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The Risk Factors for HIV in African American Transgender Women in Connecticut

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Abstract

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by

Oliver Kunda

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

The human immunodeficiency virus (HIV) incidence rate is 70 times higher for African American transgender women than in the general population. Despite decades of outreach and intervention effort to reduce HIV incidence in the transgender community by the lesbian, gay, bi-sexual, transexual, queer, plus (LGBTQ+) community and public health organizations, the HIV prevalence rate for transgender women remains high at 38%. The purpose of this qualitative exploratory case study was to gain insights into how attitude, subjective social norms, and perceived behavioral control influence HIV risk behaviors of African American transgender women in Connecticut. Ajzen's theory of planned behavior provided the theoretical framework for addressing the research question. A purposive sample of eight African American transgender females were interviewed for 20 to 60 minutes via videoconferencing. The transgender community was very suspicious of the research, which made recruitment challenging. Thematic content analysis was employed for data analysis Findings confirmed earlier research those African American transgender females experience discrimination, physical abuse, forced sex, and are more likely to become sex workers and abuse drugs and alcohol, which is associated with clinical anxiety, depression, and related mental health disorders. Recommendations include creation of interventions that integrate African American transgender females to address community mistrust and suspicion. In conclusion, the transgender female community suffers from discrimination and violence and future research is needed to develop outreach methods to provide a safe supportive environment for healing. The study advanced knowledge on the causes of excess African American transgender HIV risk as a starting point for public health policy makers to target interventions.

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Chapter 1: Introduction to the Study

Transgender women experience risk factors that contribute to being 70 times more likely than the general population to contract human immunodeficiency virus (HIV; Centers for Disease Control and Prevention [CDC], 2020). The highest incidence rate of any at-risk population is African American transgender women with a 38% incidence rate (CDC, 2020). Unprotected sex with multiple partners, high incidence rates of drug use, mental health issues, homelessness, transphobia, and emotional stress resulting from hormonal and surgical gender reassignment procedures contributed to higher HIV risk transgendered people (CDC, 2020; Mayer et al., 2016). It was not known how the lived experience of interpersonal and sociostructural factors promote the HIV infection incidence rate among African American transgender women.

Chapter 1 provides an overview of the phenomenon, including a problem statement, background, theoretical framework, and summary of the nature of the study. Factors affecting African American transgender women are introduced, an aligned research question presented, and potential ethical issues described. Finally, limitations, delimitations, and assumptions specific to the study are identified.

Background

An estimated 1.1 million people in the United States had HIV as of 2019, or 0.3% of the general population (CDC, 2020). African American and lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ+) populations are at substantially greater risk than the general population (CDC, 2020). The incidence rate for African Americans was 0.9%, or 3.3 times more likely than the general population, and 2.6% for LGBTQ+

populations, or 9.4 times more likely than the general population (CDC, 2020). Within the LGBTQ+ population, the subpopulation with the highest incidence rate was transgender women at 14.1%, or 47 times more likely than the general population (Becasen et al., 2019).

HIV infection is a public health issue for the state of Connecticut, with 3,151 known cases as of 2019 (Connecticut State Department of Public Health [CSDPH], 2019). Most individuals infected with HIV contract the disease because of sexual transmission (64.7%), though 25% of all cases are a mix of sexual activity associated with intravenous drug use. Only 2.9% of cases occurred due to intravenous drug use alone, indicating that sexual activity is the most common reason for individuals to contract the disease (CDC, 2020).

The National Institutes of Health (NIH, 2019) indicated that numerous negative effects result from untreated HIV. Without treatment, HIV advances in stages until becoming outright acquired immunodeficiency syndrome (AIDS; Li et al., 2019). During the acute stage of infection, developing within the body over 4 weeks, sometimes resulting in flu-like symptoms as the virus attacks CD4 cells that arise from within the immune system. HIV then progresses to a chronic stage, which can last for up to 10 years and sometimes longer (Li et al., 2019).

White-Hughto et al. (2015) indicated a gap in the literature regarding interpersonal and sociostructural factors affecting HIV risk among transgender women. The HIV incidence rate among African American transgendered women warranted investigation to advance knowledge on causes and identify interventions (CDC, 2020).

The current study is needed because African American transgender women are the most likely to be at risk of contracting HIV and yet there exists a gap in the literature regarding the identification of interpersonal and sociostructural factors associated with elevated risk (CDC, 2020). Identification of these factors may assist public health planners, community-based organizations, and advocacy groups, in developing targeted intervention efforts to prevent infection among African American transgender women and may alleviate healthcare system needs.

Problem Statement

As of 2019, approximately 1.1 million persons aged 13 and older, or approximately 0.3% of the general population, were living with HIV infection in the United States (CDC, 2020). At the same time, approximately 14% of all transgender women, and 38% of African American transgender women were living with HIV infection (CDC, 2020). The HIV incidence rate was 70 times higher for African American transgender women than in the general population (CDC, 2020). Researchers found a variety of factors that placed transgender women at higher risk for infection and transmission than the general population. These factors included multiple sexual partners, sex without condoms use, injecting hormones or drugs using shared syringes, commercial sex work, mental health issues, homelessness, high levels of substance abuse, domestic violence, and lack of family support (CDC, 2020; White-Hughto et al., 2015). Part of the challenge for HIV prevention is that individual, interpersonal, social, and structural factors create unique risks for transgender women (Neumann et al., 2017). Factors that create incremental risk for transgender African American transgender women include discrimination based on social identity, transphobia, employment discrimination, and financial and emotional stress from hormonal and surgical gender reassignment procedures (Neumann et al., 2017).

Despite substantial effort to reduce HIV incidence in the transgender community by the LGBTQ+ community in Connecticut by the Connecticut TransAdvocacy Coalition (CTAC) and the local Gay and Lesbian Health Collective (HGLHC), HIV incidence for transgender women remains unacceptably high (Center for Interdisciplinary Research on AIDS [CIDR], 2017; CDC, 2020). Boyer et al. (2016) highlighted the impact of risk factors for the transgender population and posited the need for evidence-based prevention strategies. Geography, which is marked by sociostructural, political, and economic factors, is a critical determinant of localized epidemics that must be integrated into current and future health surveillance and monitoring of transgender people (White-Hughto, et al., 2015). Sociostructurally, political, and economic factors are the distinctive, stable arrangement of institutions within which persons in a society interact and live together. These factors, taken together, create an intolerant environment that leave transgendered persons with few choices to survive beyond the sex worker industry. White-Hughto et al. (2015) indicated there was a gap in the literature regarding interpersonal and socio-structural factors affecting elevated HIV risk among transgender women.

Purpose of the Study

The purpose of this qualitative exploratory case study was to gain insights into how attitude, subjective social norms, and perceived behavioral control influence HIV risk behaviors of African American transgender women in Connecticut. Understanding risk factors among the population can help reduce the HIV infection rate, Researchers need to further their understanding related to HIV transmission among African American transgender women because HIV incidence rate was 70 times higher than in the general population (CDC, 2020). To address the gap in knowledge regarding interpersonal and socio-structural factors affecting elevated HIV risk, the appropriate approach was a qualitative research design.

Research Questions

The following research question and sub-questions guided the study:

RQ1: How do personal and social factors influence the decision making of African American transgender women that are known to contribute to the spread of the human immunodeficiency virus?

Subquestion 1: How do African American transgender women perceive their risk of acquiring HIV?

Subquestion 2: How do African American transgender women perceive community behavioral norms contributing to the spread of HIV?

Theoretical Framework for the Study

The theory of planned behavior (TPB), which grew out of reasoned action theory, gives primary attention to cognitive factors that influence an individual's "intention" to perform a behavior (Coreil, 2010). Earlier research on understanding HIV risk behavior and dynamics for behavioral change relied on the TPB (Montanaro & Bryan, 2014; Prabawanti et al., 2015). The model posits that intentional behavior is determined by three factors: attitude towards the behavior, subjective social norms, and perceived social control (Coreil, 2010). An attitude reflects some form of deposition towards the object of attention. Subjective norms refer to people's perception of how their reference groups feel about the behavior, and perceived behavioral control refers to an individual's assessment of how easy or difficult for them to successfully perform a behavior (Coreil, 2010). According to Coreil (2010), the model predicts people plan and carry out a health behavior when their attitude toward the behavior is positive, the people important to them endorse the behavior, and they expect to be able to perform the behavior successfully. Evidence suggests that perceived behavioral control from the TPB was a reliable predictor of behavioral intentions and explained variance over and above the effects of attitudes and subjective norms (Rinaldi-Miles et al., 2017).

Nature of the Study

A qualitative exploratory case study approach was chosen to enable deep, broadly textured data regarding experiences and perceptions of transgender African American women (see Savin-Baden & Major, 2013). The study involves data collection from individuals in a small community wary of contact with non-transgendered people. The use of an exploratory case study design advances knowledge of poorly accepted subcultures at elevated risk for HIV transmission (Boyer et al., 2016). Case study designs and the use of personal communication and listening to life stories enables a comprehensive understanding of understudied, secluded cultures (Merriam, 1988; Stake, 1995; Yin, 2017). Case study designs enable richly textured, holistic data collection of social phenomena and experience in participants' own words (Yin, 2017). Content analysis identifies recurring themes and ideas while sharing participants' stories, which gives voice to participants' subjective experiences. Case studies involve data collection from multiple individuals woven together to create a richly textured, robust set of unstructured data (Yin, 2017). The convergence of data, in this case, semistructured interviews from multiple sources, refers to triangulation and promotes trustworthiness in study findings (Yin, 2017). Story-telling stories is essentially a meaning-making process. When people tell stories, they select details of their experience from their stream of consciousness (Seidman, 1991).

The key concept studied was how attitude, subjective social norms, and perceived behavioral control influence the risk behavior of African American transgender women. The study aim was to advance knowledge on rarely studied subcultures with an HIV incidence rate 70 or higher than the general population. Findings may be used by activists, therapists, and researchers to shape potential interventions to reduce HIV risk behavior for African American transgender women.

The study involved semi-structured interviews with a purposive sample of eight African American transgender women recruited during LGBTQ+ events such as STD clinic and HIV testing and counselling services, education and outreach services, and transgender support groups. The transgender community is close-knit in Connecticut; therefore, recruitment outside LGBT events included snowball sampling. Data were analysed using content analysis to identify recurring themes (Yin, 2017).

Qualitative data were analysed as follows: (a) a within-case analysis of each case, and (b) a cross-case analysis of data to bring about similarities and differences across the categories and themes that become prominent. For within-case analysis, data collected from each of the transcribed interviews were arranged, field notes were arranged in segments and indexed along with line numbers and organized according to interview questions so that codes could easily be established (see Finfgeld-Connett, 2014). I recorded the identified codes on a spreadsheet with rows and columns. According to Saldana (2011), by doing this I captured data segments, assigned codes, as well as reflective notes, that helped identify emerging patterns. Codes that shared common meanings were classified into themes.

Definitions

Behavioral Intent

The subjective probability that a person engages in each behavior (NIH, 2019).

HIV Risk Behavior

Exposure and behaviors that increase the chance of exposure to HIV (CDC, 2020).

Sociostructural Factors

Sociostructural variables overlap with demographic variables including age, gender, ethnicity, education level, and employment, but also include social factors such as political orientation, religiosity, and other factor related to participation in society (Milfont et al., 2015).

Assumptions

Assumptions are predicates necessary to conduct a research approach (Savin-Baden & Major, 2013). Participant honesty is a critical assumption for the study. The tendency to conform responses is a function of attitudes towards the behavior questioned, social norms, perceived behavioral control, anticipated affect, moral norms, and perceived risk of answering honestly (Yin, 2017). An assumption of honesty was necessary because no independent means to validate interview data exists.

An ontological philosophy is the primary methodological assumption (Savin-Baden & Major, 2013). The ontological assumption underlying qualitative research is that experience is inherently subjective (Yin, 2017). Qualitative research does not involve objective reality; rather, the process is interpretive based on subjective experience. From the same set of circumstances and facts, each person may arrive at a different interpretation of what those facts and circumstances mean (Savin-Baden & Major, 2013). The ontological assumption is particularly important for understanding and analyzing African American transgender females, whose experience and perspective differ from the average American's experience (Boyer et al., 2016).

A second methodological assumption necessary for the examination of a transgender community is constructivism, which suggests that individuals create their understanding of the world, or reality, through experience and reflection (see Jonassen, 1991). In ontological constructivism, the individual creates the world, rather than there being an objective reality. Transgenders' experience of reality is substantially different than social norms, therefore research into that reality requires an interpretive, pluralistic, open-ended, and contextualized approach (Creswell & Creswell, 2017). The constructivist assumption forms the framework for evaluating credibility, transferability, dependability, and confirmability for this study.

Another assumption necessary to conduct the study that I made is that the terms male and female are social constructs rather than biological facts (see Budge et al., 2018). While gender has shown a fluid continuum, most societies continue to follow a male-female dichotomization of the world. For this study, sex, and gender fall on a continuum rather than as discrete realities. This assumption was necessary because transgender identity self-concept evolves, acknowledging this fluidity is the transgender community’s experience (see Budge et al., 2018).

Scope and Delimitations

While substantial efforts have been made to reduce HIV incidence rate in the LGBTQ+ community in Connecticut, the incidence for transgender women remains unacceptable (CIDR, 2017; CDC, 2020). The study aim is to advance knowledge on this rarely studied subculture, with an incidence rate 70 times higher than the general population. Aspects of the research problem addressed by the study included HIV risk behavior engaged in by the transgender female community that may impact susceptibility and beliefs regarding sexual and gender identity that may impact these specific behaviors.

The scope of the study is the African American transgender female community in Connecticut and was chosen based on access to the community, and to facilitate participant recruitment. The study is bounded by the African American transgender female community in Connecticut, which is small and reticent to interact with individuals outside their community due to fear of rejection and stigma (see Shipherd et al., 2010). For inclusion into this study, the participants needed to be African American, identify as transgender and female, and live in Connecticut. This study excluded African American transgender identified individuals who also identify as male and African American transgender females who do not live in Connecticut.

Several theoretical frameworks were considered for this current study. The TPB (Ajzen, 1985) focuses on cognitive factors that influence an individual's intention to perform a behavior was chosen based on the time available for data collection. Freud's (1923) psychoanalytic theory of personality was considered for this study. Freud posited that human behavior is a function of interactions among the id, ego, and superego, each appearing at different stages of human development. Freud believed that childhood events greatly influenced our adult personality. For example, anxiety originating from traumatic childhood experiences, and hidden from adult consciousness, and may cause emotional problems during adulthood, typically in the form of neuroses. Thus, when a person explains their behavior to others, one rarely provides a true account for the motivation, not because they are deliberately lying, but because human beings are great deceivers of others and masters of self-deception. Freud's psychoanalytic theory was considered for this study, but I rejected it due to the extensive interview time required to derive insight regarding HIV risk behavior.

I collected detailed data on participants' perceptions of risk factors and experiences specific to African American transgender females. The study inclusion was delimited to individuals who self-identify as an African American transgender woman, speak English fluently, and were age 18 or older. Participation was open to all participants that met the inclusion criteria, regardless of HIV status or Internet access capability. Because the study population and sample are geographically specific and bounded within a specific city, the findings of this study may not be applicable to all transgender women populations, particularly those in rural and suburban areas. That being stated, the study results could still possibly be transferable to transgender, female populations in other similar urban areas.

Limitations

Several issues affect credibility and dependability of the study. Transferability refers to how well findings can be used to understand other populations (Anney, 2014). First, findings from a relatively small subculture recruited from a limited geographical area may not be transferrable to other cultures, geographies, or populations. Responsibility for demonstrating transferability rests on the one who wishes to apply the results to different situations (Savin-Baden & Major, 2013). A composite description of the experience can be generated from several individuals that help describe that phenomenon more fully (Savin-Baden & Major, 2013). The challenge for the researcher is in recruiting participants familiar with the phenomenon in question. To mitigate the impact of this limitation, the CTAC, and HGLHC advocacy groups agreed to assist with recruitment of individuals who met the inclusion criteria and have reflected the African American transgender women’s experiences.

Second, the potential exists for the alteration of participation behavior by the subjects of a study due to their awareness of being observed, referred to as the Hawthorne effect (Savin-Baden & Major, 2013). Response bias must also be considered and occurs when participants provide socially acceptable answers instead of their true opinions and perceptions (Savin-Baden & Major, 2013). To mitigate response bias, I used the Brief

Social Desirability Scale (BSDS) to assess how much response bias each participant may engage (see Haghighat, 2007). The BSDS is a brief, practical, reliable, and valid social desirability instrument for use in social desirability bias. Respondents with high social desirability scores were considered for exclusion. Lastly, the BSDS was used as a screening tool for interview participants to assess response bias, and the results from the BSDS were not analyzed or included in the data collection for this study.

Third, there is the possibility that a researcher's understanding of a phenomenon might influence the interpretation of the data, referred to as researcher bias (Creswell & Creswell, 2017). Researchers should not attempt to ignore their bias in the interpretation of data (Sutton & Austin, 2015). While researcher bias is always a possibility in qualitative research, there is a very pragmatic approach to mitigate this bias. The researcher independently coded, categorized, and developed themes derived from the data. Lastly, journaling was employed to reflect on the researcher's preconceived notions and unconscious expectations before data analysis.

Significance

Research from this study filled a gap in understanding interpersonal and sociostructural factors that influence HIV risk behavior for African American transgender women, a high-risk, under researched population. Study findings made an original contribution by providing insights for African American transgender women regarding attitudes and social norms that drive HIV risk behavior as a first step toward developing interventions to reduce the HIV incidence rate for transgender females. The LGBT community counselors can incorporate findings into interventions and education to reduce the spread of HIV infection. It was not known how the lived experience of interpersonal and sociostructural factors promote the HIV infection incidence rate among African American transgender women. The goal of the study was to create positive social change through increasing knowledge on HIV risk behavior for use by LGBT counselors, therapists, and helping professionals. A greater understanding of HIV risk factors could help address the prevalence of the disease in this population more specifically, hopefully leading to reduced infection, and therefore positive social change.

Summary

The purpose of this qualitative exploratory case study was to gain insights into how attitude, subjective social norms, and perceived behavioral control, influence HIV risk behaviors of African American transgender women in Connecticut. HIV poses a significant health risk to individuals. Among the transgendered population, male-to-female individuals are at higher risk of contracting the disease, and a significant amount of African American individuals. The TPB addresses the intention to perform a behavior and has been used to explore risk in previous studies (Montanaro & Bryan, 2014; Prabawanti et al., 2015). Attitudes reflect how disposed individuals are toward a behavior. A purposive sample of eight African American transgender women were recruited from LGBTQ+ events, STD clinics, testing and counseling services, outreach communities, and transgender support groups. This qualitative study explored the experiences of transgendered African American women that may predispose them to a higher risk of contraction, with all data drawn from semistructured interviews conducted among a sample of this population.

Chapter 2 details TPB as the theoretical framework. A summary and synthesis of the extant literature on experiences of transgendered African American women in the United States is provided. The literature search strategy is defined. The chapter is organized to provide an overview initially and gradually tightens the geographic and demographic focus.

Chapter 2: Literature Review

Within the United States, transgender women and men make up less than 1% of the general population, and yet the rate of HIV prevalence among transgendered women is in the double digits (Mayer et al., 2016). Transgendered people are 49 times more likely to live with HIV than the general population (Gilead Sciences, 2021). Understanding the risk factors driving the spread of the virus among the transgendered population is important (White-Hughto et al., 2015). The factors driving the spread of disease among transgendered individuals is likely a complex interaction of individual, social, interpersonal, and structural variables that elevate the risk among this part of the population (Neumann et al., 2017). Research in this area should focus on the interpersonal and sociostructural factors that have created an epidemic among the transgendered population (White-Hughto et al., 2015). By identifying risk factors, assessments and interventions can be developed for transgendered individuals that are currently lacking (Reisner & Murchison, 2016).

The purpose of this qualitative exploratory case study was to gain insights into how attitude, subjective social norms, and perceived behavioral control, influence HIV risk behaviors of African American transgender women in Connecticut. The study focus involved understanding the degree of both interpersonal and sociostructural risk factors present in an individual's life that might predispose them toward HIV risk behavior. The study was significant because it made an original contribution, and created positive social change by disseminating knowledge on excess HIV risk behavior of African American female transsexuals.

Literature developed over the past 5 years focused heavily on how HIV affected the health risks of infected individuals, including how it influenced their susceptibility to other disorders. Much of the existing literature focused on what risk factors might be present that increased the chance of HIV contraction. These risk factors included socioeconomic factors, interpersonal factors, sociostructural factors, and the risks inherent to a variety of recreation and sexual behaviors Gilead Sciences (2021). Little was present in the literature that addressed the risks that transgendered individuals were exposed to, making it more likely they might contract the disease. I developed this study to fill that gap in the literature. By creating a better understanding of what factors place transgendered individuals at greater risk of contraction, not only would the resulting data better inform the literature, but a proper risk assessment tool could be developed for use among transgendered individuals.

The literature review is divided into pertinent sections. First, a description of the literature search is provided. This includes a description of the databases accessed during the review, the key terms used, and the scope of the literature reviewed. Second, a discussion of the theoretical framework reviews the theories applied to this research and an examination of how the employed theories have previously been applied in other studies. Third, the literature review consists of a discussion of HIV treatment, impact, and prevalence, and discusses risk factors across a range of categories such as socioeconomic and sociostructural areas. Fourth, a conclusion is applied, reviewing the body of research, and drawing conclusions from the existing literature.

Literature Search Strategy

The following online databases were searched during the literature review: The CDC, Google Scholar, Infectious Disease Society of America, PubMed, Springer Link, Taylor & Francis Online, and Wiley Online Library. Google search engine drove the majority of the research except where the use of an internal proprietary search engine was necessary. The development of keywords and key search terms was an iterative process that began with combinations of the following words and phrases, *HIV, Connecticut, transgender, HIV risk, prevalence, prevention, risk behavior, sociostructural factors, theory of planned behavior,* and *interpersonal factors*. See Appendix B for a comprehensive list of keywords searched.

The literature reviewed included peer-reviewed journals and government sources related to the topic of HIV and its associated risks, impact, and treatments. The period under research was the 5 years between 2014 and 2018. One hundred and eighty works were reviewed, 114 cited overall, and 94 cited in the literature review. Eighty percent of the material reviewed was quantitative and 20% was qualitative. Much of the literature in the past 5 years skewed heavily toward diseases that HIV caused in individuals and risk factors associated with the virus. There was little research regarding HIV as it related to transgendered individuals. The gap in literature further illustrated the need for the current study and its focus on determining risk factors associated with transgendered individuals that lead to higher rates of HIV transmission with their population.

Theoretical Foundation

The theoretical framework underlining the study was TPB, originally developed to describe how cognitive factors influence an individual’s intention to perform a specific behavior (see Ajzen, 1985). The TPB was originally proposed by Ajzen (1985) to help researchers better understand the connection between beliefs and actions. The theory suggests that three constructs shape behavioral intention and actions, including (a) attitudes held toward a specific behavior, (b) the social norms influencing the individual, and (c) the perceived behavioral control of the individual.

Attitudes toward behavior formed the first concepts underlying TPB. Fishbein and Ajzen (1977) previously indicated that individuals evaluated outcomes of actions, which influenced attitudes toward that action. At its core, attitude towards the behavior is simply a way of describing whether an individual has a favorable or unfavorable assessment of any given behavior that arises from the outcome evaluation in addition to existing behavioral beliefs. Social norm was a second concept underlying TPB. Ajzen (1985) indicated that social norms were a reference to how social influences impacted a person’s willingness to act. Family, peers, and the larger culture may all pressure an individual to take specific actions. A peer group in which smoking is prevalent may pressure someone also to take up smoking. Subjective norms are formed by a combination of one’s own normative beliefs and the motivation a person feels to comply with social norms (Ajzen (1985).

From the three concepts of attitude toward behavior, subjective norms, and perceived behavioral control, the resulting behavioral intention arises (Ajzen (1985).

Behavioral intention is a motivational factor that influences whether a person takes a specific action (Ajzen, 1991). Behavioral intention indicates whether a person is willing to perform a given behavior and is generally conceptualized as the antecedent to that taken behavior (Ajzen, 2001). After (a) attitude toward the behavior, (b) subjective norms, and (c) perceived behavioral control are combined, they create the behavioral intention (Ajzen, 2002). The three factors tend to work together. As attitudes increase in favorability within the context of facilitating subjective norms, and when perceived behavioral control is high, the most positive conditions created lead to behavioral intention. Within these conditions, people feel more strongly that an action should be taken, though the behavior may not be taken if there is a low degree of perceived behavioral control.

Multiple studies have previously been conducted regarding behavioral intention. The TPB has been used as a model in understanding adherence to medical strategies in the presence of chronic illness (Rich et al., 2015). A meta-analysis of 27 studies was used to better understand variance in treatment adherence among patients with such diseases. Rich et al. (2015) found that the model was explanative of 33% of the variance in intention and 9% of adherence behaviors. The TPB was also applied in a study of Southeastern United States office workers and their willingness to eat a healthy diet (Close et al., 2018). The researchers studied 357 individuals and collected responses using an online questionnaire. Once more, the researchers found that the constructs associated with the TPB influenced the willingness to eat a healthy diet among this sample (Close et al., 2018). Specifically, improving attitudes toward healthy eating and increasing the belief of individuals that they have control over their eating may be effective in positively affecting diet. The model was also used to explore condom interventions and found that it had varying impacts on a theory-based condom intervention (Montanaro & Bryan, 2014). The goal of the intervention was to increase preparatory condom behavior, defined as actions such as purchasing condoms or talking to a partner about using condoms during sexual encounters. Montanaro and Bryan (2014) found that the TPB explained 32.8% of the variance in risky sexual behavior. When compared to the health belief model, the TPB held much higher explanatory power. Attitudes were found to have an outsized effect on preparatory condom behavior. Attitudes, such as self-efficacy beliefs about the ability to use a condom, were associated with increased intentions to use condoms. This increased intention helped to predict preparatory condom use (Montanaro & Bryan, 2014). The TPB is focused on individual attitudes, the attitudes of the group toward action, and the belief that an action can be accomplished (Ajzen (1985). It has been successfully applied in the health field to explain variance in healthy behaviors, such as healthy dieting and the use of condoms. Consequently, it can help to establish a framework for explaining variance in healthy versus risky behaviors that put transgendered individuals at risk of acquiring HIV.

Literature Review Related to Key Variables

Human Immunodeficiency Virus

HIV is a virus that can progress to AIDS when the virus goes untreated (CDC, 2020). The nature of the virus is such that the human body is unable to rid itself of HIV even with the support of various medical treatments, making it a potentially lethal and always chronic infection that a person copes with throughout their lives. The virus functions by subverting the body's ability to respond to other infections, or what are called opportunistic infections. HIV accomplishes this by attacking the body's immune system by reducing the amount of CD4 cells in circulation in the human body. Once the body's immune system has been sufficiently compromised, it becomes open to opportunistic infections and, in some cases, cancer (CDC, 2020). These disorders take advantage of the body's compromised immune system. At the juncture when the immune system has been sufficiently compromised and left an individual open to opportunistic infections, HIV has allowed for the development of AIDS, the final stage of the HIV infection (CDC, 2020).

HIV Treatment and Prevention

Treatment for HIV has progressed to the degree that it can be controlled with appropriate treatment, even if it cannot be cured (CDC, 2020). Antiretroviral therapy is used to address the virus. With daily treatment, current medications can reduce the degree to which HIV is in circulation in the blood system, known as the viral load. By reducing the viral load, the body can remain resistant to opportunistic infections and dramatically extend a patient's life. Antiretroviral therapy was introduced during the mid-1990s, marking a dramatic change in the treatment of HIV. Before the introduction of this form of treatment, individuals with HIV could progress to AIDS within a few years of infection. Early diagnosis and treatment of the virus can now extend the life of an infected individual to the degree that their lifespan may match an individual without the infection (CDC, 2020).

Research among patients in Europe and North America saw a decline in the rates of AIDS death from the point at which users were started antiretroviral therapy (Ingle et al., 2014). However, the study also noted that death rates from non-AIDS malignancy increased during the same period. There was a higher degree of mortality among men during the first year of antiretroviral therapy. The causes of death were often due to liver-related issues. However, patients who acquired HIV through drug use had higher all-cause rates of mortality, with mortality from liver disease. The findings were indicative of the fact that while HIV treatment had progressed significantly, to the degree that mortality from the virus could be reduced (CDC, 2020; Ingle et al., 2014), the method of virus acquisition was associated with increased mortality in other areas outside the scope of strictly HIV treatment (Ingle et al., 2014). Consequently, the treatment of HIV patients should also include taking into consideration the method of acquisition and lifestyle risk factors that might contribute to mortality from other causes.

Researchers indicated there might be one means of detecting HIV outbreak hotspots in real time, allowing for the creation of responsive public health initiatives to reduce the chance of HIV’s spread (Poon et al., 2014). Poon et al. (2014) examined HIV data collected from among 7,747 individuals around British Columbia, accounting for roughly half of all the estimated HIV prevalence in the area. Clusters of HIV were organized around HIV genotypes and the clusters could be separated into two large clusters that included drug users and men who had sex with men. The resulting data revealed two populations that were highly susceptible to HIV. The researchers concluded that by analyzing HIV resistant genotypes, they could characterize the hotspots of HIV transmission in near-real-time (Poon et al., 2014). This could form a valuable tool for detecting HIV and creating an effective intervention at an earlier period before the virus could spread extensively.

Another method of detection was suggested using a more traditional questionnaire method (Aim-Eusebi et al., 2017). The researchers noted that many people in Europe remained unaware that they were carrying HIV along with other viruses, such as hepatitis B and hepatitis C. To improve detection, the researchers suggested the use of a questionnaire designed to help identify risk factors associated with the viruses (Aim-Eusebi et al., 2017). The researchers found that the questionnaire proved effective in identifying risk factors for HIV (Aim-Eusebi et al., 2017). Consequently, the potential for detecting HIV within a population may not require a high-tech solution. Rather, an effectively devised questionnaire may be able to help increase the identification of risk factors within the population (Aim-Eusebi et al., 2017).

An innovative means of addressing HIV and lowering contraction included the use of a live-chat social media intervention (Lelutiu-Weinberger et al., 2014). The intervention was developed as a response to the popularity of social media among young people and particularly its popularity among young men who have sex with men. The intervention was created to address increasing the rising HIV rates occurring among young men who have sex with men, and the intervention was delivered through Facebook. Researchers hoped to reduce risky behaviors that included condom-less anal sex and substance use. Researchers applied pre- and posttest to determine behaviors. Forty-one participants between the ages of 18 and 29 were asked to participate in the pilot study. Throughout the intervention, the researchers found the use of the live-chat program helped to reduce the number of days in which drugs and alcohol were used over a month (Lelutiu-Weinberger et al., 2014). The performance of condom-less anal sex was also reduced over that time. Increased knowledge of HIV risk also improved. At the 3-month follow-up, these improvements remained (Lelutiu-Weinberger et al., 2014). The results of the data suggested that the use of social media might be an effective means of addressing risky behaviors that may result in HIV contraction.

Raj et al. (2016) conducted research to identify what type of program was more highly associated with reducing HIV-risk behavior among Hispanic women. Research indicated a general health promotion program was more effective in promoting HIV testing versus an intensive prevention program (Raj et al., 2016). Conversely, the intensive prevention program was more effective at promoting safer means of negotiating sex with a partner. Research for the study focused on 162 Hispanic women between the age of 18 and 35; the women in question were mostly immigrants. They were also from lower-income backgrounds and 29% did not possess a high school degree. In combination with having low income or lacking a high school degree, 90% had children. Researchers found that an intensive prevention program held certain strengths that the general health program did not, though the inverse was true as well (Raj et al., 2016). The findings indicated that each type of program could be used to different effect in promoting safe practices, though parts of one program may be adaptable to the other as well to create well-rounded behaviors.

As seen in the literature, there is a range of means to prevent the spread of HIV that focuses on addressing risk factors. However, these programs vary based on where they take place. Different protective and risk factors exist in different contexts. For individuals in South Africa, there are socially protective factors that include schooling and the support of teachers that prevent disease (Cluver et al., 2016). Among young men who have sex with men, the use of a social-media based live chat program is related to a reduction in risky sexual behavior (Lelutiu-Weinberger et al., 2014). The literature demonstrates that there is a range of ways of addressing individuals and reducing their risk of HIV acquisition.

HIV Prevalence

The CDC (2020) estimated that there are approximately 1.2 million people in the United States infected by HIV. Frighteningly, one out of eight of these individuals is not aware that they are infected, leaving a significant number of the population unaware that they are infected. Infections hit the United States hardest in the mid-1980s. Since then, the number of annual infections has been reduced dramatically, by more than two-thirds. The number of annual infections dropped from 130,000 to 50,000 between 1985 and 2010. Half of all new HIV infections occur among gay and bisexual men. While the CDC estimates that homosexual men represent only four percent of the United States' male population, they account for more than three-fourths, or 78%, of all new infections. The numbers among transgender individuals are less clear, but using 2008 numbers, 28% of all transgender women tested positive for HIV.

HIV in Connecticut

Government statistics for Connecticut indicate that the number of HIV diagnoses has declined over time (Connecticut Department of Public Health [CDPH], 2019). In 2002, the total number of cases was 160. Those numbers declined by more than half by 2005, when the total number of cases fell to 65. By 2017, the total number of cases fell to a near low of only 30 newly diagnosed infections. There were notable racial disparities in these diagnoses, with 50.0% of all new infections among Hispanic/Latino individuals. Black/African American individuals accounted for 46.7% of all diagnoses, while White individuals made up only 3.3% of new diagnoses. People of other races accounted for zero new infections in 2017.

Delving further into the numbers, men who had sex with men accounted for 33.3% of all new cases, while people who injected drugs accounted for 10.0% of all cases (CDPH, 2019). Heterosexual contact accounted for 53.3% of all cases. Roughly estimated, this would take roughly 15 of the 30 cases in 2017 instances of HIV among heterosexual individuals (CDPH, 2019). About 10 of the cases would have been among men who have sex with men; however, the smaller number of men who had sex with men in the general population would indicate that the number of HIV cases among the gay population was higher as a percentage of their population versus the percentage of the straight population. Interestingly, there were no listings for women who had sex with women or differentiation for transgendered individuals, making it difficult to assess the prevalence of HIV among the gay and transgender community.

African Americans constituted the ethnic group with the largest number of new diagnoses, while Hispanics were the second large ethnic group diagnosed. Across the state, 10,560 were living with HIV in 2017, with at least 80% of them receiving some form of care. The disproportionate impact on gay and bisexual men was once again noted, with 49% of new cases occurring among this population. However, federal and state statistics fail to provide estimates for the transgender population (CDPH, 2019). This creates a lack of clarity in the numbers regarding the specifics of how HIV is distributed in the transgender population.

HIV Impact

The quality of life for individuals living with HIV has improved since this first came to public awareness and the current day (CDC, 2020). New treatments allow those infected with the virus to live much longer. However, there continues to be a disproportionate impact of HIV upon people. Geographic dispersion of the virus indicates that the diagnosis rate per 100,000 people is highest in the American South, with the Northeast, West, and Midwest United States progressively trailing the South in terms of the number of yearly diagnoses. In terms of raw numbers, white men who have sex with men are most likely to be diagnosed, while Hispanic heterosexual men are least likely to be diagnosed. The top three categories of individuals, who contract disease in raw numbers, are all ethnic groups of men who have sex with men. These numbers are indicative that there may be additional risk factors among homosexual men that might contribute to the higher diagnosis level.

Disease Susceptibility. The cost to human health due to acquiring HIV goes beyond the immediate impact of the virus itself, which is associated with a higher contraction rate of human papillomavirus among men who have sex with men (Hernandez et al., 2014). Risk factors prevalent among men who have sex with men include receptive anal sex, both anal intercourse and oral-anal contact. Consequently, human papillomavirus is a threat particularly to HIV positive men who have sex with men. Increased detection of the hepatitis C virus was also found among men who have sex with men in a study of non-injection drug users in Asia (Tsai et al., 2015b). The risk behavior identified in this setting was the use of illicit drugs, which formed an independent risk factor for the contraction of hepatitis C. Contraction was also associated as an increased risk factor for esophageal squamous cell carcinoma in a case-control study (Kayamba et al., 2015). In this instance, the virus itself and not associated behaviors were considered a risk factor for the development of these cancerous cells in a study of young adults living in Zambia.

HIV was also found to be a risk factor in cardiovascular disease (Lucas et al., 2016). This study used a cross-sectional approach to examine various risk factors that included not only HIV but also cocaine use and chronic hepatitis C. Following the measurement of carotid plaque and follow-up at 24 months with a regular measurement every six months, the researchers concluded that HIV infection was a nontraditional risk factor that should be considered as a contributor to the development of cardiovascular disease. HIV was also associated with the development of fibrosis-like changes that indicated early interstitial lung disease (Leader et al., 2016). The researchers examined structural changes in the lungs among 510 infected patients, of whom 69% were on antiretroviral therapy. Researchers found that the higher viral load was associated with fibrosis changes but no other changes, such as emphysematous changes (Leader et al., 2016).

Individuals with HIV are also susceptible to methicillin-resistant *Staphylococcus aureus* (MRSA) colonization (Zervou et al., 2014). A meta-analysis of the existing literature and 32 studies that included 6,558 HIV infected individuals revealed that those with a history of hospitalization or incarceration were associated with increased rates of methicillin-resistant MRSA. These findings revealed yet one more disease that HIV infected individuals were at risk of acquiring, though in this case, the researchers were able to narrow to specific settings in which contraction of that disease was likely. Such findings indicated settings that medical staff should be aware could contribute to the development of the disease among the infected population (Zervou et al., 2014).

Another disease that HIV infected individuals were more susceptible to than non-infected individuals was an invasive pneumococcal disease (Harboe et al., 2014). Invasive pneumococcal disease was noted as a strong contributor to morbidity among those with HIV. The researchers found that this higher rate of contraction persisted even after the introduction of combination antiretroviral therapy to combat the virus, though there was also potential for addressing interventions toward injecting drug users, smokers, and any individual using combination antiretroviral therapy (Harboe et al., 2014).

HIV infected individuals were also more likely to be susceptible to the nasal carriage of MRSA when compared against non-infected individuals (Kotpal et al., 2014). The study was originally designed to address this carriage among individuals presenting at the Integrated Counseling and Testing Center based at a teaching hospital. The case-control method was applied among 100 participants and found that 44% of the 50 participants who were infected with HIV carried MRSA, including treatment-resistant strains of the disease. The researchers recommended reducing carriage in these individuals to reduce the chance of infection and further complications. There were also increased changes in oral DNA tumor viruses among HIV-infected youth (Kahn et al., 2016). The researchers targeted their research at human papillomavirus, Epstein-Barr virus, and Kaposi sarcoma-associated herpesvirus, all of which were linked to the promotion of oral cancers. The researchers found that among HIV-infected youth, immunosuppression was a contributor to oral tumor viruses. While this factor was a natural result of the impact of substance abuse was also associated with oral tumor viruses. This type of risky behavior only increased the chances of promoting oral cancers and suggested at least one area where targeted interventions could help to reduce the risk of contracting oral tumor viruses (Kahn et al., 2016).

The treatment of HIV itself was also associated with end-stage liver disease and hepatocellular carcinoma (Ryom et al., 2016). Researchers examined the use of antiretroviral drugs, and they were associated with both end-stage liver disease and hepatocellular carcinoma using a study that included a median follow-up with participants of 8.4 years. The researchers concluded that the cumulative use of several types of antiretroviral drugs, including d-drugs Stavudine, Didanosine, Tenofovir, and Amprenavir, were independently correlated with heightened levels of end-stage liver disease and hepatocellular carcinoma. Consequently, individuals on such treatments should be subjected to increase levels of liver function monitoring, particularly as individuals stay on these treatments over longer periods. The researchers also pointed to stavudine as a drug to avoid when alternatives were available (Ryom et al., 2016).

The impact of HIV on individuals is significant. Health declines occur in several ways, including increased susceptibility to MRSA (Zervou et al., 2014), cardiovascular disease (Lucas et al., 2016), and lung disease (Leader et al., 2016). As such, there is motivation to reduce disease acquisition not only for the sake of reducing the epidemic itself, but also to reduce the associated disorders that occur because of the disease.

HIV Risk

Several general risk factors can contribute to the infection and spread of HIV. Socially and economically challenged individuals, individuals who lack access to appropriate medical care, those who fear homophobic responses, those who fear discrimination and stigma, and being an ethnic minority, all contribute to elevated risks of infection and spread. There was an elevated risk of acquisition among men who have sex with men, regardless of ethnicity (CDC, 2020).

Societal-structural factors indirectly increase transgender female HIV risk by decreasing women's sexual control and negotiating power (Sherman et al., 2019).

Transgender females live in a context of vulnerability and the intersectionality of biases that are endemic to women's experiences of stigma, discrimination, and social exclusion. Rhodes (1997) defines the risk environment as “the space, either social or physical, in which factors increase the risk of harm occurring” (p. 193). The macro risk environment includes the negative features such as crime, drug abuse, and poverty disproportionately experienced by women. Taken together and exacerbated by the stigma of being transgender often forces transgender females into sex work (Sherman et al., 2019). Both cisgendered and transgendered women shared a common trajectory of violence, childhood abuse, and client violence as sex workers. The authors found a strong positive correlation between childhood abuse and HIV infection in transgendered women (Sherman et al., 2019).

Researchers examined why this might occur in a study of risk factors associated with this population (Scott et al., 2014). The researchers drew on data from three longitudinal studies of men who have sex with men, the HIVNet Vaccine Preparedness Study, the EXPLORE behavioral efficacy trial, and the VAX004 vaccine efficacy trial. A variety of behaviors were explored, including unprotected receptive anal intercourse, unprotected incentive anal intercourse with a seropositive partner, and protected receptive anal intercourse, among other behaviors. The researchers concluded that the per-contact risk for individuals from this population was the highest for individuals participating in unprotected receptive anal intercourse with a partner of unknown serostatus (Scott et al., 2014). The findings indicated the risk inherent of having unprotected anal intercourse with a partner whose status was unknown. However, within the findings, subsets of this population were at higher risk. Particularly, younger men who had sex with men were at higher risk, while Latinos were more likely to have unprotected anal intercourse with a partner who was positive. The findings provided new data that indicated not only the riskiest behaviors in general but also highlighted particularly susceptible members of this population (Scott et al., 2014).

Research conducted in Greece identified potential risk factors among injection drug users (Sypsa et al., 2015). The researchers conducted their study within the context of an HIV outbreak occurring within Athens, Greece. The study included 1,404 participants who were interviewed and tested for HIV. Both bivariate and multivariate analyses were used to examine variables and identify those factors most strongly associated with the spread. The researchers found that the odds of infection among the study sample were 2.3 times higher among those who were homeless versus those who were housed (Sypsa et al., 2015).

Drug users who injected at least once per day were also at increased risk, with those who injected 2.3 times more likely to contract HIV than those who injected less frequently (Sypsa et al., 2015). The findings suggested some factors increased the chance of contracting among injection drug users. When users were homeless and when they used drugs at least once daily, they were more likely to contract the virus. This revealed a subset of the population that was at greater risk and to whom interventions could be addressed to produce the most significant outcomes.

Drug use, specifically the use of inhaled nitrites otherwise, known as poppers, was also a risk factor for HIV contraction among men who have sex with men (Hambrick et al., 2018). The study was conducted among 580 such men based in Paris, France. The study was conducted using a geosocial networking smartphone application. The resulting data revealed that of those who responded, 46.7% used poppers in the past three months. The use of the drug was significantly associated with condomless anal intercourse as well as the use of alcohol, drugs, or both during sex. Poppers were also associated with group sex. Consequently, the use of poppers was significantly associated with several risky sexual behaviors that could lead to contraction (Hambrick et al., 2018).

Interestingly, the risk of HIV acquisition among drug users who specifically inject drugs does not statistically significantly differ by drug type (Tavitian-Exley et al., 2015). A review of 15 studies examined incidence rate for people injecting a range of drugs, including cocaine, amphetamine-type stimulants, and both opiate sedatives and opiate stimulants. The researchers concluded that while there was variation in the risk of contraction between groups, that variation was not statistically significant. As such, the general risk of contraction among injection drug users was relatively consistent between groups, which eliminated risk grading between groups (Tavitian-Exley et al., 2015).

Part of the risk of infection by and spread of HIV includes a lack of testing among individuals performing risky behaviors (Dovel et al., 2015). Researchers examined the testing history of individuals at high risk for infection as well as the factor associated with testing. Data were drawn from the National Survey of Family Growth with a data set from between 2006 and 2010. Individuals who engaged in a sexual behavior or drug use behavior considered risky were categorized into a high-risk group, a group that would most need to be tested more frequently. Despite the need for more frequent testing, the researchers found that only 29.3% of high-risk men had been tested recently. The researchers estimated that 3l.7% of this group was tested over a year prior while 40.0% had never been tested. Among high-risk women, 36.9% had been tested over a year before while 26.1% had never been tested (Dovel et al., 2015). These findings presented a bleak image of the testing status of high-risk groups. The data indicated the ongoing need to promote testing among the population and particularly among those groups most likely to contract the virus.

Socioeconomic Risk Factors. The CDC (2020) describes a complex list of socioeconomic factors that influence subpopulation HIV incidence. The CDC reported a significant link between poverty and infection incidence rate (Becasen et al., 2019). Poverty limits access to health care, which prevents individuals from detecting and treating. This places the individual at higher risk not only of acquiring AIDS but also of spreading within their surrounding communities. Poverty is one of the conditions that inform a risky environment and makes it more likely to acquire, go untreated, and spread.

Poverty is complicated by the fear of discrimination (CDC, 2020). Fear of facing negative responses push individuals to stray away from seeking help. Rather than be tested and treated through an established medical service, individuals avoid diagnosis out of fear of the associated discrimination. This discrimination can be due to the virus itself or due to the discrimination associated with ethnicity or sexual orientation. These conditions are compounded by the presence of language barriers among certain ethnic and nationality groups. Specific groups are unable to speak the language effectively, making it less likely to seek medical services to test for HIV. Regarding these issues, the

CDC (2020) noted that poverty was the key variable associated with infection among heterosexual individuals living in the inner city.

Living below the poverty line in urban areas made those individuals twice as likely to acquire HIV as individuals living above the poverty line. Groups living in low-income urban areas were far more likely to acquire than individuals living in other parts of the country. The impact of poverty was also found to cross-racial and ethnic lines, implicating poverty as a factor behind infection in multiple cases. The unemployed and those lacking a high school education were also much more likely to acquire. As such, poverty can be safely associated with the acquisition (Denning & DiNenno, 2017). Given the significant role of poverty in driving acquisition, attempts to curtail infections should examine the conditions in high poverty areas.

Socioeconomics has been tied to HIV risk in multiple studies. Researchers examined HIV-prevention strategies among middle socioeconomic status Black females (Caldwell & Mathews, 2016). The researchers noted that while lower socioeconomic status was often associated with risk, increased socioeconomic status alone did not protect these women from risky behavior. Instead, factors such as the degree of trust in a relationship, the dynamics of a relationship, and an imbalance between the number of males and females (constraining female choice while favoring male power) all contoured decision making among women. Consequently, women of this socioeconomic status remained at risk of HIV due to risky choices contextualized by these factors (Caldwell & Mathews, 2016).

Researchers conceptualized the concept of socioeconomic disconnection as a means of explaining the increased risk of HIV exposure among young men who have sex with men (Gayles et al., 2016). Socioeconomic disconnect referred to young men who were both unemployed and out of school, constraining the employment possibilities for this part of the population. The researchers found that socioeconomic disconnect was significantly positively correlated with positive status, indicating that young men who had sex with men were more likely to make risky choices that exposed them to when they were out of school and unemployed (Gayles et al., 2016). This reinforced the statements by Caldwell and Mathews (2016) who asserted lower socioeconomic status was associated with increased exposure to HIV.

However, it should be noted that socioeconomic status often overlaps with ethnicity, and researchers while socioeconomic status is often associated with increased HIV risk, this overlap sometimes drew attention away from the fact that ethnic concentration alone at times explained increased risk (Ransome et al., 2016). In this study, researchers found that the concentration of Black residents was associated with risk independent of both socioeconomic deprivation and income inequality. Socioeconomic status may often be associated with increased risk of exposure, but the study findings suggested that some interventions should be specifically targeted at Black populations and research should be adjusted to determine what led to increased exposure among Black populations (Ransome et al., 2016).

Socioeconomic status was not only commonly associated with increased HIV risk but also poorer treatment outcomes among poorer populations (Burch et al., 2016).

Researchers aimed to determine how socioeconomic status affected outcomes in settings where there was universal access to health care. Specifically, the researchers hoped to determine how socioeconomic status affected adherence to medical protocols, suppression of the virus, and virologic rebound. Given the targeted setting, the study took place in the UK, where universal healthcare was available. Even in such a setting, the researchers found that socioeconomic disadvantage was highly associated with poor outcomes in treatment, often due to a lack of adherence to interventions (Burch et al., 2016). The viral rebound was, therefore, more likely in these settings. Given the universal access to healthcare, money alone did not determine treatment adherence. As such, the researchers suggested that increasing social supports might help to promote adherence to treatment programs.

Researchers also found that HIV produced increased internalized stigma among individuals from lower socioeconomic status in a study of individuals from sub-Saharan Africa (Tsai, 2015a). Researchers examined 4,314 individuals from across 12 African countries to determine the relationship between stigma and HIV status. Following data analysis, the researchers concluded that stigma was most likely to affect those who had the fewest available resources. As such, those least likely to be able to manage the disease were those most likely to internalize stigma about it. The researchers noted that this was particularly problematic because it led to compounding adverse impacts on psychosocial health (Tsai, 2015a). Much earlier research into the impact of stigma revealed that even when treatment was available, individuals with stigma were among the least likely to adhere to treatment (Rueda et al., 2016). As such, stigma may not only promote psychological issues but also prevent effective treatment of the disease.

HIV Risk Factors Among Youth. Childhood traumas were also linked to HIV risk behavior among both young women and men in South Africa (Gibbs et al., 2018). The study was conducted using a sample drawn from urban settlements in the country and included individuals between the ages of 18 and 30. For this study, 680 women and 677 men responded and reported on forms of trauma, the severity of the trauma, range of traumas, and the overall severity of their childhood traumas. The types of traumas reported included emotional, physical, and sexual abuse. These traumas ranged from having to live in different households to seeing a parent beaten or having sex under threat. Following the analysis of the data, the researchers concluded that all the documented childhood traumas were associated with a range of behaviors associated with increased risk (Gibbs et al., 2018). The findings of the study pointed to the critical role that childhood traumas could play in disposing individuals toward risky sexual behavior, indicating that trauma-oriented therapies should be devised that may help to reduce the inclination toward risk behaviors.

Numerous studies have pointed to specific risks adolescents face and potential means of addressing those risks. Adolescents in alternative schools aimed at addressing behavioral and emotional problems are at unique risks of acquiring HIV as well (Brown et al., 2017). Researchers noted that these adolescents often had difficulty managing their emotions, leading to poor decisions, and engaging in risky sexual behaviors. However, interventions designed to help individuals manage those emotions were linked to improved decision making (Brown et al., 2017). As such, one possible means of addressing sexually risky behavior among adolescents maybe by helping them negotiate their emotions better. Among the homeless, there may be gendered pathways toward risk among young people (Harris et al., 2017). Researchers examined youth living in Los Angeles and examined the relationship between sexual victimization, homelessness, and sexually risky behavior. The researchers found that among these homeless youth, there was a high rate of sexual victimization. However, females were more likely to experience PTSD and then have sex for drugs, money, and other necessities. Males, on the other hand, were more likely to engage in substance abuse (Harris et al., 2017). The results indicated that while both males and females engaged in risky behaviors, their risks occurred because of two different pathways each gender took. Such findings also suggested that different interventions might be needed for addressing members of each gender to reduce risk.

Similarly, youth detained in juvenile detention are also at increased risk of sexually risky behaviors and acquiring HIV (Abram et al., 2017). Researchers did not attempt to identify the reasons for this but did note that the prevalence of sexually risky behaviors within this population remained higher than among the general population. The prevalence dropped over time from the point of release, but the elevated risk remained, particularly among ethnic minorities (Abram et al., 2017). This study revealed yet another population at increased risk.

Some of the risks for increased HIV acquisition among youth were identified in a qualitative examination of the perspectives of youths living in the Atlanta area (Camacho-Gonzalez et al., 2016). Following discussions with these youth, researchers concluded that participants felt that social media, lack of concern, and a need for immediate gratification all drove increased risky sexual behaviors. These individuals reported rarely discussing with their partners, often because they feared rejection. In other cases, the conversation did not happen because the relationship was temporary or because the youth felt these discussions would hurt the mood between them and their partner. Some youth also felt these discussions would not remain confidential (Camacho-Gonzalez et al., 2016). A separate study inadvertently also addressed the need for instant gratification among adolescents (Dariotis & Johnson, 2015). Researchers noted that those beneath the age of 25 had a greater likelihood of risky sexual and substance abuse behaviors, that researchers hypothesized was due to the devaluation of delayed outcomes. In simpler terms, young people place less value on outcomes they must delay. This was determined by assessing 18 through 24-year-olds likelihood of having unprotected immediate sex versus waiting for sex; the longer the delay, the greater the chance that the participants would have unprotected sex (Dariotis & Johnson, 2015). This again spoke to the phenomenon among young people to need to satisfy sexual needs immediately, leading to risky decisions and increased exposure.

Camacho-Gonzalez et al. (2016) found that youth considered social media to be a reason that risky sexual decisions were made, while Barman-Adhikari et al. (2016) indicated that homeless youth in Los Angeles were frequent users of social media. The content of that social media use was associated with whether these individuals chose risky or protective sexual behaviors. For instance, some of these individuals were connected to online communities or caseworkers that promoted protective behaviors. In contrast, other individuals engaged in communities that promoted various risky behaviors. However, more than simply influence behavior; social media also connected individuals to others with whom they had sex (Barman-Adhikari et al., 2016). The researchers noted that this was particularly alarming given that individuals who found sexual partners online were more likely to have other risk factors that increased the likelihood of exposure to HIV. The combined findings of Camacho-Gonzalez et al. (2016) and Barman-Adhikari et al. (2016) therefore, indicated that social media might be a facilitator for risky conditions and behavior among adolescents.

Boyer et al. (2016) researched sociodemographic factors, risk, and various community contexts among adolescents and young adults who exchanged sex for drugs and money. The study drew upon survey data collected from community venues where these young people commonly congregated. The venues were in resource-challenged areas where STIs occurred frequently, with most venues typically in urban parts of the United States. The researchers noted that adolescents and young adults were at increased risk of acquiring HIV along with other STIs. Following analysis of the data collected from among these venues, the researchers found that 32.1% reported as gay or lesbian, while 18.1% reported as bisexual. Of those studied, reports of behavior associated with HIV were frequent. An estimated 16.3% of all participants exchanged sex for drugs and money, while another 12.6% had sex with someone they knew had HIV. Yet another 7.8% had sex with someone who injected drugs, while 1.3% injected drugs themselves. This represented a significant number of risky sexual behaviors among both gay and straight participants (Boyer et al., 2016).

HIV Risk from Interpersonal Factors. Research conducted among African American and African Caribbean Women revealed that relationships to their sexual partners played a role in increased risk (Draughon et al., 2014). Women between the ages of 18 and 55 involved in intimate relationships were interviewed at clinics based in Baltimore, MD, St. Thomas, and St. Croix on the U.S. Virgin Islands. Four hundred and twenty-six physically abused women were included, and of those, 38% reported having to become involved in sexual acts. The researchers discovered that among the study sample based in the Virgin Islands, those forced into sexual acts were more likely to have had three or more sexual partners in the past year, as well as more casual sex partners and more concurrent sex partners. All these behaviors were associated with an increased risk of HIV acquisition. Baltimore was more likely to have been involved in risky behavior of a different type, with Baltimore women forced into sexual acts more likely to have had exchanged sex, sex exchanged for a particular purpose. These women were more likely to report that their abuser had other sexual partners as well (Draughon et al., 2014). The data that emerged from the study revealed the risk that women who were forced into sex experienced. These women were more likely to be involved in riskier sexual behaviors.

A study in South Africa also identified risk factors for young women to acquire HIV, which included age disparities in relationships and differences in power structure between female and male partners (Harrison et al., 2015). The researchers noted that this was a particularly vulnerable population, with young women in southern Africa holding among the highest incidence rates of HIV infection throughout the world. Contraction of the disease peaked between these women’s teens and young adulthood and seemed to be linked to the nature of their relationships with men. The structural factors that dictated age and power disparities between a young woman and her older male partner created conditions in which these women were more likely to contract the virus (Harrison et al., 2015).

Researchers identified another means by which people may be at risk of HIV exposure, namely through the lack of disclosure of infection with partners (Qiao et al., 2016). The study was conducted among 7981 HIV-infected people to determine the interpersonal factors that influenced disclosure. The researchers found that one of the most significant influences on whether a partner disclosed their status was the quality of the relationship maintained. When relationship quality declined, so did the discussion of status. Another factor that affected disclosure was the general effectiveness of communication within the family (Qiao et al., 2016). As such, researchers recommended creating open communications within families and helping couples improve their relationship quality as a means of promoting the disclosure of status.

Socio-structural HIV Risk Factors. The issue of socio-structural risk factors is broad, and what constitutes a risk factor change based on context. In the prevention of mother-to-child transmission of HIV in the Republic of the Congo, poor financial conditions, and lack of access to preventative services increased the risk of transmission (Whembolua et al., 2019). Within the Philippines, trafficking victims were associated with ongoing drug use, decreased availability of condoms among sex entertainers, and lack of peer support that would prevent healthier sex behaviors (Urada et al., 2016). In Nigeria, knowledge, poor economic conditions, religious stigma, and legal policies constraining sex workers all negatively impacted women and made it more likely that they would take preventative steps (Munoz et al., 2010). Finally, in Southwestern Uganda, negative attitudes, multiple sexual partners, frequent unprotected clothing, and pressures within the sex industry were only some of the factors that increased the likeliness of transmission within the Kasensero fishing communities (Lubega et al., 2015). As such, socio-structural risk factors are different from one context of research to another but consistently be characterized by a combination of relationships to others, relationships to society, and personal factors.

Socio-structural factors do not only lend themselves to increased risk of infection but also to protecting against such infection (Naidoo et al., 2014). Researchers examined factors in South Africa using a mixed-methods approach to produce both qualitative and quantitative data. Self-reported data revealed that the factors most closely associated with infection included (a) being diagnosed with an STI at some point, (b) failure to use condoms during sex regularly, and (c) lack of regular access to condoms. In contrast, protective factors that were identified included having discussions with a romantic partner regarding the use of condoms during the past year and having an education above the eighth-grade level (Naidoo et al., 2014). When taken together, the role of condoms in both encouraging and discouraging risky sexual behavior became clear. Lack of access or failure to use condoms regularly increased the risk of HIV contraction while discussing prior condom use with a sexual partner lowered the risk of HIV infection. Condom use, education level, and previous risky sexual behavior predicted both STI and HIV exposure (Naidoo et al., 2014).

For young men who have sex with other men, there are also socio-structural factors that influence risky decision-making (Young et al., 2017). The researchers noted that for this part of the population, the presence of surrogate families and support social networks acted as a means of preventing behaviors that could lead to contraction. The researchers found that members of these networks were more likely to be surrounded by protective traits that lessened the chance. These traits included having health coverage and regular access to a doctor. Individuals who were part of surrogate families and support networks were also less likely to engage in sex drug use with their peers. In contrast, those without a supportive network or part of a family were more likely to be HIV positive (Young et al., 2017). Surrogate families did not act as complete protection against risky behavior since there was an increased likeliness to engage in the use of drugs within those families. The resulting picture portrayed a complex vision of the positives and negative influences a surrogate family could have on the risk behavior of an individual (Young et al., 2017).

Transgendered Individuals and HIV

Global data suggests that transgender women engaged in sex work are disproportionately at risk for acquiring HIV when compared with biological male and female sex workers (Poteat et al., 2015). The researchers used epidemiological data focused on transgender women and identified transgendered women sex workers as being at particular risk. The study results suggested that there are nation-specific contexts that produce different risk factors for transgender women (Poteat et al., 2015). Given the resulting data, the specific contexts of individual countries would require study to identify the unique risk factors that lead to increased risk among this population. A study conducted in Brazil revealed that several factors contributed to transwomen not being tested (Pinheiro et al., 2015). The researchers employed a cross-sectional method over five months in 2008 while drawing upon a sample of 304 transwomen. There were numerous variables independently associated with resistance to being tested. The researchers found that transwomen underneath the age of 18, whose first sexual encounter occurred before the age of 10, who used illegal drugs during sex, felt discriminated against, and who believed the test results were not confidential, were all resistant to being tested (Pinheiro et al., 2015). The resulting data produced numerous characteristics that placed certain parts of this population at risk. Consequently, interventions designed to encourage testing among transwomen could focus on resolving some of the factors increasing resistance to testing.

The risks involved with HIV change between groups. Socially and economically challenged individuals often do not have access to appropriate care (CDC, 2020). Individuals who engage in certain sex practices are also at greater risk of acquiring the disease (Scott et al., 2014). Drug use is also associated with increased risk (Hambrick et al., 2018; Sypsa et al., 2015). Interpersonal risk factors include age disparities between sexual partners (Draughon et al., 2014). Socio-structural factors also contribute to increased risk (Lubega et al., 2015). However, these same factors can also protect against the acquisition of the disease (Naidoo et al., 2014). Given the range of risk factors, interventions must address the different risk factors present in different contexts. The literature surrounding transgendered individuals conducted in the past five years is limited. However, some risk factors have been identified. The literature indicated that factors such as age and the time of first sexual encounters were linked to transmission (Pinheiro et al., 2015). Data indicated that HIV (Poteat et al., 2015) disproportionately affected this part of the population. The body of literature presents a range of risks but with little focus on the risks surrounding transgendered individuals.

Research into HIV has previously revealed that individuals living with HIV may not have may use the Internet to meet sexual partners (Benotsch et al., 2014). The study focused on how the Internet was used to meet sexual partners and was conducted among transgender individuals to correlate Internet use with sexually risky behaviors, mental health, and experiences of discrimination. One hundred and sixty-six transgender individuals consisting of 112 male-to-female and 54 female-to-male participants were drawn for the study using community venues. Following analysis of the data, an estimated 33.7% of individuals reported meeting a sexual partner through the Internet, with little difference in frequency between transgender men and women. However, transgender women reported meeting a higher number of lifetime partners than transgender men did. The media among transgender women was three while the media between transgender men was one. Transgender women who used the Internet to acquire sexual partners were associated with 11 sexually risky behaviors ranging from sex under the influence of drugs to unprotected anal risk, while transgender men were not significantly associated with risky sexual behavior after meeting sexual partners over the Internet. This indicated that transgender women were at risk of sexually risky behavior facilitated by the Internet (Benotsch et al., 2014). Both transgender men and women who used the Internet to meet sexual partners reported having lower self-esteem.

The research by Boyer et al. (2016) revealed some additional significant risk factors. Males, transgender individuals, individuals with a lower education level than their peers, individuals who experienced homelessness, and those in a relationship for less than a year were all more likely to exchange sex for drugs and money. However, the community context also influenced whether an individual exchanged sex for drugs and money. Individuals who exchanged money for sex were less likely to participate in a job-training program or to find a job after having been in such a program. These same individuals were more likely to experience unintended unemployment and require community housings services. Finally, individuals who exchanged sex for drugs and money were more likely to be a victim of a crime (Boyer et al., 2016). Consequently, not only were there significant risk factors that increased the likeliness of individuals having sex for drugs and money, but individuals who did so were in turn more likely to experience several negative community outcomes ranging from unemployment to homelessness. As such, exchanging drugs for money may create a circular pattern of negative behaviors and outcomes.

Fennie et al. (2016) researched individual and area factors associated with HIV infected individuals in Florida. Both HIV-infected transgender and cisgender individuals were surveyed. Of those surveyed, 0.01% were transgender males, 0.3% were transgender females, while 25.7% were cisgender females and 74.0% were cisgender males. Notably, transgender females were more likely to be diagnosed with AIDS within three months of their HIV diagnosis than cisgender women, suggesting that this part of the population was a particular risk of progressing to AIDS. Such findings indicated a specific population to whom interventions should be directed to increase HIV screenings. The researchers indicated that transgender females were more likely to experience violence, discrimination, to use illicit substances, and have poor mental health, all of which increased the likeliness of HIV going overlooked and progressing to AIDS (Fennie et al., 2016).

Gamarel et al. (2016) examined sexual agreement types and motivations and how they related to risky sexual behaviors among transgender women. Researchers noted that transgender women were more likely to engage in condom-less sex with primary cisgender male partners, rather than with casual partners or partners who paid. The researcher hypothesized that these women engaged in such sex as a means of trust-building with their male partners. Following a more in-depth analysis of the relationship dynamics among these women, the researchers found that 40% of couples were monogamous. Another 15% were in open relationships while 45% disagree on the type of relationship, open or monogamous, that they were in. A closer examination of these relationships indicated that male partners who engaged in sexual relations outside of their relationships then engaged in HIV infected condom-less sex with their transgender partners (Gamarel et al., 2016). Such findings once again presented yet another risk that transgender women were at of having sex with infected individuals, even within their relationships.

Research indicated that transgendered female youth were particularly at risk of becoming HIV positive (Gamarel et al., 2016). Researchers noted that of individuals studied, 4.8% of transgendered female youth were positive, an elevated percentage versus the general population. Transgendered women in San Francisco possessed even higher infection rates, pointing to the ongoing trend of transgendered women being at particular risk of infection. Researchers warned that adult transgendered women constituted a population that needed specific targeting to prevent a large epidemic occurring within that subset of the population. Of these individuals, ethnic minority transgendered women were more likely to engage in risky sexual behaviors, such as condom-less receptive anal intercourse, marking this part of the population at even higher risk of exposure (Gamarel et al., 2016). The sum findings indicated that even among transgendered women there are certain parts of the population at greater risk. Between youth and adulthood, the number of transgendered women with increases, indicating that age may bring with it a more likely chance of exposure, and this effect may be even stronger among ethnic minority population members.

African Americans. African American transgender women make up the single largest group of transgendered individuals with HIV diagnoses among both transgendered men and women between the years of 2015 through 2019 (CDC, 2020). An estimated 58% of transgendered men diagnosed were African American, while 51% of transgendered women diagnosed were African American. The second-largest group of transgendered individuals diagnosed was Hispanic, indicating that the problem of diagnosis among the transgendered population most heavily fell upon people of color.

The CDC (2020) indicated numerous prevention challenges might disproportionately impact transgendered people of color. The mean HIV prevalence among African American transgendered women was 44.2% and 25.8% among Hispanics, in contrast to the mean prevalence of only 6.7% among white transgender women (CDC, 2020). The University of California San Francisco’s Center for AIDS Prevention Studies indicated that African American transgendered women might experience racism and discrimination in addition to the stigma faced by transgendered individuals in general (Neumann et al., 2017). The dual stigma of being transgendered and an ethnic minority complicated life for these people and made it less likely that they participate in healthy preventative measures. These same individuals were more likely to engage in unprotected receptive anal intercourse and have multiple casual sex partners. Transgendered women of color were most likely at greater risk of being sex workers, poor, and homeless.

The American Psychological Association also noted the additional needs faced by transgendered women of color. LaMartine et al. (2018) once more pointed to the issue of social marginalization as prominent among transgender people of color. These individuals were often discriminated against and victims of violence, with African Americans faring the worst of all transgender groups. African American transgender people were at high risk of poverty, with 34% reporting annual income of under $10,000 per year and an unemployment rate of 26%, which was three times the poverty rate of the rest of the general population. An estimated 50% participated in the underground economy to make enough money to live, while 48% of transgendered African Americans reported being denied employment, and another 41% reported experiences of homelessness.

Summary and Conclusion

The body of literature conducted over the last five years regarding HIV dealt with associated health risks (Denning & DiNenno, 2017; Hernandez et al., 2014; Tsai et al., 2015b). This discussion of the health impact included literature covering the treatment and prevention of the disease, as well as its prevalence among the population. This research helped to better understand what parts of the population were most vulnerable to the contraction as it illuminated what parts of the population were most regularly exposed to the highest risk. This discussion included reviews of sexual and recreational practices that contributed to the increased rates among these subsets of the population (Denning & DiNenno, 2017; Hambrick et al., 2018; Scott et al., 2014; Tavitian-Exley et al., 2015). As part of the examination of risk, certain factors were found that influenced the likelihood of contracting the disease. HIV's role among the youth, how it interacted with interpersonal factors, and the socio-structural elements that were conducive to increased exposure were all highlighted. Only a limited amount of literature was found on the impact among transgendered individuals, and this literature did not touch upon the interpersonal and socio-structural factors that influenced this part of the population.

Though researched independently, interpersonal factors, socio-structural factors, and the transgendered population have not been studied extensively regarding how those factors placed transgendered individuals at increased risk of HIV transmission. This makes for fertile ground for the research in the current study. Research in this area could help to identify those factors that predispose individuals in the transgendered community to an increased risk of acquisition. Following that, assessments and interventions meant to address within the transgendered community could be developed that helped to reduce the high rates of transmission that currently exist.

HIV presents a significant public health epidemic. Over time, it leads to a decline in an individual’s immune system and exposes them to other diseases that take advantage of their compromised immune system. The literature regarding the impact is broad, ranging from discussions of the virus itself to the risk factors that surround the virus. The literature on contraction includes a discussion of risk factors, which change significantly between different populations. The literature also included a discussion of treatments and interventions as well as risk factors. Between different subsets of the population, different risk factors seemed to be present, necessitating interventions tailored toward different factors. The discussion on risk included discussion of socio-structural and interpersonal factors, as well as discussions of transgendered individuals. However, what was not present in the literature was a study of risk among transgendered individuals that specifically had to do with socio-structural and interpersonal factors. Consequently, there exists a gap in the literature surrounding those factors regarding transgendered individuals. The study would fill in this gap in the existing literature, highlighting risk factors for transgendered individuals and setting the foundation for developing an appropriate intervention tailored toward this part of the population.

Chapter 3: Research Method

The purpose of this qualitative exploratory case study was to gain insights into how attitude, subjective social norms, and perceived behavioral control, influence HIV risk behaviors of African American transgender women in Connecticut. Chapter 3 includes a description of the research design, sample size and sampling method, and data collection and analysis procedures. A detailed description of the semistructured interview data collection plan, and data analysis plan is included. The study involved human participants and required Walden University Institutional Review Board (IRB) approval prior to participant recruitment. ethical procedures are also discussed, including the treatment of humans and their rights within the context of the study. Finally, a conclusion to the chapter is provided.

Research Design and Rationale

The following research question and sub-questions guided this study:

RQ1: How do personal and social factors influence the decision making of African American transgender women that are known to contribute to the spread of the human immunodeficiency virus?

Subquestion 1: How do African American transgender women perceive their risk of acquiring HIV?

Subquestion 2: How do African American transgender women perceive community behavioral norms contributing to the spread of HIV?

The central concept of my study is how African American transgender women describe the influence of personal and social factors that contribute to relatively high rates of HIV transmission in their subculture. The constructivist research tradition was chosen to guide this study. Constructivism is a philosophical tradition regarding how one “comes to know “(Fosnot, 2013). Constructivism describes knowledge “not as truths to be transmitted or discovered, but as emergent, developmental, nonobjective, viable constructed explanations by humans engaged in meaning-making in cultural and social and communities of discourse” (Fosnot, 2013, preface). The unit of analysis is the individual who with shared, or common experiences. Everyone is a member of a “culture-sharing group” by virtue of the “shared patterns of behavior, beliefs and language” that they develop (Creswell & Poth, 2018, p. 90).

The basic assumption of the constructivist paradigm is that knowledge is socially constructed by people seeking meaning and that researchers following this tradition attempt to understand the complex world of lived experience from the point of view of those who live it (Fosnot, 2013). The constructivist paradigm emphasizes that knowledge is a product of the values of researchers and cannot be independent of them, which is consistent with ontology, which means that reality is socially constructed (Savin-Baden & Major, 2013). During the research process, perceptions of what constitutes reality may change throughout the process or may be substantially different between researcher and subject (Fosnot, 2013). For example, concepts of feminism, social justice, and privilege are socially constructed phenomena that mean different things to different people (Fosnot, 2013).

Constructivism is consistent with the study purpose, which was to explore how individuals within the subculture of African American transgender females describe reality from their perspective. To explore a subculture, it is necessary to set aside one's own perspectives and understand how participants create meaning that motivates behavior from their perspective (Fosnot, 2013). The constructivist tradition is most consistent with the purpose of this study based on the research question and purpose.

A qualitative exploratory case study design enables researchers to conduct an in-depth exploration of intricate phenomena within some specific context (Savin-Baden & Major, 2013). Qualitative case studies involve an exploration of social processes in-situ to advance knowledge on how meaning is derived from experiences and social interactions (Denzin & Lincoln, 2008; Yin, 2017). The goal of qualitative inquiry is to collect richly textured, detailed information in the words of individuals experiencing the phenomenon of interest (Savin-Baden & Major, 2013). Qualitative inquiry involves the examination of personal communication between individuals and listening to how individuals communicate their stories (Yin, 2017).

Role of the Researcher

The role of the researcher in a qualitative exploratory case study is to be an impartial interviewer who introduces minimal bias to the investigation (Yin, 2017). I conducted semistructured interviews face to face to solicit similar content across participants but allowed for broad discretion to explore other related areas. In this role, I was an observer-participant (see citation). Follow-up questions beyond the interview protocol were created based on participant responses and may be used in subsequent interviews.

The study was conducted in Connecticut where I live and work. Only participants not known to me professionally and personally were recruited. I am not a member, consultant, or employee of any organization that was used to recruit participants, nor were friends or relatives recruited. No conflicts of interest, power differentials, or incentives to participate are known to me.

Methodology

Participant Selection Logic

The number of U.S. individuals who self-identify as transgender is estimated to be 1 million, or 0.3% of the population (Meerwijk & Sevelius, 2017). The target population was African American transgender women living in Connecticut; however, no credible estimate for that community is available currently. Based on the African American population of 586,972 in Connecticut (Census Bureau, 2019), the target population of African American transgender women is estimated at 900.

A purposive sample of eight African American transgender women living in Connecticut was recruited. The selection criteria were (a) over 18 years of age, (b) African American born male, (c) self-identify as a transgender female, and (d) live or work in Connecticut. A purposive sampling technique was necessary because this community is hesitant to talk with outsiders, may have fears about confidentiality, may fear how personal information could be used, and because this community has a long history of facing discrimination, stigma, hate, and violence. Purposeful sampling provided me with the tools to choose cases that meet certain criteria for the case study (see Creswell, 2013; Miles & Huberman, 1994; Patton, 2002). Purposeful sampling is used for small sample case study research to meet appropriate minimum sample sizes as described by Stake (1995) and Yin (2017). Patton (2002) stated that purposeful sampling, targeting participant recruitment towards a specific group, is the most efficient use of time and money for new researchers. A small sample size is common for qualitative studies because it is adequate to attain data saturation, provided the few samples have characteristics that are aligned with the requirements of the purpose, as well as research questions, of the study (Mason, 2010; Patton, 2002); however, qualitative research is useful because it helps capture the essence of a phenomenon as experienced by several individuals (Creswell & Creswell, 2017).

I met with staff from the CTAC and the HGLHC to inform them of the potential project and collaborate with staff members who contacted potential participants known to the organization who meet the inclusion criteria. The CTAC and the HGLHC approved a recruitment flyer for African American transgender women that use their LGBTQ+ Center services. I had access to a private Facebook page coordinated by an African American transgender woman to be used for participant recruitment.

Data were collected from eight African American transgender women living in Connecticut using semistructured interviews, field notes, and journaling. The final sample size was based on my determining that data saturation had occurred. Data saturation refers to the moment in the data collection process when no new information is discovered, and redundancy signals that additional data collection is unlikely to provide marginal benefit (Yin, 2017). Data saturation is reached when the addition of the marginal participant contributes no new information or themes from the data (Guest et al., 2006). To identify when data saturation occurs, I employed the constant comparison method (see Glaser & Strauss, 1967). The constant comparison method involves the following steps: (a) identify categories of thoughts and behaviors, (b) name indicators in passages and code them, (c) continually compare codes and passages iteratively to identify new categories, and (d) continue the process until the category "saturates" and no new codes are identified (Glaser & Strauss, 1967). Snowballing of additional participants ceased once data saturation was reached. No new participants were recruited after categories using the constant comparison method no longer evolved based on new interview data (see Glaser & Strauss, 1967).

Instrumentation

Data were collected from eight African American transgender women living in Connecticut using semistructured interviews, field notes, and the BSDS (Haghighat, 2007). Semistructured interviews were digitally audio recorded using a smartphone device, field notes were hand-written during interviews, and journals were drafted shortly after each interview using a word processor on a laptop computer. Data collection using semistructured interviews, field notes, and the BSDS met the requirement in qualitative research to create triangulation to address the research questions (see Mason, 2010; Patton, 2002; Yin, 2017).

Semistructured Interviews. I developed the semistructured interview questions based on the information presented in the literature review chapter and the background section of the introduction chapter. The interview began with demographic questions (age, gender, level of study) and sexual behavior history (number of sexual encounters in preceding 12 months, number of sexual partners, condom usage, and HIV testing behavior). An expert panel, comprised of three domain knowledge experts chosen from professors, case managers, social workers, and outreach workers with knowledge of transgender studies, reviewed interview questions and provided feedback, which I took into consideration to revise and finalize the interview questions. The interview questions based on extant research into attitudes of transgendered women is included as Appendix A (Rebchook et al., 2017; Sevelius et al., 2019).

Brief Social Desirability Scale. The BSDS is a four-item survey for assessment of social desirability developed by Haghighat (2007). The scale was cross validated on a sample of 31 female and 30 male undergraduates by responding to each question from the point of view of someone who would answer in a socially desirable way. The BSDS is a brief, practical, reliable, and valid social desirability instrument for use in determining social desirability bias. Respondents with high social desirability scores may be considered for exclusion. The BSDS scoring literature suggests exclusion when socially desirable responses exceed one, or with difficult to recruit two socially desirable answers would be acceptable for inclusion. None of the eight participants scored higher than one. I was granted permission to use the instrument from the author (Appendix C). The BSDS can be used to parse whether to exclude participants with high social desirability scores, and therefore less likely to provide honest responses. The exact cut-off level depended on how important it is to get results of the other questionnaire from people who answer more transparently about their personal attitudes.

Procedures for Recruitment, Participation, and Data Collection

Managers of the Connecticut TransAdvocacy Coalition (CTAC) and the local Gay and Lesbian Health Collective (HGLHC) provided introductions to individuals that met the inclusion criteria. A recruitment flyer with the inclusion criteria, purpose of the study, and requirements to participate was distributed by the CTAC and HGLHC to members via email. Taken together those two organizations include approximately 90 individuals who meet the inclusion criteria. As each participant agreed to be included, they were asked to recommend another member from the community to participate, a technique referred to as snowballing (Savin-Baden & Major, 2013). Since the research topic is sensitive and personal, subjects provided my contact information to potential candidates.

Interviews were conducted through videoconferencing, semi-structured interviews (Appendix C), field notes, and the BSDS (Patton, 2002). Interviews were smartphone audio recorded, and the responses were supplemented using field notes. If interviews were done remotely, then Zoom was used to conduct and record the interviews. The researcher scheduled each participant for an interview at a time that was convenient for them. The interviews are on Zoom so a link was provided to the participant prior to the date and time of the interview. If the interviews were conducted in person, then a convenient place was chosen for the participant, such as a study room in a public library.

Prior to beginning each interview, participants were required to sign an Informed Consent Form (ICF; Appendix B). If the interview was conducted by videoconference, participants were required to acknowledge agreement to the terms of ICF via email. Prior to each interview each participant was: (a) asked for consent for audio recording, (b) reminded of the voluntary nature of their consent and participation, (c) reminded that withdrawal from participation could occur at any time without consequence, (d) notified that no compensation was available for participation, and e) assured that all responses remain confidential and no personally identifiable information would be collected. The researcher asked questions and prompted for more details when appropriate.

During the interview, I also took field notes to capture nonverbal cues, comments particularly noteworthy, or where the interviewee stressed certain points. Participants might place a strong emphasis on a topic or idea that might be captured in an audio recording. The same process was repeated between each participant, and each session concluded with a reminder that the researcher can be reached through the previously agreed contact information with any concerns the participant may have.

Data were transcribed into a digital document by a Google Cloud Speech-to-text Artificial Intelligence® engine to enable preliminary data analysis using the constant comparison method (Google, 2020). Interviews were member checked by sharing each transcript via email or delivery of a printed version, with each participant along with preliminary findings (Savin-Baden & Major, 2013). Member checking refers to sharing either a summary of findings or sharing the entire findings with participants (Guba & Lincoln, 1981). Member checking is a technique that establishes credibility in trustworthiness (Korstjens & Moser, 2018). Credibility refers to establishing the truth of study findings, which means showing that findings were accurate, honest, and reflect participants’ experience (Denzin & Lincoln, 2008). For the study, participants received both the interview transcript and preliminary findings to review transcript accuracy.

Data Analysis Plan

Content analysis was employed to inductively code, categorize, and identify themes from transcribed interviews and field notes. Deductive coding is a method where the researcher develops a codebook to reference throughout the coding process, typically used when the phenomenon or topic is well understood (Savin-Baden & Major, 2013). The inductive coding method is heuristic, or exploratory, and employed when little is known about the research subject. Based on the absence of research on African American transgender females, an inductive coding method was used.

A code in qualitative inquiry is typically a word or short phrase assigned to represent a summative, salient, or essence-capturing attribute (Saldana, 2011). The coding process is a heuristic exploratory technique without specific formulas or procedures. Inductive coding was completed to identify recurring words, phrases, and themes organized using a spreadsheet with summative headings and subheadings. Content analysis was conducted iteratively with changes to headings and subheadings based on revisions to content. The process of theme development is expected to coalesce over time into meaning (Armat et al., 2018).

Case study data analysis is an iterative process of reviewing data from various multiple times through a process known as a deductive analytical process (Stake, 1995; Yin, 2017). Thematic content analysis enabled analysis of richly textured interview data for within-case analysis, and a comparative study of both differences and similarities of the cases though cross-case analysis, at the same time making use of the codes as well as themes that were generated from the interview (Stake, 1995; Yin, 2017).

Issues of Trustworthiness

Trustworthiness is characterized by credibility, transferability, dependability, and confirmability (Anney, 2014). Credibility refers to the confidence placed in the truth of a study's findings, while transferability refers to the degree to which the research can be shifted to other study contexts. Member checking was used to improve credibility (Savin-Baden & Major, 2013). Transcribed interviews, together with preliminary thematic analysis, were shared with each respondent for verification of interpretation. This technique allows participants a voice and provides an opportunity for feedback to adjust interpretations. Member checking was accomplished by contacting participants in a follow-up session to review interpretation of relevant quotes. This included a discussion of the interpretation and the meaning, after which the researcher was sure that feedback to inform content analysis and thematic categories (Savin-Baden & Major, 2013). Dependability refers to how stable the findings are over time (Anney, 2014). This concept required the researcher to document the context, data collection, and data analysis procedures and note changes that occur during the process. Journaling aided the researcher in improving dependability by documenting the process and describing personal, contextual, and situational context.

Confirmability refers to the extent to which the researcher remained neutral during data collection and analysis (Savin-Baden & Major, 2013). Journaling and member checking was used to improve confirmability. Transferability refers to how well findings can be used to understand other populations (Anney, 2014). Findings from a relatively small sub-culture recruited from a limited geographical area may not be transferrable to other cultures, geographies, or population. Responsibility for demonstrating transferability rests on the one who wishes to apply the results to different situations (Savin-Baden & Major, 2013).

Ethical Procedures

When dealing with human participants, several ethical considerations need to be considered (Anney, 2014). First, there is no way to achieve zero risks. However, minimal risk can be achieved, particularly given the lack of experimentation of any sort. Minimal risk involves creating a study in which the risk to the participant does not exceed that which might be experienced from one day to another. However, given that the researcher needed to inquire about topics sensitive to the participants and include discussions of HIV risk factors, contact information was provided that connects participants with local psychological health services if the participant experienced any distress.

In addition to providing contact information for the participants to reach mental health services, the participants needed to provide fully informed consent before participation in this study. Fully informed consent refers to fully informing participants regarding the nature of the study, who has access to the data, how the data was managed, and the rights of the participants within the study. This information was provided before the start of interviews so that participants could sign off on their consent forms before their interviews.

Participants were told that the nature of the study was to perform interviews to understand better the risk factors surrounding the female transgender community. The researcher alone had access to the raw data, including names. These names were coded for presentation in the final report. Names were paired to these codes so that quotes can then be assigned to the coded names, with the final report not reflecting the original names in any way and merely listing quotes assigned to the PX coding system.

To ensure the anonymity of the participants, the researcher stored all data on a password locked cloud server, with only the researcher knowing the password. Audio recordings of the sessions used for these transcriptions were locked in a safe to which only the researcher has a key. The data will be retained for five years, at which time the original data will be destroyed.

Finally, the last element of informed consent involves detailing the rights of the participant. Participants have the right to withdraw from the study at any juncture. Contact information for the researcher was provided should the participants want to withdraw from the study. Participants were informed that they could withdraw from the study at any juncture without fear of repercussions. This is not only ethically appropriate but helps encourage participants to be more forthcoming in the study.

Summary

The purpose of this qualitative exploratory case study was to gain insights into how attitude, subjective social norms, and perceived behavioral control, influence HIV risk behaviors of African American transgender women in Connecticut. A qualitative case study was appropriate, given there exists a lack of information to formulate quantitative variables. From themes occurring across all cases, common themes can be identified and analyzed to address the research questions. The study sample was drawn from transgendered African American women living in Connecticut with the help of both the CTAC and the HGLHC. Given the qualitative nature of the study, data saturation was achieved with the use of an eight-member sample. Chapter 4 presents findings, characterizes the study sample, and reviews methodological issues.

Chapter 4: Results

Transgender women face significant risks and are more likely to contract HIV (CDC, 2020). This risk is particularly high among African American transgender women, who experience a 38% incidence rate (CDC, 2020). However, this portion of the population is also subject to other risky circumstances. These circumstances themselves may put the individual at risk of contracting HIV. Transgender women are more likely to have multiple partners, use drugs at high rates, experience mental health issues, be stigmatized by others, and experience emotional stress from their transition (CDC, 2020; Mayer et al., 2016). However, the lived experiences have not been thoroughly explored.

The purpose of this qualitative exploratory case study was to gain insights into how attitude, subjective social norms, and perceived behavioral control, influence HIV risk behaviors of African American transgender women in Connecticut. Participants were questioned regarding their experiences transitioning, being accepted by family, and their sexual and drug related behaviors. This yielded multiple themes that were used to address the research questions.

Chapter 4 reviews the setting in which the study was conducted and the demographics of those who participated in the study. The procedures for data collection and analysis are then both reviewed. I then discuss trustworthiness of the evidence. The results of the study are then presented. This includes a review of the themes that characterized the experiences of these individuals. Finally, a summary of the chapter is then presented.

Setting

Interviews were conducted via Zoom, which is a video teleconferencing software program that allows individual to meet via videoconferencing. These interviews were no longer than 30 minutes each. Given the video teleconferencing nature of the interviews, it allowed participants to respond to the questions from the location of their choice.

Demographics

The participants in the current study included a convenience sample of eight African American transgender women living in Connecticut. The selection criteria required participants to be (a) over 18 years of age, (b) an African American born male, (c) self-identify as a transgender female, and (d) live or work in Connecticut. The mean participant age was 34 and had been self-identifying as female since adolescence.

Data Collection

Data collection was initiated by first contacting potential participants. I met staff from the CTAC and the HGLHC and informed them of the project. I informed staff members that collaboration was necessary between me and staff members who went on to contact potential participants known to the organization and who meet the inclusion criteria. I also had access to a private Facebook page coordinated by an African American transgender woman that was used for participant recruitment.

Data collection was conducted using semistructured interviews (Appendix A), field notes, and the application of the BSDS (see Patton, 2002) with the aid of Zoom, which is video teleconferencing software. All participant responses were captured using smartphone audio recording. Throughout the interview process, I supplemented responses with the use of field notes. Each participant was interviewed individually at a time that was most convenient for them. Since the interviews were conducted using Zoom, each participant was provided with a link allowing them to connect to the interview session and the previously arranged time and date.

Following data collection, eight interviews were transcribed into a readable format for later review. Interviews were listened to several times and transcripts compared against one another to ensure information was accurately captured. These transcriptions were digital in nature. All transcriptions, along with all audio recordings and notes, were stored on a password locked cloud server. I am the only one who knows the password. This helped to ensure that the collected data would remain in the possession of the researcher and not accessible to others.

Data Analysis

Content analysis was employed to inductively code, categorize, and identify themes from transcribed interviews and field notes. Deductive coding is a method where the researcher develops a codebook to reference throughout the coding process, typically used when the phenomenon or topic is well understood (Savin-Baden & Major, 2013). The inductive coding method is heuristic, or exploratory, and employed when little is known about the research subject. Based on the absence of research on African American transgender females, an inductive coding method was used.

A code in qualitative inquiry is typically a word or short phrase assigned to represent a summative, salient, or essence-capturing attribute (Saldana, 2011). The coding process is a heuristic exploratory technique without specific formulas or procedures. Inductive coding was completed to identify recurring words, phrases, and themes organized using a spreadsheet with summative headings and subheadings. Content analysis was conducted iteratively with changes to headings and subheadings based on revisions to content. The process of theme development is expected to coalesce over time into meaning (Armat et al., 2018).

Case study data analysis is usually an iterative cyclical process of pouring data obtained from various multiple times through a process known as a deductive analytical process (Stake, 1995; Yin, 2017). The strategy in this exploratory case study was to establish detailed descriptions through thick descriptions that produced rich details for within-case analysis, and a comparative study of both differences and similarities of the cases though cross-case analysis, at the same time making use of the codes as well as themes that were generated from the interview (see Stake, 1995; Yin, 2017).

Issues of Trustworthiness

Trustworthiness is characterized by credibility, transferability, dependability, and confirmability (Anney, 2014). Credibility refers to the confidence placed in the truth of a study's findings, while transferability refers to the degree to which the research can be shifted to other study contexts (Anney, 2014). Dependability refers to how stable the findings are over time while confirmability is characterized by the degree to which findings can be corroborated by others (Savin-Baden & Major, 2013). An independent and qualified qualitative researcher was engaged in coding and thematic analysis to address dependability and credibility (Savin-Baden & Major, 2013). Member checking, field notes, journaling, and feedback from an independent content matter expert to evaluate potential researcher biases were employed to ensure reliability. Transferability refers to how well findings can be used to understand other populations. These five aspects of the study are discussed in further detail below. Confirmability of the study was addressed by an independent and qualified qualitative researcher to validate the coding and thematic analyses. Confirmability was be addressed by journaling (see Anney, 2014). The journal was used to document means by which data gets collected and interpreted. All events that happen in the field, reflections on those events, and the notable phenomenon were documented.

Credibility

Credibility is often achieved by conducting member checks of the participants involved in the study (Korstjens & Moser, 2018). This involves discussing with the participants a summary of what the reviewer felt was communicated, which can then be judged by the participants to determine whether the summary appropriately characterized their experiences and what they intended to communicate. This was accomplished over email. I provided each participant with summaries of their interviews for review and allowed for any additional feedback that the participants hoped to communicate. However, there were no indications that the summaries conflicted with what the participants intended to say. Achieving credibility must include allowing for the participants to alter the summaries of the interview to better reflect what the participant intended to communicate, when necessary.

Transferability

Transferability indicates how much a study’s results can be generalized to other contexts and populations (Korstjens & Moser, 2018). While transferability is often sought in quantitative studies, it is not commonly a goal of qualitative research. Instead, qualitative research is focused on understanding a specific phenomenon occurring within a specific context as perceived by those experiencing that phenomenon. It is important in qualitative research to provide detailed descriptions about the context in which the phenomenon occurs, how people experience it, and how they react to it (Korstjens & Moser, 2018). These actions within the larger context are typically described by identifying the social and cultural influences that shape how people experience the phenomenon.

Even though transferability is not a goal of qualitative research, the findings of qualitative studies can still be applied to a limited egress outside of the immediate context of the study ((Savin-Baden & Major, 2013). However, it is impossible for the qualitative researcher to know to what other contexts their findings might be applied. Despite that, other researchers may identify similar conditions in which the findings of a study may be applicable, allowing for new studies to be generated that borrow from the findings of a previous qualitative study. Because a qualitative study’s findings may be applied to other contexts, it is important for a researcher to describe, in depth, how they conducted their study and arrived at their findings. These descriptions may allow future researchers to determine whether a qualitative study’s findings and methods can be transferred to understand a similar phenomenon occurring in a similar context.

Dependability

Researchers suggested that within qualitative studies, dependability is similar to reliability (Korstjens & Moser, 2018). It is important when conducting a qualitative study that changes in the study context are documents. Any changes that occur need to be noted, since changes can influence the context in which participants are responding. Context can influence how respondents respond to prompts, and so documenting changes in the context is always important.

Dependability can be described as consistency (Savin-Baden & Major, 2013). Qualitative studies need to be consistent not only internally but also when the methods and findings are used to study other populations in similar contexts. For this reason, it is important for the researcher to provide as many details as possible regarding how the study was constructed, how the study methods were developed and applied, and how the study findings were arrived at. Taking such an approach helps to ensure that any future research based on a qualitative study follows the steps laid out in the original study as closely as possible, ensuring consistency (dependability) between the two studies. The resulting findings may themselves be dependable when two similarly developed studies in similar contexts both yield similar results.

Confirmability

A qualitative study’s confirmability relies upon a researcher conducting an open process of data collection and analysis in which their biases are regularly checked (Dodgson, 2019). This process of bias checking is called reflexivity, which refers to the degree to which a researcher remains aware of how their background influences their data collection and analysis process (Savin-Baden & Major, 2013). A researcher's background and experiences may drive them to pay attention to specific information over others, rather than giving all responses equal weight during the data collection process. Not giving equal weight to all the information presented may bias the researcher in favor of certain information that favors their own personal interpretation of the data. It is important for researchers to constantly review how their biases influence this data collection and analysis process (Savin-Baden & Major, 2013). Throughout the data collection and analysis process, I kept a code book to which quotes were assigned to themes. This allowed me to reread how statements were organized and whether they were adequately related to one another to justify the creation of a theme.

Ethical Procedures

When dealing with vulnerable human participants, several ethical considerations need to be considered (Anney, 2014). First, there was no way to achieve a no risk recruitment and interview process. Considerable difficulty was encountered in recruiting individuals that met the inclusion criteria of at least 18 years of age, African American born male, self-identify as a transgender female, and live or work in Connecticut.

The use of the managers of the CTAC, and the local HGLHC produced only one participant after a several month period. A recruitment flyer with the inclusion criteria, purpose of the study and requirements to participate was distributed by the CTAC and HGLHC to members via email. To supplement the study sample, I created a Facebook page with the recruitment flyer and Facebook ads, added word of mouth discussions and used a snowballing recruitment technique. These techniques exceeded the bounds of the initial IRB approval letter by advertising on Facebook. The Walden University IRB was notified of the change in recruitment and approval for the change was received, however saturation was achieved and no further recruitment occurred.

While interviews typically involve minimal risk, the transgender community is particularly sensitive to discussions with nontrans gendered persons. However, given that I needed to inquire about topics sensitive to the participants and include discussions of HIV risk factors, IRB contact information was provided, and offers were made to connect participants with local psychological health services if the participant experienced any distress.

In addition to providing contact information for the participants to reach mental health services, the participants needed to provide fully informed consent before participation in this study. Fully informed consent refers to fully informing participants regarding the nature of the study, who has access to the data, how the data was managed, and the rights of the participants within the study (Savin-Baden & Major, 2013). This information was provided before the start of interviews so that participants could sign off on their consent forms before their interviews.

Participants were told that the nature of the study was to perform interviews to understand better the risk factors surrounding the female transgender community. I alone had access to the raw data, including names. These names were coded for presentation in the final report. Names were paired to these codes so that quotes could then be assigned to the coded names, with the final report not reflecting the original names in any way and merely listing quotes assigned to the PX coding system.

To ensure the anonymity of the participants, I stored all data on a password locked cloud server and placed all audio recordings of the sessions in a locked safe. I am the only one with the password to the server and the key to the safe The data will be retained for 5 years, at which time the original data will be destroyed.

Finally, the last element of informed consent involved detailing the rights of the participant. Participants had the right to withdraw from the study at any in case the participants wanted to withdraw from the study. Participants were informed that they could withdraw from the study at any juncture without fear of repercussions. This is not only ethically appropriate but helps encourage participants to be more forthcoming in the study.

Results

Following data collection and analysis, I arrived at multiple themes that characterized the experiences and perspectives of the participants. These themes consisted of quotes from the participants that helped to not only characterize their experiences but address the research questions. Those themes are presented and discussed here. Themes and subthemes spanned the primary research question and two subthemes below:

RQ1: How do personal and social factors influence the decision-making of African American transgender women that are known to contribute to the spread of the human immunodeficiency virus?

Subquestion 1: How do African American transgender women perceive their risk of acquiring HIV?

Subquestion 2: How do African American transgender women perceive community behavioral norms contributing to the spread of HIV?

Transition Delays

Participants indicated multiyear delays between the time they realized there was something different about them, the point at which they felt they may be misgendered, to the point when they decided to come out and actively transition. The general sentiment among the participants was that this feeling that they were a different gender occurred early, in childhood, with their transition happening later in life. Participant 1 spoke about this, saying,

> That is a long story that goes all the way back to age 6. Imagine if you felt that the actual physical container of your person just does not mesh with who you know you actually are. It would mean that every time you changed your clothes, met new people, or went into public, the world around you reminded you that while you may identify as one way, you definitely look another.

Participant 1 noted throughout the discussion that they had transitioned later in life but noted the fact that they realized they did not identify with their assigned gender as early as the age of six. Such a response suggested the fact that participants could feel, very early in life, some indication that they were a different gender. However, it would not be until later that they would make that transition. This position was reinforced by Participant 5, who stated,

> I started wearing women's clothing when I was 15. But did not come out as come, you know, labeled as myself a trans woman until my mid-20s. So maybe like 25.

> So, I {do not} know, you know how to answer that. Because I have always known I was a woman that was like four years old. And it has always been very hard to articulate that to people at a young age. And you know, how to tell people and I also was fearful because I was afraid that I might get like, put into a psychiatric care or something, if I told my family like, this is lamb. So, I was always a bit more cautious about that.

Once more, the participants indicated that there was a delay between when they started realizing something was different about themselves versus when they came out in a formal fashion. Participant 5 noted that they began wearing women's clothing at 15. This was similar to Participant 1, who indicated that they felt they were a different gender as early as age six. In both cases, the participants did not formally adopt trans labels until their 20s. Participant 5 delayed this out of fear of how their family would react. However, another reason that participants did not come out is because they simply didn't know how to describe their situations and what they were feeling. Concerning feelings that they were a different gender, Participant 7 said,

> It's something that I've always felt, but I didn't know really what it was. Even when I was young, super young, I did not really know what the feeling was. And I knew, I looked at myself in the mirror, I really did not like what I saw. And so, but I knew I just felt like I was a woman without even looking in the mirror.

Participant 7 also indicated that they felt they were a different gender than what they were assigned. Unlike Participant 5, however, they simply did not understand how to process what they were feeling. That was not understanding they would come to in later in life. For most people, then, the feeling that they were of a different gender occurred before their 20s. However, for at least one person, that feeling did not occur until later. Participant 2 noted,

> And that is when I actually had a personal life; that is when my personal life came in. I was 27, yes, I transitioned later on in life but yeah, I was 27, I met my first lover, and it was a revelation for me. To be honest, I always knew who I was. I just did not know that I was trans at that time. You know, I have always been me. Going to school was not easy, because everybody was like, you know, "Oh, you're a girl, you act like a girl, you talk like a girl," I have always gotten that, you know, but my mother would just pass that off.

Whereas most participants indicated that they felt they were of a different gender early in life, this was not always the case. The sense that this might be the case only occurred later in life for Participant 2. In all these reports, the participants indicated that there was a delay between the time that they felt something was different about them and how they were gendered versus the time when they transitioned. This often reflected a long period in which they worked through their own thoughts and feelings about the transition and what direction their lives should take, leading to their eventual transition.

Transition Challenges

For several participants, it was clear that transitioning was accompanied by difficulties that were both internal and external. There was no clear consistent theme in the difficulties the participants faced. For instance, in at least one case, the primary conflict that arose from being transgender was an internal one. Participant 1 stated,

> Well, at age seven when I realized that my physical body was male, and I identified with my mom and sister. I remember just having despair wash over my body at that very moment, and I wanted to actually crawl out of my skin. I remember just looking at myself and saying verbatim, "I've got dealt a bad deck of cards. I need to live with this the rest of my life, and I don't know if I can”.

For Participant 1, the greatest difficulty they indicated they faced was the gap between how they felt about themselves versus how they looked. This disparity seemed to cause them intense emotional anguish. However, the threats that participants faced were not limited to only internal, emotional anguish. In some cases, there was a very real, physical threat that they may face because of being transgendered. Participant 2 noted,

> I had a big issue with the bathroom. I was trying to be somewhat mindful of other people and not think about myself, but in actuality I am going in the bathroom being harassed daily and I just got fed up. And so, at that point in time, I was fed up, I was tired, and they could not stop me. I did research to be sure that if I go in this bathroom, it's not going to be an issue. And I did, and I went in and when I came out, it was a team number there that approached me, and it was crazy to me, because I thought we had, me and her had an understanding but obviously she didn't feel the same way about me, you know, and really it got... because she touched me. She actually put her hands on me. She said, “You don't belong in the bathroom!” And I was like, I put my hand up, you know, like, stay back, you know, and then she hit my hand! So, she actually violated me, you know.

Participant 2 did not get into a full fight with another person, yet the physical threat they faced was real. The fact that physical contact was made demonstrated the degree to which they were threatened by another person, and simply for using the restroom. What Participant 2 experienced spoke to yet a third kind of struggle that the participants faced, that out rejection and general harassment. Participant 7 spoke to this saying,

> It is hard because there is still a lot of harassment and covert discrimination for my choice. Cisgendered people always find it hard to talk about this stuff and I almost always feel uncomfortable. Even when there is not direct discrimination, I feel judged. Fear of gender non-conforming identities is always there and makes me self-conscious about whether I am not able to pull of looking female. It really comes up when applying for regular jobs. My identity permeates every step of the process. Sometimes people like to focus on the sensational or outlandish ways trans females act, and I am told I am not a good fit, even though they really don't know me.

There was not one, consistent form of difficulty that the participants faced. Rather, they faced a combination of internal and external struggles that resulted from their being transgendered. For some, this caused real, internal emotional trauma. For others, there was a more general sense of discomfort and rejection. And some cases, there was an outright potential for physical violence to occur. All of these were different struggles that the participants faced, so there was no one cohesive threat they faced. Yet all the participants clearly faced struggles that made being transgender a struggle.

Drug Abuse and Unsafe Sex

Drug use and its dangers were brought up by many of the participants in the current study. However, drug use was not considered as simply its own, independent threat. Rather, the participants explicitly linked the use of drugs to other, unhealthy conditions. Participant 1 spoke to this noting,

> The LGBT community is diverse in many ways, and the decades of tragedy from HIV has taught many to be careful. But the strong emotions of depression, isolation, and fear pushed my transgendered sisters to intravenous drug use. I have never been addicted to heroin but have seen how dramatically it destroys the heart and mind. There are many trans people that are unhappy with their body throughout the gender transformation and are likely to turn to drugs just to feel better at some point.

For Participant 1, it was clear that the use of drugs was linked to unhealthy emotional and mental conditions. Participant 1 noted the strong connection between feelings such as depression and isolation and their connection to resulting drug use. The association between negative mental and emotional health conditions and drug use was also noted by Participant 4 who said,

> I have heard many trans people say, they are not even going to apply for that job because they would never even consider me. Or I have given up looking for jobs because I went to twenty interviews and none of them ever talked to me again. The choices are to sell drugs or be a sex worker, that is what society leaves us. Why spend time bashing my head against a wall to get a normal job that is going

> to minimum wage when I can do sex work make more money, and work with people who understand me better than people in a retail setting.

Participant 4 linked a feeling of isolation with the use of drugs. Unlike Participant 1, however, Participant 4 linked the rejection that occurred in their professional lives with the use of drugs. In this case, people felt that they would never be considered for roles, accepting before they even applied that they would be rejected from the role. Consequently, this pushed them into roles in which they were at greater risk of using drugs, such as becoming drug dealers themselves or sex workers. Drug use was therefore connected with feelings of isolation for both Participant 1 and Participant 4. Building upon the idea that even having a good job may be sufficient for keeping people away from drug use, Participant 2 stated,

> I have a good job with the state, and I do not do drugs or liquor, so I do not have to sell my body to get money. There are too many trans women that have been discriminated against and have trouble supporting themselves, so they turn to selling their body and that is where the HIV comes in.

At this juncture in the interviews, connections were being made between poor mental health conditions compounded by a lack of success in traditional professional roles, which all led to drug use that could put individuals at higher risk of HIV. Participant 5 also noted the fact that drugs, even alcohol, could put a person at higher risk of behaviors that may lead to sexual disease. Asked about what drugs may impact their decision making, Participant 5 stated,

> I would say just alcohol, it makes me do things I would not usually do. Being a

> sex worker does not make me have more risky behavior or risk my health, but alcohol definitely did. I drink once every four months or so, and that is probably too often for people my age.

Participant 5 had a specific link between the use of alcohol and drugs with poor decision making that may impact their sexual health. The use of various substances may make a person act in ways they would not normally while sober. The connection between the use of alcohol and drugs with the risk of contracting sexual diseases was also noted by Participant 8. In this instance, Participant 8 noted,

> I feel like in the gay community, for some reason, a lot of gay people and friends I have had, drink a lot, and use drugs. I do not know why, but I feel like when you do that, and partying and partaking and over-partaking in alcohol and partaking drugs of any sort, I feel like that puts you more at a risk, a higher risk just because you are altered and you maybe become a little bit more too promiscuous and maybe not think about your choice and possibly take the risk of having un-protected sex and possibly even catching something, something... It may not be HIV, but it could be syphilis or gonorrhea…

Taken all together, the responses from participants suggested that there was a downward spiral of sorts linking poor mental health, genuine isolation, drug use, and the risk of contracting sexually transmitted diseases. According to the participants, transgender individuals feared rejection and suffered from depression and isolation.

Familial Support

All but one participant reported feelings of acceptance from their family, even if that acceptance did not happen immediately. Participants' families responded tentatively initially but came to accept their choice despite the potential for conflicts due to coming out as transgender. As noted, there were significant differences in how quickly families came to accept an individual as transgender. This acceptance came relatively quickly for Participant 2, who reported,

> So, I came home, and that is when I actually came out. But it was so funny, it is funny to me because, when I decided to do that, everybody was there. Everybody had come home, my mother, we had sat down and talked, and she was like, "Something's different about you. So, I waited until everybody came because everybody of course wanted to see me. And I, you know, decided to tell them. And they were laughing that I took so long; I was 27 years old! It was funny. I said, "Wait a minute!" They were like, "What, you want a cookie? You want a celebration? You should have done this when you were younger, you know". And that, in itself, was good, it confirmed it, you know, that I am going to be alright, you know, and my family going to love me regardless. But it was just funny. And then, also, I had a transgender sister before me. So, this was not... this was nothing for them, you know. My mother and father had traveled this road before.

For Participant 2, it seemed that their family almost anticipated they are coming out. In this instance, the participant's family were quick to accept them. Participant 2 indicated in their responses that the family had been anticipating for some time that the participant was perhaps gay or transgender, something that both their father and mother seemed to have no issue with. This acceptance was so immediate that they indicated that

Participant 2 should have made the transition sooner. However, this was not the only case in which participants reported being accepted relatively easily once they came out. Participant 8 stated in their case,

> At first, I was very nervous and scared, because I had moved away from my family when I was young, before I started my transitioning, and that was the whole purpose of me moving away. I was really nervous at first, but my family has been very accepting of it.

This trend in relatively rapid acceptance was also suggested by Participant 7, who stated,

> My family is very supportive, from my brothers to my sisters, they are very, very supportive. And that was one of my biggest concerns when I transitioned is how they were going to perceive me, but they are more than... How do I say it? Open arms with it. Now, sometimes, my older brothers, they tend to slip when it comes up to the gender. They will still, every once in a while, call me "he" by accident, but I know they do not mean it in a bad way. It is just... Yeah.

For Participant 7, once again, acceptance was immediate. There was some indication that this did not necessarily mean that the acceptance came with a perfect mental embrace of a participant’s new identity. Family members did not always use Participant 7’s preferred pronouns. More importantly to Participant 7, however, was that their family accepted them and actively made efforts to make them comfortable. The small slips in preferred pronouns were merely that, mistakes, and did not offend Participant 7. Far more important was the fact that there was effort and willingness to accept their identity.

Slow acceptance. Although in most cases, participants reported that they felt they were immediately accepted, it should also be noted that this was not always the case. A notable exception to this sense of acceptance was the story of Participant 1. In their case, Participant 1 noted that acceptance only came over a significant amount of time. Participant 1 reported,

> With my family…again, it took my parents three years before they were able to use my name and pronouns full-time after my transition. But then with each year that passed, it continued to grow in ways that I could sense they actually wanted to be connected with me as their kid and also just as a human being.

In most cases, participants reported being supported by family members, which made the transition more manageable. However, in a minority of cases, participants faced significant rejection from some family members. Participant 1 indicated that acceptance was slow, and Participant 4 stated,

> For me, my transgender experience alienated me from my dad and his side of the family. For a lot of reasons, I don't talk to family in many years. For my mom's family, they didn't do well with it for about a year, and now they’re much more supportive now.

For Participant 4, it was clear that acceptance was slow. Even then, it was clear that acceptance only came from one side of the family. While most participants reported positive family acceptance, it was clear that slow acceptance, or outright rejection, occurred at least temporarily. Participant 3 added,

> My brother was upset, but not upset in the way that you think he just felt like, it

> was like, this is not the right time, it is inconvenient. You know, it is going to bring a lot of stress to everybody around us. He was in against idea of what happened. My mother was really against it at first and then I started showing such fast progress that she was starting to embrace it pretty quickly…she started stealing my clothes. My situation as a trans person is really unique. Because mostly Black people are not known for being any semblance of feminine or value viewed.

Participants suggested they were more likely than not to be accepted by their families. Acceptance was neither perfect, nor instantaneous. For some of them, acceptance came with small mistakes, such as misgendering. In more severe cases, acceptance was slow to come, only occurring over many years. And yet in other cases, acceptance only came from parts of the family. As such, acceptance was complicated in many instances. The experiences of the participants reflected the fact that they were generally accepted, but this came with qualifications and setbacks.

Sex Work and Unsafe Sex

Most participants indicated they understood the importance of safe sexual practices and the risks that they might be put at if they did not adhere to those practices. Consequently, most participants warned about the importance of behaving safely. Participant 3, speaking about their own sexual practices said,

> You know, just to try to just use protection as much as I can, I am pretty safe. Overall, I have my moments where I am just kind of like, you know, like not to, you know, it has been a talk here for me. I have my moments of weakness a few

> times, to say the least. So that is where I am at. But I am pretty safe the ride protection. Now the clinic provides this thing called Bravada. It is supposed to take a pill inoculates after two weeks, and if you take it daily, like the amount that as a director, you, you should be prevented from getting HIV, or AIDS. I have never heard of that. That is fantastic. Yeah. But this is a city thing. This is not a common thing among outside of the city.

Participant 3 clearly indicated, speaking personally, they knew the importance of safe sex overall and was generally safe. This did not mean that their sexual practices were entirely safe, and they did put themselves at some risk. Yet much of the effects of those risks was mitigated using modern developments, and specifically the drug Bravada (sic). This was a reference to the drug Truvada, which helped to prevent the contraction of HIV. In fact, this drug was brought up more than once. Participant 4 also noted their use of Truvada saying,

> Before I transitioned, I practiced safe sex, but once I realized that sex work is a type of work that you can do, no really. Sex work helps me have a stable life and to support myself, to pay my way through life. Now I take Truvada all the time so I really do not care anymore.

From the reports of Participant 3 and 4, it was clear that safe sex did not necessarily mean the use of items such as condoms. Rather, the participants were aware of drugs that could mitigate the course of the disease in case of exposure to HIV during unsafe sexual practices.

Summary

Transgender women face unique risks based on community behavioral norms that make HIV risk more likely, particularly among African American transgender women, who experience a 38% HIV incidence rate (CDC, 220). Transgender women are more likely to have multiple partners, use intravenous drugs at higher rates, experience mental health issues, be stigmatized by others, and experience extreme emotional stress from their transition (CDC, 2020; Mayer et al., 2016). The purpose of this qualitative exploratory case study was to gain insights into how attitude, subjective social norms, and perceived behavioral control, influence HIV risk behaviors of African American transgender women in Connecticut. Eight participants were interviewed regarding their experiences transitioning, being accepted by family, and their sexual and drug related behaviors. This yielded multiple themes that were used to address the research questions.

Major themes included transition delays, transition challenges, drug abuse, familial support, and unsafe sex. Six of eight participants felt misgendered during childhood but were not capable of understanding what that meant and what to do about it. Transition challenges ranged from intense emotional anguish from feeling different, to very real, physical threats from prejudice. Drug abuse to deaden emotional pain was common but not ubiquitous. Those who abused drugs reported a much higher probability of unsafe sex while intoxicated. Paradoxically, participants were aware of pharmaceutical treatments that could mitigate the course of the disease and felt that unsafe sex was no longer risky behavior. In terms of familial support, all but one participant found acceptance from family members, though frequently after a period of time.

Chapter 5: Interpretation, Recommendations, Implications, and Conclusion

Transgender women experience risk factors that contribute to being 70 times more likely than the general population to contract human immunodeficiency virus (HIV; CDC, 2020). The highest incidence rate of any at-risk population is African American transgender women with a 38% incidence rate (CDC, 2020). Unprotected sex with multiple partners, high incidence rates of drug use, mental health issues, homelessness, transphobia, and emotional stress resulting from hormonal and surgical gender reassignment procedures contributed to higher HIV risk transgendered people (CDC, 2020; Mayer et al., 2016). The purpose of this qualitative exploratory case study was to gain insights into how attitude, subjective social norms, and perceived behavioral control, influence HIV risk behaviors of African American transgender women in Connecticut.

The five major themes that emanated from interviews with eight African American transgender females included (a) transition delays, (b) transition challenges, (c) drug abuse and unsafe sex, (d) familial support, and (e) sex work and unsafe sex. Six of eight participants felt misgendered during childhood but were not capable of understanding what that meant and what to do about it. Gender transition challenges ranged from intense emotional anguish from feeling different, to very real, physical threats from prejudice. The definition of transgender was a spectrum rather than a point in time, or even a destination. Drug abuse to dull emotional pain was common but not ubiquitous. Those who abused drugs reported a much higher probability of unsafe sex while intoxicated. Four participants were involved in sex work and reported some unwanted violence during those encounters. Five participants were aware of pharmaceutical treatments that could mitigate the course of the disease and felt that unsafe sex was no longer risky behavior because HIV was “treatable”. In terms of familial support, all but one participant found acceptance from family members, though frequently after a period of time.

Interpretation of Findings

The scholarly literature conducted over the last 5 years regarding transgender women and HIV risk was primarily descriptive rather than prescriptive (Denning & DiNenno, 2017). Research, included a large body of statistics assembled by the CDC, focused primarily on prevalence by subgroup rather than causes and lived experiences. The literature review helped define the fact that transgender women were at the highest risk for HIV and included reviews of sexual and recreational practices that contributed to the increased rates among subpopulations (Denning & DiNenno, 2017; Hambrick et al., 2018). As part of the examination of risk, certain factors were found that influenced the likelihood of contracting the disease. HIV’s role among the youth, how it interacted with interpersonal factors, and the sociostructural elements that were conducive to increased exposure were all highlighted.

Though researched independently, interpersonal factors, sociostructural factors, and the transgendered population have not been studied extensively regarding how those factors placed transgendered individuals at increased risk of HIV transmission. This gap in the literature showed a need for the research in the current study. Research in this area could help to identify those factors that predispose individuals in the transgendered community to an increased risk of acquisition. Following that, assessments and interventions meant to address within the transgendered community could be developed that helped to reduce the high rates of transmission that currently exist.

Study findings confirmed earlier research regarding the syndemic nature of transgender female substance abuse, violence, discrimination, and marginalization leading to elevated HIV risk (see Mayer et al., 2016; Rhodes, 1997; Sherman et al., 2019). A syndemic is characterized by biological, behavioral, emotional, and social factors that interact in a manner that increases susceptibility to poor health outcomes (Mayer et al., 2016). The term syndemic describes the co-occurrence of substance abuse, HIV, and violence as a set of enmeshed and mutually reinforcing issues that exacerbate deleterious social and emotional conditions and increase vulnerability (Talman et al., 2013). The syndemic manifests a dose-response relationship between the frequency of adverse circumstances among transgender women and HIV prevalence (Talman et al., 2013). Transgender women and HIV-related stigma interacts and builds on societal judgment of lifestyles as undesirable or wrong. Stigma and discrimination towards transgender women were found to significantly increase HIV risk, compounded by deleterious effect on mental health and suicidal ideation (Sherman et al., 2019).

Participant’s responses and resulting themes reinforces the concept of sociostructural factors underlying transgender female HIV risk behavior by decreasing sexual control and power (Sherman et al., 2019). Transgender females live in a context of vulnerability and the intersectionality of transgender and female biases that are endemic to women's experiences of stigma, discrimination, and social exclusion. Rhodes (1997) defined the risk environment as “the space, either social or physical, in which factors increase the risk of harm occurring” (as cited in Sherman et al., 2019, p. 193). The risk environment includes crime, drug abuse, and poverty, which is disproportionately experienced by women. Taken together it explains how five of the eight participants engaged in sex work that resulted in HIV risk behavior and violence. Five of eight transgendered women shared a common trajectory of violence, childhood abuse, and client violence as sex workers. Sherman et al. (2019) found a strong positive correlation between childhood abuse and HIV infection in transgendered women.

Most participants felt they were a different gender early in childhood, with their transition happening later in life. All but one participant reported feelings of acceptance from their family, even if that acceptance did not happen immediately. Participants’ families responded tentatively initially but came to accept their choice despite the potential for conflicts due to coming out as transgender. However, there were significant differences in how quickly families came to accept an individual as transgender.

The finding that families were supportive of the transition contradicted earlier studies on familial emotional support (Brown et al., 2017; Harris et al., 2017). Transgendered adolescents faced heightened risk of acceptance and were more likely to have suicidal ideation. Adolescents in alternative schools aimed at addressing behavioral and emotional problems were more likely to acquire HIV than peers (Brown et al., 2017). Researchers noted that these adolescents often had difficulty managing their emotions, leading to poor decisions, and engaging in risky sexual behaviors. However, interventions designed to help individuals manage those emotions were linked to improved decision making (Brown et al., 2017). As such, one possible means of addressing sexually risky behavior among adolescents maybe by helping them negotiate their emotions better. Transgender females were more likely to experience PTSD and have sex for drugs, money, and other necessities (CDC, 2020). Such findings suggest that the family support network may not be as supportive as reported by study participants. One potential explanation for the difference is the age of participants, which was grouped between 24 and 37 years old. That is well past the fragile needs of adolescents.

Limitations of the Study

The primary limitation to recruitment, data collection, and credibility of study findings was the COVID-19 pandemic. The pandemic impacted both the opportunity to recruit participants and eliminated the opportunity for face-to-face interviews. Behavioral interviews regarding personal issues are inherently subject to social-desirability bias and recall bias (Savin-Baden & Major, 2013). Social desirability bias is especially problematic when dealing with vulnerable populations exploring sensitive topics such as sex work, HIV risk behavior, and familial relationships. To counteract this bias the initial plan was to conduct face-to-face interviews in a familiar space for participants, however COVID-19 made that impossible. Face-to-face interviews provide opportunities to read body language and nonverbal cues that could be noted and discussed in study findings. Interviews were conducted by phone, ZOOM, and in one case by written response. By downloading the digital files, interviews were reviewed multiple times with an emphasis on noting internal contradictions as a means of detecting bias. Another limitation was the potential for self-selection bias. It is possible that the highest functioning individuals felt sufficiently comfortable to discuss such sensitive topics.

Recommendations

Identifying and recruiting African American transgender female participants proved much more difficult than initially believed. The population is very wary of an outsider conducting research on their experiences, feelings, and behaviors (citation). While participants provided thorough and expansive answers to interview questions, there was certainly potential for creating a fictitious narrative as a means of thwarting the research. At one point during data collection, a nonparticipant confronted me and communicated with school advisors regarding the motivations, and methods for recruitment and data collection. The first recommendation for future research is to either have an African American transgender female to conduct the research, or team with one as a means of bridging the wariness of a population that understandably has trust issues with outsiders seeking information. A second recommendation is to broaden the geographical region as a means of ameliorating recruitment challenges. A third recommendation is to use a focus group as a means of improving communication and reducing barriers.

Implications

African American transgender females experience discrimination, physical abuse, forced sex, and are more likely to use drugs and alcohol, all of which can lead to anxiety, depression, and other mental health disorders (Harris et al., 2017). Based on the difficulty in identifying and recruiting transgender females, interventions to address HIV risk behavior, testing, and treatment may be more effective at venues where they tend to congregate than wait for patients to materialize at clinics. HIV rapid tests, and viral load assessment programs taken to the population in needs to be proactive rather than reactive. While the HIV epidemic largely subsided in the gay community, the transgender community is at great risk.

Conclusion

African American transgender females HIV prevalence is a public health epidemic worthy of an overwhelming response in terms of resources and urgency. Many transgenders resort to sex work, have been discriminated against, and physically abused (Harris et al., 2017). Transgender sex workers were more likely to abuse illicit drugs and were more likely to engage in HIV risk behavior. While the population is difficult to reach, the magnitude of the public health problem demands additional research and programs tailored to their unique situations.

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Appendix A: Semistructured Interview Questions

Demographic questions

Age
Ethnicity
Employment
Years as a transgendered woman

Interview questions

1. How do you experience being a transgendered woman in Connecticut?
2. How does the public react to your choice?
3. How do your close friends react to your choice to be a transgender woman?
4. How does your family react to your choice to be a transgender woman?
5. What is your philosophy on HIV risk taking behavior?
6. How do other transgendered woman approach HIV risk in sexual contact?
7. What cultural issues affect your sexual behavior?
8. What social issues affect your HIV risk behavior?
9. Has your behavior regarding safe sex changed over time?
10. Do drugs/alcohol affect your safe sex practices?
11. What are the barriers in your life to practicing safe sex?

Brief Social Desirability Scale questions

1. Would you smile at people every time you meet them?
2. Do you always practice what you preach?
3. If you say to people that you will do something, do you always keep your promise no matter how inconvenient it might be?
4. Would you ever lie to people?

Source: Haghighat (2007).

Appendix B: Comprehensive List of Keywords Searched

African American
case study design
Census Bureau
HIV
incidence
interpersonal factors
member checking
National Institute of Health
risk
transgender women
prevention
qualitative designs
risk behavior
semi-structured interviews
socio-structural factors
theory of planned behavior
transferability

Note: combination of the words and phrases above represent the entirety of keywords searched.

Appendix C: Brief Social Desirability Scale Use Permission

The Brief Social Desirability Scale is under a Creative Commons Attribution 3.0 International License and is free as long as one gives appropriate attribution.