Conceptual Framework

The study sought to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. Creswell (2014) indicated that the use of a theoretical model is essential when conducting qualitative research. In some cases, a theoretical model is a product of the qualitative research completed (Creswell, 2014). In other qualitative research, a theoretical model is selected at the beginning of the research and is used to determine the research topic, the research questions asked, and the overall framework in which the research occurs (Creswell, 2014). After a review of the various theories available, I determined the HBM to be the most appropriate model for the research conducted. The HBM impacted the way data was collected, analyzed, interpreted, and reported in this research study (Creswell, 2014).

My research sought to understand the factors that influenced the research participant's health-related behaviors and perceptions. The HBM depicts the factors that help to explain an individual's role in engaging in health-promoting decisions and activities (Rosenstock et al., 1988). There are specific constructs associated with the HBM that help to explain how individuals at-risk of contracting HIV perceive their risk (see Appendix A). Health care providers can use frameworks such as the HBM, to understand an individual's health beliefs and behavior and promote optimal health in those at-risk of or diagnosed with HIV (Ng & Caires, 2016).

The constructs of the HBM are perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy (Rosenstock et al., 1988). Perceived susceptibility is as an individual's perception regarding their likelihood of contracting a specific disease, illness, or injury (Rosenstock et al., 1988). Perceived severity describes the extent to which a specific disease, illness, or injury can potentially impact an individual's health, life, and well-being (Rosenstock et al., 1988). Rosenstock et al. (1988) described perceived benefits as an individual's beliefs in the efficacy of a specific action to reduce the risk of the impact of a disease, illness, or injury. Perceived barriers describe an individual’s thoughts regarding the tangible, psychological, and physical costs associated with a health-promoting action or change in behavior (Rosenstock et al., 1988). The HBM also identifies the need for cues to action to promote health-changing behaviors (Rosenstock et al., 1988). An individual’s sense of self-efficacy impacts their ability to bring about positive health behaviors (Rosenstock et al., 1988).

Rosenstock et al. (1988) indicated that an individual’s interactions and experiences with both interpersonal and physical environmental factors impact health decision making and beliefs. Personal characteristics such as age, sex, race, sexual orientation, socioeconomic status, educational preparation, culture, and ethnicity also impact individuals’ perceptions of health and health-promoting activities (Rosenstock et al., 1988). The HBM also accounts for behavior-specific cognitions and effects, such as perceived benefits, barriers, and self-efficacy (Rosenstock et al., 1988). The HBM concludes with individuals demonstrating health-promoting actions or inaction as an outcome of their decision making (Rosenstock et al., 1988). The use of the HBM can assist health care providers in understanding how at-risk individuals make health-related decisions and can provide a framework by which health care providers can guide their patients in the direction of positive, health behaviors. The use of the HBM as a research framework and guide for clinical practice has the potential to mitigate HIV-associated risks and reduce HIV infection rates. Further exploration of the HBM will be provided in Chapter 2: Literature Review.

Nature of the Study

I used a qualitative method of inquiry to investigate the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. Research involving qualitative methods seeks to understand a given phenomenon of interest by gaining the perspectives of participants (Creswell, 2014). Qualitative research methods allow researchers an opportunity to gain greater clarity and understanding of participants' perceptions through the use of open-ended interview questions (Creswell, 2014). As the research commences, participants give meaning to the variables investigated (Creswell, 2014).

According to Creswell (2014), there are eight characteristics indicative of qualitative research, including:

1. Natural setting (the researcher collects data where participants experience the phenomenon of interest).
2. The researcher is the key instrument (the researcher collects data themselves by interviewing participants, examining documents, and making observations).
3. Multiple sources of data (the researcher collects data from multiple sources).
4. Inductive and deductive data analysis (researchers identify patterns, categories, and themes; working from specific to more abstract concepts).
5. Participants' meaning (the focus of the research is on the meaning the participant identifies and not the researcher).

6. Emergent design (as the researcher begins to collect data, modifications may be needed to ensure a holistic approach to understanding the phenomenon of interest).
7. Reflexivity (the researcher examines how their role and personal experiences potentially impact their research).
8. Holistic account (the researchers aim to produce a complex picture of the variables).

A phenomenological approach was used to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. Participants who met the inclusion criteria and completed the informed consent process underwent a face-to-face, telephonic, or web-based (i.e., email and chat) interview. Creswell (2014) indicated that qualitative research requires the researcher to continue interviewing participants until no new ideas or information present (i.e., data saturation). I used open-ended questions to promote participants' disclosure of their HIV-related risk perceptions. Specifically, the interview questions sought to elicit participants' descriptions of their lived experiences, memories, thoughts, feelings, questions, and perceptions.

Definitions of Terms

Bisexual Male: A male who is attracted to members of the opposite and the same sex (Centers for Disease Control and Prevention, 2018a).

HIV: A virus spread through certain bodily fluids (i.e., blood, vaginal secretions, and semen) that damages immune system CD4 (i.e., T cells) cells (Centers for Disease

Control and Prevention, 2018c). Common ways to contract HIV include having unprotected sex with an HIV positive person or sharing a needle with an HIV positive person (Centers for Disease Control and Prevention, 2018c). Less common ways of contracting HIV include pregnancy, vaginal delivery, breastfeeding, and blood transfusions (Centers for Disease Control and Prevention, 2018c). As the virus destroys the CD4 cells, the infected person is unable to mount a response to fight infections and diseases (Centers for Disease Control and Prevention, 2018c). The Centers for Disease Control and Prevention (2014), states that an individual with a CD4 count that is 500 or higher and no AIDS-defining condition is considered HIV Stage 1 (i.e., no infection or nonsignificant). According to Centers for Disease Control and Prevention (2014), an HIV positive individual with a CD4 count between 200 and 499 and no AIDS-defining condition is considered to have HIV Stage 2 (i.e., mild infection). The Centers for Disease Control and Prevention (2014) indicate that individuals who are HIV positive, have an HIV-defining condition, and a CD4 count of less than 200 are considered HIV Stage 3 (i.e., an advanced infection, also referred to as AIDS).

An HIV infection can predispose an individual to certain types of cancers and opportunistic infections (Centers for Disease Control and Prevention, 2018c). Antiviral medication and other treatments exist to manage HIV infections and minimize the potential for adverse outcomes (Centers for Disease Control and Prevention, 2018c). Today, HIV infections are considered a chronic medical condition, and unlike years ago, an HIV infection does not lead to a terminal prognosis (Centers for Disease Control and Prevention, 2018c). Persons taking antiviral medication, who receive routine medical care and have decreased to undetectable viral loads, are significantly less likely to transmit HIV to others (Centers for Disease Control and Prevention, 2018c).

HIV epidemic: An HIV epidemic refers to an increased number of HIV cases impacting many people within a given geographical area and time frame (Centers for Disease Control and Prevention, 2018c).

HIV infected person: An HIV positive adult man who has sex with men with legal residency in Florida.

Homosexual Male: A male who is attracted to members of the same sex (Centers for Disease Control and Prevention, 2018a).

Tampa-St. Petersburg-Clearwater metropolitan area: A geographical location located within Florida along the Gulf Coast (United States Census Bureau, 2012). Pinellas, Hillsborough, Hernando, and Pasco counties form the Tampa-St. Petersburg-Clearwater metropolitan area (United States Census Bureau, 2012).

Assumptions

To complete this qualitative research study, I had several assumptions. I assumed that the interview questions developed were appropriate and would elicit the data I needed to answer my research question. I assumed that research participants would be willing and forthcoming with their experiences related to HIV and HIV-risk perception before their HIV diagnosis. I assumed that the participants would respond honestly to the interview questions posed to them. I assumed that the sample would be representative of the population of interest (i.e., MSM living in Florida). I assumed that participant identity would remain anonymous, and the data collected would be stored securely and confidentially. Finally, I assumed that the research would support additional research on HIV-risk perception in Floridian MSM and provide additional insight into how to develop and deliver HIV-related prevention and treatment services to persons at-risk.

Scope and Delimitations

The scope of this qualitative study was to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. There were several delimitations to this study. Research participants had to be HIV positive men, identify as either bisexual or homosexual, be over the age of 18, and be a resident of Florida. An HIV positive status was needed, as the research question aimed to understand how these men perceived their risk of contracting HIV before being diagnosed with HIV. In Florida, men continue to comprise the largest number of those diagnosed with HIV; thus, the participants needed to identify as being male (Florida Health, 2018c). A participant-reported sexual identity of bisexual or homosexual was required, as bisexual and homosexual men comprise the majority of new HIV diagnoses in Florida (Florida Health, 2018c). All participants needed to be over the age of 18, as adult MSM constitute the majority of new HIV diagnoses in Florida (Florida Health, 2018c).

Participants needed to report their state of residence as Florida to participate in the research. Florida residency was required, as I sought to understand why, unlike other areas in the United States, Florida continues to see an increased HIV diagnosis rate. In Florida, metropolitan areas have had the highest number of new HIV diagnoses (Florida Health, 2018c). I focused my research on HIV positive adult MSM living in the Tampa-

St. Petersburg-Clearwater metropolitan area. Pinellas, Hillsborough, Hernando, and Pasco counties form the Tampa-St. Petersburg-Clearwater metropolitan area (United States Census Bureau, 2012). The geographical area selected includes Pinellas and Hillsborough counties, as they are in the top seven counties in Florida in terms of the number of HIV positive residents (Florida Health, 2018b). As a result of these geographical restrictions, the research findings may not be generalizable to HIV positive adult MSM living in other areas of the United States.

Limitations

This study was limited to a phenomenological research approach. Thus, the primary sources of data included face-to-face, telephonic, and web-based (i.e., email and chat) interviews. The interviews were unstructured, and as a result, allowed for the conversation to be guided by participant responses (Creswell, 2014). As a result of this research approach, the validity of the data collected and the results are subject to further questioning. Phenomenological research requires that participants be honest and accurate in the data they provide to ensure the validity of the data and study findings (Creswell, 2014).

Participant self-reporting of their perceptions has an inherent risk of biases that can influence the results of the study (Creswell, 2014). Additionally, research bias can also impact the research findings (Creswell, 2014). All face-to-face, telephonic, and web-based interviews were recorded and securely stored. Following ethical research and informed consent standards, participants received information concerning the anticipated length of the interview, confidentiality practices used, and were told that they could stop answering questions at any time. Member checking was used to allow participants an opportunity to comment on my research findings (Creswell, 2014).

To minimize the potentially detrimental impact of preconceptions on my research, I used the bracketing technique. Bracketing is used by qualitative researchers to acknowledge preconceptions (e.g., past experiences, thoughts, feelings, biases, cultural differences, etc.) related to the research occurring (Tufford & Newman, 2012). As suggested by Tufford and Newman (2012), during the data collection and analysis phase of this research, I reflected on my own experiences with the research topic, journaled my thoughts, shared my thoughts with colleagues, and wrote memos describing my own beliefs and emotions regarding the collected data. By acknowledging preconceptions, I hoped to minimize the impact of my preconceptions and thus, increase the rigor of my research (Tufford & Newman, 2012).

To promote the transferability of my research, I used a technique called thick description. Transferability is a term used to describe whether or not a research study could apply to other populations or contexts (Creswell, 2014). The use of thick descriptions in qualitative research aims to provide a detailed explanation of the researcher’s experience during the data collection process (Sacks, 2015). Thick descriptions provide other researchers and readers of the research with the context in which data collection occurred (Sacks, 2015). For example, I described the participants interviewed, the interview questions asked, when the interviews occurred, the location of data collection, and why the research took place. By providing background information on my data collection, other researchers can determine whether my research would be transferable to other contexts or populations (Sacks, 2015).

The dependability of my research is also a significant issue. Dependability in qualitative research refers to research findings being consistent and repeatable (Moon, Brewer, Januchowski-Hartley, Adams, & Blackman, 2016). Qualitative researchers aim to ensure that if other researchers looked at the data collected, they would reach the same conclusions and findings (Moon et al., 2016). For my research, I used an external audit process to ensure the dependability of my research. An external audit entails another researcher examining the data collection, analysis, and results to validate the research methods and findings (Moon et al., 2016).

Significance of the Study

In this study I sought to understand the lived experiences of HIV positive adult MSM regarding their preinfection perceptions of risk of contracting HIV. Research findings are of importance to the nursing profession as the information depicts HIV positive adult MSM's perceptions of risk before contracting the virus. A review of the literature found that no other phenomenological studies exploring the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV had been conducted. The results of this research could provide health care providers, HIV outreach organizations, governmental agencies, HIV activists, and researchers with information concerning the beliefs, perceptions, attitudes, and behaviors surrounding HIV knowledge, prevention strategies and risk factors for contracting HIV.

The Rosenstock et al. (1988) HBM was used to guide this phenomenological research. Specifically, the HBM was used to develop an understanding of the impact of personal characteristics and experiences, cognition and affect, and health-promoting behaviors have on Floridian HIV positive adult MSM's preinfection perceptions of risk. Using the framework of the HBM, research participants encountered questions related to their preinfection understanding of HIV transmission, prevention methods used (if applicable), management of HIV infections, and perceptions of HIV positive persons. Interview questions assessed participants' beliefs on health, perceived health care needs, as well as current and previous health-promoting behaviors. Interview questions also asked participants to describe their perceptions of how interactions with the external environment, interpersonal relationships, and personal characteristics impacted their risk of contracting HIV. Interview questions explored participants' perceptions related to barriers preventing them from engaging in health-promoting behaviors, support systems, and their sense of self-efficacy.

This research provides insight into the increasing rates of new HIV diagnoses in MSM within Florida (Florida Health, 2018c). By understanding communicable disease infection (i.e., HIV) data, governmental agencies, public health officials, health care providers, and outreach organizations can better allocate resources to mitigate risk (Centers for Disease Control and Prevention, 2018c). Resources such as increased funding and personnel could assist in delivering a comprehensive HIV prevention program to meet the unmet needs of those at risk of contracting HIV. With additional funding and staff, work could occur to provide additional services, including but not limited to, safe sex education, increased availability to HIV prevention interventions (e.g., PrEP, condoms, and other barrier devices), access to routine HIV testing, enrollment in private health insurance plans, support groups, enrollment in government-sponsored health plans (e.g., Medicaid and Medicare), drug treatment programs, transportation, meal programs, and housing.

Social Change Implications

I believe that this research could effect positive social change within my community. By better understanding the lived experiences of HIV positive MSM regarding their preinfection perceptions of risk of contracting HIV, health care providers, outreach programs, and public health officials can develop targeted and individualized interventions to decrease the number of new HIV diagnoses in Florida. Research findings could assist in the development of HIV-related educational offerings and routine HIV testing opportunities, increased accessibility to prevention strategies (i.e., pharmacological, barrier, and behavioral modification), development of a system to ensure early referral for treatment, and an increase in the number of community resources. This research could encourage greater community engagement regarding the impact of HIV and AIDS on the community. By improving and protecting the health of others, I believe that my dissertation research fulfills Walden University's mission of social change (Walden University, 2018).

I believe the research findings could potentially be of benefit to health care providers, outreach programs, and public health officials in communities across Florida and perhaps, even in other states. Like the Tampa-St. Petersburg-Clearwater metropolitan area, other locations in Florida have experienced high numbers of new HIV diagnoses (Florida Health, 2017). According to Florida Health (2018a), there were a total of 3,038 persons diagnosed with HIV in 2017. Counties with the highest number of new HIV diagnoses in 2017 include Miami-Dade, Broward, Orange, Hillsborough, Palm Beach, Duval, and Pinellas (Florida Health, 2018a). While data collection occurred in the Tampa-St. Petersburg-Clearwater metropolitan area, I hope my research findings are used to bring about further research, which could lead to new ideas and methods for decreasing the number of new HIV diagnoses.

Summary

In part, due to increased HIV prevention education, prevention strategies, and pharmacological advancements, the number of new HIV diagnoses has decreased over the past 3 decades (Centers for Disease Control and Prevention, 2018c). Despite the national decline, Florida ranks second for the number of new diagnoses and number three for the number of HIV positive residents (Centers for Disease Control and Prevention, 2017; Florida Health, 2018c). Florida, like other southern states, has experienced a disproportionate number of new HIV diagnoses and increased HIV/AIDS-related morbidity and mortality rates (Aral, O'Leary, & Baker, 2006; Cairns, 2014; Centers for Disease Control and Prevention, 2017; Gray et al., 2016; Reif et al., 2014).

Pinellas, Hillsborough, Hernando, and Pasco counties form the Tampa-St. Petersburg-Clearwater metropolitan area (United States Census Bureau, 2012). As of July 1, 2017, there were 3,091,399 people living in the Tampa-St. Petersburg-Clearwater metropolitan area (United States Census Bureau, 2018). In 2016, there were 12,083 individuals with HIV residing in the Tampa-St. Petersburg-Clearwater metropolitan area (AIDSVU, 2018). According to Florida Health (2018c), in 2017, precisely 4,949 Floridians received an HIV diagnosis, 116,944 HIV positive individuals resided in the state, and 2,044 cases of AIDS occurred in Florida. According to Florida Health (2017), 60% of the 4,949 new HIV diagnoses in Florida resulted from MSM sexual contact, 4% from intravenous drug use, 2% from MSM sexual contact and intravenous drug use, 33% from heterosexual sexual contact, and 1% from other sources. The increased HIV diagnoses in southern states, including Florida, are thought to be the result of MSM, drug abuse, poverty, unsafe sex practices, and a lack of health care (Aral et al., 2006; Cairns, 2014; Gray et al., 2016; Reif et al., 2014). Additionally, several socioeconomic factors including HIV/AIDS-related stigma, food and housing insecurity, lack of public benefits, lack of preventative health care, unemployment, poverty, sex trafficking, and a lack of transportation all contribute to the increased HIV diagnoses (Aral et al., 2006; Cairns, 2014; Gray et al., 2016; Reif et al., 2014).

This research sought to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. This research was needed due to the increased number of HIV diagnoses in Florida and the lack of research exploring the preinfection perceptions of risk of contracting HIV by HIV positive adult MSM living in Florida. The use of a phenomenological research method provided me with an opportunity to collect and analyze detailed participant data related to HIV-related preinfection risk perceptions (Creswell, 2014). The HBM served as the theoretical model for my research as many of the assumptions and propositions aligned with the goals of my research. Additionally, the HBM has been used to investigate HIV prevention, treatment, and management practices (Bakker et al., 1997; Leidel et al., 2017).

Chapter 2: Literature Review

Introduction

Research on HIV transmission, treatment, cure, progression to AIDS, and prevention strategies has been examined and documented in scholarly, peer-reviewed journals. The impact of HIV and AIDS in the United States has resulted in significant resources being mobilized to combat its effects and to increase public awareness and understanding of this viral infection. Over the past 3 decades, scientific research has resulted in advancements in HIV prevention strategies, treatment options, increased knowledge, and a focus on the prevention of HIV/AIDS (Henry J. Kaiser Foundation, 2018). As a result of these advancements, the United States has seen an overall decline in infection and mortality rates (Henry J. Kaiser Foundation, 2018). While the national decline is notable, some especially vulnerable populations are currently experiencing alarming increases in HIV/AIDS infection rates (Henry J. Kaiser Foundation, 2018).

Despite the national decline, Florida has seen a disproportionate number of individuals living with and contracting HIV and AIDS among specific demographics and sociocultural circumstances (Aral et al., 2006; Hixson, Omer, del Rio, & Frew, 2011). Specific vulnerable subgroups, including African Americans, young males who are homosexual or bisexual, injection drug users, men who have unprotected anal sex with other men, and men who live under impoverished circumstances, are among the most likely to be at risk of contracting the HIV and AIDS infections at a higher rate than the entire United States population (Gray et al., 2016; Henry J. Kaiser Foundation, 2018). It has become necessary to understand the factors that can account for the increasing HIV infection rates, the perceived risks of infection among these settings and subgroups, and the risk perceptions and actions that may contribute to HIV infection among certain vulnerable groups.

Psychosocial factors contained within the HBM can help to explain increasing HIV and AIDS infection rates. The use of this model creates opportunities to understand a vulnerable population's risk and perceptions of risk of contracting HIV by carefully examining the demographics and geographic settings specific to these infection occurrences. Within these demographics and settings, some specific aspects stand out, including race, ethnicity, gender, poverty, drug use, culture, stigma, isolation, risky health behaviors, and all correlated factors that contribute to higher instances of HIV/AIDS infection. Correctly understanding and explaining how all these factors affect the vulnerable group of MSM is essential because their risk of infection is among the highest of all vulnerable groups. It is also necessary to understand how all these risk factors apply to these individuals' perceptions of their infection risk within a southern region (e.g., Florida), as well as how prevention and treatment compliance can attempt to attenuate this affliction within the framework of the HBM.

Literature Review Strategy

I conducted this literature review to identify and understand historical and current HIV and AIDS research related to the lived experiences of HIV positive adult MSM regarding their preinfection perceptions of risk of contracting HIV. However, no research was found to have explored the specific perceptions of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. The Centers for Disease Control and Prevention (2018b) encourages the consideration of the impact of geographical aspects associated with the HIV epidemic, especially in areas with elevated and increasing HIV infection rates.

In this literature review, I explain the research problem, the research topic I investigated, describe previous research studies supporting my topic, discuss gaps in the literature, and define the search terms and strategies used. In my literature review I identify and summarize previous research involving environmental, cultural, social, socioeconomic, and behavioral elements impacting the increasing HIV infection rates found in several southern states. The literature review also includes other factors impacting HIV infection rates including access to resources, homelessness, poverty, food insecurity, health-risk behaviors, cultural influences, sexual orientation, race and ethnicity, HIV/AIDS-related stigma, health care service accessibility, and care priorities for vulnerable persons. The HBM is also reviewed and discussed, as it is the theoretical framework guiding my research study.

I searched for resources utilizing a variety of databases and informational sources including EBSCO, CINAHL, Sage, PubMed, MEDLINE, Google, Google Scholar, CDC website, and the Florida Department of Public Health website. Peer-reviewed, scholarly, evidence-based resources were reviewed and used to ensure the credibility and validity of my research. Keywords and search terms used to identify resources included the following: *HIV in Florida, HIV southern United States, HIV southern states, HIV and perceptions, HIV personal beliefs, HIV demographics, HIV and poverty, HIV and socioeconomic status, HIV and homelessness, HIV and food insecurity, HIV-related* *health risk behaviors, HIV and sex trafficking, HIV and AIDS-related stigma, HIV health care services, HIV health care availability, HIV and AIDS prevention strategies, HIV and AIDS treatment strategies, HIV and race, HIV and culture, HIV positive persons and care priorities, HIV and men who have sex with men, HIV and geographical impact, HIV risk behaviors, HIV and sexual health, health belief model,* and *HIV and health belief model.*

Literature Review

Health Belief Model

The HBM was the theoretical framework selected for this research study as it addresses how an individual's beliefs and attitudes about their health can impact health-related behaviors (Rosenstock et al., 1988). The HBM was produced in the 1950s by scientists working for the United States Public Health Service (Rosenstock et al., 1988). The scientists devised the HBM to understand better the factors guiding an individual's decision making related to engaging in positive health decisions and activities (Rosenstock et al., 1988). There are specific constructs associated with the HBM that help to explain how individuals at risk of contracting HIV perceive their risk and based on their perception, initiate risk-reduction measures such as the use of PrEP (see Appendix A).

The constructs of the HBM are perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and self-efficacy (Rosenstock et al., 1988). Perceived susceptibility is as an individual's opinion regarding their likelihood of contracting a specific disease, illness, or injury (Rosenstock et al., 1988). Perceived severity describes how a specific disease, illness, or injury can potentially impact an individual's health, life, and wellbeing (Rosenstock et al., 1988). Rosenstock et al. (1988) describe perceived benefits as an individual's beliefs in the efficacy of a specific action to reduce the risk of the impact of a disease, illness, or injury. Perceived barriers is an individual's opinion regarding the tangible, psychological, and physical costs associated with a health-promoting action or change in behavior (Rosenstock et al., 1988). The HBM also identifies the need for cues to action to promote health-changing behaviors (Rosenstock et al., 1988). An individual's sense of self-efficacy impacts their ability to bring about positive health behaviors (Rosenstock et al., 1988). The constructs of the HBM can assist researchers in understanding how individuals make health-related decisions.

Within this framework, an individual's interaction with both interpersonal and physical environment factors can impact their health (Rosenstock et al., 1988). Personal characteristics and experiences, such as race, past health behaviors, and socioeconomic status, impact an individual's ability to enter and maintain a healthy state (Rosenstock et al., 1988). Furthermore, this model accounts for behavior-specific cognitions and effects, such as perceived benefits, barriers, and self-efficacy, along with the aforementioned personal and environmental influences (Rosenstock et al., 1988). This model concludes with an individual's obtaining his or her desired behavioral outcomes based on decisions made and plans followed (Rosenstock et al., 1988). This model has proven effective across many different groups of individuals in various settings and health situations, including HIV. The HBM can help explain the factors most commonly associated with increased HIV risk and infection among the most vulnerable populations based on previously tested and confirmed associated risk and explanatory factors. Decreased HIV infection rates occur when health care providers and outreach programs use evidence-based treatment and prevention interventions.

The HBM has enabled some advancements for a more widespread understanding of HIV/AIDS prevention. In applying this model to develop more current prevention methods, it is vital to nurture the relationship between a health care provider and patient or at-risk individual. This relationship can help at-risk individuals or patients overcome current prevention tools' informational barriers and help them develop stronger aptitudes for regulating healthier sex lives, intimate partner relationships, and gender roles with other intimate partners, all of which can be specifically applied to nursing paradigms (de Melo et al., 2016). Ng and Caires (2016) posited that the relationship between a health care provider and the at-risk individual or patient is essential for building compliance with HIV prevention through individualized patient plans that focus on the patient's level of engagement with and expectations of the prevention methods. Leidel et al. (2017) used the HBM to explore the use of opt-out HIV testing in which patients receive HIV testing by default. Leidel et al. indicated that the HBM can assist health care providers in enacting evidence-based care practices such as HIV testing programs and encourages health care providers to assess their patients' perception of HIV risk.

This philosophy applies to the MSM demographic through proper prevention messaging. Mimiaga et al. (2016) used the HBM to study the use of PrEP, wherein it was demonstrated that at-risk individuals disregarded the use of this prevention type and relied more heavily upon their prevention experiences and beliefs when deciding to begin

PrEP (Mimiaga et al., 2016). Mimiaga et al. indicated the use of experience and beliefs to guide prevention strategies can occur when at-risk individuals lack understanding of HIV and HIV prevention strategies, do not fully understand the efficacy of PrEP, or mistrust the health care system. This example represents an opening to a new methodology of proper prevention messaging among vulnerable populations, in that providing more consumable information on a prevention method's efficacy alongside additional information on such a method would improve overall believability, trust, and compliance in its use (Mimiaga et al., 2016).

Bakker et al. (1997) used the HBM to study risk perception differences and the use of condoms by younger and older MSM. Research findings revealed that younger MSM were more inclined to the use a condom when HIV positive individuals were present in their social circle (i.e., cues to action). Additionally, they were more likely to use a condom if they saw a perceived benefit to the use of a condom in preventing HIV (Bakker et al., 1997). Older MSM's use of condoms was found to be primarily based on their perception of the prevalence of HIV in their community and their risk of contracting the virus (Bakker et al., 1997).

Agha (2003) found that prevention messaging—in the appropriate manner—was demonstrated essential for reaching vulnerable populations in a study conducted in Kenya. This study found that specific mass media's brand messaging regarding positive lifestyle choices, such as the use of condoms, was more effective in initiating behavioral changes as opposed to generic messaging that relies on fears of HIV infection (Agha, 2003). The specific mass media strategies for prevention, used within the HBM, rely on messages tailored to specific audiences and with specific behaviors in mind. Implementing mass media campaigns promotes behavior changes by initiating interpersonal communication among these vulnerable groups' social networks (Aral et al., 2006). It is essential to customize the messages and communication style to meet the unique sociocultural aspects of each vulnerable population (Basu et al., 2016).

Within the sociocultural paradigm of prevention efforts, community-based structural changes have been proposed to increase these expected behavioral modifications, including the use of community-based centers for more efficient job training, education, housing, and health literacy wherein at-risk individuals can feel as though they are partners in these prevention strategies (Beer, Oster, Mattson, & Skarbinski, 2014 & Skarbinski, 2014). These community-based programs have been demonstrated as appropriate when extended to substance abuse programs and personal mental health treatments, both of which are significant risk factors of HIV/AIDS infection (Carey et al., 2009). The personalized prevention strategies should also address vulnerable populations' mistrust in and negative perceptions of health care institutions and representatives, which apply mainly to younger Black men (Dangerfield et al., 2017). Additionally, Peterson and Jones (2009) suggested that enhancing the self-efficacy of Black men could result in decreased HIV infection rates in this vulnerable population. HIV prevention strategies and interventions must address the demographical and social characteristics seen in each at-risk population. It is important for researchers and health care providers to understand the sociocultural factors impacting persons at-risk for HIV to ensure prevention efforts are effective.

There are several constructs of the HBM that apply to my research investigating the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. The HBM aligns with my research as it involves examining an individual's health behavior decision making (Rosenstock et al., 1988). Specific constructs of the HBM that are related to HIV risk perceptions include (a) at-risk individuals' perceived risk of contracting HIV, (b) perceived risk regarding the severity of the HIV infection, (c) perceived benefits about enacting HIV risk-reduction strategies, (d) perceived barriers to implementing identified risk-reduction strategies, (e) cues calling upon the at-risk individual to act, and (f) the individual's belief in self (i.e., self-efficacy) to engage in risk-reduction activities. The HBM indicates that at-risk persons are likely to engage in risk-reduction strategies when they believe that they are at significant risk of contracting a disease, believe the consequences of the disease to be impactful, have the ability and resources to overcome potential barriers, and have the desire to decrease their risk of contracting the disease (Rosenstock et al., 1988).

Demographic and Social Settings of HIV

HIV infection rates continue to increase among certain segments of the United States population (Henry J. Kaiser Foundation, 2018). Ascertaining the individual demographical makeup of those infected with HIV, and understanding these individuals' environment, helps researchers and health care providers understand the factors driving the increased HIV infection rates. Past research has consistently pointed out that a disproportionate number of persons either live with HIV or are newly infected with HIV in the southern United States (Reif et al., 2014). Extant research indicates that half of all

HIV diagnoses in the United States occur in the south and particularly in Florida, which has had the highest HIV prevalence rate (Grov, Golub, Parsons, Brennan, & Karpiak, 2010; Henry J. Kaiser Foundation, 2018). To this point, a comprehensive surveillance health data study found that the most common elements of HIV infection in the south have included poverty, low levels of government funding and Medicaid spending, and being African American, alongside the cultural stigmas and laws that marginalize individuals living with HIV (Reif et al., 2014). HIV infection and prevalence rates in southern states mimic national trends with the majority of new diagnoses occurring in large metropolitan areas (Aral et al., 2006; Gray et al., 2016; Henry J. Kaiser Foundation, 2018). Further, research indicates that the majority of HIV infections in the south occur in rural areas among the African American population based on the disproportionate number of those individuals residing in these southern rural areas (Aral et al., 2006; Gray et al., 2016; Henry J. Kaiser Foundation, 2018; Lichtenstein, 2007). Some researchers and health care providers believe that certain aspects of these geographical settings perpetuate a high incidence of HIV infection.

When considering the availability of medical services and the subsequent access to those services, the means and distances required to visit these locations may be both more troublesome in rural areas based on pure geography and more exacerbated in urban areas due to a lack of means to physically access services outside lower-income areas (Aral et al., 2006; Hixson et al., 2011). Shacham, Lian, Önen, Donovan, and Overton (2013) followed 762 HIV-infected individuals in St. Louis, Missouri and determined that the neighborhood contextual factors of poverty, unemployment, and a high-density

African American population led to poor health outcomes, such as unsuppressed viral loads, low CD4 cell counts, and a lack of antiretroviral therapy (ART) prescriptions. The neighborhood contextual factors identified align with the demographic makeup of groups who are at-risk of, contract, and live with HIV.

The findings in prior research indicate that certain specific characteristics represent most of those individuals at-risk of and afflicted with HIV. Not only are males more likely to be at risk, but males 35 years of age and younger have been determined the most vulnerable group (Dangerfield et al., 2017). These males are most commonly African Americans and Latinos, with the majority of the most severely affected groups being MSM and users of injection drugs (Henry J. Kaiser Foundation, 2018). Overall, these specific demographics and groups' perceptions of their overall risk of contracting HIV/AIDS appear to be affected by their settings, due to the general lack of access to health care and knowledge regarding HIV risk factors and prevention strategies (Aral et al., 2006). Furthermore, these groups' lifestyles—including their drug use and younger age range—often affect their decisions, thus making them more susceptible to infection (Hixson et al., 2011). Understanding the characteristics of many individuals at-risk for HIV can assist in the development of targeted and customized HIV prevention strategies.

Although HIV infection and diagnosis are seen mainly in younger age groups, the last decade has witnessed an increase in individuals aged 50 and older living with HIV (Emlet, 2007; Gaedtke Farber, 2014). With advancements in treatment and care available to HIV-infected individuals, those afflicted have begun living longer lives. As a byproduct, the last decade has witnessed a newer group of HIV positive individuals aged

50 years and older—a phenomenon that requires more attention in the mitigation of HIV (Emlet, 2007; Gaedtke Farber, 2014). Because the attention and focus for prevention and treatment of HIV have traditionally targeted 18 to 35-year-old adults, primary care doctors, researchers, and health care entities formerly overlooked this small group of individuals who possess risk behaviors similar to those of younger adults (Gaedtke Farber, 2014). Gaedtke Farber (2014) documented that older adults engage in injection drug use and unprotected sex; however, these adults and their primary care physicians generally believe they are not at risk of infection based on their age (Gaedtke Farber, 2014). This belief has resulted in inadequate testing, evaluation, and awareness of their HIV and risk statuses, which has also led to increasing numbers of newer diagnoses in the older adult population (Gaedtke Farber, 2014). The lack of risk and diagnosis perception contribute to older adults often exhibiting some HIV symptoms, such as fatigue, weight loss, and confusion, all of which mask their HIV status based on their age (Gaedtke Farber, 2014). Within the research on demographics and HIV infection settings, certain areas may require further consideration in continued research. Understanding the impact of age on those at-risk for HIV assists in the development of targeted interventions that account for the unique needs and perspectives of each individual.

The research concentrating on HIV’s social settings and demographics has covered many factors that extend and confirm past research regarding the associations and likelihoods of HIV risk and infection based on these demographic and setting factors. Some aspects of this research may require more active examination, such as studies involving more rural settings particularly within Florida, which has one of the highest

HIV infection rates in the United States (Henry J. Kaiser Foundation, 2018). Many of the cross-sectional and descriptive studies in past research concerning these specific factors were nationally and regionally based in nature and often concentrated in large metropolitan, urban cities such as New York, Atlanta, and Miami (Henry J. Kaiser Foundation, 2018). Furthermore, much of the previous research has concentrated on large samples of individuals ranging widely in age and ethnicity, while only a few have concentrated on specific samples or groups such as MSM or younger African Americans or Latinos (Mimiaga et al., 2016). A gap in the literature exists regarding the preinfection risk perceptions of Floridian MSM. Many studies are secondary data analyses using data from national surveys and state or nationally reported health surveillance data. There appears to be another gap in the current research involving studies that rely on more randomized control trials or more randomly sampled quantitative studies regarding specific demographics and settings, related to targeted vulnerable groups such as young individuals, minority MSM, and/or the injection drug user population. Overall, the research conducted on HIV-infected individuals' demographics and social settings lead to a commonly associated factor that is tied explicitly to HIV risk and infection rates—that is, poverty.

Poverty and HIV

Poverty has been documented as a common risk factor for HIV infection and mortality (Gray et al., 2016). The United States southern region has elevated rates of poverty when compared to other areas of the country (Gray et al., 2016). Gray et al. (2016) conducted a county-level analysis of United States southeastern regions, including

Florida, and found that poverty is prevalent in predominantly African American areas, which experience the highest HIV infection rates. Furthermore, Hixson et al. (2011) examined census data for areas with high HIV prevalence found these areas to be higher in poverty. Poverty has been shown to exacerbate other factors related to HIV infection rates, especially in people living with HIV (Hixson et al., 2011).

Poverty affects additional factors that may contribute to increased HIV risk and infection among certain vulnerable groups. Frequently, areas of high poverty that also have high rates of HIV infection experience unemployment and limited educational opportunities (Hixson et al., 2011). Inadequate educational preparation can result in limited literacy and employment opportunities, which can impact an individual's ability to obtain proper HIV-related health care and prevention services (Hixson et al., 2011). These impoverished areas' characteristics hinder efforts to provide information and awareness regarding the prevention and potential treatment of HIV that may reduce its prevalence among these vulnerable groups (Hixson et al., 2011). Also, poverty has created situations wherein individuals trade sex for resources or money, and a higher number of individuals enter the military—actions that merely exacerbate HIV risk and infection rates (Aral et al., 2006). Poverty has also been associated with increased HIV transmission, particularly among African Americans in that the use and availability of antiretroviral therapy, leading to lower viral suppression levels in HIV-infected males, can be too costly for at-risk individuals to afford (Beer et al., 2014). Poverty implications have also been demonstrated to extend to the availability of basic survival needs in HIV-infected individuals.

A common byproduct of poverty is hunger and a lack of sufficient food (Kalichman et al., 2010). Specifically, Kalichman et al. (2010) reported that a majority of their research participants living with HIV/AIDS experienced issues with food insufficiency. Food insufficiency is linked to poorer health for HIV positive individuals, including greater HIV symptoms, viral loads, and CD4 cell counts (Kalichman et al., 2010). Kalichman et al. found that poverty resulted in more than half of the individuals participating in a study in Atlanta, Georgia, to report being unable to access and afford food. Also, the study's men and women living with HIV encountered issues and concerns regarding having a place to stay, lack of transportation, and the ability to pay for medicine, all of which remain risk factors for HIV infection and treatment (Kalichman et al., 2012).

Murphy, Gorbach, Weiss, Hucks-Ortiz, and Shoptaw (2013) completed research investigating MSM in the most impoverished areas of Los Angeles, California. The researchers found that many of the men engaged in serosorting to avoid further HIV infection (Murphy et al., 2013 Hucks-Ortiz, & Shoptow, 2013). Many of the men had been homeless and previously incarcerated, and thus, perceived serosorting as a means to protect themselves and others from HIV infection; this risk perception, however, is often based on flawed logic, as the use of appearance, behavior, and personal knowledge do not guarantee that unprotected sex will not result in infection (Murphy et al., 2013). Also, the lack of access to health care and treatment, along with environmental education factors, appear to affect the vulnerable groups' overall risk perceptions based on their limited information and knowledge (Kalichman et al., 2012).

Research on the role poverty plays in HIV infection has explored large regional areas and urban cities in the southern parts of the United States and has confirmed the association between poverty and HIV. Research has relied upon convenience-based sampling methodology in areas where prominent amounts of individuals are living under impoverished circumstances. Poverty, a significant factor of HIV infection rates, has many tentacles that contribute to various adverse health outcomes—a fact also thoroughly confirmed through past research. Although past research has covered many factors, such as food insufficiency, employment rates, education levels, housing, and drug use, studies have often used national surveys such as censuses and collected health data; this research strategy may result in specific vulnerable populations not being represented in the research findings. Research investigating the impact of poverty and associated factors on HIV infection rates has often overlooked many subgroups. There is a need to individually examine vulnerable groups in a manner that can directly collect and track activities from the individuals as opposed to relying on secondary data. Studies that consider areas outside of major urban cities, as well as studies that focus on specific perceptions of HIV risk and infection as impacted by poverty and the associated factors, are needed. Poverty, as a significant sociodemographic factor examined in the research, is related to increased risk and infection rates in vulnerable groups, and individual factors such as injection drug use, play a part in increasing HIV infection rates among these groups.

Injection Drug Use and HIV Infection

One of the most individually driven risk factors of HIV infection, which also represents a significant vulnerable group, involves those who use drugs through injection. The Henry J. Kaiser Foundation (2018) indicated that an overall 6% of HIV diagnoses—with an additional 3% of gay and bisexual men—are attributed to drug use through injection. To this point, the Centers for Disease Control and Prevention (2009) indicated that the use of drugs through injection accounts for the national majority of HIV infection in Black men living in urban areas. This mode of transmission has been linked to infected individuals sharing needles and/or having unprotected sex with an infected partner (Centers for Disease Control and Prevention, 2009). This mode of transmission is also a significant individual risk factor in the United States southern regions (Hixson et al., 2011). Drug use has been linked to HIV transmission through increasing high-risk behaviors that inhibit safe practices as a result of the drug's effects (Carey et al., 2009).

To this point, Khan et al.'s (2013) longitudinal study confirmed that injection drug users had significantly higher levels of STIs, including HIV. The higher rates of STIs were attributed to participating in increased risk-taking behaviors, trading sex for money, and socializing with high-risk sexual partner networks (Khan et al., 2013). Participating in high-risk sexual partner networks increased an individual's risk of contracting a STIs (including HIV) due to increased risk of exposure (Khan et al., 2013). A lack of risk perception among injection drug users resulted in an increased risk of contracting HIV (Khan et al., 2013). Mitchell and Latimer's (2009) longitudinal study of non-seropositive HIV status drug users found that less than 33% of the total sample believed their perceived risk of contracting HIV was low. The low perceived risk of contracting HIV by injection drug users resulted in high-risk lifestyle choices such as having unprotected casual sex (Mitchell & Latimer, 2009). A long history of significant correlations supported the research on injection drug use with HIV infection through large secondary data studies and longitudinal studies.

The absence of more localized research regarding factors of HIV risk and infection were apparent within the individuals who use any injection or illicit drugs. Many of the studies within this area of concern relied on large urban areas in major cities, while research focusing on Florida thus far, remains missing. This research explored the associations of drugs with sexual relationships and the corresponding risk factors. However, the aforementioned research called for concentration on more recent HIV/AIDS-related events, including testing for the first time to discover one’s infection status. While little research has explored perceived risk status and HIV infection rates within this targeted vulnerable group, some has highlighted drug use through injection as a significant risk factor of HIV infection, yet nevertheless secondary to that associated with.

Men Who Have Sex with Men

Sexual intercourse between men was considered the main risk factor in the continually rising HIV infection rates among vulnerable populations. This mode of HIV transmission has risen to the number one risk factor for HIV infection (Henry J. Kaiser Foundation, 2018). This mode of transmission’s most vulnerable group in the United States was found to be the homosexual and bisexual male group, who account for 68% of new HIV infection cases, 67% of HIV diagnoses, and 56% of those currently living with HIV (Henry J. Kaiser Foundation, 2018). This comprehensive, national description of the impact MSM can pose on HIV risk and infection remained disproportionately true for African Americans over any other race or ethnicity.

Although the group designation "MSM" carried the highest risk of infection, Black men appear overly susceptible to this mode of HIV infection. Peterson and Jones (2009) conducted secondary data analysis and found that cultural, environmental, and socioeconomic elements contributed to young (i.e., 15 to 22 years) and adult Black men experiencing disproportionately higher HIV infection rates. Beer et al. (2014) conducted a national survey of 4,217 men in the United States, of which 445 were Black, and 1,004 were White. They found that Black men engaged in unprotected sex at the same rate as do White men and were less likely to have four or more sexual partners at any given time (Beer et al., 2014). Beer et al. concluded that the Black men in the survey received lower levels of antiretroviral therapy treatment and exhibited lower levels of viral suppression, which may account for the disparity in HIV infection among MSM. Factors such as age, lapsed health care coverage, poverty, education level, and the time that elapsed since diagnosis were found to contribute to this disproportionate phenomenon within this vulnerable group (Beer et al., 2014). Another factor that may contribute to higher-than-average infection rates among African American men that have sex with men is race-based sexual stereotypes (Newcomb, Ryan, Garofalo, & Mustanski, 2015 & Mustanski, 2015).

A longitudinal study of young MSM identified strong, racially tied, sexual stereotypes of African American men, such as aggressive and dominant traits that are held by other ethnic groups (Newcomb et al., 2015 & Mustanski, 2015). This finding was deemed to limit the sexual partner network of African American MSM to a very narrow and small group that correlates with a higher incidence of HIV infection (Newcomb et al., 2015). To this point, other ethnicities (e.g., Latinos) possess more extensive networks of more diverse ethnicities that are associated with a lower incidence of HIV infection (Newcomb et al., 2015). The risk factor of contracting HIV in MSM increases with drug use (Newcomb et al., 2015).

Apart from drug use via injection, general drug use was found to increase HIV transmission in MSM (Carey et al., 2009). Unprotected anal intercourse was cited as a leading contributing risk factor that is multiplied by general drug use (Carey et al., 2009). Carey et al. (2009) displayed the impact of this factor by illustrating that, of the HIV-infected MSM, factors usually associated with this type of infection, such as age, employment, race, ethnicity, and/or level of education are not significant factors. To this point, aside from income, the only other significant factor associated with HIV transmission through unprotected anal sex between men, was the use of Viagra, methamphetamines, poppers, ketamine, and GBHB (Carey et al., 2009). Specifically, Viagra and poppers increase the odds of HIV transmission and infection (Carey et al., 2009). One possible explanation for this association is that men who engage in higher-risk behaviors would naturally engage in both drug use and unprotected anal intercourse with other men (Carey et al., 2009). Other viable explanations involve the altering impact drugs have on decision making abilities and mental states, thus creating opportunities for negligence regarding condoms and intercourse with infected partners (Carey et al., 2009). Thus, perceptions of HIV/AIDS infection risks within the “MSM” group are ignored, discounted, and/or masked by the effects of drugs and risky behaviors. To a lesser extent, ancillary factors such as poverty, education, and access to care also affect perception due to inadequate resources and information.

Male-to-male sexual intercourse represents one of the most at-risk groups for HIV infection. Studies within this group tend to rely upon convenience sampling methods that use nationally based health data. This type of data may underestimate the specific impacts of factors contributing to this group’s at-risk status. Sampling strategies and available data have hampered the ability to generalize many of these studies to other areas in the United States. A significant gap in this type of research is the ability to randomly select and track real-time data on lifestyle, potentially associated factors, and risk perceptions among this vulnerable population. Whether it be related to drug use, poverty, or cultural implications, the ability to generalize several findings to a specifically targeted region (e.g., Florida) is not currently available. Furthermore, a more in-depth understanding of the decision making and acceptable risky behaviors would fill gaps in underlying reasons, prevention, testing, and treatment efforts that are prevalent in this vulnerable population. These risky behaviors studied in past research exemplify the health-related risk factors that often contribute to vulnerable populations continually witnessing higher HIV infection rates and diagnoses.

HIV-Associated Health-Risk Behaviors

As has been documented, the significant health-risk behaviors among vulnerable populations can be linked primarily to both MSM and injection drug use (Centers for Disease Control and Prevention, 2009; Henry J. Kaiser Foundation, 2018). However, some underlying health-risk factors may directly tie these behaviors to HIV infection cases, diagnoses, or risky behaviors that exacerbate the continuing rise in HIV infection and diagnosis among vulnerable groups such as gay, bisexual, young, and African American males (Beer et al., 2014; Carey et al., 2009). Among the most prominent health-risk behaviors within this category are testing and treatment (Henry J. Kaiser Foundation, 2018).

To maximize the prevention and reduction of HIV infections and diagnoses, vulnerable groups, as well as HIV-infected individuals, must adhere to testing and treatment standards (Henry J. Kaiser Foundation, 2018). Regular HIV testing is one of the most critical factors for reducing HIV infection and diagnosis among vulnerable groups—considering that about 14% of nationally infected individuals still do not know they are infected, 44% of African Americans nationally have not been tested at all, and 36% of HIV infection cases and 44% of AIDS cases are represented by African American men living in Florida alone (Aholou et al., 2017; Henry J. Kaiser Foundation, 2018). Dangerfield et al. (2017) offered credence to this risk factor in a national survey of 16,509 men in the United States, with the majority of the sample falling into the category of “no HIV testing at all.” Vulnerable groups’ negligence regarding regular testing increased both their HIV infection and their mortality risk (Aholou et al., 2017; Aral et al., 2006). Prolonged periods of no or minimal health care or treatment increased the risk of infection and death (Aholou et al., 2017; Aral et al., 2006).

Not only is the absence of HIV testing a health-risk behavior for at-risk individuals and vulnerable groups, but their failure to seek care and/or treatment is among other underlying factors associated with these risky behaviors (Beer et al., 2014). To this point, Beer et al. (2014) completed a national survey of 4,217 men and found that a significant health-risk factor in perpetuating higher-than-average HIV incidence rates in younger African American males is some individuals' decision to forgo seeking health care and treatment. To further add to this point, Dangerfield et al. (2017) conducted a national survey of men wherein they determined that, as a group, men do not routinely seek health care treatment and care; the majority of their sample comprised men 35 years of age or older who under-used health care and treatment services. Besides the health-risk behaviors associated with the absence of HIV testing as well as poor health care services and treatment, ancillary health-risk behaviors contribute to vulnerable groups' continuous increase of HIV infection and diagnosis.

Some common behaviors exist both nationally and in the aforementioned vulnerable groups who promulgate HIV infection and result in more frequent diagnoses. Among these are the common practices of having multiple sex partners and choosing not to use condoms (Aholou et al., 2017). Furthermore, many focus group participants in Aholou et al.'s (2017) Florida study conducted with Black men in rural areas revealed that these individuals exhibited other health-risk behaviors for possible HIV infection related to their social lifestyles, as they encountered situations and circumstances in night clubs, parties, and college events that encouraged casual, unprotected sex. These lifestyle decisions also highlighted an additional risky behavior in many situations with these individuals' sexual partners.

When examining the dynamics among sexual partners in the groups vulnerable to HIV infection, individuals' communication styles appeared as a health-risk behavior. Aral et al. (2006) pointed out that, within the vulnerable group of MSM, these individuals tend not to reveal their sexual activity with their partners, particularly if those partners are female. Furthermore, Basu et al. (2016) explored findings from interviews with African American and Latino MSM and found that many of the individuals did not discuss their HIV status with others, thereby exacerbating their risks of further infection. More to this point, Jin's (2007) research of 158 Australian homosexual men infected with HIV revealed that many became infected due to a lack of communication in selecting sexual partners by assuming, not knowing, or being misinformed about their partners' HIV status or viral levels. Finally, Aholou et al. (2017) found that homosexual African American men in rural areas of Florida were not likely to engage in HIV and sexual health-related communication with their sexual partners. The study found that the African American men who completed HIV testing and received sexual health-related education were more likely to discuss HIV with their potential and current sexual partners (Aholou et al., 2017). Attitudes and/or beliefs associated with youth, masculinity, and feelings of invincibility impact high-risk persons' perception of risk (Aholou et al., 2017). These individuals' misconceptions and general lack of knowledge regarding HIV, social stigmas, and mistrust of the health care system were also cited as inhibiting communication (Aholou et al., 2017). These factors appeared to be exacerbated by lifestyle choices, wherein desires overcome risk perceptions for gratification and pleasure (Aholou et al., 2017).

The research involving HIV testing has primarily focused on impediments and barriers to the insufficient number of individuals seeking HIV screening. Such research has primarily relied on national secondary data surveys, national health-related data, and a small representation of focus group-style qualitative studies. Areas of research that may fill the aforementioned gaps should include longitudinal-style studies with pre and post testing measures on risk factors and interventions. Furthermore, the measurement of more quantitative outputs to confirm the qualitative information in previous studies may further support future efforts to counter the impacts of age, masculinity, lifestyle, and culture on the general lack of testing to fill significant gaps in this research area.

National surveys often lack the nuances of more localized scrutiny of education, culture, and race concerning individual's decisions to seek health care services. The large segments of individuals who were unaware they were infected remain under-researched in these evaluations that often do not include specific questions to obtain additional information regarding these barriers. As for the research aspect concerning poor communication among sexual partners about their sexual activities, the reliance on self-reported data has possibly underestimated or overlooked specific alternative factors that led to this type of health-related issue. Research involving specifically tailored health-related questions that obtained information directly from accurate information sources could help alleviate the gaps in research. These health-risk behaviors highlighted how poor communication and lifestyle choices masked the perceived risk of HIV infection, thus leading factors such as race, ethnicity, and gender to affect HIV infection in vulnerable groups.

Race/Ethnicity and Gender Issues

A disproportionate number of HIV infection cases and diagnoses occur within the African American and Latino communities, with the majority occurring in MSM (Basu et al., 2016). To this point, African Americans represent the most significant number of individuals living with HIV, the highest rate of new HIV diagnoses, and almost half of all HIV/AIDS-related deaths (Henry J. Kaiser Foundation, 2018). Specifically, African Americans have the lowest survival rate following an AIDS diagnosis and the highest death rate (Henry J. Kaiser Foundation, 2018). Latinos have the second-highest rate of new HIV infection cases and a higher-ranked cause of death than do Whites (Henry J. Kaiser Foundation, 2018). Within these contexts, certain issues arise that are specific to these vulnerable minority communities.

The structural, societal factors associated with HIV infection and at-risk persons' characteristics (e.g., gender) impact the risk of contracting HIV. It has been established that men represent the most commonly infected gender (Dangerfield et al., 2017). Homosexual, bisexual, and other MSM constitute the highest number of HIV diagnoses among any groups, including gender (Henry J. Kaiser Foundation, 2018). Heterosexual transmission now accounts for more HIV diagnoses than at the beginning of the HIV epidemic but has been declining since 2012 (Henry J. Kaiser Foundation, 2018). However, new cases assigned to the disease's heterosexual transmission have steadily declined through the decades—a significant reason why the number of HIV-infected women has also steadily declined (Henry J. Kaiser Foundation, 2018). The exception to this statistic was the African American female population, which represents 60% of all female HIV diagnoses in the United States (Henry J. Kaiser Foundation, 2018), although this phenomenon was more heavily centered on poverty aspects and racial issues than gender issues (Hixson et al., 2011). Rising HIV infection rates in African American and Latino men—are impacted by several factors, including race, ethnicity, gender, and sexuality-related biases (Basu et al., 2016).

The factors that may contribute to these trends involve socially and culturally impactful circumstances and situations. Socially driven factors affect these vulnerable groups who often live in areas that are subject to higher levels of racial discrimination. Racial discrimination can impede and hinder access to health care, employment, and educational services and opportunities (Aral et al., 2006). To this point, research has found that some African Americans and Latinos generally dislike, distrust, and avoid health care entities based on feelings of mistreatment, lack of privacy, and racial profiling (Basu et al., 2016; Dangerfield et al., 2017). Furthermore, social structure inequities existed in the form of higher-than-average incarceration rates among African Americans, thus reducing their available sexual partners (Aral et al., 2006). Heightened levels of stigma instill fear and shame within these communities, which may consequently affect an individual’s choice to seek health care services to determine his or her HIV status (Aral et al., 2006). These vulnerable groups have often been associated with higher unemployment rates, lower education attainment rates, lapsed or no health insurance coverage, and recent HIV diagnoses (Aral et al., 2006; Beer et al., 2014). In traditionally Black communities and geographic locations, the cultural implications of fewer viable male partners and higher activity in a sex-based economy significantly contribute to HIV infection rates (Lichtenstein, 2007). These impeding factors involving race and ethnicity can lead to misconceptions and inadequate knowledge and awareness when perceiving the likelihood of HIV infection. Besides the structural and situational factors involving race and ethnicity, cultural factors apply to these groups.

Within the African American and Latino communities, men are more subject than women to scrutiny and attention concerning how they act and communicate. Culturally speaking, the African American culture deemphasizes the acknowledgment of HIV as a real concern or issue, combined with the strong Christian faith that marginalizes discussions about homosexuality and creates hidden issues that contribute to increased infections and risk perceptions (Basu et al., 2016). Within the Latino community, the focus on Christianity, alongside a strong sense of family and masculinity, create conditions that facilitate poor communication and acknowledgment of situations, therefore rendering homosexual men vulnerable to this disease. This type of cultural pressure on the aforementioned vulnerable groups additionally affects risk perceptions, whether it be misinformation and misunderstanding of these risks or communication suppression, all of which supplant the risk of infection. The aspects of race and ethnicity tie into gender in that the groups most vulnerable to HIV infection include the disproportionately affected African American and Latino male groups.

The extant research into race and gender has relied on outdated data-reporting mechanisms regarding the activities and modes that lead to infection within those groups. The existing research has also failed to consider how the regional and more localized factors that may differ concerning how race, ethnicity, and gender play into the socioeconomics of specific areas. Future research is needed to fill certain gaps in the understanding of race, ethnicity, and gender's influence on HIV transmission by tracking not only infected but also uninfected individuals to determine how any environmental or ancillary factors may differ between these groups. This research has also highlighted the fact that factors such as culture, race, and male gender contribute to HIV-related isolation and stigma.

HIV/AIDS-Related Isolation and Stigma

One of the more detrimental outcomes of HIV/AIDS stems from the associated stigma that leads to isolation. This isolation and stigma can lead to adverse health and socially related outcomes. Stigmas related to HIV have been classified as perceived (felt) stigmas, which are related to an individual manifesting a real or imagined fear of others' attitudes that may result in discrimination toward HIV, while enacted (actual) stigmas involve individuals directly experiencing acts of marginalization, isolation, or discrimination related to HIV (Galvan, Davis, Banks, & Bing, 2008). This stigma often manifests into discrimination and isolation and frequently stems from family, friends, and communities directly tied to these vulnerable individuals (Basu et al., 2016; Galvan et al., 2008). These types of stigmas can lead to significant adverse health and social outcomes.

HIV stigmas can be manifested from such aspects as societal rejection by friends, family, churches, or employers, wherein physical and social interaction is diminished due to their lack of confidentiality with an individual's HIV status (Emlet, 2007). Furthermore, stereotyping based on discrimination can create stigma toward sexuality, and transmission can occur between those possessing misguided fears of contracting the disease, homophobia, and/or employment discrimination (Emlet, 2007; Lichtenstein, 2007). Internal stigma related to feelings of loneliness can originate from personal experiences with society, in which physical and emotional aloneness create isolation (Emlet, 2007) to such an extent that individuals with high levels of internalized stigma often exhibit greater negative affect and emotional dysregulation (Rendina et al., 2018 2017). Additionally, based on race and gender, African American and Latino men who are homosexual, bisexual, or others who have sex with men are subject to such stigma (Basu et al., 2016).

African American and Latino men are subject to a significant amount of stigma that often leads to discrimination and isolation. The labels, stereotypes, and separation from others who prefer not to interact with these individuals can lead to repercussions such as depression, anxiety, loss of social acceptance, as well as psychological and social loneliness (Galvan et al., 2008). To this point, Galvan et al. (2008) surveyed HIV positive African American men and determined that 63% were living alone or in transition homes, 32% exhibited extremely depressive symptoms, and 31% experienced alcohol-related issues due to HIV stigma. Grov et al. (2010) studied older HIV positive men and found that HIV stigma and loneliness to be a predictor of depression. Depression, in turn, exacerbates the social and health-related consequences of HIV stigma and isolation, including disease acceleration, increase in viral load, and a higher likelihood of death (Grov et al., 2010). Of the 914 participants researched by Grov et al., the vast majority reported high levels of HIV stigma stemming from personalized stigma, fear of disclosing their HIV status, a negative self-image, and/or overall issues with others' attitudes. Also, 40% of those surveyed without depression symptoms and 49% of those exhibiting depression symptoms reported high levels of loneliness (Grov et al., 2010). Being an adult and living with HIV are unfortunately accompanied by these HIV-related stigmas and aspects of loneliness, and an often-overlooked vulnerable group facing these issues is adults aged 50 years and older.

The vulnerable group of adults aged 50 years and older are subject to the same types of HIV stigma and loneliness, as are other vulnerable groups, yet is unique to additionally associated issues. Emlet (2007) found that the majority of participants in his study of older adults and HIV stigma were subject to ageism and dealt with the comorbidity of other psychological and physical diseases, ailments, and issues. These factors exacerbated the impacts of HIV stigma and loneliness; 56% of these individuals lived alone and 96% of those individuals experienced HIV stigma (Emlet, 2007). As with other individuals living with HIV, the majority of participants experienced stereotyping, rejection, and feelings of aloneness and isolation from those closest to them or from society itself (Emlet, 2007). By examining the stigma and loneliness factors, the aforementioned vulnerable groups' risk perceptions can be affected by the fear of HIV status disclosure and/or fear of discrimination and isolation from family and friends.

These internal and external pressures may result in poor communication and engagement in riskier sexual relationships among affected individuals, which are greater considerations than is the risk of infection.

Research previously conducted on stigma and isolation has dealt with many small-sized samples and has thus, relied on a convenience sampling strategy that often-involved individuals already seeking services for these issues. The literature thus far appears unable to produce a robust, causal type of study that can lead to more specific aspects of HIV infection and the stigma and loneliness accompanying it. Furthermore, aside from age and sexuality-based groups, other vulnerable groups have not been thoroughly examined in studies that might also point out more stigma and isolation related factors occurring within these subgroups. Research addressing some of these groups—possibly individuals who are not seeking services compared against those who are receiving health- and support-related services—may fill current gaps in this research area. Research investigating factors associated with HIV stigma and isolation suggest the existence of specific issues related to this phenomenon, issues related to treatment compliance, and the impact of individual characteristics and cultural influences.

Treatment Compliance

A significant aspect in attempting to reduce HIV infection cases, diagnoses, and mortality rates among those living with HIV involves following through with treatment plans and adhering to prescribed medication regimens and health care provider follow-up appointments. Immediate and continuous adherence to antiretroviral therapy protocols significantly reduces mortality and improves the overall health and living conditions of those who have HIV (Henry J. Kaiser Foundation, 2018). This treatment, along with adherence to other aspects of the treatment plan, can render an infected individual with virtually undetectable levels of the virus, thus potentially eliminating his or her risk of spreading the infection to others (Henry J. Kaiser Foundation, 2018). Unfortunately, many individuals decide against seeking care and/or treatment or are unable to do so for the various individual, financial, cultural, and/or societal reasons.

Younger adults leading complicated and active lives are at higher risk of treatment noncompliance (Barclay et al., 2007; Beer et al., 2014; Dangerfield et al., 2017). Younger males appear to experience issues related to higher levels of drug abuse and dependency, higher levels of apathy, lower perceived treatment utility, lower levels of internal locus of control, lower levels of treatment self-efficacy, and higher feelings of masculinity and invincibility (Barclay et al., 2007; Dangerfield et al., 2017). Researchers have also found that young MSM are less prone to follow through with preventative treatment measures due to their misunderstanding and misinformation regarding the effectiveness, need, and feasibility of such measures (Kubicek et al., 2015). Although older adults are more compliant with treatment than are younger adults, they possess individual aspects including lower levels of learning, memory, and global cognitive functioning, all of which have been determined to impede their adherence to treatment plans (Barclay et al., 2007). Besides individual treatment compliance issues, structural society issues are apparent among vulnerable groups.

African Americans in both urban and rural areas possess disproportionate HIV infection rates and individuals living with HIV. It is within this context that treatment compliance can become problematic, as both these areas are susceptible to poverty (Aral et al., 2006; Barclay et al., 2007). The issue of poverty affects treatment compliance through lack of income, lack of health care coverage, lack of access to treatment, and inadequate means to physically travel to clinics for treatment (Aral et al., 2006; Barclay et al., 2007; Beer et al., 2014). Besides poverty, racial discrimination occurs in these predominantly African American areas, where treatment compliance is low due to poor access to education and limited employment opportunities (Aral et al., 2006; Beer et al., 2014). Racial discrimination can lead to these vulnerable individuals feeling unwelcomed at medical clinics, disrespected by health care providers, and fearful that their privacy will not be maintained (Dangerfield et al., 2017). Poverty associated with food insufficiency is an additional link to treatment compliance.

Treatment compliance is negatively affected by factors associated with poverty, such as low income that cannot accommodate health care and/or medication or even a lack of transportation and housing. Within the poverty structure, food insufficiency is a significantly associated factor that also possesses an established link to the incidence of HIV/AIDS (Kalichman & Grebler, 2010). These linked factors have led to issues in treatment compliance among those infected individuals suffering from food insufficiency. Kalichman et al. (2010) studied men and women residing in Atlanta, GA, and found that individuals with higher instances of food insufficiency possessed higher levels of treatment noncompliance than those not experiencing such insufficiencies. Additionally, food insufficiency was more predictive of treatment noncompliance than were significant factors such as education, employment, income, and substance abuse (Kalichman et al., 2010). Furthermore, in a study of men and women in Atlanta, GA, Kalichman et al. (2010) determined internalized, perceived stressor severity to be significantly associated with treatment noncompliance, yet again, not to a greater extent than hunger or food insufficiency. The food insufficiency factor, as a byproduct of poverty, creates scenarios wherein a lack of financial means may force decisions of food over treatment. Within the structural, societal factors that affect treatment compliance, there lies a cultural issue, as well.

The cultural implications that play into treatment compliance affect African American and Latino homosexual and/or bisexual males in particular. Aral et al. (2006) indicated that the cultures active in the African American communities—specifically in rural areas—emphasize religious beliefs in sexual relationships and activities, thus, producing fear and shame that suppress the use of health care services. More to this point, African Americans and Latinos experience cultural pressures to suppress HIV-related communication and the norms dictating how one should act—for instance, the pressure to be masculine often discourages these individuals from continuing or seeking medical attention (Basu et al., 2016). These types of cultural stigmas and discriminatory implications are among a myriad of factors that lead to the continual rise in HIV infection and diagnosis among vulnerable groups. Overall, the lack of treatment compliance can influence continued HIV infection within vulnerable populations. Risk-masking beliefs and attitudes related to age, poverty, education level, access to health care, and food insufficiency issues can impact vulnerable groups’ risk perceptions related to treatment noncompliance. The factors inhibiting treatment compliance are visible within the HBM.

The visibility of these factors can assist in creating strategies to facilitate an increase in treatment compliance within vulnerable populations.

Promoting treatment compliance through the paradigm of the HBM is possible. Research has found that a respectful and therapeutic relationship between the health care provider and patient is needed to create a customized care plan that accounts for the affected individual's level of engagement and outcome expectations (Ng & Caires, 2016). The personal factors of HIV-infected individuals must be addressed to change their treatment compliance behaviors. It has been determined that, among the younger HIV-infected individuals, interventions that counter the impacts of lower self-efficacy and treatment utility levels can increase treatment compliance (Barclay et al., 2007). Specific behavioral and mental health-based interventions within the group aged under 50 years concentrate on improving those individuals' attitudes toward successfully managing complex treatment regimens; thus, having confidence in a treatment's overall effectiveness can improve one's treatment adherence (Barclay et al., 2007).

Research indicates that African Americans are not only disproportionately affected by HIV infection but also do not adhere to treatment plans at higher levels than expected. To support and improve antiretroviral therapy (ART) in Black MSM, individualized support programs that encourage Black men's attitudes, aptitudes, and experiences should be included in the pantheon of a successful program's prescribed elements. Specifically, it was determined that programs for this targeted group that link them to particular health care providers and treatment programs might increase treatment adherence (Beer et al., 2014). Overall, in treating MSM, it is imperative to include community-based general education and employment training programs that improve individuals' knowledge of and belief in effective treatment compliance (Beer et al., 2014). It has also been noted that some compliance disparities among various ethnicities may be overcome through retraining health care providers to pay greater attention to their prescribing patterns and internal assumptions regarding who will or will not adhere to treatment (Beer et al., 2014). Addressing the resource limitations, stigmas, and false beliefs of these groups—as they pertain to the effectiveness and availability of treatment—can also improve treatment compliance (Beer et al., 2014).

Integration of HBM elements by HIV programs and providers can assist in increasing treatment compliance. When addressing the element of an individual's experiences and characteristics, the intervention must acknowledge his or her past behaviors and actions alongside the personal, environmental circumstances by which those behaviors and actions occurred, such as poverty, cultural beliefs, and/or mental health status regarding stigma (Ng & Caires, 2016). Examples used in some intervention plans include specialized educational programs on treatment or the use of rewards programs (Ng & Caires, 2016). The element of behavior-specific cognitions and affect must subsequently be addressed, such as the treatment's perceived benefit, the individual's self-efficacy in handling the treatment, as well as, interpersonal support from family and friends (Ng & Caires, 2016). Research indicates that compliance interventions such as cell phone reminders can assist in helping to improve treatment adherence (Ng & Caires, 2016).

Regarding the final element of behavioral outcomes, commitment to an action plan, and the improvement of health-promoting behaviors should be the goals of treatment adherence (Ng & Caires, 2016). Specifically, simplifying the dosage amounts, frequency, and mechanics of self-administering drugs and even simplifying scheduled visits can improve treatment compliance (Ng & Caires, 2016). All these types of individualized treatment compliance plans and interventions must be contingent upon developing a collaborative partnership style between the provider and the patient such that the patient feels he or she has some control and decision on-making ability during the treatment process (Ng & Caires, 2016).

Factors related to the HIV/AIDS risk and infection paradigm can impact HIV-related treatment compliance and behavioral modifications. Factors of age, race, ethnicity, poverty, drug use, and gender, to name a few, have been examined concerning treatment compliance issues. Many previous studies have presented both qualitative and quantitative results and analyses. Predominantly—and mirroring research on these ancillary factors related to noncompliance—many studies rely on self-reported and national health data collected from major urban cities. Studying specific vulnerable populations and targeting groups such as young, African American MSM who reside in more rural or localized regions (e.g., Florida) would provide further means for filling specific gaps. The ability to conduct more randomized trials that include pre and post interventions on compliance barriers may also considerably extend the research in this area. As is the case with most personal health-related data, added bias and underreporting may occur and consequently hinder the further understanding of these issues. Most prominent in this issue is the lack of research concerning the provider network of treatment, care, and resources; whether it be a stereotype involved in issuing treatment or a lack of understanding regarding how more personalized and culturally aware interactions with patients may affect this issue, limited research has thus far delved into these areas. Ultimately, this type of treatment compliance not only increases the patient's quality of life and subsequent life expectancy but also potentially reduces further infection incidences that would otherwise perpetuate this cycle of continued HIV infection among vulnerable groups.

Summary and Conclusions

Although the epidemic of HIV/AIDS infection has progressively diminished over the years alongside more effective education, increased knowledge, and improved health care treatment, HIV diagnoses nevertheless continue to rise among specific vulnerable groups. These trends can both be explained and understood in part by the HBM, which considers the individual's interactions with and influences from the environment, internal attitudes, personal characteristics, past behaviors, and perceived outcomes that affect his or her overall health decisions. With that foundational backdrop, those vulnerable individuals living in impoverished areas throughout the south who are primarily young, male, African American, have sex with other men, have low education levels, and experience difficulty acquiring employment possess the highest risk of contracting the HIV/AIDS infection. Those diagnosed with HIV are more likely to be located in nationally urban areas and southerly rural areas—particularly Florida.

Factors that contribute to these groups being most vulnerable to HIV are most often related to poverty and race. In the south and across the United States in many impoverished areas, predominantly African American populations are likely to be encountered. Poverty combined with race lead to issues wherein a general lack of information, education, and employment opportunities culminate in limited emphasis on prevention, low understanding of risks, and a paucity of resources to combat and reduce HIV infection rates. A significant contributing factor to HIV infection and risk within impoverished communities is food insufficiency; whether this insufficiency is an issue of choosing food over care and treatment or exchanging sex for money or food, this poverty-specific factor has exacerbated HIV/AIDS infection rates within these areas. Within this vulnerable population group, MSM and injection drug users present the highest risk of continually transmitting HIV.

The factors that exacerbate nationally rising HIV infection rates affect MSM and injection drug users. Personal attitudes, knowledge, access to resources, stigma, and discrimination afflict these groups who are underemployed, mainly African American or Latino, undereducated, and often involved in regular drug use, the latter of which affects their risk perceptions. These factors also significantly affect the use of testing and health care services, thus explaining the rising rates of HIV infection within these vulnerable groups.

Besides these factors, race, ethnicity, and culture play equal roles in the rising HIV infection rates. The stigma and isolation created through discrimination and the cultural stances of African Americans and Latinos typically suppress the communication about and actions against HIV that may otherwise help prevent and reduce HIV infection in these groups. Christians' religious views, traditional stances on sexual relationships, sexual partners, and family, and traditional masculine-type aspects contribute toward decreasing preventative measures and consequently increasing stress, anxiety, depression, and isolation within these minority men who are either homosexual or bisexual.

The main factors of individual demographics, structural, social realities, culture, and personal attitudes additionally contribute to poor treatment compliance. These factors can suppress treatment compliance through discrimination based on individuals' minority statuses. These individuals' cultural dynamics can affect compliance through poor acknowledgment of and communication about HIV in combination with masculinity aspects and religious pressures. The structural realities of living in impoverished areas with fewer resources, lower incomes, and health care-related issues are additional forces that affect treatment compliance. Particularly younger men's attitudes often result in noncompliance based on feelings of anxiety and distrust in the medical community, feelings of invincibility or perceived lower risk, or feelings of excessive masculinity that discourage their participation in these types of treatment protocols. Moreover, it is apparent that the vulnerable group with the highest risk of infection are MSM.

Besides being at risk of further infection, this group encompasses extraneous factors that may affect their risk perceptions of this disease. This vulnerable group overlaps into many other vulnerable groups and risk factors, and these individuals can be hampered by structural elements of poverty, low education, and unemployment, all of which contribute to a lack of knowledge, information, and understanding of their risks.

Poor access and resources concerning health care, treatment, testing, and prevention contribute to HIV-related risk perceptions. Additional factors within these structural elements that contribute to risk perception are the personal beliefs and attitudes toward the health care system that often serve as barriers to individuals gaining knowledge and information related to HIV/AIDS. The more personal and individual factors that affect the risk perception of MSM include race, gender, age, culture, and drug use.

The individual factors of race, gender, and age are accompanied by more personal feelings, beliefs, and lifestyle attitudes that may affect or even mask real risk perceptions. Whether it be the cultural and ethnic aspects of discrimination, mistrust in providers, or lack of government resources and/or funding that often marginalize African Americans and Latinos, these factors shape individuals' overall risk perceptions. The attitudes that often accompany being younger and male precipitate the overlooking and discounting of health care services that may enlighten or change individuals' beliefs about risks. More to the point, the personal attitudes and lifestyle choices of younger males in cultures that place certain values on behaviors and actions can often diminish individuals' perceived risks. Without perceived risk, many individuals engage in additional risky behaviors that encourage less frequent testing, no treatment, and poor communication. Drug use encompasses risk and is representative of a dangerous lifestyle such that more sexual encounters occur among multiple partners without the use of prevention resources—not to mention the actual effect of drugs on impulsivity and decision making within this vulnerable group. It is not uncommon for these vulnerable individuals to be subject to pressures of internal and external stigma and isolation that drive the need to fulfill personal desires and pleasures. In these cases, individuals may suppress their risk perceptions for the sake of engaging in intimate relationships and riskier sexual behaviors. Additionally, the phenomenon of poor communication between the pool of suitable partners and the vulnerable individual occurs when reliance upon trust in others' statements about HIV infection and serosorting replaces risk evaluations. In any event, this group is one that requires further research in various methods and forms that can provide more useful information on risk perception and HIV/AIDS infection rates.

It appears that much of the extant research has sufficiently associated, described, and correlated the many prominent risk factors associated with the HIV/AIDS infection. Previous studies commonly used smaller sample groups and semi-structured interviews to gather valuable, qualitative understandings of these factors. Many nationally based, large samples of risk factors and individuals representing the main vulnerable groups have been conducted and have thus resulted in many confirmed trends in the HIV/AIDS infection and its risk factors. Nevertheless, many studies are non-causal in structure, thus rendering them difficult to generalize across other vulnerable groups beyond their specific contexts, which often take place in large, major urban cities in the United States.

The research gap that most often occurs is the inability to generalize across various locations and specific vulnerable groups. Particularly, beyond a clear trend found within the national studies or in large urban cities, some aspects of the aforementioned specific vulnerable groups are underrepresented. Those studies that do focus on specific vulnerable groups have historically used self-report data that makes interpreting and generalizing the data difficult. Localized studies within cities in high-prevalence states such as Florida, as well as more randomized sampling strategies that collect real-time data on many risk factors that have proven problematic in past research, can fill the gaps in current research. Overall, focusing on the aforementioned vulnerable groups in randomized studies that incorporate pre and posttest real-time data may prove valuable by possibly diminishing the self-report bias prominent among people diagnosed with this disease and thus filling numerous gaps for future research. Along with this type of research, the HBM may be used to aid HIV prevention and treatment.

Overall, the continually rising HIV rates among young African American and Latino men who are homosexual or bisexual (particularly in the south) possess factors that are common to this issue. By considering the tenants of the HBM addressing the individual (e.g., his or her experiences and expectations), researchers can gain a better understanding of how vulnerable groups are affected. By examining issues presented through their minority race, socioeconomic status, drug use, cultural pressures, and internal risk perceptions, treatment effectiveness, and self-efficacy can contribute to this phenomenon. Whether it be the mode of transmission, high-risk behaviors, or frequency of testing and treatment, this vulnerable population requires specific, targeted efforts of education, prevention, and assistance to help reduce their prevalence of HIV infection. Past research has proven that this model may focus on targeted vulnerable groups as its strategy in future research.

Many vulnerable groups' risk factors often overlap with those of the individuals included in these groups; for example, young African American males who have sex with men represent groups possessing risk factors related to race, age, ethnicity, gender, and sexual orientation that have all posed issues regarding HIV/AIDS treatment and prevention. To attenuate these issues, researchers have demonstrated that personalized, individualized prevention and treatment messages can and do work; whether it be mass media messaging to prompt social network conversations or community resource outlets that help re-orient the messages of inclusive, welcoming, and partnership-based health care services, treatment, and training, this type of messaging is helpful as part of a strategy framework.

Adding services and resources to help with care, testing, treatment, education, employment, housing, and food services has been demonstrated to improve both HIV/AIDS prevention and treatment. The development of personal and caring health care provider-patient relationships built on the premise that the individual has ownership of and power over his or her decision making can also result in decreasing individuals' risk of contracting HIV and adhering to established treatment plans. By incentivizing compliance, utilizing a family- and a friend-based support network, prescribing simplified treatment interventions, and using health care appointment reminders, prevention and treatment programs gain strength. Future research should focus on the most vulnerable populations to assess the validity of these strategies alongside their outcome measures to further highlight relevant, helpful information and data that supports improved HIV risk-reduction strategies and treatment plans.

The literature search I conducted revealed several gaps in knowledge related to HIV prevention, treatment, disease management, and risk-reduction strategies. The literature review identified a lack of knowledge related to the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. Given the increasing number of new HIV diagnoses in adult MSM living in Florida, there is a need to research this population further. Research findings addressing the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV could bring about positive social change through the development and implementation of HIV prevention programs better meeting the needs of this population and ultimately, reducing the number of new HIV diagnoses.

Chapter 3 discusses research methodology, sampling strategies, participant recruitment and selection, data collection and analysis, and threats to validity.

Chapter 3: Research Method

Introduction

The purpose of my phenomenological research study was to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. When reviewing the literature, I found previous research exploring the risk perceptions of HIV positive MSM, the impact of HIV in the southern United States, and speculated socioeconomic factors contributing to increased rates of HIV in the south. No phenomenological research studies were found exploring the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. According to Creswell (2014), phenomenological research seeks to understand participants' experiences, perceptions, and interpretations. Thus, the research was conducted using a phenomenological approach to add greater meaning to current HIV prevalence data. This research may provide nurses, other members of the health care team, public health officials, HIV/AIDS outreach programs, and governmental agencies with greater insight into the factors contributing to HIV infections in the Tampa-St. Petersburg-Clearwater metropolitan area.

In Chapter 3: Research Method, I will provide in-depth information concerning the research design and rationale, my role in data collection, research methodology, research instruments used, explanation of the instruments used, threats to validity and trustworthiness, and ethical considerations.

Research Design and Rationale

With the development of antiviral medications and sexual health-related education and awareness campaigns, the United States has experienced a decline in the number of new HIV diagnoses (Centers for Disease Control and Prevention, 2018c). Florida ranks second for the number of new diagnoses and number three for the number of HIV positive residents (Centers for Disease Control and Prevention, 2017; Florida Health, 2018a). In 2017, there were 4,949 persons diagnosed with HIV, 116,944 persons living with HIV, and 2,044 persons diagnosed with AIDS (Florida Health, 2018a). The Tampa-St. Petersburg-Clearwater metropolitan area continues to experience high rates of new HIV diagnoses, with 516 new diagnoses reported in 2016 (AIDSVU, 2018). To better understand the current upward trajectory of HIV diagnoses in the Tampa-St. Petersburg-Clearwater metropolitan area, I conducted a study investigating the preinfection perceptions of risk of contracting HIV in HIV positive adult MSM living in Florida.

Reif et al. (2014) indicated that southern states have and continue to be disproportionately impacted by HIV and AIDS when compared to other areas of the United States. In 2016, there were 15,807 deaths in persons diagnosed with HIV in the U (Centers for Disease Control and Prevention, 2018b). According to the Centers for Disease Control and Prevention (2018b), of the 15,807 deaths, 47% were in Americans residing in the South, 23% in residents of the Northeast, 16% in those residing in the West, 11% in residents of the Midwest, and 2% from persons residing in United States territories. The Centers for Disease Control and Prevention (2018b) indicated that in

2015, southern states accounted for 46% of all HIV positive persons and 52% of all new HIV diagnoses in the country. Florida was identified as being one of the southern states most impacted by HIV in addition to Alabama, Arkansas, Delaware, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia (Reif et al., 2014). For MSM residing in southern states, social, economic, and environmental factors such as fear of rejection, prejudice, poverty, injection drug use, drug use, unprotected sexual intercourse, and the geographically dispersed location of HIV positive persons in the South have contributed to the increased prevalence of HIV and HIV diagnoses (Centers for Disease Control and Prevention, 2017; Sullivan et al., 2014).

I used a qualitative research methodology to explore the preinfection perceptions of risk of contracting HIV in HIV positive adult MSM living in Florida. The use of a phenomenological approach was used to provide research participants with an opportunity to provide detailed descriptions of their perceptions of HIV risk before being exposed to HIV and experiencing seroconversion. A qualitative approach was used to obtain participants' perceptions, beliefs, opinions, feelings, and experiential knowledge related to their pre-HIV diagnosis sexual practices, health-related knowledge and practices, sociodemographic factors, relationships with others, and potential experience with behaviors or activities increasing an individual's risk of contracting HIV. Creswell (2014) indicated that a phenomenological research method aims to limit biases and assumptions and seeks to provide a greater understanding of human experiences, responses, and feelings surrounding a particular phenomenon.

A phenomenological research study design was used to explore the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. The use of a phenomenological design guided my interviewing of participants, data collection practices, and the identification of emerging codes and themes. According to Ravitch and Carl (2016), phenomenological research aims to explore what participants experienced and how they experienced the phenomenon of interest. Phenomenological research can provide researchers with a deep and meaningful account of participants' experiences with a phenomenon and the opportunity to understand the underlying meaning existing in each participant's responses (Ravitch & Carl, 2016). A phenomenological research study design was selected as the research conducted sought to seek the perceptions and lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV.

Role of the Researcher

I conducted a qualitative research study and took on the role of participant interviewer, data collector, data analyst, and disseminator of research findings. Before conducting the qualitative research study, I completed a thorough review of the literature concerning preinfection perceptions of risk of contracting HIV in HIV positive adult MSM living in Florida. Creswell (2014) indicated that the literature search provides the qualitative researcher with information concerning gaps in the literature, potential data collection instruments, and an understanding of current knowledge of the topic. I approached my research question with an open mind and worked to identify personal assumptions on this topic to promote the credibility, transferability, confirmability, and dependability of the research findings. Creswell stated that qualitative research necessitates researchers determining the sample size based on the objectives of their research and ongoing data collection until data saturation occurs. As the researcher for this study, I developed my research question, created an interview guide (based on the HBM), and interviewed participants once Walden University's Institutional Review Board (IRB) approved my research. During the interviewing process, I interviewed each participant using a standardized process, recorded the data collected, and took steps to minimize bias. I maintained the participants' privacy, did not collect data from persons I had a personal or professional relationship with, and adhered to Walden University's IRB requirements including, but not limited to, the recruitment of study participants, the obtaining of informed consent, the interviewing of participants, storage of data, and ongoing evaluation for potential ethical issues.

Methodology

Target Population

Vogt and Johnson (2016) described target populations as a group of people, organizations, events, objects, or other phenomena of interest that researchers want to describe or to generalize. The population for this study was HIV positive MSM living in Florida during the time of the research data collection. Participants completed a brief screening before being interviewed to ensure they met inclusion criteria (i.e., an HIV positive, adult homosexual or bisexual man, living in Florida during the time of the research data collection). In 2017, Florida was home to 4,949 individuals who received an HIV diagnosis (Florida Health, 2018c). MSM account for 3,023 (i.e., 61%) of those diagnosed (Florida Health, 2018c). I selected the Tampa-St. Petersburg-Clearwater metropolitan area (comprised of Pinellas, Hillsborough, Hernando, and Pasco counties) as it has higher than average rates of new HIV diagnoses, with 516 new diagnoses reported in 2016 (AIDSVU, 2018). Additionally, the Tampa-St. Petersburg-Clearwater metropolitan area has a significant population of persons living with HIV (Florida Health, 2018c). Individuals belonging to the target population (i.e., HIV positive adult MSM living in Florida) meeting research study inclusion criteria were interviewed to gain a greater understanding of their preinfection perceptions of risk of contracting HIV.

Sampling

The use of purposive sampling was used to obtain research participants for this study. Ravitch and Carl (2016) indicated that qualitative researchers often use purposive sampling as it allows for the gathering of detailed information from specific populations and locations. Researchers using purposive sampling select research participants based on their experiences and ability to answer the research questions (Ravitch & Carl, 2016). Collectively, all participants interviewed should meet the research study inclusion criteria, and based on their experiences and knowledge, be able to provide the information needed to answer the research questions (Patton, 2015).

Recruitment of Participants & Research Instruments

The recruitment of participants occurred through advertisements on social media outlets aimed at MSM in the Tampa-St. Petersburg-Clearwater metropolitan area or through referral (e.g., snowball sampling). Persons interested in participating in the research were invited to contact me for additional information. During the initial contact, I explained the research being conducted, verified that the person met the eligibility criteria, reviewed the consent form, and, assuming the person was still willing to participate, conducted the interview or scheduled a date and time for the interview to occur. Depending on the availability of the participant, the interview occurred either in a neutral and private location, telephonically, or via an instant messaging application.

When meeting with the participant to conduct the interview, I introduced myself and thanked them for their interest in my research. Immediately before interviewing the participant, I provided an overview of the interview process and then read the consent form to all participants and asked for a signature from participants completing an in-person interview or requested verbal consent from those completing the interview telephonically. Participants completing the interview via instant messaging software were provided a copy of the consent form electronically. I reviewed the consent form with each participant and ensured any questions had been answered. I then asked each participant to either sign and return the consent form or acknowledge their agreement to participate via written text. Participants were told that their written or verbal consent and ongoing participation in the interview process would be viewed as their ongoing agreement to participate. Each participant was offered a copy of the completed consent form.

I was the primary research instrument for this research study investigating the preinfection perceptions of risk of contracting HIV in HIV positive adult MSM living in Florida. During the data collection phase of this research study, I interviewed each participant. The interview adhered to a researcher-developed, tested, and peer-reviewed interview guide (see Appendix B). The interview questions were based on the constructs of the HBM. Peer review of the interview questions assisted in promoting content validity (Patton, 2015).

The interview began with general questions about the participant's perceptions and lived experiences regarding their preinfection risk of contracting HIV. If needed, I prompted participants to share additional insight to ensure sufficient responses (i.e., data). Participants were encouraged to answer the interview questions freely (Patton, 2015). I worked to ensure that the interview questions were not leading (Patton, 2015). Additionally, all efforts were made to promote candidness during the interview and prevent any perceived or actual influence or pressure on participants (Patton, 2015). Each participant interview lasted approximately 20 to 45 minutes. At the conclusion of the interview, participants were given a post interview participant information handout which provided a listing of HIV/AIDS-related resources, information on contacting a local crisis counseling center, and information on how to access the research findings on Walden University's ScholarWorks website.

All face-to-face, telephonic, and web-based interviews were recorded to ensure the accuracy of the data collected. Participants were identified using a pseudonym. At the end of the interview, the audio recordings were transcribed in preparation for data analysis. Destruction of the recordings occurred after they were transcribed and verified for accuracy. During participant interviews, I wrote memos to use in the data analysis process.

Data saturation is defined by Ravitch and Carl (2016) as the point at which no new themes emerge from the collected data. Thus, a concurrent review of the data collected was completed to identify when data saturation occurred. A lack of data saturation can impact data analysis and skew research findings (Ravitch & Carl, 2016). Data saturation occurs when no new codes or categories are apparent in the data analysis process (Patton, 2015). Data saturation determined the sample size for this research (Ravitch & Carl, 2016).

As data collection and transcription occurred, I coded, categorized, and placed it into a spreadsheet for analysis. Qualitative research requires that researchers carefully examine the data collected for commonalities and to document these commonalities by coding and categorizing the data (Ravitch & Carl, 2016). Analyzing the codes and categories identified assisted me in identifying themes. The identified themes and theoretical model guiding this research provided me with the information I needed to answer my research question.

Data Collection

Data collection for this research occurred during each participant's interview. A phenomenological approach was used throughout the interview to encourage open communication, and the sharing of detailed information about each participant's lived experiences (Patton, 2015). Interview questions inquired about participants' recollection of pre- and post-HIV diagnosis experiences, thoughts, feelings, emotions, reactions, beliefs, and the collective impact that HIV has had on their life, physical and psychological health, spirituality, and sexuality. I asked participants open-ended interview questions in an unstructured manner to promote detailed and full disclosure about their preinfection perceptions of risk of contracting HIV (Patton, 2015). Each participant was encouraged to depict the environment or setting in which their lived experiences occurred (Patton, 2015).

The unstructured interviews were conducted individually to promote full disclosure, privacy, and participant comfort. I offered participants an opportunity to identify a location that was private and convenient for the interview to occur. Participants were also given the option to be interviewed telephonically or through email or instant messaging software. Each interview lasted approximately 20 to 45 minutes. Interview questions focused on participants' demographics, sexual behaviors, overall health, and thoughts, perceptions, and attitudes about HIV and AIDS. I prompted participants to provide a greater explanation of their lived experiences and perceptions and sought clarification as needed to ensure understanding. At the conclusion of the interview, participants were given a post interview participant information handout, which provided a listing of HIV/AIDS related resources, information on contacting a local crisis counseling center, and information on how to access the research findings on Walden University's ScholarWorks website.

All interviews were recorded for analysis purposes, and all participants identified by a pseudonym. Audio recordings from face-to-face or telephonic interviews were transcribed and verified for accuracy. Once the audio recordings were transcribed and verified, the original audio recordings were destroyed. Participants who completed the interview received a $25 gift card as a gesture of appreciation for their time and sharing of information related to their preinfection perceptions of risk of contracting HIV.

Debriefing Procedures

Participants in qualitative research are selected based on their experiences and ability to answer the research questions (see Ravitch & Carl, 2016). Salkind (2010) describes the debriefing process as the providing of information about a study to those who have participated in a research study. The debriefing process builds upon the information that participants receive during the recruitment and consenting processes (Salkind, 2010). Debriefing aims to provide participants with accurate information related to the purpose of the study, data collection practices, research procedures, and the steps taken to promote ethical and quality research (Salkind, 2010). After the participant interview, I offered to answer participants' questions, solicited feedback on the study and interview process, provided follow-up contact information should a participant have additional questions, and provided participants with information on how to view the research results after the research study ended (see Salkind, 2010).

Follow-Up Procedures

During the interview process, I asked for permission to contact the participant, should additional information be needed after the interview.

Data Analysis and Plan

Data collection and analysis occurred concurrently throughout the research study. Accurate data analysis occurred as a result of carefully constructed interview questions, the skilled interviewing of participants, and the use of appropriate coding strategies.

Ravitch and Carl (2016) describe coding as a repetitive process that is completed by the qualitative researcher to associate the data to the identified research question. Qualitative researchers use codes to identify and depict the key concepts contained within the data collected and use the codes to identify categories and themes during the analysis process (Patton, 2015). Codes are words or phrases that are used to symbolically describe a vital attribute of the data collected (Ravitch & Carl, 2016). As part of the analysis process, researchers name and define the codes, categories, and themes used (Patton, 2015).

I used memoing and reflective notes during all phases of the data collection and analysis process. Memoing and reflective notes allowed me to document observations, insights, and ideas encountered during the research process (Ravitch & Carl, 2016). As described by Creswell (2014), I followed a standardized approach to the coding and analysis of the data collected.

Data collected was first organized and prepared for analysis (see Creswell, 2014). Audio recordings were transcribed by a commercially available transcription service. I reviewed the transcripts while listening to the audio recordings to ensure the accuracy of the transcription. I then read through the text, coded the data, identified categories and themes, explored the identified themes and categories using the selected theoretical model (i.e., health belief model), and interpreted the meaning of the themes and descriptions (see Creswell, 2014).

The interview data was entered into a computerized spreadsheet (i.e., Microsoft Excel). Use of qualitative analysis software, spreadsheets, and other software promotes efficiency, increases the validity of the data analysis, and allows for greater auditability and transparency (see Ravitch & Carl, 2016). The spreadsheet contained the transcribed interview text and my memos. The data was then organized, coded, and categorized to allow for the identification of emerging themes. I used words and phrases to identify codes, categories, and themes. Following the identification of themes, I developed both textural and structural descriptions to convey the essence of the participants' experiences.

Patton (2015) suggests that qualitative researchers develop the coding schemes they plan to use before starting their data analysis. The use of coding schemes allows qualitative researchers to organize and classify the data (Patton, 2015). Through the organization and classification of the data collected, I identified several themes (see Patton, 2015). According to Patton, focusing on emerging patterns and themes assists in minimizing recall biases and supports the reliability and validity of the research findings.

The data was encrypted and stored on a password-protected computer hard drive and external hard drive. Interview data and researcher memos will be stored for a minimum of five years as required by Walden University's IRB.

Issues of Trustworthiness

Internal and External Validity

Transferability and validity are two important terms used to describe internal and external validity in qualitative research. According to Ravitch and Carl (2016), transferability describes the extent to which research findings can be inferred or generalized to other populations, settings, and contexts. The term validity is used to measure and describe the truthfulness, credibility, and accuracy of a research study (Ravitch & Carl, 2016). According to Ravitch and Carl, threats to internal validity include subjectivity, a lack of knowledge and appropriate application of a theoretical framework, and research bias. The presence of accurate and robust study conclusions supports the validity of a qualitative research study (Ravitch & Carl, 2016). Member checking occurred after transcription of participant interviews and the coding of the data. Member checking allowed participants to validate my collected data and interpretation of participant responses (see Ravitch and Carl, 2016). The use of member checking adds credibility to the research study (Ravitch & Carl, 2016).

Internal and external validity identify specific standards by which the quality of qualitative research is judged (Ravitch & Carl, 2016). To promote the trustworthiness of my research, I set aside my thoughts, perspectives, feelings, and emotions when collecting and interpreting the data. According to Ravitch and Carl (2016), external validity incorporates the use of the research findings and applying the findings to other populations, settings, events, or phenomenon. The findings of my research are not generalizable to other MSM populations outside of Florida as the inclusion criteria of participants will restrict study findings to Floridian MSM.

Dependability

In qualitative research, dependability refers to research findings being consistent and repeatable (Moon et al., 2016). Qualitative researchers should strive to ensure that if other researchers analyzed the data collected, they would reach identical conclusions and findings (Moon et al., 2016). Dependability was promoted through the use of an external auditing process. I had a researcher with expertise in qualitative research methods examine my data collection and analysis processes and the results of my research to validate my research methods and findings (see Moon et al., 2016).

Confirmability

According to Ravitch and Carl (2016), research findings must accurately assess and report the participants' perceptions, experiences, and views. The views, opinions, or perceptions of researchers should not be a part of the research findings (Ravitch & Carl, 2016). Thus, I used an audit trail to document my data collection, analysis, and interpretation processes. Additionally, I used reflexivity to promote awareness of my own values and interests to prevent unintended bias in my research. I included direct quotes from the participant interviews to ensure readers can view the participants' accounts.

Ethical Procedures

I used a variety of strategies to promote and ensure the ethical completion of my research. IRB approval was obtained before any research activities were initiated. I obtained informed consent from all participants. During the consent process, I verified that each participant was voluntarily offering to participate in the research study. Additionally, each participant was assured that their privacy would be protected. I conducted my research utilizing the policies, guidelines, and recommendations provided by Walden University's institutional review board (IRB). Walden University's IRB approval number for this study is 07-10-19-0456637.

Ethical Concerns Related to Recruitment

The research question for this study was: What are the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV? Participants in this study were HIV positive adult MSM who lived in Florida at the time data collection occurred. Participant recruitment occurred through advertisements on social media outlets aimed at MSM in the Tampa-St. Petersburg-Clearwater metropolitan area and through snowball sampling. Men interested in participating in the research were instructed to contact me for additional information.

When a potential participant contacted me, I explained the research being conducted, verified that the person met eligibility criteria, explained the research process, reviewed the consent form, and assuming the person was still willing to participate, conducted the interview or scheduled a date and time for the interview to occur. Consent was obtained immediately before the participant was interviewed. The consent form provided or read to participants was in English and covered such topics as the purpose of the study, the nature of the participant’s involvement, participant rights, potential risks, and who to contact with questions or concerns. The consent form provided or read to participants conveyed that participation in the research study was voluntary, and they could, without any negative consequences, withdraw from the study at any time. Time was given to each participant to review the consent form, ask questions, and if willing to participate, sign the consent form or verbally provide consent. The participant’s providing consent allowed the interviewing process to start.

Ethical Concerns Related to Data Collection/Interventions

Through the informed consent process, participants were provided essential information related to the research study, their rights and responsibilities, potential risks, researcher responsibilities, measures taken to protect participant privacy, university IRB contact information, the voluntary nature of participation in the research study, and the right to withdraw from the research study at any time without negative consequences. The informed consent process assists researchers in developing an open, respectful, transparent, and honest relationship with participants (Patton, 2015). Had a participant exhibited an acute psychological state, stress, or anxiety, the interview would have been stopped, and the participant referred to a local crisis provider. Participants who requested additional HIV/AIDS information were provided with the Florida Department of Health's HIV/AIDS hotline telephone number.

The informed consent document was written to promote readability and comprehension by participants. When first talking with potential participants, I explained the nature of the study to assist the individual in determining whether or not to participate. I provided only factual information related to the research, did not engage in any communication that could potentially influence an individual to partake in the study, and supported each person's autonomy. Participants were told of my obligation to report to authorities any disclosure of criminal behavior, suspected child or elder abuse, or thoughts of self-harm or harm to others.

Treatment of Data

Before being voluntarily interviewed, all willing participants meeting inclusion criteria were required to provide consent. Pseudonyms were used to identify participants to promote participant privacy (Ravitch & Carl, 2016). The research findings do not include personally identifiable data such as name, address, contact information, date of birth, or race. Audio recording of the interviews were transcribed, and the original recording destroyed after verification of the transcription for accuracy. All pertinent research-related data, including recordings, interview transcripts, files, and documents, were stored on a password-protected and encrypted computer and external hard drive. Per Walden University requirements, all research-related data will be retained for five years and then securely destroyed.

Summary

In Chapter 3, I provided a detailed description of the methodology that I used to complete my phenomenological research study investigating the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. Geographical and demographical factors associated with the increase in HIV diagnoses in MSM who live in Florida were discussed. A description of the target population and sampling strategies were described. An overview of the research instruments, data collection practices, steps taken to promote ethical research and the measures taken to address internal and external validity, dependability, and confirmability were addressed. While completing this research, I served in the role of participant interviewer, data collector, data analyst, and disseminator of research findings. The examination of the topics identified in this chapter helped to ensure quality, ethical, and impactful research capable of producing positive social change (Ravitch & Carl, 2016; Walden University, 2018).

Chapter 4: Results

Introduction

The purpose of this phenomenological research study was to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. The conceptual framework selected for this research study was the HBM. The HBM impacted the way I collected, analyzed, interpreted, and reported the data in this research study (Creswell, 2014). A comprehensive literature review was completed and identified a variety of factors impacting the increasing number of HIV diagnosis in Florida. The factors identified in the literature review include personal characteristics such as age, sex, race, sexual orientation, socioeconomic status, educational preparation, culture, and ethnicity.

Men who engage in sexual intercourse with other men comprise the largest number of individuals diagnosed with HIV in Florida (Florida Health, 2017). When conducting the literature review I found no research that has investigated the HIV-related risk perceptions of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. The research study was guided by one research question: What are the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV? In Chapter 4, I describe the research study and setting, provide an overview of the data collection and analysis process, review issues surrounding trustworthiness, and discuss research findings.

Research Setting

Upon receiving Walden University IRB approval, I began recruiting research study participants. First, I contacted an acquittance who is immersed in the MSM population in the Tampa-St. Petersburg-Clearwater metropolitan area. I explained to the acquittance that I was conducting a research study to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. The acquittance indicated that they would share information about my study with the MSM they knew and would provide my contact information to individuals who expressed interest in participating in my research. An ad was also placed on a social media website inviting individuals who met inclusion criteria and were interested in learning more about voluntarily participating in my research study to contact me. Eleven individuals contacted me to learn more about my research and the possibility of participating.

During the initial contact with potential participants, I first thanked them for their voluntary interest and willingness to participate in the research study. Next, I provided a clear description of my research question, verified the participants' eligibility to participate, provided a high-level overview of the research procedures, and assured potential participants that their identity and the information shared would remain confidential (to the extent described in the consent form). Assuming the individual was still willing to participate in the research study voluntarily, I conducted the interview or scheduled a date and time for the interview to occur.

Before the interview, I read the consent form to all participants and asked for their signature before I completed an in-person interview. Verbal consent was requested from participants completing the interview telephonically. Participants who completed the interview via email or instant messaging software were provided with a copy of the consent form electronically. I reviewed the consent form with each participant and ensured any questions were answered. They were then asked to either sign and return the consent form or acknowledge their agreement to participate via written text. Participants were told that their written or verbal consent and ongoing participation in the interview process would be viewed as their ongoing agreement to participate. Each participant was offered a copy of the completed consent form.

The unstructured interviews were conducted individually to promote full disclosure, privacy, and participant comfort. I offered participants an opportunity to identify a location that was private and convenient for a face-to-face interview to occur. Participants were also given the option to be interviewed telephonically or email or instant messaging software. Each interview lasted approximately 20 to 45 minutes. The shortest interview lasted 20 minutes, and the longest interview lasted 45 minutes. At the conclusion of the interview, participants were given a post interview participant information handout, which provided a listing of HIV/AIDS-related resources, information on contacting a local crisis counseling center, and information on how to access the research findings on Walden University’s ScholarWorks website.

Interview questions focused on participants’ demographics, sexual behaviors, overall health, and thoughts, perceptions, and attitudes about HIV and AIDS. I prompted participants to provide a greater explanation of their lived experiences and perceptions and sought clarification, as needed, to ensure understanding. All interviews were recorded for data analysis purposes, and all participants identified by a pseudonym. The audio recordings from face-to-face or telephonic interviews were transcribed and verified for accuracy. Once the audio recordings were transcribed and verified, the original audio recordings were destroyed. Participants who completed the interview received a $25 gift card as a gesture of appreciation for their time and sharing of information related to their preinfection perceptions of risk of contracting HIV.

Demographics

There were 11 Floridian, HIV positive MSM who participated in my research study. All 11 men were over the age of 18, resided in Florida, were HIV positive, and reported having sex with other men. Demographic information was collected from each participant including their age bracket, mode of HIV infection, the gender of the HIV transmitting sexual partner (if applicable) or mode of acquiring HIV, the number of years living in Florida, and the number of years living with HIV. The ages of the participants interviewed ranged from 18 to 58. The mode of HIV infection varied, with five attributing their infection to having unprotected sex, two reporting they were unaware of how they contracted HIV, and four reporting they contracted HIV from other sources, including substance abuse. Only one of the participants reported contracting HIV from a female sexual partner, seven contracted HIV from a male sexual partner, and three reported HIV because of substance abuse. The average length of time the participants reported having lived in Florida was 5.5 years. The average length of time participants reported having been living with HIV was 5.8 years. Table 1 illustrates the demographic factors of the men who voluntarily agreed to be interviewed as part of this research study.

Table 1

Participant demographics

Participant	Age range (i.e., 18-20, 21-30, 31-40, 41-50, 51-60, 61-70, 1-80, 81-90, 91-100)	Mode of HIV infection (i.e., unprotected sex, unknown, other)	Gender of HIV transmitting sexual partner (i.e., male, female, unknown, not applicable)	Years living in Florida	Years living with HIV
1	21-30	Other	Not applicable	6	5
2	21-30	Other	Female	2	3
3	31-40	Unprotected sex	Male	9	2
4	51-60	Unprotected sex	Male	9	12
5	41-50	Unknown	Male	12	8
6	21-30	Other	Not applicable	3	7
7	31-40	Unknown	Male	5	1
8	51-60	Unprotected sex	Male	5	4
9	18-20	Unprotected sex	Male	8	1
10	31-40	Other	Not applicable	4	6
11	31-40	Unprotected sex	Male	4	11

Data Analysis

The data analysis process included memoing, the transcribing of field notes, review of interview transcripts, organizing and evaluating interview data, and inputting the data into a spreadsheet software application (i.e., Microsoft Excel). After entering the data into the spreadsheet, I began to develop codes, evaluated the data for relationships, categorized the data, and formulated themes and subthemes. The spreadsheet software application allowed me to organize my notes, highlight and notate my data, group, and manage my data. By organizing my data, I was better able to interpret and understand what the data meant.

After I completed interviewing each participant, the interview was transcribed along with my field notes to facilitate the coding of my data and notes. To facilitate the coding process, I used code notes to define the meaning of the specific code labels used (Creswell, 2014). I also identified and defined the codes I used to depict the relationship between the data collected and the HBM (Creswell, 2014). The defining of the codes and labels used during the data analysis process allowed me to better understand the meaning and relationships of the collected data (Creswell, 2014).

I used textual analysis to analyze the collected data and to explore the meaning of my notes. Within my spreadsheet software application, I created different rows to represent each interview question and then separate rows for each participant’s responses. A separate row was created specifically for my notes. The data collected was then copied and pasted in the applicable column and row. A key was developed depicting each code label used. If new concepts were identified, a new label was created. I then highlighted the text within participants' responses that directly related to the interview question asked. The highlighter color used represented a specific code. Statements that were not relevant to the interview question and research question were not coded.

Data reduction was used to assist in the sorting, organizing, and removal of irrelevant data to make identifying themes easier. Individual codes were then evaluated for themes. The themes were supported by participants' responses to the interview questions. Open coding was used to separate each interview question and to identify the observed relationships between participant responses.

According to Creswell (2014), researchers should focus on using the data to examine and describe the phenomenon of interest. Additionally, meaning from the data should be derived from the perspective of the participants (Creswell, 2014). By identifying repetitive statements and categories contained within the collected data, I was able to identify themes and meanings from the participants' perspectives. I developed textural-structural descriptions from the themes identified within the eleven interview questions. The goal of the data analysis process was to understand the risk perceptions of HIV positive MSM living in Florida. Throughout the data analysis process, a log was kept that contained the interview questions asked, participant responses, emerging themes (and subthemes), and codes used to answer my research question.

Evidence of Trustworthiness

The trustworthiness of this phenomenological study was ensured through the use and evaluation of credibility, transferability, dependability, and confirmability. To promote credibility, I spent time introducing myself and the research being conducted to participants. Additionally, I reviewed the informed consent document with each participant and verified their understanding of the consent. I reminded each participant that they could, without any negative consequences, decline to participate in the study or stop participating at any time. I carefully developed the interview questions to ensure they elicit the data needed to answer the research question (Creswell, 2014). All data collection procedures and tools, participant recruitment materials, and participant reference documents were reviewed and approved by Walden University's IRB.

To promote the trustworthiness of my research, I set aside my thoughts, perspectives, feelings, and emotions when collecting and interpreting the data. I also used member checking after the transcription of participant interviews and the coding of the data. Member checking allowed participants to validate my collected data and interpretation of participant responses (Ravitch & Carl, 2016). The use of member checking adds credibility to the research study (Ravitch & Carl, 2016).

The findings of my research are not generalizable to other MSM populations outside of Florida. The use of purposive and snowball sampling was used to obtain research participants for this study. To participate in this research, participants had to be HIV positive, an adult MSM, and had to live in Florida during the time of the research data collection. As a result of the inclusion criteria, the research findings cannot be generalized to other populations, locations, contexts, or settings.

In qualitative research, dependability refers to research findings being consistent and repeatable (Moon et al., 2016). Qualitative researchers strive to ensure that if other researchers analyzed the data collected, they would reach identical conclusions and findings (Moon et al., 2016). I promoted the dependability of this research using an external auditing process. Another qualitative researcher examined my data collection and analysis processes and the results of my research to validate my research methods and findings (Moon et al., 2016).

According to Ravitch and Carl (2016), research findings must accurately assess and report the participants' perceptions, experiences, and views. The views, opinions, or perceptions of researchers should not be a part of the research findings (Ravitch & Carl, 2016). To limit the potential of bias, I used an audit trail to document my data collection, analysis, and interpretation processes. I also used reflexivity to promote awareness of my own values and interests. Direct quotes from the participant interviews are provided to ensure readers can view the participants' accounts.

Interview Results

The section below discusses participants' responses to each interview question. Data analysis findings of each interview question are also provided. Tables are used to depict the codes and themes that emerged from the data. Direct quotations are also included to support the identified themes. As described by Creswell (2014), I followed a standardized approach to the coding and analysis of the data collected. The data was organized, coded, and categorized to allow for the identification of emerging themes. I used words and phrases to identify codes, categories, and themes. Following the identification of themes, I developed both textural and structural descriptions to convey the essence of the participants' lived experiences and preinfection risk perceptions of contracting HIV.

Interview Item 1

Question: What can you tell me about the human immunodeficiency virus (HIV)? Responses to Interview Item 1 revealed that participants had varying levels of understanding about HIV. Six of the participants (1, 3, 4, 6, 7, 11) described HIV as an infection. Participant 6 stated:

> HIV is something that you can get from having unprotected sex, doing drugs, or I guess you can be born with it. The infection makes it hard for your immune system to fight off infections. With proper treatment, people can live long and healthy lives, unlike years ago when people died from HIV. By taking medication, you can help your body keep HIV from damaging your body and infecting other people.

Participant 6's response demonstrated a basic understanding of HIV transmission, the impact of HIV on one's health, treatment options, and the importance of treatment adherence.

Seven of the participants (1, 2, 4, 6, 7, 9, 10) described HIV as an infective process hindering their immune system. Eight participants (1, 3, 4, 5, 6, 7, 8, 11) identified the need to properly treat and manage their HIV infection to prevent negative health consequences. Three participants (3, 4, 7) described the importance of self-care activities such as dietary changes, regular exercise, and frequent health exams and preventative care. During the interviews, two participants (4, 6) described how HIV, if unmanaged, can be transmitted to others.

One participant (8), indicated a sense of guilt for unknowingly having unprotected sex with an HIV positive individual. Participant 8 stated:

> HIV to me means I slept with the wrong person, and now I have to be more careful, and I can't date some of the guys I'd like to, because they don't want to go out with a positive guy. I get my medicine for free at the clinic, and they tell me I'm undetectable right now.

Participant 8's response highlighted the varying psychological and emotional responses that individuals can have when diagnosed with HIV (see Rendina et al., 2018).

There were four participants (1, 3, 4, 6) who expressed concern over the possibility of a shortened life or worsening condition. Participant 4 stated, "I know that if I don't take care of myself, I can get sick and end up with a serious, if not deadly, infection." While there was a concern for a shortened life or worsening condition, two of the participants (5, 7) reported acceptance of their HIV infection. Participant 5 stated, "Don't get me wrong, it did change my life, but this is my new normal." Further describing acceptance for their HIV infection, Participant 7 stated, "It's a part of who I am." Participants 5 and 7 response to the interview question demonstrated acceptance of their HIV status.

The HBM constructs used to interpret participants' responses to Interview Item 1 include perceived susceptibility and perceived severity. Interview Item 1 sought to obtain an understanding of participants' knowledge of HIV. Additionally, perceptions related to their risk of contracting HIV, and the perceived severity of an HIV infection were also elicited. By understanding participants' knowledge of HIV and their perceptions of susceptibility and severity, targeted HIV prevention strategies can be developed and implemented. The HBM constructs of perceived susceptibility and perceived severity related to HIV will be discussed in Chapter 5. Table 2 depicts the participants' responses to Interview Item 1.

Table 2

Knowledge of HIV

Responses & themes	Number of participants	% of participants
HIV as an infection	6	55%
Impact on immune system	7	64%
Management of HIV	8	73%
Importance of self-care	3	27%
Transmission of HIV to others	2	18%
Blaming of self	1	9%
Concern for a shortened life or worsening condition	4	36%
Acceptance	2	18%

Note. Participants (*N* = 11) could provide more than one answer.

Interview Item 2

Question: Before being diagnosed with HIV, did you think you were at risk? Analysis of Interview Item 2 revealed that seven participants (1, 3, 6, 8, 9, 10, 11) believed that they were at risk of contracting HIV. There were a variety of factors participants cited as placing them at increased risk of HIV, including being homosexual, having unprotected sex, substance abuse, and a byproduct of one's work environment. Participant 1 stated, "Yeah. I kind of figured I was going to catch HIV, but I couldn't stop using. I've tried to quit, but it's just too hard." Participant 6 stated, "Yeah, I knew I was at risk, just like every other gay guy. Seriously, everyone is at risk." Participant 6's response demonstrated an awareness of the risk for contracting HIV that is taken when engaging in sexual activity (see Cairns, 2014).

Participants 3, 8, and 9 provided insight into how, despite the known risk, they either ignored or accepted it as part of being an MSM. Participant 8 said, “Yea, I guess I knew I was at risk because of being gay and working in the bar scene, like I do, you see a lot of guys, meet a lot of guys, and if you’re lucky you get to go home with some of them.” Participant 9, “Yeah. I knew that having unprotected sex with guys was risky. A lot of my friends have HIV, and they're fine. I figured even if I got it, I'd just have to take a pill.” Participant 3 stated,

> Yes, I knew I was at risk, because I like to have bareback sex. I lived in the country before I moved here, so I didn't realize there were as many HIV positive guys as there are. I honestly thought HIV was a gay thing, and at the time, I thought I was straight but just liked having fun with guys.

The data collected from Participants 3, 8, and 9 suggested that knowing one’s risk of HIV alone does not promote the implementation of HIV prevention strategies (see Cairns, 2014).

Three of the participants (2, 4, 5) did not believe they were at risk of contracting HIV before being diagnosed. Participant 4 stated, “No. I didn't think I was that much at risk of getting HIV. I always used a condom.” Participant 5 said, “You know I saw commercials about it, but I guess I thought it would never happen to me. So, no, I really didn’t think I was at risk.” One participant indicated that his sexuality impacted his risk. Participant 2 stated:

> I didn’t think I was at risk. I always knew I was bisexual but prefer men. The girl I was seeing was positive and didn't know it. We had a lot of sex, and I think I got HIV from her. I heard from some of the people we used to hang out with that she is positive.

One participant (7) was indifferent to whether or not he was aware of his risk of HIV. The responses provided by Participants 2, 4, and 5 highlighted the impact that denial can have on the implementation of HIV risk reduction strategies (see Jin et al., 2007).

The interview data revealed that the participants had an awareness of their susceptibility of contracting HIV before their diagnosis. The HBM construct of perceived susceptibility was used to interpret the results of Interview Item 2. Each of the participants who were interviewed identified their perception of susceptibility for contracting HIV. Detailed information on the HBM construct of perceived susceptibility will be discussed in Chapter 5. Table 3 depicts the participants’ responses to Interview Item 2.

Table 3

Perceived risk before HIV diagnosis

Responses & themes	Number of participants	% of participants
At risk	7	64%
Not at risk	3	27%
Indifferent	1	9%

Note. N = 11

Interview Item 3

Question: What activities or situations do you believe increased your risk of contracting HIV? Data analysis of Interview Item 3 identified two primary activities or situations that caused participants to be at increased risk of HIV. Three participants (1, 6, 10) indicated that they contracted HIV as a result of substance abuse; mainly the use of unclean needles for intravenous drug injection. Participant 1 stated, “I think mainly it was my use of drugs that caused me to make bad decisions.” Participant 6 said, “Unlike many people, I didn't get HIV from having unprotected sex. I used to do drugs years ago. I got HIV from sharing a needle with an HIV positive person.” As reported by Participants 1, 6, and 10, substance abuse is a factor associated with HIV transmission and prevention (see Khan et al., 2013).

Five participants (2, 3, 4, 5, 8, 9) reported being at increased risk of HIV as a result of unsafe sex practices. Participant 3 stated:

> Well, I would hook up with a couple of regulars. They would come over when their girlfriends and wives were working. I guess I just didn't think they were poz, but I didn't really get that anyone can get HIV. The guys I would hook up with didn't like condoms so we wouldn't use them.

Participants 2, 3, 4, 5, 8, and 9 provided insight into the impact that unprotected sex has on HIV and STI transmission.

One participant (5) indicated alcohol played a factor in his contracting HIV. He said:

> I would say my promiscuity and multiple sexual encounters that were unprotected. I used to hang out in the bars a lot and would sometimes end up going home with someone that I wouldn't have normally gone home with if I hadn't been drinking as much.

Participant 5's response depicted the impact that alcohol can have related to health-related decision making.

Participant 9 described the use of an application (called Grindr) on his smartphone to find anonymous sex partners. He said, "I mean, I was just meeting up with guys on Grindr. I was just looking for some fun, and guys to hang out with. Around here everyone has HIV." Participant 8 indicated that his work environment makes it easy for him to find sex partners. When describing his risk factors, Participant 8 stated, "The fact that I'm not too hard to look at always made it easy for me to pick up guys whenever I wanted. I rarely used a condom unless the other guy demanded it." Participant 7 indicated that he was unsure of how he contracted HIV. The responses provided by Participants 8 and 9 indicated the impact of technology and environment on sexual practices.

During the participant interviews, two participants (4, 11) reported contracting HIV as a result of nonconsensual sexual acts. Participant 11 stated, "Sex with other men; although all were believed to have been safe until sexual contact with a man who later admitted to stealth infecting me." The participant defined stealth infecting as an HIV positive individual purposefully infecting an HIV-negative person without their consent. Participant 4 reported:

> I don't know for sure, but I think I became infected one night when I was very drunk. After bar close, I ended up going home with a guy I met earlier in the night. He seemed nice, had a job, and was really attractive. I don't really recall what happened that night but when I woke up the next morning, I knew we must have had sex. When I asked the guy if we had sex, he said "yes." He told me that

> he had used a condom and that he was negative. Eight months later, I ended up being diagnosed with HIV.

Participant 4’s response highlighted the impact of nonconsensual sex acts can have on HIV infection rates.

The HBM construct of perceived susceptibility and perceived benefits was used to interpret the meaning of participants’ responses to Interview Item 3. The concept of perceived benefits can help to explain how individuals examine the benefits and barriers before deciding on a course of action. Perceived susceptibility can explain how participants perceive their risk of contracting HIV. By understanding how individuals at risk of HIV perceive the benefits and barriers of HIV risk reduction strategies, prevention efforts can be modified. Further discussion of perceived benefit related to HIV prevention strategies will be discussed further in Chapter 5. Table 4 presents participant responses to Interview Item 3.

Table 4

Activities or situations placing participants at-risk of HIV

Responses & themes	Number of participants	% of participants
Substance abuse	3	27%
Unprotected sex	5	45%
Unknown	1	9%
Other	2	18%

Note. N = 11

Interview Item 4

Question: How would you have described the extent to which you were at risk? Data analysis of Interview Item 4 revealed varying levels of perceptions of risk. Before being diagnosed with HIV, three participants (1, 8, 10) indicated that they were at high-risk of contracting HIV. Participant 1 stated, “At the time I knew I was at risk but wasn't willing to admit it to myself. I was bound to get HIV doing what I was doing.” Participant 8 said, “I practically live in the bar scene. It’s how I support myself. Mix alcohol with sex and there ya have it. Although I knew I was at high-risk of getting HIV, I just didn't think about it.” Participant 10 stated, “I knew I was at high-risk of getting HIV. Doing drugs and using unclean needles isn’t exactly the safest.” One participant (7) indicated that, before being diagnosed, he would have described his risk of contracting HIV as moderate. Participant 7 said, “I was probably moderately at risk of getting HIV. Every gay guy is at risk. There’s risk in being alive, being gay, having sex … risk is a part of being human.” The responses provided by participants 1, 8, and 10 provided insight into the willingness to engage in risky behaviors despite a known health risk.

There were four participants (2, 4, 5, 11) interviewed who indicated that before their HIV diagnosis, they considered themselves to be at low risk of contracting HIV. Participant 2 stated that he didn’t believe he was at risk as he “trusted his girl.” Participants 4 and 11 described their risk of contracting HIV as being low due to their use of safe sex practices. Participant 5 described that while he knew HIV positive people, he never expected to contract HIV himself.

There were six participants (3, 4, 5, 6, 8, 9) who indicated that they were in denial about their risk of contracting HIV. Participant 5 stated, “I didn’t really think I was at risk. I knew people who had HIV, but I just didn’t think it would catch up with me.” Participants 8 and 9 both knew they were at risk but “didn’t think about it” or “just didn’t care." Participant 6 said, "I knew injecting drugs was dangerous, but the drugs made me not care. I lived from one high to the next. I just figured that even if I got HIV, they had medicines for it." The responses provided by participants 3, 4, 5, 6, 8, and 9 suggest an acceptance of their risk of HIV despite the ability to implement HIV prevention strategies.

A review of the participants' responses to Interview Item 4 suggests a wide variation in how each participant perceived their susceptibility for contracting HIV. The HBM construct of perceived susceptibility was used to explore the participants' perceived susceptibility for contracting HIV. Understanding how the participants' perceived their HIV susceptibility could help to explain if and to what extent, participants implemented strategies to reduce their HIV risk. Additional examination of how the perception of HIV susceptibility impacted the participants' sexual practices and risk reduction strategies will be discussed in Chapter 5. Table 5 presents the participants' response to Interview Item 4.

Table 5

Perceived risk of contracting HIV

Responses & themes	Number of participants	% of participants
Low risk	4	36%
Moderate risk	1	9%
High-risk	3	27%
Denial of risk	6	55%

Note. Participants (N = 11) could provide more than one answer.

Interview Item 5

Question: What, if any, strategies did you use to minimize your risk of contracting HIV? Analysis of participant response to Interview Item 5 revealed a variety of ways in which participants attempted to reduce their risk of contracting HIV. Two participants (1, 5) reported taking steps to reduce their use of illegal substances or alcohol to make better decisions. Participant 1 stated, "I tried to quit drugs a couple of times and even went into rehab. I thought if I could quit using drugs, I wouldn't make such bad decisions." Substance abuse is a known factor that can increase an individual's risk of contracting HIV (see Henry J. Kaiser Foundation, 2018).

Three participants (2, 3, 9) reported communicating with their sex partners, and if they trusted the person, they would engage in unprotected sex. Participant 2 indicated that he spoke with his sex partner and trusted her. Participant 3 indicated that he would ask his partner if they were negative before deciding whether to have sex. Participant 9 reported, "…I would use a condom sometimes, but if I got a good vibe and the guy said he was clean, I 'd bareback." The responses provided by participants 2, 3, and 9 highlighted the impact that communication can have on HIV transmission rates (see Basu et al., 2016).

Of the eleven participants interviewed, four participants (4, 7, 9, 11) reported using condoms as a risk-mitigating strategy. Participant 7 stated, "I used condoms, got tested every 3 months, didn't sleep around, and did what I could to take care of myself." According to Participant 9 responded to the question by stating, "I made sure that we used condoms, but condoms only work if the other guy doesn't take it off." The use of barrier devices is an evidence-based practice that has proven to decrease the risk of contracting HIV (see Centers for Disease Control and Prevention, 2018a).

Three participants (4, 5, 7) reported that they reduced their risk of contracting HIV by being selective about who they had sex with. Participant 4 stated, “I was selective who I slept with.” According to Participant 4, he only had sex with men that he already knew. The responses provided by participants 4, 5, and 7 depicted the risk involved in contracting HIV even when only engaging in sexual acts with known persons.

Two participants (6, 10) reported attempting to obtain clean needles to use for intravenous drug use. Participant 6 stated, “I would try to use my own needles, but I couldn’t always get them.” Participant 8 reported that he “didn’t think about it” when asked if he used a risk-reduction strategy.

The HBM construct of perceived benefits and susceptibility were used to interpret the meaning of the data provided by participants. It is important to understand how the participants perceived their susceptibility for contracting HIV and their perceptions of the effectiveness of the various HIV risk-minimizing strategies. With a greater understanding of how participants select HIV risk-minimizing strategies, enhanced and individualized HIV prevention strategies can be developed and implemented to meet the unique needs of persons at high of contracting HIV. The HBM, as it relates to HIV risk-minimizing strategies, will be discussed in Chapter 5. Table 6 presents participants’ responses related to their strategies for minimizing their risk of contracting HIV.

Table 6

Strategies for minimizing HIV risk

Responses & themes	Number of participants	% of participants
Limit drug or alcohol use	2	18%
Communicate with sex partner	3	27%
Used condom	4	36%
Selective when deciding on sex partner	3	27%
Purchased clean needles	2	18%
No risk-minimizing strategies	1	9%

Note. Participants (N = 11) could provide more than one answer.

Interview Item 6

Question: Were there any barriers that prevented you from implementing strategies to reduce your risk of contracting HIV? Analysis of Interview Item 6 revealed several barriers that impacted the participants' ability to reduce their risk of contracting HIV. Two participants (1, 11) indicated that financial hardships made access to HIV prevention strategies inaccessible. Participant 1 stated, "I didn't have and really don't have the money now to get the help I need to quit drugs entirely." Participant 11 indicated that he was a college student when he became infected and did not have the financial resources to access many HIV prevention strategies. Access to financial resources is a factor that can impact at-risk individuals' ability to obtain and use HIV prevention tools (see Kalichman, 2010).

Eight participants (2, 3, 4, 5, 7, 8, 9, 11) indicated that they did not experience any barriers that interfered with their ability to access to HIV prevention strategies. Participants 5 and 8 reported that they had access to inexpensive or free condoms. Despite the availability of inexpensive or free condoms, participant 8 stated, "Bars have condoms for free. I just don’t like to use them, because it doesn’t feel the same.” Participant 9 stated, “I guess I could have used condoms, but I just hate them.” When asked about the presence of any barriers to HIV prevention strategies, Participant 6 responded, “Yes. My addiction to meth.” Participant 10 reported that he did not experience any barriers. Participant 10 stated, “There was a needle exchange program in my neighborhood.” The responses provided by participants 2, 3, 4, 5, 7, 8, 9, and 11 highlighted knowledge of locations were free to low-cost HIV prevention tools are offered to persons at risk for contracting HIV.

The HBM construct of perceived barriers was used to interpret the participants’ responses to Interview Item 6. By understanding what obstacles the participants faced when considering HIV prevention strategies, HIV prevention programs, health care providers, and government leaders can work to reduce these obstacles and make HIV prevention strategies available to more people. The HBM construct of perceived barriers will be discussed further in Chapter 5. Table 7 depicts some of the obstacles participants reported facing when they were selecting an HIV prevention strategy.

Table 7

Presence of barriers to access HIV prevention strategies

Responses & themes	Number of participants	% of participants
Financial constraints	2	18%
Condoms accessible	2	18%
Substance abuse	1	9%
Needle exchange accessible	1	9%
No barriers	8	73%
Refusal to use	2	18%

Note. Participants (N = 11) could provide more than one answer.

Interview Item 7

Question: Do you believe that you had the resources and ability to access and use HIV prevention tools such as condoms and PrEP? Data analysis for Interviews Item 7 found varying levels of accessibility to HIV prevention tools such as condoms and PrEP. Four participants (1, 3, 6, 8) responded that they did not have access to HIV prevention tools. Seven participants (2, 4, 5, 7, 9, 10, 11) stated that they did have access to HIV prevention tools.

When prompted for further details regarding their inaccessibility to HIV prevention tools such as condoms and PrEP, participants provided details regarding their response. Three participants (1, 6, 8) reported being unable to afford HIV prevention tools. Participant 10 reported that his substance abuse prevented him from making good decisions. Three participants (4, 5, 11) reported that PrEP was not available before their HIV diagnosis. Participant 6 indicated that despite the availability of HIV prevention tools, he was not interested in using condoms, PrEP, or any other prevention tool.

During the participant interviews, three participants (2, 3, 7) provided responses indicative of a knowledge deficit related to HIV prevention strategies. Participant 2 stated, “I guess I could have used condoms, but I didn't think I needed to.” Participant 3 responded, “Where I lived, no one talked about HIV or how to prevent it. It is way different here than where I used to live.” While Participant 7 reported that he used HIV prevention tools, he stated, “Apparently, something didn't work for me though…” Participant 7’s response suggested that he had a sense of guilt or blame for contracting HIV.

The HBM constructs of perceived barriers and self-efficacy were used to find meaning in the responses provided by the participants. Interview Item 7 sought to understand participants' perceptions related to their ability to access and use HIV prevention tools such as condoms and PrEP. By understanding what barriers impeded participants from accessing HIV prevention tools and their ability to advocate for themselves to obtain the needed tools, strategies can be developed to increase the accessibility of HIV prevention tools. The HBM constructs of perceived barriers and self-efficacy as they relate to accessibility to HIV prevention tools, will be discussed further in Chapter 5. Table 8 depicts participants' perceptions of accessibility to HIV tools and, Table 9 provides their reported perceptions of inaccessibility to the tools.

Table 8

Accessibility to HIV prevention tools

Responses & themes	Number of participants	% of participants
Resources accessible	7	64%
Resources not accessible	4	36%

Note. N = 11

Table 9

Reported reasons for inaccessibility to HIV prevention tools

Responses & themes	Number of participants	% of participants
Could not afford	3	27%
Did not care	1	9%
Substance Abuse	1	9%
Tool not available prior to diagnosis	3	27%
Knowledge deficit	3	27%

Note. Participants (N = 11) could provide more than one answer.

Interview Item 8

Question: What was your experience with HIV testing? Data analysis of Interview Item 8 revealed that 8 participants (1, 4, 5, 7, 8, 9, 10, 11) were screened for HIV on at least an annual basis. Participant 2 stated, “I probably got tested every couple of months when the HIV people were at the bar offering free tests.” Participant 7 stated, “Getting tested was just part of my normal routine.” Participant 8 reported, “I had been tested many times before, because I knew I was at risk.” Three participants (2, 3, 6) were not regularly tested for HIV. Participants 2 and 3 reported that they were not tested until they started to receive health care from new health care providers. Routine HIV testing is an important step in minimizing the impact of an HIV infection and decreasing the likelihood of transmitting HIV to sexual partners (see Centers for Disease Control and Prevention, 2018c).

Three of the participants (7, 8, 10) reported having a positive HIV testing experience. Participant 7 stated, “The clinic I went to for HIV testing was amazing. They always spent time talking to me about how to prevent HIV, gave me free condoms, and removed the stigma that can sometimes go along with getting tested.” Participant 10 appreciated the simplicity of the testing process and the ability to receive results the same day. Participant 5 reported a negative HIV testing experience. When prompted, Participant 5 stated, “It was the scariest time ever. I felt like everyone knew why I was there, and they were all looking at me like I was some piece of trash.” Easily accessible, caring, and non-judgmental HIV testing supports efforts to prevent the transmission of HIV and ensure prompt treatment (see Kalichmann et al., 2010).

The HBM constructs of perceived susceptibility, perceived benefits, cue to action, and self-efficacy were used to interpret the participants' responses to Interview Item 8. By understanding the participants' perceptions related to their risk of contracting HIV, the perceived benefits of HIV testing, factors influencing their decision to get tested, and their ability to access testing services can assist HIV prevention efforts to deliver a convenient, coordinated, and welcoming testing experience. The HBM constructs of perceived susceptibility, perceived benefits, cue to action, and self-efficacy will be discussed in Chapter 5. Table 10 shows the participants' HIV testing practices.

Table 10

HIV testing

Responses & themes	Number of participants	% of participants
HIV testing conducted	8	73%
No HIV testing conducted	3	27%

Note. N = 11

Interview Item 9

Question: What were your experiences like with health care providers and HIV prevention programs before being diagnosed? What about after being diagnosed? Analysis of participant responses for Interviews Item 9 indicates that participants had varying levels of interaction with health care providers before being diagnosed with HIV. Five participants (4, 5, 7, 10, 11) reported seeing a health care provider at least annually. Three participants (2, 8, 9) reported seeing a health care provider only when sick. Participant 9 stated, "The only time I saw a doctor was if I needed to go the hospital for something." Three of the participants (1, 3, 6) reported not seeing a health care provider. While Participant 3 saw a health care provider before being diagnosed, he stated:

> The doctors and nurses I met were nice. We didn't ever talk about sex. It was kind of a subject that no one seemed to talk about. Where I lived, everyone assumed I was straight, so they never really brought it up. Kind of a 'don't ask don't tell' kind of thing.

A supportive and caring relationship between health care providers and at-risk or HIV positive individuals can support early detection and adherence to treatment regimens (see Ng & Caires, 2016).

After being diagnosed with HIV, all 11 participants report that they see a health care provider on a regular basis. Several participants (1, 3, 4, 5, 6, 7, 10, 11) reported a neutral or positive experience with their health care providers after being diagnosed. Participant 1 stated, "Now, I see my doctor at the clinic every three months. They take my blood, give me a physical, talk with me, and give me my medicine." Participant 3 reported that his health care provider takes good care of him. Participant 10 said, "After my diagnosis, I was able to see a doctor who is able to give me HIV medication for free and always answers my questions. I don't feel like they treated me any differently after I was diagnosed." Ongoing health care is essential to promoting optimal wellness and preventing adverse outcomes that can occur in HIV positive individuals (see Florida Health, 2017).

Three participants (2, 8, 9) reported negative experiences with their health care providers after being diagnosed. Participant 2 stated, "He's a good guy, but I don't think he gets what it’s like being positive. He thinks it’s easy remembering to take medicine every day. I just forget to take my pills sometimes.” One participant (8) indicated that he dislikes seeing his health care provider because they always want to take his blood. During the interview, Participant 9 stated, “I don’t like doctors or hospitals. Now I really don’t have a choice, so I go to the HIV clinic every couple of months. They’re nice there, but I feel like they judge me sometimes.” The responses provided by participants 2, 8, and 9, depict the varying levels of comfort that health care providers and patients can experience related to HIV. Health care providers should provide care to HIV positive individuals in a caring, nonjudgmental, and collaborative manner to promote optimal patient outcomes (Ng & Caires, 2016).

The HBM constructs of perceived barriers, perceived benefits, and cue to action were used to interpret participants’ responses to Interview Item 10. By understanding the participants’ perceptions related to the perceived benefits of seeing a health care provider, understanding potential obstacles faced with attempting to access health care services, and understanding what triggers their decision to seek health care services, health care services can be enhanced to meet better the needs of those at risk of and those diagnosed with HIV. The HBM constructs of perceived barriers, perceived benefits, and cue to action related to health care service use will be discussed further in Chapter 5. Table 11 depicts the participants’ use of health care services before being diagnosed. Table 12 depicts health care use by participants after being diagnosed with HIV.

Table 11

Pre-HIV diagnosis health care provider use

Responses & themes	Number of participants	% of participants
Ongoing relationship with health care provider	5	45%
Only see health care provider when sick	3	27%
No relationship with health care provider	3	27%

Note. N = 11

Table 12

Post-HIV diagnosis health care provider use

Responses & themes	Number of participants	% of participants
Ongoing relationship with health care provider	11	100%
Only see health care provider when sick	0	0%
No relationship with health care provider	0	0%

Note. N = 11

Interview Item 10

Question: Florida is number one in the nation for new HIV diagnoses and ranks third nationally for having the greatest number of HIV positive citizens (Florida Health, 2018c). HIV disproportionately impacts MSM. Tell me about your experience with HIV as a man who has sex with other men. Analysis of participant responses for Interview Item 10 revealed a variety of experiences. Four participants (2, 5, 9, 10) reported positive experiences living as an HIV positive MSM in Florida. Participant 2 stated, “None of the gay guys around here make an issue of it. It seems like there are more poz guys around here than negative ones.” Similar to Participant 2’s experiences, Participant 9 stated, “It’s been ok, I guess. All of my friends are poz, and it's not a big deal. We just don't talk about it." According to Participant 11, the men in Florida are "Generally far more accepting of others regarding sex, relationships, etc." There were four participants (1, 3, 8, 10) who reported negative experiences living as an HIV positive MSM in Florida. Participant 1 said, "It has been hard. It seems like none of the negative guys want to date positive guys. They all say it doesn't bother them, but it does. As soon as I tell a guy that I'm positive, they stop talking with me." Participant 3 stated, "The guys in Florida are whores. They don't care who or how many guys they sleep with. To each their own I guess." Participant 10 indicated that "Most people lie about their status, because they are afraid of getting rejected or being deemed as undesirable." The data provided by the participants illustrated the unique lived experiences that each person encounters when diagnosed with HIV.

Three participants (4, 6, 7) reported having mixed experiences living as an HIV positive MSM in Florida. Participant 7 indicated that he thinks it is challenging being a gay man but has found a supportive community where he lives. According to Participant 7, he is sometimes embarrassed when he has to tell a guy he is interested in dating about being HIV positive. Participant 4 indicated that at first, he was worried about not being able to date as an HIV positive man but has found it is possible. Participant 4 stated:

> While I am more cautious about dating, I still try to put myself out there. I don't hide that I am poz and make sure it is listed in my dating app profiles. I figure that gives people who have a problem with dating someone HIV positive advanced notice. Over the years, I have occasionally been verbally harassed over my status,

> but I'm comfortable with myself and know that their response doesn't depict who I am as a person.

Participant 4's response provided insight into the psychological and social impact that can result from an HIV diagnosis (see Rendina et al., 2018).

Participant 6 provided an in-depth response related to his experiences as an HIV positive MSM living in Florida. He described the challenges he faces as a gay man who is a recovering drug abuser. Participant 6 stated:

> I think it's difficult being a gay man in Florida–especially when you're a recovering addict and gay. Drugs are so common and available here. There is always temptation. I have surrounded myself with others who are in recovery and have really become close. I know I can count on those people. I'm not sure I will ever have a relationship, especially with a guy from Florida. I will probably end up moving eventually so that I can hopefully meet some decent guys who are clean and have their act together.

Participant 6's response provided insight into the impact of substance abuse on increased HIV rates in the Tampa-St. Petersburg-Clearwater metropolitan area (see Florida Health, 2018c).

The HBM construct of perceived susceptibility was used to interpret the meaning of participants' responses to Interview Item 10. By understanding how participants perceive their life as an HIV positive MSM living in Florida, HIV prevention and treatment strategies can be enhanced and customized to best support the needs of this population. The data provided by participants speaks to an array of emotions and perceptions surrounding an HIV diagnosis, including a sense of vulnerability. The HBM construct of perceived susceptibility related to participants' perceptions of living as an HIV positive MSM will be discussed further in Chapter 5. Table 13 provides participant responses to Interview Item 10.

Table 13

Experiences as an HIV positive MSM

Responses & themes	Number of participants	% of participants
Neutral or positive experience	4	36%
Negative experience	4	36%
Mixed experience	3	27%

Note. N = 11

Interview Item 11

Question: Did you feel like you had a support system before being diagnosed with HIV? What about after being diagnosed? Analysis of participant responses to Interview Item 11 revealed varying levels of support systems for each participant. Five participants (4, 7, 9, 10, 11) indicated that they had a support system in place before and after being diagnosed with HIV. Participant 9 said, "My mom has always been supportive of me ever since I've been little. She knows that I'm gay and positive. No matter what happens, I know she'll be there." Participant 7 indicated the presence of a strong support system. He said, "While my family is supportive, my friends here in St. Petersburg are amazing! They could care less about my HIV status and value me as a person. I'm fortunate to have them in my life!" Participant 4 stated:

> Yes, I am close with my family and friends. They have always been supportive of me and even more so after I was diagnosed. I don’t know what I’d have done without them. They got me through some dark times when I was first diagnosed.

Participant 4’s response highlighted the value of support systems when an individual is first diagnosed with HIV (see Grov et al., 2010).

One participant (3) reported that he did not have a support system before being diagnosed nor has one now. Participant 3 stated:

> I don’t really talk with my family and I haven’t told anyone around here except for a guy I dated for about 4 years. I feel kind of alone sometimes, but I’m a private person and don’t want people knowing my business.

The perspective shared by Participant 3 aligned with research completed by Grov et al. (2010). Grov et al. (2010) found that loneliness, stigma, and depression to be common in many HIV positive adults.

Five participants (1, 2, 5, 6, 8) described varying levels of support systems. Participant 1 indicated that his mother has been very supportive but he has not shared his HIV status with his father out of fear of not being accepted. Participants 2, 5, and 6 described having limited family support but have developed a support system through the friendships they have established. Participant 2 said, “I really don't talk with my family, but I do have some good friends. They are positive and know what it’s like. We help each other out.” Participant 5 stated:

> I was always kind of a loaner. I didn't really have the support of my family, but I do have some good friends. I think after I was told I was positive, my friendships got a little stronger. I hold my friends a little closer now.

The perspective that Participant 5 shared illustrated the social support systems many HIV positive individuals develop in the absence of strong family support (see Galvan, 2008).

Participant 8 indicated that his family had been a source of support for him. Despite the support they provide, Participant 8 has not disclosed his HIV status to his family. He also described the uncertainty that can arise when starting to date someone. Participant 8 said, “I always make sure any guy I’m talking to or interested in knows. It sucks you find someone you’re into, and you have to tell them you're poz.” The data provided by Participant 8 highlighted the fear and uncertainty involved with disclosure of one’s HIV status to others (see Rendina et al., 2018).

The HBM constructs of perceived benefits, cue to action, and self-efficacy were used to interpret participants’ response to Interview Item 11. By understanding the participants’ perceived benefits of support, systems can help to guide HIV prevention, treatment, and support services. Understanding the participants’ perceptions related to support systems and how their support system(s) impact their health-related behaviors is vital to the development of effective HIV prevention and treatment strategies. The HBM constructs of perceived benefits, cue to action, and self-efficacy will be further examined in Chapter 5. Table 14 depicts participants’ identification of support systems.

Table 14

Presence of support system

Responses & themes	Number of participants	% of participants
Support system present	5	45%
No support system	1	9%
Varying levels of support	5	45%

Note. N = 11

Themes

After collecting and analyzing the data, several themes emerged. I selected specific criteria for the identification of themes. Similar comments or coded data had to appear at least six times in the cumulative data collected. Individual participants had to mention the specific concept repeatedly to ensure the frequency of the idea. Additionally, the same concepts had to be repeated by different participants to ensure that the concept was prevalent and extensive. Careful analysis of the interview data resulted in the identification of nine themes.

The six constructs of the HBM are described and used in Chapter 5 to interpret the nine themes identified. The HBM of perceived susceptibility was used to understand the participants' perceptions of their risk of contracting HIV. The HBM construct of perceived severity was used to interpret the participants' perceptions related to the seriousness of contracting HIV. The HBM construct of perceived benefits was used to understand the participants' perceptions related to the benefits of utilizing HIV risk reduction strategies to decrease the potential for contracting HIV or transmitting it to others. The HBM construct of perceived barriers was used to interpret the participants' perceptions related to the obstacles that prevented them from using HIV prevention strategies and health care services. The HBM construct of cues to action was used to understand the triggers that motivated the participants to implement HIV-reduction strategies. Last, the HBM construct of self-efficacy was used to interpret the participants' perceptions related to their ability to implement an HIV risk reduction strategy. Table 15 provides an overview of the themes identified.

Table 15

Summary of themes

Themes	Number of participants	% of participants
HIV is an infection	6	55%
HIV negatively impacts immune system	7	64%
HIV needs to be managed to prevent adverse outcomes	8	73%
Participants recognized risk of HIV infection	7	64%
Denial of risk (even when aware of risk)	6	55%
No barriers to HIV prevention strategies	8	73%
HIV prevention strategies accessible	7	64%
Pre-HIV diagnosis testing	8	73%
Post-HIV diagnosis health care provider visits	11	100%

Note. N = 11

Summary

The purpose of this phenomenological research study was to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. The participants were recruited using a snowball sampling method and interviewed face-to-face and telephonically. A phenomenological approach was used to interpret participants' responses to each interview question and in the identification of themes. The HBM was the theoretical framework used to interpret the data collected during the participant interviews and data analysis process. The data analysis process was completed using an electronic spreadsheet. Nine themes emerged from the participant responses to the interview questions.

Chapter 5 will examine and discuss the research findings in context to the research questions, participant responses to the interview questions, research study limitations, issues related to trustworthiness, the potential for positive social change, and recommendations for future research. The research findings will be examined in context to the HBM as the theoretical framework that guided this research.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

Despite a national decline in the number of new HIV diagnoses in the United States, Florida ranks second for the number of new diagnoses and number three for the number of HIV positive residents (Centers for Disease Control and Prevention, 2017; Florida Health, 2018b). In 2017, there were 4,949 persons diagnosed with HIV, 116,944 persons living with HIV, and 2,044 AIDS cases in Florida (Florida Health, 2018c). The elevated rates of new HIV diagnoses and high concentration of persons living with HIV and AIDS is of concern to health care providers, HIV/AIDS community outreach programs, government officials, public health officials, persons at high-risk of contracting HIV, and community members.

There is a need to understand the HIV preinfection risk perceptions of MSM as Florida Health (2018c) indicated that 60% of the 4,972 new HIV diagnoses in Florida were related to male-to-male sexual contact. The remaining HIV diagnoses have been attributed a variety of other risk factors including 4% from intravenous drug use, 2% from male-to-male sexual contact and intravenous drug use, 33% from heterosexual sexual contact, and 1% from other sources (Florida Health, 2018c). Like other areas in Florida, the Tampa-St. Petersburg-Clearwater metropolitan area continues to experience higher rates of new HIV diagnoses, with 516 new diagnoses occurring in 2016 (AIDSVU, 2018). The Tampa-St. Petersburg-Clearwater metropolitan area comprises four counties, including Pinellas, Hillsborough, Hernando, and Pasco counties (United States Census Bureau, 2012). In addition to the high rates of new HIV diagnoses, the four counties identified have a significant population of persons living with HIV (Florida Health, 2018c). Based on this data, I focused on interviewing men within the Tampa-St. Petersburg-Clearwater metropolitan area.

A review of the literature found no research has been conducted to understand the preinfection perceptions of risk of contracting HIV in Floridian MSM. To address this gap in the literature, research was completed to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. Research findings could reduce HIV prevalence rates by delivering customized education to those at risk of HIV, increasing access to barrier devices and PrEP medication, and increasing access to HIV testing and treatment. This research is important as the results will provide a better understanding of the impact of HIV on Floridian MSM and allow for targeted HIV education and prevention programs.

Summary of Key Findings

The research question guiding this research study was *What are the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV?*

The research conducted involved the interviewing of 11 Floridian, HIV positive, MSM. All 11 men were over the age of 18, resided in Florida, are HIV positive, and reported having sex with other men. Of the 11 men interviewed, one was between the ages of 18 to 20, three were between the ages of 21 to 30, four were between the ages of 31-40, one was between the ages of 41 to 50, and two were between the ages of 51-60. The average length of time the participants reported having lived in Florida was 5.7

years. The average length of time participants reported having been living with HIV was 5.3 years.

The mode of HIV infection varied, with five attributing their HIV infection to having unprotected sex, two reporting they were unaware of how they contracted HIV, and four reporting they contracted HIV from other sources including substance abuse. Only one of the participants reported contracting HIV from a female sexual partner, seven contracted HIV from a male sexual partner, and three reported HIV because of substance abuse.

The 11 participants in this research study had a general understanding of HIV. Six of the participants described HIV as an infection. Seven described the impact HIV has on the immune system. Eight of the participants conveyed the importance of managing HIV to prevent adverse outcomes and the transmission of HIV to others.

Before being diagnosed, seven of the participants reported being at risk of HIV, three reported they did not think they were at risk, and one was indifferent regarding his risk of contracting HIV. The extent to which participants viewed their risk level varied. Six of the participants were in denial of their risk, three reported being at high-risk, one at moderate risk, and four at low risk.

There were a variety of strategies used by the participants to minimize their risk of contracting HIV. Two of the men limited their drug and alcohol use, three communicated with their sex partner about their HIV status before having sex, four used a condom, three indicated they were selective in who they would engage in sexual activity with, two purchased clean needles for use in substance abuse, and one participant reported not doing anything to minimize his risk.

The participants were asked about the availability of HIV prevention tools. Seven of the participants reported they had access to HIV prevention tools, and four reported they did not. Participants cited several reasons for the inaccessibility to HIV prevention tools including financial constraints, a lack of knowledge, substance abuse issues, HIV prevention tools not available until after HIV diagnosis, and an unwillingness to use available HIV prevention tools.

When asked about barriers to accessing HIV prevention strategies, eight of the men reported no barriers, and two reported that they did not implement HIV prevention strategies even though they were available. Additionally, some of the participants reported financial constraints, condom accessibility concerns, substance abuse, and the limited availability of needle exchanges as creating obstacles to implementing HIV prevention strategies.

Participants were asked about their HIV testing and health care use practices. Before being diagnosed, eight of the participants reported getting tested for HIV, and three participants reported not being tested for HIV. The participants’ pre-HIV diagnosis visits with health care providers varied with five reporting regular interaction with health care providers, three reporting only seeing a health care provider when ill, and three reporting that they never saw a health care provider. After being diagnosed, all eleven participants reported frequent visits with a health care provider.

Participants were asked about their experiences as an HIV positive MSM, especially, as it relates to living in Florida. Four of the men reported a neutral or positive experience. Four reported having a negative experience. Three reported having a mixture of positive and negative experiences. The participants were also asked about the presence of a support system before and after their HIV diagnosis. The 11 participants reported varying levels of support systems, with five reporting having a support system, five reporting mixed levels of support, and one reporting no support system.

Interpretation of the Findings

An analysis of the collected participant interview data identified nine themes. The HBM was the theoretical framework selected for this research. All data were interpreted in context to the HBM. The HBM was selected as the theoretical framework for this research as it allowed for the exploration of participants' perceptions related to HIV, their risk of HIV, and the implementation of HIV prevention strategies and tools. The research question and interview questions were aligned with the HBM's six constructs. The themes that emerged during the data analysis process depict the pre-HIV diagnosis risk perceptions and lived experiences of HIV positive MSM living in Florida.

Perceived Susceptibility

The HBM construct of perceived susceptibility refers to an individual's opinion regarding their likelihood of contracting a specific disease, illness, or injury (Rosenstock et al., 1988). Data analysis of the participant interviews found that six of the 11 participants described HIV as an infection, and seven described HIV as an infective process impacting the immune system. The participants cited many of the factors that can increase an individual's risk of contracting HIV, including being an MSM, having unprotected sex, substance abuse, being too trusting of others, and employment in sex and entertainment-type settings. Analysis of the participant interview data identified that unprotected sex and substance abuse were the two risk factors most commonly seen among the participants in this research study.

Review of the data also found several recurring concepts. Eight of the eleven participants reported the need to manage their HIV infection to prevent adverse outcomes. Out of the 11 participants, two reported concern for their ability to transmit HIV to others. Four participants reported concern for a shortened life. Three participants described the importance of HIV positive persons implementing self-care (e.g., relaxation, exercise, balanced nutrition, etc.) strategies to manage their health. One participant blamed himself for becoming HIV positive, and two participants reported acceptance with HIV as a part of their lives.

The study results found that seven individuals believed they were at risk of contracting HIV. One participant was indifferent regarding whether he was at risk of HIV or not. There were three participants that, despite their known risk, did not believe they were at risk of contracting HIV. One participant described how he understood he was at risk of HIV due to engaging in unprotected sex. Despite this knowledge, he indicated that several of his friends are HIV positive and that even if he were to get HIV, he would simply need to take medication. Another participant indicated that he knew about HIV but previously had lived in a rural area where HIV was not common. As a result, he did not think of himself as being at significant risk of HIV despite engaging in unprotected sex.

There was one participant who did not believe he was at risk of contracting HIV. The participant described himself as being bisexual, and at the time of his diagnosis, he was dating a woman. He did not believe that he was at risk because he was dating a woman who told him that she did not have any STIs and was monogamous. The participant reported that he later discovered that the woman he had been seeing had been having sex with other people and was HIV positive.

The findings described align with previous research conducted. According to Florida Health (2018c), 60% of the 4,972 new HIV diagnoses in Florida were related to male-to-male sexual contact, 4% from intravenous drug use, 2% from male-to-male sexual contact and intravenous drug use, 33% from heterosexual sexual contact, and 1% from other sources. The HBM construct of perceived susceptibility helps to explain how the participants perceived their risk of contracting HIV.

Perceived Severity

Perceived severity describes how a specific disease, illness, or injury can potentially impact an individual's health, life, and wellbeing (Rosenstock et al., 1988). The concept of perceived severity refers to participants' perceptions related to the seriousness of not adopting health-promoting behaviors. Some of the participants in this research study illustrated the construct of perceived severity through the verbalization of their concern over a shorted life or a worsening health status. For example, one participant indicated that he understood that if he did not take care of himself, he could develop a worsening health status, develop severe infections, or possibly die.

A review of the data collected during the interviews found that some of the participants had difficulty forming relationships with others or experienced negative social interactions resulting from their being HIV positive. Four of the 11 participants reported having a neutral or positive experience as an HIV positive MSM living in Florida. Additionally, four other participants reported having a negative experience living with HIV in Florida. The remaining three participants reported a mixture of both positive and negative experiences.

During the participant interviews, each participant was asked about the support systems in their lives. Five participants reported having a support system, one reported no support system, and the remaining five participants reported varying levels of support. Several of the participants reported feeling a sense of loneliness. Analysis of the participant data found that friends were reported to be a significant source of support for the participants. The perceptions reported by the participants aligned with research completed by Rendina et al. (2018), which found internal stigma and isolation to be common in HIV positive individuals.

Perceived Benefits

Rosenstock et al. (1988) described perceived benefits as an individual's beliefs in the efficacy of a specific action to reduce the risk of the impact of a disease, illness, or injury. For example, if a person perceives the benefits of taking PrEP to prevent HIV as outweighing the costs, commitment to ongoing follow-up visits with a health care provider, medication side effects, and need for adherence to the prescribed pharmaceutical intervention, they are more likely to take PrEP. Many of the participants in this research study described the HBM construct of perceived benefits. One participant described the value of adhering to their prescribed treatment plan to prevent adverse outcomes and to decrease the likelihood of transmitting HIV to their sexual partners. Another participant reported a benefit of being diagnosed with HIV as his entering a substance abuse program. Several participants indicated that their HIV diagnosis promotes discussion and awareness within the community about HIV. Research findings indicate that the perceived benefits resulting from preventing and treating HIV can influence both HIV positive and HIV-negative individuals to implement HIV prevention strategies.

Perceived Barriers

Perceived barriers is an individual's opinion regarding the tangible, psychological, and physical costs associated with a health-promoting action or change in behavior (Rosenstock et al., 1988). The participants in this research study spoke of the HBM construct of perceived barriers. Seven of the 11 participants reported having access to HIV prevention resources, while the remaining four reported no access to resources. Commonly reported barriers to accessing HIV prevention resources included financial constraints, a knowledge deficit, limited HIV prevention strategies available before their being diagnosed (e.g., PrEP), substance abuse issues impeding sound decision making, and limited access to barrier devices and needle exchange programs. Participants had varying levels of comfort with health care providers, which impacted their perceptions and comfort with receiving ongoing health care services. Additionally, during the participant interviews, three participants indicated that despite knowing their risk and having access to HIV prevention strategies, they made the decision that the tangible, psychological, and physical costs associated with implementing HIV prevention strategies outweighed the benefits. As a result, they elected not to implement any HIV prevention measures.

Cues to Action

The HBM also identifies the need for cues to action to promote health-changing behaviors (Rosenstock et al., 1988). Both internal prompts and external factors can influence a person to implement health-promoting behavioral changes or to use a prevention tool (Rosenstock et al., 1988). Internal prompts can include but are not limited to, thoughts, emotions, and physical symptoms such as pain, adverse body changes, decreased function, and lethargy (Rosenstock et al., 1988). Examples of external factors include but are not limited to, conversations with friends and family, visual reminders, advertisements, social interactions, observation of others' experiences, and community outreach events (Rosenstock et al., 1988). Both internal and external cues to action can support positive health behaviors.

Analysis of the participant interview data revealed several instances of the HBM cues to action construct influencing the participant. Several participants reported seeing an HIV outreach program at the local bar that caters to homosexuals. This visual reminder and seeing others getting tested encouraged the participants to get tested. A few participants reported that they have heard or witnessed the consequences of not adhering to an HIV treatment program. As a result, they take their medication as prescribed to prevent adverse outcomes and decrease the likelihood of transmitting the virus to their sex partners.

Internal and external cues to action were prevalent in the participant data I collected. The cues to action resulted in the participants taking their medication as prescribed, obtaining ongoing medical care, getting tested, discussing their HIV status with their sex partners, and engaging in safe sex practices. The participants' perceptions aligned with research completed by Aral et al. (2006) and Basu et al. (2016) which found that mass media campaigns that use customized messages to be effective at influencing behavior.

Self-Efficacy

An individual's sense of self-efficacy impacts their ability to bring about positive health behaviors (Rosenstock et al., 1988). The participants provided several examples of self-efficacy during the participant interviews. Four of the 11 participants described neutral or positive experiences living with HIV. Health-promoting behaviors identified by the participants included engaging in safe sex practices before and after their HIV diagnosis. A few of the other participants indicated adherence to their prescribed treatment plan. Additionally, all 11 participants interviewed reported seeing a health care provider regularly after being diagnosed with HIV. These findings suggest the importance of self-efficacy in HIV prevention and treatment interventions. The perceptions of the research participants align with research completed by Barclay et al.

(2007) and Beer et al. (2014) which found education and counseling related to self-efficacy could be beneficial in promoting optimal outcomes.

Limitations of the Study

Several limitations were identified in this study. Participation in this research was limited to HIV positive MSM who were living in Florida at the time of data collection.

This study was limited to the Tampa-St. Petersburg-Clearwater metropolitan area, due to the increasing HIV infection rates and a high number of persons living with HIV and AIDS (AIDSVU, 2018). Thus, the results of this research cannot be generalized to HIV positive MSM who reside in other locations.

Additionally, this study did not account for the location of where a participant was diagnosed with HIV. According to the data analysis completed, many of the participants were diagnosed in locations outside of Florida. The results of this study do not account for the variability in HIV prevention efforts and treatment resources in other parts of the United States.

A limitation to the research study is that it did not account for the impact that socioeconomic and racial disparities can have on HIV prevention and treatment. Peterson and Jones (2009) found that socioeconomic status and racial disparities can impact the prevalence of HIV in a given area and the effectiveness of HIV prevention programs and treatment options.

This research was also limited by the qualitative and phenomenological approach used to interview participants. The validity of the data collected was dependent on the willingness of participants to be forthcoming and honest in their responses to interview questions. Other Floridian HIV positive MSM may not hold the same beliefs or perceptions as the participants in this research. Additionally, per Walden University IRB requirements, participants were told that disclosure of illegal activity would be reported to law enforcement. This could have influenced participants' willingness to disclose activities that increased their risk of contracting HIV, such as intravenous drug use (see Florida Health, 2018c).

Recommendations for Further Study

The purpose of this study was to understand the lived experiences of HIV positive adult MSM living in Florida regarding their preinfection perceptions of risk of contracting HIV. Analysis of the data collected during participant interviews and the integration of the HBM into the data analysis process assisted in the identification of several recommendations for further study.

This research study was limited to the Tampa-St. Petersburg-Clearwater metropolitan area due to the increasing HIV infection rates and a high number of persons living with HIV and AIDS (AIDSVU, 2018). Based on the increasing number of HIV diagnosis throughout Florida, I recommend that researchers further study the preinfection perceptions of risk of contracting HIV in HIV positive MSM in other cities throughout Florida (Florida Health, 2018c).

Inclusion criteria for this research study required that participants be an HIV positive, adult homosexual or bisexual man, living in Florida during the time of the research data collection. As a result of the participant interviews and data analysis process, it became evident that many of the participants relocated to Florida after receiving an HIV diagnosis elsewhere. Thus, I recommend that further research be conducted exploring the impact of persons who lived in Florida for a period of time before receiving their HIV diagnosis. Some of the data evaluated could be reflective of HIV prevention efforts and treatment options in other parts of the United States and not specifically Florida.

Based on the data provided by participants during the interviews, I would recommend that researchers explore the impact of substance abuse on HIV diagnosis rates in Florida. The two main risk factors for contracting HIV in the participants interviewed included unsafe sex practices and substance abuse. The incidence of substance abuse has risen nationally, and substance abuse and mental health conditions are significant risk factors for HIV (Carey et al., 2009). Thus, I believe that attention to the impact substance abuse has on health-related behavior, HIV prevention, and HIV treatment is warranted.

The research conducted did not account for the impact that socioeconomic and racial disparities can have on HIV prevention and treatment. Peterson and Jones (2009) found that socioeconomic status and racial disparities can impact the prevalence of HIV in a given area and the effectiveness of HIV prevention programs and treatment options. Thus, I recommend that research be conducted evaluating the impact of race and socioeconomic status on HIV diagnosis rates in Florida and in particular, the Tampa-St. Petersburg-Clearwater metropolitan area.

Implications for Social Change

The potential impact for positive social change in this study focused on reducing the rates of new HIV diagnoses in Florida, mainly in the Tampa-St. Petersburg-Clearwater metropolitan area. This research study helped to understand the lived experiences of HIV positive MSM regarding their preinfection perceptions of risk of contracting HIV.

The participants interviewed came from various age ranges, had lived in Florida between 12 and 2 years (with the average being 5.5 years), and the length of time since their initial HIV diagnosis ranged from 12 to 1 year (with the average being 5.8 years).

Analysis of the participant interviews found that many of the men had relocated to Florida after being diagnosed with HIV in another state. During the interview process, eight of the participants described the importance of treating their HIV infection to prevent adverse outcomes and the transmission of the infection to others. This information could assist health care providers, outreach programs, and public health officials in developing targeted programs to assist those moving to Florida or those newly diagnosed, to access the needed HIV-treatment services to manage their health and prevent the transmission of HIV to negative persons.

Analysis of the interview data found that unprotected sex and substance abuse were two risk factors that were most commonly cited by participants as having increased their risk of contracting HIV. With this information, health care providers, outreach programs, and public health officials can develop targeted and individualized interventions to assist those engaging in unsafe sex practices and substance abuse to reconsider their behavior and to seek out assistance in addressing these issues. Given the impact of substance abuse the participants reported, substance abuse treatment providers and law enforcement officials could use the results of this study and their interactions with at-risk individuals to provide basic HIV prevention information and a listing of community resources.

The results of this research study found varying levels of understanding from the participants regarding their pre-HIV diagnosis risk of HIV. Seven of the participants reported being at risk of HIV, three reported they didn't think they were at risk, and one was indifferent regarding his risk of contracting HIV. The extent to which participants viewed their risk level varied including six of the participants who were in denial of their risk, three who reported being at high-risk, one at moderate risk, and four at low risk. The variance seen in their participants' perception of risk highlights a knowledge deficit and an opportunity for health care providers, outreach programs, and public health officials to educate at-risk persons regarding their risk of contracting HIV.

There was also significant divergence among the participants regarding the practices they implemented to reduce their risk of contracting HIV. Two of the men limited their drug and alcohol use, three communicated with their sex partner about their HIV status before having sex, four used a condom, three indicated they were selective in who they engaged in sexual activity with, two purchased clean needles for use in substance abuse, and one participant reported not taking any actions to minimize his risk. Health care providers, outreach programs, and public health officials can use this information to educate at-risk persons regarding effective strategies and tools available to reduce the risk of contracting HIV.

Participants in this research were asked to describe their perception of the availability of HIV prevention tools as well as the barriers they potentially encountered accessing HIV prevention strategies. Seven of the participants reported they had access to HIV prevention tools, and the remaining four participants reported they did not have access to HIV prevention tools. Participants cited several reasons for the inaccessibility to HIV prevention tools including financial constraints, a lack of knowledge, substance abuse issues, HIV prevention tools not available until after HIV diagnosis, and an unwillingness to use available HIV prevention tools. When asked about barriers to accessing HIV prevention strategies, eight of the men reported no barriers, and two reported that they did not implement HIV prevention strategies despite their availability. Some of the participants reported financial constraints, condom accessibility concerns, substance abuse, and the limited availability of needle exchanges as creating obstacles to implementing HIV prevention strategies. The barriers cited by the participants regarding their ability to access HIV prevention tools and to implement HIV risk reduction strategies provides an opportunity for health care providers, outreach programs, and public health officials to provide affordable testing and treatment options, increase the accessibility of affordable HIV prevention tools (e.g., pharmacological, barrier, and behavioral modification), increase the availability of substance abuse treatment programs, and focus education on HIV prevention strategies and community resources available.

Research study participants were asked about their HIV testing and health care use practices. Before being diagnosed with HIV, eight of the participants reported getting tested for HIV, and three participants reported not being tested for HIV. The participants' pre-HIV diagnosis visits with health care providers varied, with five reporting regular interaction with health care providers, three reporting only seeing a health care provider when ill, and three reporting that they never saw a health care provider. After being diagnosed, all 11 participants reported frequent visits with a health care provider. This research finding suggests the need for continued free to low-cost and convenient HIV testing opportunities. Additionally, the participants' use of health care services highlights the important role that health care providers have in HIV prevention and the need to offer affordable and accessible health care to vulnerable persons.

During the interviews, participants were asked about their experiences as an HIV positive MSM, especially, as it relates to living in Florida. Four of the men reported a neutral or positive experience. Four reported having a negative experience. Three reported having a mixture of positive and negative experiences. Additionally, the participants were asked about the presence of a support system in their life. The 11 participants reported varying levels of support systems, with five reporting having a support system, five reporting varying levels of support, and one reporting no support system. The variances seen in the participants' perceptions about living as an HIV positive MSM in Florida and the presence of support systems, suggests a need for health care providers, HIV outreach programs, and public health officials to offer accessible and affordable emotional and psychological support systems.

The HBM was the theoretical framework used to guide this research study. Previous HIV-related research has used the HBM as a theoretical framework to understand the lived experiences of HIV positive persons (Bakker et al., 1997). The use of interventions supported by theory has proven effective at reducing the HIV transmission rates (Bakker et al., 1997). For example, Bakker et al. (1997) found that gay and bisexual men are more likely to use a condom when HIV positive individuals were present in their social circle (i.e., cues to action) and if they saw a perceived benefit to use of a condom in preventing HIV. Health care providers, HIV outreach programs, and public health officials have used the HBM to understand how people make health-related decisions. With this information, educational offerings and prevention resources can be developed or enhanced to facilitate best the uptake of health-promoting behaviors.

Conclusions

The Centers for Disease Control and Prevention (2018b) indicates that the number of new HIV diagnoses has increased in the southern United States despite an overall national decline as a result of HIV research and effective HIV prevention interventions (i.e., PrEP, condoms, etc.). The Tampa-St. Petersburg-Clearwater metropolitan area continues to experience higher rates of new HIV diagnoses, with 516 new diagnoses occurring in 2016 (AIDSVU, 2018). The Tampa-St. Petersburg-Clearwater metropolitan area comprises four counties, including Pinellas, Hillsborough, Hernando, and Pasco counties (United States Census Bureau, 2012). In addition to the high rates of new HIV diagnoses, the four counties identified have a significant population of persons living with HIV (Florida Health, 2018c).

The 11 Floridian, HIV positive, MSM who participated in this research study had a general understanding of HIV. The research found that 55% of participants understood HIV to be an infection, 64% described the impact of HIV on the immune system, and 73% spoke to the importance of managing HIV to prevent adverse outcomes and the transmission of HIV to others. Data analysis found that 64% of the participants reported being at risk of HIV, 27% didn’t think they were at risk, and 9% were indifferent regarding their risk of contracting HIV. According to Aral et al. (2006), perceptions of risk of contracting HIV/AIDS appear to be affected by several factors including geographical location, social setting, availability of health care, and knowledge of HIV risk factors and prevention strategies. Despite pre-HIV diagnosis knowledge of HIV and an awareness of risk, 55% of participants were in denial of their risk, 27% reported knowing that they were at high-risk of contracting HIV, and 36% believed they were at low risk of HIV.

Review of the interview data found that 45% of the participants indicated they contracted HIV as a result of engaging in unprotected sex, 18% reported that they were unaware of how they contracted HIV, and 36% indicated they contracted HIV from other sources including substance abuse. These research findings align with data reported by Florida Health (2018c) which indicated that 60% of the 4,972 new HIV diagnoses in Florida were related to male-to-male sexual contact, 4% from intravenous drug use, 2% from male-to-male sexual contact and intravenous drug use, 33% from heterosexual sexual contact, and 1% from other sources. The participants used various approaches to minimize their risk of contracting HIV. Two (18%) of the men limited their drug and alcohol use, three (27%) communicated with their sex partner about their HIV status before having sex, four (36%) used a condom, three (27%) indicated they were selective in partners for sexual activity, two (18%) purchased clean needles for use in substance abuse, and one (9%) participant reported not doing anything to minimize his risk.

All participants were asked about the availability of HIV prevention tools. Seven (64%) of the participants reported they had access to HIV prevention tools, and four (36%) reported they did not. Participants cited several reasons for the inaccessibility to HIV prevention tools including financial constraints, a lack of knowledge, substance abuse issues, HIV prevention tools not available until after HIV diagnosis, and an unwillingness to use available HIV prevention tools. The participants were asked about barriers to accessing HIV prevention strategies, eight (73%) of the men reported no barriers and two (18%) reported that the did not implement HIV prevention strategies even though they were available. Additionally, some of the participants reported financial constraints, condom accessibility concerns, substance abuse, and the limited availability of needle exchanges as creating obstacles to implementing HIV prevention strategies. Reif et al. (2014) identified several factors that can impact accessibility to HIV prevention and treatment resources including included poverty, low levels of government funding and Medicaid spending, and being African American, alongside the cultural stigmas and laws that marginalize individuals living with HIV.

Data analysis found varying levels of HIV testing and health care use practices amongst the participants. Before being diagnosed, eight (73%) of the participants reported getting tested for HIV, and three (27%) participants reported not being tested for

HIV. Vulnerable groups' negligence regarding regular testing increased both their HIV infection and their mortality risk (Aholou et al., 2017; Aral et al., 2006). The participants' pre-HIV diagnosis visits with health care providers varied with five (45%) reporting regular interaction with health care providers, three (27%) reporting only seeing a health care provider when ill, and three (27%) reporting that they never saw a health care provider. These findings align with research by Dangerfield et al. (2017) that found that men, as a group, do not routinely seek health care treatment and care or under use health care and treatment services. After being diagnosed, all eleven (100%) participants reported frequent visits with a health care provider. Ng and Caires (2016) conducted research and found that the relationship between a health care provider and the at-risk individual or patient is essential for building compliance with HIV prevention through individualized patient care plans that focus on the patient's level of engagement with and expectations of the prevention methods.

The men participating in this research were asked about their experiences as an HIV positive MSM, especially, as it relates to living in Florida. Four (36%) of the men reported a neutral or positive experience. Four (36%) reported having a negative experience. Three (27%) reported having a mixture of positive and negative experiences. Participants were also asked about the presence of a support system before and after their HIV diagnosis. The 11 participants reported varying levels of support systems with five (45%) reporting having a support system, five (45%) reporting mixed levels of support, and one reporting (9%) no support system. The need to provide support systems to HIV positive persons is essential given the reported high levels of HIV stigma stemming from personalized stigma, fear of disclosing their HIV status, a negative self-image, and overall issues with others' attitudes (Grov et al., 2010). Internal stigma and isolation are also associated with negative affect and emotional dysregulation (Rendina et al., 2018).

Evidence-based programs and interventions should be used to reduce the number of new HIV diagnosis in MSM living in Florida. By better understanding the lived experiences of HIV positive MSM regarding their preinfection perceptions of risk of contracting HIV, health care providers, outreach programs, and public health officials can develop targeted and individualized interventions to decrease the number of new HIV diagnoses in Florida. Health researchers, health care providers, outreach programs, public health officials, and government leaders should support further research on HIV-related topics related to at-risk persons living in Florida. The use of a theoretical framework such as the HBM, was helpful in analyzing and understanding the health-related decision making and behaviors described by the participants. Additionally, key stakeholders should collaboratively, in consultation with persons at risk of or diagnosed with HIV, develop HIV prevention and treatment programs, and policies and laws to support efforts to reduce HIV transmission. The HIV prevention and treatment programs should focus on providing HIV-related education, HIV testing opportunities, affordable and accessible prevention tools and strategies (i.e., pharmacological, barrier, and behavioral modification), and the development of a system to ensure early referral for treatment, as well as, increase the number of community resources. Health care providers, outreach programs, and public health officials should encourage greater community engagement as it relates to HIV and AIDS prevention and treatment efforts in the community.

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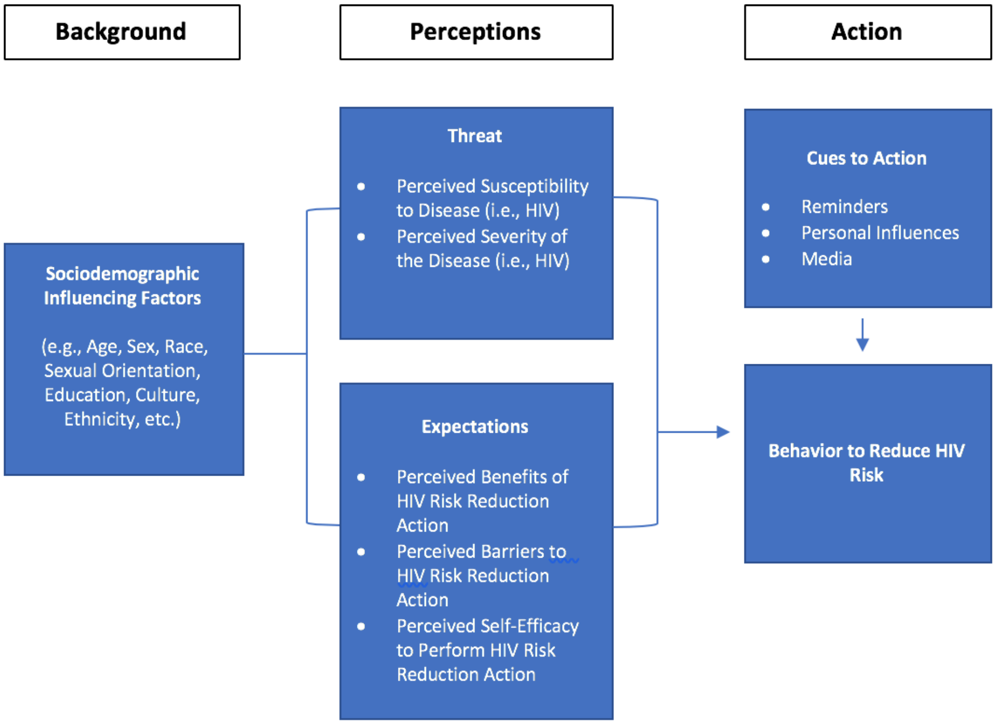
Appendix A: HIV Risk Perception Health Belief Model



Appendix B: Interview Guide

RQ1 - A: What you can tell me about the human immunodeficiency virus (HIV)?

RQ1 - B: Before being diagnosed with HIV, did you think you were at risk?

RQ1 - C: What activities or situations do you believe increased your risk of contracting HIV?

RQ1 - D: How would you have described the extent to which you were at risk?

RQ1 - E: What, if any, strategies did you used to minimize your risk of contracting HIV?

RQ1 - F: Were there any barriers that prevented you from implementing strategies to reduce your risk of contracting HIV?

RQ1 - G: Do you believe that you had the resources and ability to access and use HIV prevention tools such as condoms and PrEP?

RQ1 - H: What was your experience with HIV testing?

RQ1 - I: What were your experiences like with health care providers and HIV prevention programs before being diagnosed? What about after being diagnosed?

RQ1 - J: Florida is number one in the nation for new HIV diagnoses and ranks third nationally for having the greatest number of HIV positive citizens (Florida Health, 2018c). Human immunodeficiency virus (HIV) disproportionately impacts men who have sex with men. Tell me about your experience with HIV as a man who has sex with other men?

RQ1 - K: Did you feel like you had a support system before being diagnosed with HIV? What about after being diagnosed?