

EXAMINING SYMPTOMS OF DEPRESSION, SILENCING THE SELF, SEXUAL RELATIONSHIP POWER AND HIV VULNERABILITY AMONG AFRICAN AMERICAN WOMEN IN THE SOUTHERN UNITED STATES

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Background. HIV remains a serious concern among women in the United States (U.S.).

Nineteen percent (19%) of new diagnoses are among women and the vast majority (84%) are attributed to heterosexual contact. African American women (AAW) represent 67% of all new cases of HIV among women in the Southern United States (U.S.), a significant disparity given AAW make up only 22% of the population in the South. Power differentials within relationships, referred to as sexual relationship power (SRP), may impact AAW as they make decisions about their sexual health. While navigating relational and social dynamics, women may develop psychological distress and coping mechanisms such as depression and silencing the self (STS), respectively. Understanding how depression, STS, and SRP are related and impact HIV vulnerability in this population of women may be key in developing targeted HIV prevention strategies. Illuminating factors associated with HIV vulnerability among African American women that are potentially amenable to change is critical for informing targeted HIV prevention strategies and ending the HIV epidemic.

Purpose. The purpose of this research was to examine the influence of depressive symptoms, silencing the self (STS), and sexual relationship power (SRP) on the HIV vulnerability of AAW

in the South. The Theory of Gender and Power guided the study and informed the data collection and analysis.

Methods. A cross-sectional descriptive study utilizing purposive and snowball sampling methods was used to examine the relationships between depressive symptoms, silencing the self, and sexual relationship power on HIV vulnerability among AAW in the South. Five survey tools were used to capture respondents' information regarding depressive symptoms (PHQ-9), silencing the self (Silencing the Self Scale; STSS), sexual relationship power (Sexual Relationship Power Scale; SRPS); HIV knowledge (HIV Knowledge Questionnaire; KQ-18); and HIV vulnerability (Safe Sex Behavior Questionnaire; SSBQ) among AAW residing in the Southern U.S.

Results. The findings reveal that all of the participants acknowledged some level of depressive symptoms (100%) as measured by the PHQ-9 tool, with 80.4% of participants reporting that they experience minimal to mild depressive symptoms and 19.7% participants reporting moderate to severe symptoms. The findings indicated that depressive symptoms and STS are associated in this sample of AAW. It was noted that as depressive symptoms increased, STS also increased, while SRP decreased. Thus, indicating women who felt more empowered within the spaces of their relationships exhibited less STS behaviors.

Discussion. Vulnerability to HIV disproportionately affects AAW in the Southern U.S. The Theory of Gender and Power provided a lens for examining the impact of depressive symptoms, STS, and SRP among this group of AAW residing in Southern U.S. Implications of this study include clear indications of a need to increase mental health awareness, address the behavior of silencing the self, and intervene to reduce depressive symptoms among this population of women. Nurses are uniquely positioned to interact with AAW in the healthcare arena as the first

contact with the patient. Increased use of screening tools such as the PHQ-9 at provider visits to detect those AAW who are experiencing depressive symptoms may assist with initiating therapy and/or referrals for mental health care. Awareness of the impact gender and power has in women's relationships can optimize HIV prevention efforts among women. Ultimately, these findings are useful in informing future nursing research and practice with HIV prevention interventions aimed at optimizing the health of AAW who are vulnerable to HIV.

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DEDICATION

I would like to dedicate this dissertation first to GOD for sending me on this journey and giving me the strength to persevere! I pray that I am fulfilling my life's purpose. Next, I dedicate this dissertation to my parents who each left too soon, but who laid a solid foundation and love of learning, and who continue to walk with me in spirit along life's journey, I miss you both!

To my brothers, David, for fostering my curiosity and love for reading, to Sam, for unwavering support, knowledge, and wisdom, and to Jimmy, for his steadfast companionship to Seton Hall, excel help, and always-encouragement, and Merriell for love and support. You each know best the challenges and sacrifices made to reach this point and arrive here. Your love and support has carried me over and through the trials of life and helped me to keep pressing forward!

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Sealed with Much Love and Gratitude,
Wanda

BREATHE ~ Becky Hemsley~

*“She sat at the back, and they said she was shy,
She led from the front, and they hated her pride,
They asked her advice and then questioned her guidance,
They branded her loud, then were shocked by her silence,
When she shared no ambition, they said it was sad,
So, she told them her dreams and they said she was mad,
They told her they'd listen, then covered their ears,
And gave her a hug while they laughed at her fears,
And she listened to all of it thinking she should,
Be the girl they told her to be best as she could,
But one day she asked what was best for herself,
Instead of trying to please everyone else,
So, she walked to the forest and stood with the trees,
She heard the wind whisper and dance with the leaves,
She spoke to the willow, the elm, and the pine,
And she told them what she'd been told time after time,
She told them she felt she was never enough,
She was either too little or far far too much,
Too loud or too quiet, too fierce, or too weak,
Too wise or too foolish, too bold, or too meek,
Then she found a small clearing surrounded by firs,
And she stopped...and she heard what the trees said to her,
And she sat there for hours not wanting to leave,
For the forest said nothing, it just let her breathe”*

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LIST OF ABBREVIATIONS

AAW	African American Women	2
AA	African American	4
PRISMA	Preferred Reporting Items for Systematic Review and Meta Analysis	32
STSS	Silencing the Self Scale	66
SRPS	Sexual Relationship Power Scale	24
PHQ-9	Patient Health Questionnaire	59
KQ-18	Brief HIV Knowledge Questionnaire	27
SSBQ	Safe Sex Behavioral Questionnaire	27

CHAPTER 1: INTRODUCTION

The first cases of Acquired Immune Deficiency Syndrome (AIDS) were identified in the United States (U.S.) over 40 years ago and Human Immunodeficiency Virus (HIV) remains a serious public health concern in this country. More than 700,000 lives have been lost to AIDS-related complications in the U.S. since 1981 (Kaiser Family Foundation [KFF.org.], 2020a) and there are currently 1.2 million people living with HIV (HIV.gov, 2023; KFF.org, 2021). Within the U.S., the most common forms of HIV transmission are condomless sex and sharing of injection drug equipment (Center for Disease Control and Prevention [CDC], 2020a). Left untreated, HIV can progress to AIDS, which is the last stage of the disease process (HIV.gov, 2021). People living with HIV that has progressed to AIDS without medication or treatment generally have a three-year survival rate, however, for an individual that concurrently acquires an opportunistic infection, the survival rate falls to less than one year (HIV.gov, 2021).

Therefore, timely diagnosis and use of antiretroviral medication and treatment are crucial for secondary prevention efforts. Treatment as prevention can be lifesaving, improving the quality of life for those living with HIV and preventing the spread of HIV (HIVinfo.NIH.gov.[HIV.gov], 2023). Primary prevention is also critical and is the focus of this proposed study. Among women, the negotiation and use of condoms as well as other safer sex behaviors can significantly impact her ability to protect herself from acquiring HIV and other sexually transmitted infections [STIs; (HIV.gov, 2023; Pulerwitz et al., 2002)]. Research suggests that a women's ability to negotiate condom use is directly associated with the relationship dynamics between partners (Bonacquisti & Geller, 2013; Skakoon-Sparling & Cramer, 2020).

Recent data reveals there are specific geographic areas in the U.S. driving the HIV epidemic; specifically, the South (CDC, 2020b). The South is comprised of a nine-state region (Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas), and experiences the greatest burden of HIV and HIV-related deaths over any other region in the U.S. (CDC, 2019a; Darlington & Hutson, 2017; Reif et al., 2017). Among women, African American women (AAW) account for over half (55%) of new HIV diagnoses, as compared to White women (22%), and (18%) Hispanic women (KFF.org, 2020b). When examined by gender and geographical region, the rates of HIV among AAW in the South are even more pronounced when compared to women in other regions, representing a stark health disparity (Ahrens et al., 2021; Hendrick & Canfield, 2017; Mays et al., 2012, Reif et al., 2017; Rice et al., 2018; Robillard et al., 2017; Statistical Atlas, 2018). To date, however, there is a paucity of research focused specifically on primary HIV prevention among AAW in the South (Caiola et al., 2014; Darlington & Hutson, 2017; Randolph et al., 2020).

Background

HIV likely arrived in the U.S. during the 1970s but was not recognized until the early 1980s in New York City and then in San Francisco (Cisneros, L., 2021; HIV.gov, 2021; KFF.org, 2018). HIV compromises the immune system causing an individual to become susceptible to other diseases and infections. The virus is spread by contact with bodily fluids including blood, semen, breast milk, vaginal, and rectal/anal fluids (HIV.gov, 2021). Initially, HIV heavily impacted the White “homosexual” male population. In 1981, the Morbidity and Mortality Weekly Report (MMWR) published an article about a group of five men who were all gay, previously healthy, and had a rare opportunistic lung infection known as *Pneumocystis carinii* [now called *Pneumocystis jiroveci*] (HIV.gov, 2021), all succumbed quickly. The other

hallmark condition associated with HIV/AIDS was Kaposi's sarcoma which was reported for the first time to Centers for Disease Control and Infection (CDC) in Atlanta, Georgia by a New York dermatologist during the same time frame (Cisneros, 2021; HIV.gov, n.d.). These conditions plus other opportunistic infections can indicate a decline in immune system functioning (HIV.gov, 2020). Over time, scientists and healthcare providers learned that men living with HIV could transmit the virus to their female partners through heterosexual contact (Durvasula, 2018). HIV was also found to be transmissible from pregnant women to infants, children, and through blood products and transfusions (Beintheknow.org, 2022.).

HIV tests and antiretroviral treatments developed in the mid to late 1980s have been crucial in combating the epidemic (HIV.gov, 2021). With these medical discoveries, the 1990-2000s saw a decline in deaths and hospitalizations (HIV.gov, n.d). However, in the 1980s-1990s communities of color, and people who inject drugs saw increased rates of HIV infection (HIV.gov, 2021). By 2009, the U.S. capitol, Washington, D.C., was found to have higher rates of HIV than parts of Sub-Saharan West Africa and HIV became an epidemic among people of color in the U.S. (HIV.gov, 2021). Overall, the annual new diagnoses of HIV in the U.S. have decreased by two-thirds since the 1980s, but new case rates have been stalled since 2014-2018 at approximately 38,000 annually (CDC, 2020b). The number of people living with HIV aged 13-24 years has declined, while people ages 24-35 are the most impacted (CDC, 2020b; HIV.gov, 2021; Reif et al., 2017). In 2015, a new milestone was reached when over 50% of all people living with HIV in the U.S. were 50 years of age and older (Brown et al., 2020; DeGrazia & Scrandis, 2015, p. 151). As of 2019, African American men (AAM) who have sex with men had much higher rates of HIV across all gender and ethnic groups (HIV.gov, 2021).

The landscape of HIV diagnoses has also changed over time and the epidemic is not distributed evenly across the U.S. Previously, the Northeast and urban environments were the primary areas impacted by the epidemic (CDC.gov, 2021b; Lyons et al., 2021; Vermund & Leigh-Brown, 2012). Currently, the South has become an epicenter for HIV (Adimora et al., 2014; Adimora et al., 2021; HIV.gov, 2019). Only 38% of the U.S. population lives in the South, yet Southern residents account for 51% of new HIV diagnoses annually (CDC, 2019a). The South is known for its warm climates and southern hospitality, but it is also known for its conservativeness, vast rural geography, high poverty levels, and negative health outcomes (Reif et al., 2017; Shrider et al., 2021). In the U.S. the largest concentration of AAs live in the South (Office of Minority Health.gov, 2021). Of the individuals in the South, AA and Hispanic people together represent over 70% of new HIV diagnoses (CDC.gov, 2019a; HIV.gov, n.d.).

HIV is one of the leading causes of death among women of reproductive age worldwide, and half of those currently living with HIV are women (Durvasula, 2018; Barton-Knotts, 2020; Health and Human Services, Office on Women's Health [OWH], 2020). As of 2018, one in four persons living with HIV in the U.S. was female (KFF.org, 2020b; OWH.gov, 2024). Throughout the HIV epidemic, women have faced challenges in treatment resources, prevention, and care (Durvasula, 2018; HIV.gov, 2021; KFF.org, 2020b). Among women, AAW are overwhelmingly disproportionately impacted by HIV/AIDS throughout the U.S. (Robillard et al., 2017).

According to the latest CDC data, heterosexual contact is the primary form of transmission among AAW accounting for 92% of all transmissions (CDC.gov, 2020a). AAW experience rates of infection that are four to 20 times greater than White women and Hispanic women, respectively (KFF.org, 2020b; Robillard et al., 2017).

At the intersection of gender and geographic location, AAW represent 67% of all new cases of HIV among women in the South (HIV.gov, 2021), a significant disparity given AAW make up only 22% of the population in the South (Centers for Disease Control and Prevention, *HIV Surveillance Report, 2019b*; HIV.gov, 2021; KFF.org, 2021). The increased rates of HIV among AAW are partially attributed to higher prevalence rates of HIV within the AA community at large, and increased rates of sexually transmitted infections which can increase transmission of HIV (CDC, 2022a). Additionally, 13.3% (16 million) of people who reside in the South live in poverty, while 26.2% (11 million) of AAs who live in the South live in poverty (Shrider, 2021; USDA.gov, 2022;). Rural areas have greater rates of poverty than metropolitan areas in the U.S., and the South is quite rural and has greater rates of poverty than all other regions in the U.S. (Census.gov, 2023; Kilduff, 2022). The availability of income impacts health, access to care, housing, community characteristics, and education for AAW (Robillard et al., 2017). Several other factors are also thought to impact AAW's vulnerability to HIV including the intersection of gender, racism, and oppression (Brawner, 2014; Caiola et al., 2014; Gordon & Goodenow, 2022; Hendrick & Canfield, 2017; Rosenthal & Lobel, 2020). The intertwining of these multiple factors, along with social determinants linked to a history of neglected economic and social issues, predispose AAW to increased vulnerability for HIV (Robillard et al., 2017). Understanding all factors that are amenable to change is critical so that targeted prevention strategies can be developed to improve HIV prevention efforts and decrease HIV health disparities among AAW in the South

Significance

HIV among AAW in the South is a significant health issue. AAW in the Southern U.S. have been and continue to be disproportionately affected by HIV diagnosis and mortality due to

AIDS-related complications (CDC.gov, 2022b; Reif et al., 2017). Young women and women in general, especially those from marginalized communities are at risk for HIV (Durvasula, 2018). The marginalization and risk for HIV among young women and women is not only due to biological factors such as the female anatomy, age-related risks, anal sex, other STIs, and cervical ectopy, but social factors such as gender inequality, socioeconomic status, and discrimination (Adimora et al., 2019; Durvasula, 2018; Ivy et al., 2014). These disparities illustrate the importance of research to determine interventions which consider the specific vulnerability of AAW to HIV. To best understand where we are and where we are going, we must understand where we have come from in this long trajectory and fight against HIV. By understanding the factors which most profoundly affect AAW in the South we can develop better prevention measures to help mitigate AAW risk for HIV. Following is an exploration of what is known about the HIV vulnerability of women in general and the HIV vulnerability of AAW specifically.

Biological Vulnerability of Women

Several biological factors predispose women to HIV, including the female anatomy, age-related risks, anal sex, other STIs, and cervical ectopy (*National Academies of Sciences, Engineering, and Medicine; Health and Medicine Division*, 2021). The design of the female anatomy places women at increased risk for HIV because receptive sex carries more risk than insertion sex (HIVinfo.NIH.gov, 2021). Women are vulnerable to HIV due to increased mucus area exposure during vaginal penetration (Abbai et al., 2016; HIVinfo.NIH.gov, 2021; Mahathir, 1997; Wessels et al., 2018). Women are less likely to have symptoms of common STIs to alert them that there is a problem as compared to men.

Age-related thinning and dryness of the vagina may increase the risk of HIV in older women, because vaginal tissue can tear during sex and provide a pathway for transmission (HIV.gov., 2021). If women engage in receptive anal sex, they are also at higher risk for acquiring HIV. Anal sex is a riskier behavior because the rectal lining is thinner which may predispose the tissue to tearing, allowing for transmission to occur in condomless sex (HIV.gov, 2021). Additionally, because of the vaginal mucosal tissue and the penetration which occurs during intercourse, women can have increased risk for HIV and other sexually transmitted infections (STIs). As a group, AAs have much higher rates in all categories of STIs. This is not necessarily attributed to behavior but may reflect different access to quality sexual healthcare, and differences in sexual network characteristics (National Overview - Sexually Transmitted Disease Surveillance, 2021; Vermund & Leigh-Brown, 2012).

Another condition leading to a women's risk for HIV is cervical ectopy. This condition leads to cervical mucosal changes in response to higher estrogen levels found with use of oral/injectable contraceptives, in adolescence, and in pregnancy (Aggarwal & Ben Amor, 2021). Cervical ectopy is a very common gynecological condition (Hapgood et al., 2018) and the changes which occur in the mucosa have been shown to increase women's susceptibility to some STIs (Hapgood et al., 2018). Because intact mucosal surfaces may form a natural barrier to HIV infection, lesions of the cervical mucosa have been suggested as an important entryway for HIV into the female reproductive tract (Venkatesh & Cu-Uvin, 2013).

Behavioral Vulnerability Among Women

Because women have increased biological risks for acquiring HIV, it is crucial to understand behavioral risks among women that may further increase their vulnerability to HIV.

Transactional sex and substance use are all well-documented in the literature as behavioral risk factors for women (Andoh, 2014; UNAIDS, 2018).

Transactional Sex

Among those who engage in transactional sex, rates of HIV are higher (CDC.gov, 2022b). Transactional sex refers to the exchange of favors, gifts, or money in a sexual relationship and is structured by gender inequality (Ramos et al., 2021a). The relationship may be non-marital, non-commercial sexual relationships motivated by the assumption that sex may be exchanged for material support or other benefits i.e., food, shelter, support (Choudhry et al., 2015), whereas sex work is the exchange of sex for a service that is an explicit agreement between the parties involved, is void of a romantic relationship, and involves selling of sex for a living wage (Opensocietyfoundations, 2019). Women who engage in transactional sex are at higher risk for HIV due to a number of factors such as multiple sex partners, the inability to always negotiate condom use, and higher rates of STI(s) due to condomless sex practices (CDC.gov., 2021a). The use of substances during transactional encounters can also impair judgment and inhibit use of condoms (Be in the KNOW, n.d.). Fewer health services are provided to sex workers because of the difficulty reaching the population, the associated stigma of sex work, and criminalization of the enterprise (Be in the KNOW, n.d.). Because of many social and structural barriers, there is a lack of large-scale, population-based studies that have been done among this diverse group of people (CDC.gov, 2022a). Many who engage in this lifestyle may have a history of homelessness, incarceration, mental health challenges, emotional/physical abuse, and substance use (Knudsen et al., 2008; National Minority AIDS Council, 2013; National Prevention Intervention Network, 2013; Widman et al., 2014).

Substance Use

Individuals who engage in alcohol or drug use may also engage in risky sex practice behaviors (CDC .gov. 2021a; Ho & Holloway, 2016; Meade & Watt, 2016). Being under the influence of alcohol or substances can affect your decision-making ability, alter judgement, and lower an individual's inhibitions. These actions could make it difficult to use condoms correctly and consistently with each sex act. Substance use can lead to risky behaviors and harm the overall health of an individual by weakening the immune system and increasing HIV risk (hivinfo.nih.gov, 2013; Illangasekare et al., 2013; Melendez-Torres & Bourne, 2016). Substances can impact the brain chemistry and affect an individual's ability to think, process, and lead to poor decision making which may expose an individual to higher HIV risk. Individuals with substance abuse disorders may also lack steady employment, housing, and adequate healthcare predisposing them to loss of income, illnesses, and a lack of healthcare access (ilo.org, 2005).

Women face unique issues related to substance use including the influences of gender inequity and physiological factors (NIDA.nih.gov., 2022). Many lifestyle stressors such as gender-based violence, divorce, and custody issues, as well as the impact of substances on a woman's brain chemistry can worsen or trigger substance use among women (NIDA.nih.gov., 2022; USAID.gov, 2020). Substance use among women can also negatively impact childbearing, and because of the stigmatization and criminalization women may be hesitant to seek help (NIDA.nih.gov., 2022).

Social Inequities

Social inequities are drivers of HIV within the U.S. Issues of poverty, racism, and gender inequity impact individual risk behaviors and HIV prevalence rates among women (Bontempi et

al., 2008; Ramos et al., 2021b). The culmination of the impact of social drivers and impact through “weathering” of this toxic stress overtime from dealing with racism and discrimination, has an adverse effect on AAW health (Geronimus et al., 2006; Geronimus et al., 2010). In 1992, Geronimus and colleagues published a landmark study proposing the “weathering hypothesis” that asserted the health of African American women may begin to deteriorate in early adulthood as a physical consequence of cumulative socioeconomic disadvantage (Geronimus et al., 2010). As a result of the stress of multiple social inequities, AA may be biologically older than whites of the same chronological age due to the cumulative impact of repeated exposure to and high effort coping with stressors (Geronimus et al., 2010).

Poverty

People are considered to be living in poverty when they lack the economic resources needed to have a minimal living standard (Assistant Secretary for Planning and Evaluation [ASPE], HHS.gov., n.d.). Poverty and associated social barriers can influence prevalence rates of HIV within a community and affect an individual’s behavior (Browne & Battle, 2018; HRSA.gov, 2020; Pellowski et al., 2013). The CDC (2011) has substantiated the link between lower socioeconomic status and higher rates of HIV (CDC.gov, 2011). Living in poverty creates barriers and challenges for women which complicates HIV prevention and treatment, especially in rural areas (Bleiweis et al., 2020; HIV.gov, 2017; HRSA.gov, 2020). AAW frequently work in low-paying positions, are single parents and 80% are the primary wage earners for their families (DuMonthier et al., 2017). A lack of resources has a direct impact on the lives and health of women. Within the U.S., poverty itself is not equal among the genders. Seventy percent (70%) of those living in poverty in the U.S. are women and children (legalmomentum.org., 2014). As of 2018, 12.9% of women versus 10.6% of men lived in poverty (PovertyUSA.org.,

2022). Almost one quarter (24.9%) of all U.S. households led by females were living in poverty (PovertyUSA.org, 2022), which is much higher than all other individual groups. Data on poverty by ethnic groups reveals that Hispanic (17.6 %), AA (20.8%), Native Americans (25.4%) have the highest rates of poverty within the U.S. while the rates of poverty among Whites (10.1%) and Asian (10.1%) are lower (PovertyUSA.org, 2022).

In addition, the South has some of the highest rates of poverty in the nation, with nine out of 10 of the poorest states located in the South (Fay, 2021). The South covers a large geographic area, lacks access to resources, is impacted by rural, agricultural economies, and in many areas has more individuals with less educational attainment (Fay, 2021; Health and Human Services, OMH, 2021). These issues result in greater rates of poverty among AAW living in the South. The issue of poverty in women has long been recognized, and women of color continue to be significantly impacted and experience some of the greatest disparities related to poverty (HIV/AIDS and Socioeconomic Status, n.d., American Psychological Association, 2010). Issues of socioeconomics affect women's quality of life, as such, women who are economically disadvantaged may have higher risk for acquiring HIV due to issues of poverty, lack of finances and access to care (HIV/AIDS and Socioeconomic Status, American Psychological Association, 2010; HRSA.gov, 2020). Issues of poverty in women and HIV among women co-exist and worsen the health disparities in this population (TheWellProject.org, 2023).

Racism

There is an intersection of gender, racism, and oppression that infiltrates AAW's daily lives, and may increase vulnerability to HIV (Brawner, 2014; Hendrick & Canfield, 2017; Rodriguez- Hart et al., 2022). Although the following literature is dated, the premise holds true which is that for many AAW "The synthesis of these oppressions creates the conditions of [their]

lives” (Taylor, K., 2017a, p. 15). As a result, AAW voices are not always heard and in response, AAW have to redefine for themselves what it is to be a woman (Zipf, 1999). The prior enslavement of AA people and the structural racism that followed has affected and continues to have an effect on AAs, both at the population and individual level of health in three areas: redlining and racialized residential segregation, mass incarceration and police violence, and unequal medical care (Bailey et al., 2021; Pettit & Gutierrez, 2018). Racism is deeply woven into the structure of the U.S. society (Bailey et al., 2021; Perry et al., 2013; Prather et al., 2018). It is against this legacy which AAW must contend, and through which their health can be negatively impacted. The effects of racism cause biological, emotional, mental wear and tear, and stress (Cokley et al., 2021). Individual and social stressors can affect psychological health and cause other adverse health outcomes (Perry et al., 2013).

The effects of racism can be seen through the health inequities affecting the psychological, physical, emotional health of AAs, the decimation of the family structure, and mass incarceration, which allow for increased rates of poverty, poor health, and disease to affect a community and the lives of AAW (Halloran, 2019). Racism within the U.S. is a major contributor for sexual and reproductive health disparities of AAW (Prather et al., 2018). AAW experience higher rates of infant and maternal mortality, and higher rates of STIs including HIV (Artiga et al., 2020; HHS et al., 2011; Tikkanen et al., 2022). The inequalities manifest and lead to greater rates of poverty, shape health behaviors, limit access to care, and inform attitudes of some health providers towards AAs (Taylor, 2019). As a result of these inequities and racism, AAW may carry vestiges of the psychological and emotional scars deep within as a legacy (Ashley, 2014; Halloran, 2019; Sule et al., 2017; Weller & Roberts, 2021).

Gender Inequity

Defining women based on gender constructs as the “weaker sex” or “Otherizing” women within the U.S. is not new (DeBeauvoir, 2011, pp. 26-27; Smith, J., 2019). From the origins of the U.S., women have predominantly been considered second class citizens living within a patriarchal society (Ryan, 2019). This system affects daily life for men and women through its support of racial and sexual hierarchies (Ryan, 2019). Patriarchal ideals hold that men should have economic, sexual, legal, and political power over women. Certain laws and religious practices have reinforced women’s subordination to men, perpetuated governmental and legal controls on women’s sexual and family lives, and reinforced women’s dependence on White men (Ryan, 2019). As a group, AAW are frequently defined by their race and sex status whether as freed slaves, former slave women, single Black mothers, and other terms. Out of necessity, AAW have learned to create a gender identity that differed significantly from the gendered identities of White women (Zipf, 2000). AAW experience life in fragments, through the intersection of gender, race, and class and this often puts them at odds with social structures. As a result of this intersectional conundrum, AAW are often bound by gender, defined by race, and relegated to the lower socioeconomic class. These social inequalities are the heart of AAW risk for HIV in the U.S. (Randolph et al., 2020; Zierler & Krieger, 1997). Thus, being female, and living in a gender imbalanced (gender imbalance, n. d.), patriarchal environment structured by various forms of racism negatively affects AAW’s health and increases AAW’s risk for HIV. Racial and gender discrimination increase an individual’s risks for poorer physical and mental health, and can directly or indirectly affect vulnerabilities to stress on an individual level (Perry

et al., 2013). Among women, this leads to threats in self-concept, self-esteem, and identity as a woman, especially for AAW (Perry et al., 2013).

The role that gender plays in AAW intimate relationships cannot be ignored as a factor for HIV risk in this group of women (Alleyne & Gaston, 2010; CDC.gov, 2022a; Hargrove et al., 2020). The social inequalities found within the AA community such as effects of mass incarceration have hindered long-term monogamy and enhanced concurrent partnership development (Adimora, et al., 2002; Mayer et al., 2021). Men within the AA communities have higher rates of incarceration, substance abuse, unemployment and tend to be less educated, which can significantly decrease the pool of eligible male partners (Alleyne & Gaston, 2010; Joseph et al., 2018). Among AAs, the ratio between African American women to men is about 100:84 compared with 100:99 for Whites (Simons et al., 2021). As a result of these factors, an imbalance between the ratio of males to female individuals is quite prevalent within AA communities (Harris, G. et al., 2010). African Americans have the highest ratio of women to men compared to other racial groups in the United States (Newsome et al., 2018). The AA community is heavily biased toward females due to the effects of racism/discrimination, mass incarceration, and premature death (homicide) of AA men within the AA community which has an overall effect on AAW intimate relationship development (Pouget, 2017). This imbalance in the ratio impacts the relational dynamics between males-females. AA men have many more options for sexual partnerships as a result of this imbalance, and therefore, greater sexual relationship power overall and this power may be harmful to AAW (Alleyne & Gaston, 2010; Gary et al., 2019; Parker, 2001; Simons et al., 2021). Women may not be fully aware of the high-risk activities of men (concurrent partnerships, injection/drug use, having sex with other men, STIs), and therefore, may not always be fully aware of their risks for HIV. AAW may find themselves

involved in relationships and not aware a partner has multiple concurrent partnerships. If AAW are aware of this concurrency, AAW may choose to maintain the relationship being aware of the stark gender ratio imbalance. AAW have a potential for greater exposure to men who may have higher risk factors based upon the communities in which they live and sexual network pattern availability (Brawner, 2014; Johnson, 2017).

Gender-Based Violence

Gender-based violence may manifest as a very specific form of gender inequity. Women's risk for HIV is linked to economic and non-economic forms of gender inequity and impacts all facets of women's health-psychological, physical, sexual (Ritterbusch et al., 2020; Zierler & Krieger, 1997), including gender-based violence (GBV). Gender-based violence may be sexual or nonsexual physical violence, emotional abuse, and child sexual abuse (Andersson et al., 2008; CDC, 2014). Women may experience GBV within relationships where differences in social value, power, opportunities, and the behavioral expectations of men exist (Jewkes, R., 2010; plan-international.org. *Gender Based Violence*., 2022). Women experience GBV because of gender identity, stereotypes, or roles expected of them and they are disproportionately affected (plan-international.org. *Gender Based Violence*, 2022). Women who may be vulnerable, often have partners who are controlling, violent, may use substances or have addiction issues, or have relationships with limited choice or poverty (Jewkes, 2010). Women may tolerate relationships to ensure needs are met, and to feel valued (Andersson et al., 2008; Pellowski et al., 2013; Zierler & Krieger, 1997; Simons et al., 2021). Women conditioned through prior exposure to GBV experience a sense of futility in protecting themselves within the relationship (Jewkes, 2010). Nearly one in two women have experienced some type of sexual violence within their lifetime (CDC.gov. *Intersection of Intimate Partner Violence and HIV*, 2014). Women who experience

GBV are at increased risk for HIV, and other adverse health conditions such as stress, depression, and chronic anxiety (Mead & Watt, 2016; Rahman et al., 2013). Research has shown that there is a direct link between substance use, GBV, and HIV, and that GBV occurs more during relationships where substance use is prevalent (Mead & Watt, 2016). Among women who experience GBV it may not be an isolated event but occurs where women may have experienced multiple traumas simultaneously, or previous trauma such as emotional, physical, and sexual abuse (Mead & Watt, 2016).

AAW disproportionately experience violence in several areas of their lives, including at home, school, and work (DuMonthier et al., 2017). AAW have higher rates of sexual violence, such as rape, GBV, intimate partner violence (IPV; 40% experience IPV), and homicide (Green, 2017). AAW frequently experience higher rates of psychological abuse, through name calling, coercive control, insults, humiliation than women overall (Green, 2017).

The prior literature exploring the biological factors, behavioral factors, and social inequities contributing to the HIV vulnerability of AAW demonstrates the complexities of the specific context in which AAW make decisions about their sexual health. These complexities challenge the assumption that simply having knowledge about HIV transmission is a sufficient prevention strategy for this population of women. Rather, prevention strategies need to be aimed at addressing all facets of these issues, including some of the psychosocial responses AAW may develop in navigating such relational and social complexities.

Important Psychosocial Factors

Depression

Recent data reveals that people of color (AAs, Asians, and Hispanics) have much lower rates of diagnosis of depression than White people in the U.S. (NIMH.gov. *Major Depression.*,

2022; National Health Center, 2020). Additionally, there are inequities in the access to care and misdiagnosis especially among AAs where depression is often overlooked (Hargrove et al., 2020; Hunn & Craig, 2009). Women experience depression twice as much as men (Albert, 2015; Brody et al., 2018; Malhi & Mann, 2018). However, studies of depression among AAW and other women of color lag in the research, which is concerning given that AAW are also less likely to seek help (Dunlop et al., 2003; Richards. E., n.d.; Walton & Boone, 2019). The racial/ethnic differences regarding depressive symptoms are not as well understood and have inconsistent findings within the research (Hargrove et al., 2020). Among AAW, the effects of racism, sexism, and class continue to confound the ability to adequately diagnose AAW accurately who may suffer from depression (Hunn & Craig, 2009; Mental Health America, 2023). The depression experienced among AAW oftentimes may go unaddressed and becomes enmeshed with the mythology of the “strong black woman, high resilience”, gender, and cultural expectations (Abrams et al., 2018) and may lead to women silencing the self.

Silencing the Self

Silencing the self (STS) is a psychological/behavioral style observed by Dana Jack and Diana Dill (1992) in a longitudinal study of clinically depressed women. In these women the author measured several schemas utilized by the women to keep safe and to maintain relationships. The utilization of STS behavior is a protective coping mechanism to maintain relationships by limiting the voice of women. STS is seen within relationships where an uneven power/gender dynamic exists, and women cope through limiting their voices to maintain relationships or prevent rejection (Bruck-Segal et al., 2020; DeMarco & Lanier, 2014; Maji & Dixit, 2019). Jack and Dill’s (1992) seminal work posits this imbalance of relational power

leads women to silence thoughts, feelings, and actions, and overtime the STS leads the woman to experience anger, decline in self-esteem, and a loss of self (Jack & Dill, 1992).

Sexual Relationship Power

Julie Pulerwitz (2000) first developed the sexual relationship power scale to understand the impact of power on women within their intimate relationships (McMahon et al., 2015). Sexual Relationship Power (SRP) is defined as the amount of power one has over sexual relationship and decision making (Pulerwitz et al., 2000). Power balance is enhanced when there is open communication regarding sex, and free expression of thoughts, feelings, and desires within a safe relationship (Luft et al., 2020). Women who experience disruption in ability to communicate freely may experience low SRP, less condom use, and have increased HIV risk (Luft et al., 2020). Low SRP is also created through an abuse of authority and control within relationships (Connell, 1987; Hunn & Craig, 2009; Kaufman & Pulerwitz, 2019; Pulerwitz, 2000; Wingood & DiClemente, 2002). As previously described, the gendered racism and societal inequities experienced by AAW can lead some AAW to seek out or find themselves in relationship attachments which are less healthy and have power differentials (Duvall, 2013), leading to increased HIV vulnerability (Pulerwitz, 2000; McMahon et al., 2015; DeMarco & Lanier, 2014; Frew et al., 2016).

To date, inquiries have focused on physical and social exposures experienced by women who are vulnerable to HIV. Physical exposures include substance abuse which lower inhibitions and place women at higher risk for HIV or impaired decision making. Social exposures are impacted by gender norms, religious preferences, depression, midlife, and silencing. However, these findings have not been fully considered for their impact on AAW in the South. Additionally, more current research is needed in this area. These findings offer limited insight

into the relationships between depression, STS, SRP, and HIV vulnerability among AAW living in the South; thus, studies that capture AAW's potentially unique experiences are essential for understanding AAWs increased vulnerability to HIV.

Research Problem

Despite the declining rates of HIV infection among some groups within the U.S., AAW continue to be disproportionately affected by HIV. AAW have higher prevalence rates and may have distinct factors which predispose them to HIV; revealing an urgent need for more research and prevention efforts to combat HIV among AAW. Consideration of all psychosocial factors that impact AAW living in the South have not been fully considered and researched. Because the Southern U.S. is the epicenter for new HIV diagnosis cases (CDC, 2019b; Miller, 2020a), a greater prevention research focus on this priority population and geographical area is warranted. Currently, there is a paucity of research examining the relationships between depression, STS, SRP, and HIV vulnerability among AAW in the South. Understanding these relationships may illuminate factors that are amenable to change so that targeted prevention strategies can be developed to improve HIV prevention efforts and decrease HIV health disparities among AAW in the South.

Theoretical Framework

The Theory of Gender and Power was applied as the framework to examine how symptoms of depression, STS, and SRP influence the HIV vulnerability of AAW in the South. The Theory of Gender and Power created by Robert Connell (known as Robert or R.W. Connell prior to 2005 and Raewynn Connell post 2005) is a social structural theory based on philosophical feminist writings of sexual inequality, gender, power dynamics, and the impact of each of these on the relationships and lives of women (Connell, 1987; Wingood & DiClemente,

2002). Connell's early writings explored existing theories of the day and identified components of these theories and integrated them into the Theory of Gender and Power (Wingood & DiClemente, 2002). Prior to Connell's work, early theoretical models such as the Social Ecological Model, Health Belief Model, Health Behavior Change Model, and the AIDS Risk Reduction Model utilized an individualistic/behavioral conceptualization for prevention of HIV/AIDS; rather than considering AAW and their vulnerability to HIV in the context of broader social structures that exist in the lives of people of color (Wingood & DiClemente, 2002). Connell asserts that three social structures exist between men and women: *Sexual Division of Labor*, *Sexual Division of Power*, and *Social Cathexis* (Connell, 1987). The three structures are influenced by geopolitical, sociopolitical, and historical forces which converge to segregate power, and ascribe social norms based on predefined gender roles (Wingood & DiClemente, 2002). These concepts are intertwined and explain the gendered relations between men and women; one concept does not function independently of the other. Wingood & DiClemente (2002) asserted that it is this intertwining of the three structures when applied using the Theory of Gender and Power which may lend a broader contextual reason for the increased rates of HIV found among AAW (Pulerwitz, 2000; Wingood & DiClemente, 2002). Below is Fig. 1 an illustration developed by Wingood & DiClemente that has been adopted for use in this study.

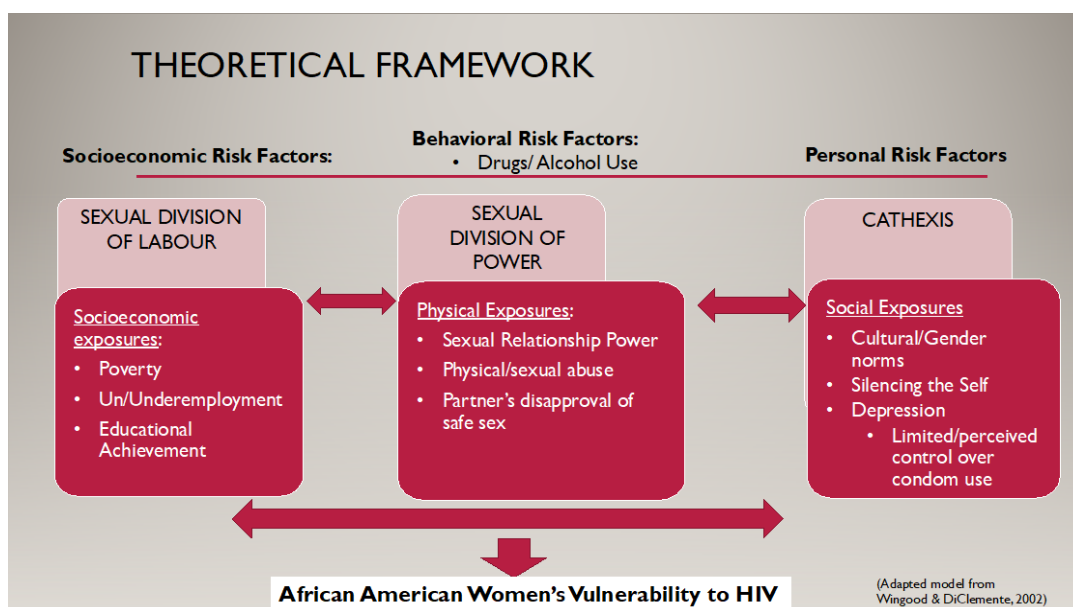


Figure 1

Sexual Division of Labor

The structure of Sexual Division of Labor creates the basis for the sexual relationship power dynamic and helps to explain gendered relations between men and women (Wingood & DiClemente, 2000). The *Sexual Division of Labor* is defined as the assignment of tasks within society based upon the gender of an individual within the society (Connell, 1987; Oxford Reference, 2022; Wingood & DiClemente, 2002). Sexual Division of Labor is manifested through an unequal division of work/employment which can place women at a disadvantage economically. The division of labor occurs at the institutional level and is maintained by social mechanisms (Wingood & DiClemente, 2002). Traditionally, in the U.S., women have often been relegated to roles dubbed “women’s work”, such as homemaker, caring for sick, older adults, and other responsibilities termed “helping professions.” Often, the work performed by women is not compensated equally to the work of men, creating an economic imbalance (Barroso & Brown, 2020, Childers et al., 2021; Vagins, 2018).

The recent COVID-19 pandemic offered evidence to suggest the fragility of the prior gender equality gains in the past couple decades as women were disproportionately affected by the pandemic and were more likely to have to choose between work and family (Georgetown Institute for Women, Peace, & Security, 2020; Schaeffer, 2022). This illustrates that the work women do is often valued less within the society and further substantiates the Sexual Division of Labor that exists (Barroso & Brown, 2020; Pew Research, 2020; Schaefer, 2022; Vagins, 2018). Moreover, the latest economic data reveals that women earned 84% of what men earned in 2020, and women continue to occupy a greater proportion of jobs/positions in lower paying occupations (Barroso & Brown, 2020; DuMonthier et al., 2017).

When we examine the wage gap and earning potential for AAW in the U.S., it is even more profound. AAW women earn just 0.63 cents per dollar when compared to White men; further illustrating the economic impact of sexism on AAW (Miller, S., 2020b). The intersecting issues of racism and sexism have a tremendous impact on the potential earning power and economic stability of AAW. Historically in the U.S., the issue of racism has served to limit educational and employment opportunities among AAW (Collins, 1989; Collins, 2000). Racism coupled with gender inequalities over a lifetime impacts the ability of creating generational wealth opportunities for AAs and especially for AAW. Centuries of deprivation related to this systematic oppression affects not only wealth creation but political power, health, housing, employment, and justice for AA (Weller & Roberts, 2021). For this study, the Sexual Division of Labor will be operationalized using three indicators: socioeconomic status, educational background, and employment status.

Sexual Division of Power

Sexual Division of Power is the second structure in the Theory of Gender and Power (Connell, 1987). Connell (1987) conceptualized power as operating through a systemic structure and having the capacity to influence the action of others. Connell theorized that the Sexual Division of Power among men and women lies within both the institutional and interpersonal levels of society (Connell, 1987).

At the interpersonal level, Sexual Division of Power is maintained through abuse of authority and control within a relationship. Women may find themselves in relationships where there is a power imbalance and may depend on the male partner/spouse for financial assets. Sexual Division of Power is reinforced by the Sexual Division of Labor whereby women have a lower earning potential than their male counterparts. Equally, social mechanisms in the larger society serve to disempower women through media and objectification and subordination of women. Within the U.S., the patriarchal social arrangement places men at the top of the social strata and women in a lower position (Connell, 1987; Fisher & Ryan, 2020). This inequality in power forms the basis for sexual division of power (Wingood & DiClemente, 2002).

Sexual Division of Power manifests in unique ways among AAW, due to some very specific sociohistorical factors. In particular, the adult sex ratio and mass incarceration of men in the AA community have been identified as potential contributors. Among AAs, there is an imbalance among the genders and this disparity begins at birth with higher rates of infant mortality/morbidity among AA male infants (Bond & Herman, 2016). The disparity continues to increase between AAW and men into adulthood (Bond & Herman, 2016) due to the societal factors within the AA community such as violence, systemic racism, poverty, and mass

incarceration (Blankenship et al., 2018; Fredrick, 2018; Hayes & Barnhorst, 2020; Massey, 1993).

To understand how the Sexual Division of Power affects AAW requires acknowledgement of the mass incarceration of AA men from the 1970s to now, which has significantly limited the population of available partners for marriage/relationships for AAW from within the AA community (Fry & Parker, 2021; Liu, 2020). Moreover, the mass incarceration and removal of AA men from society and the lives of AAW and children has severely impacted the AA family at many levels including economically (Khan et al., 2008; Sawyer & Wagner, 2023). A large segment of wage earners who may have otherwise been available to offer economic support in the home are incarcerated, further worsening poverty in the AA community, a risk factor for HIV (Liu, 2020). As a result of mass incarceration, there is a further imbalance in the adult sex ratio in the AA community, which creates a distinct risk for AAW and increases their vulnerability for HIV infection (DeMarco & Lanier, 2014; Frew et al., 2016). Among those incarcerated, the majority are AA men and incarcerated men have higher rates of HIV than the general population (Adams et al., 2018; Brewer et al., 2014). High rates of incarceration result in fewer partners for AAW in AA communities and may increase risk for HIV because although AAW may be monogamous, their male partners may have several partners (Adams et al., 2018; Brewer et al., 2014).

Heterosexual sex is the primary driver for transmission of HIV in AAW (Adams et al., 2018). As a result, AAW have a higher chance of encountering men from within their own community through the dating process who have a history of incarceration, and this poses an increased risk for heterosexual AAW (Adams et al., 2018; Shrage, 2016). AAW may also enter into relationships with higher risk individuals, influenced by an unbalanced adult sex ratio, that

subsequently creates unequal relational power dynamics among AAW. For this study, the Sexual Division of Power will be characterized using the Sexual Relationship Power Scale (SRPS; Pulerwitz et al., 2000).

Cathexis

Cathexis is defined as affective attachment and social norms; in other words, the emotional and sexual attachments between women and men (Connell, 1987; Wingood & DiClemente, 2002). Cathexis impacts individuals in the U.S. society through a combination of both misogyny and patriarchal structures embedded within the fabric of the society and creates systems of economic, social inequality between men and women that privileges men over women in the society (Connell, 1987; Wingood & DiClemente, 2002). The organization of society in this way is designed to constrain/limit women and their sexual freedom within the larger social institutions. Male and female relationships are multileveled and structured at the same time based upon the social structures in which they operate (Connell, 1987). These social structures when applied to attachments and social norms are difficult to change. Connell asserted one method which may help is to recognize gender as a social structure. The concept also expresses that there are large scale patterns in relationships and the practices in which people or groups function in those patterns over time. Cathexis dictates how men and women should express their sexuality (Connell, 2020; Wingood & DiClemente, 2002).

The structure of Cathexis in the Theory of Gender and Power captures the social norms governing these gendered relationships and affective attachment between women and men (Wingood & DiClemente, 2002). Based on this notion, the appropriateness of sexual behavior for women is often dictated or constrained by the expectations of a society or culture. Societal contextual factors create and shape a woman's thoughts and perceptions of self and reality within

the environment (Wingood & DiClemente, 2002). Biases found within the society/culture may dictate what is “appropriate” sexuality or gendered behavior. For example, some cultures believe that sex outside of marriage is wrong or that sex is strictly for procreation; therefore, women who go outside the norm behavior may be labeled as immoral, and subsequently experience mental distress and decrease in self-esteem (Blackfeminisms.com; Felder & Carey, 2010; Moormom, 2022; Wingood & DiClemente, 2002). Patriarchy and media messages frequently objectify women as sexual objects which can influence the psyche of women (Berberick, 2010). Conversely, the message men may receive from this same society is to maximize their sexual activity to signal their maleness (Felder & Carey, 2010; Wingood & DiClemente, 2002). Wingood & DiClemente (2002) discussed the inequities that arise among men and women from these opposing societal ideas and the power struggle it may generate.

Among AAW, Cathexis is shaped through the prism of cultural norms within the AA community and the larger society which both influence human behavior (Boekeloo, 2015; Bronfenbrenner, 1974; Hunter & Robinson, 2016). Scholars suggest cultural norms within the AA community focus on maintaining solidarity with ethnicity before gender (Collins, 2000), meaning race awareness is more important than gender identity. For AAW, this subjugation of part of the self (gender) can be diametrically opposed to what may be in her best interest. Collins (2000) asserted in her work on Black Feminism and readings of W.E.B. DuBois, that for AAW the fight for justice has historically been more focused on the ethnicity/race and class, but not gender. A lack of emphasis on gender may have the effect of silencing the AA female voice to promote the ethnic/racial cause at the exclusion of self (Beauboeuf-Lafontant, 2009; Crooks et al., 2022; Gomez & Gobin, 2020). Silencing the self, closely linked to depression, is one

example of how AAW may manifest Cathexis. Cathexis will therefore be operationalized in this study by measures of depressive symptoms and STS.

HIV Knowledge

HIV knowledge is governed by understanding how HIV is transmitted. This knowledge is a prerequisite to practicing safer sex behaviors to prevent HIV and may vary based upon geographical location, cultural, and socioeconomic exposures (Hong et al., 2012). However, this knowledge alone is not enough to effect behavioral change and must be used with other prevention methods for optimal success (Carey et al., 2002). In this study, assessing knowledge will be done in conjunction with the other variables- depressive symptoms, silencing the self, sexual relationship power and HIV vulnerability. HIV knowledge will be operationalized using the KQ-18 Brief HIV Knowledge Questionnaire and will be considered a control variable to account for the hypothesized variance in HIV vulnerability in this population. Controlling for HIV knowledge allows for examination of independent associations between depression, STS, SRP, and HIV vulnerability.

HIV Vulnerability

In Wingood and DiClemente's original research (2002) they adapted the Theory of Gender and Power, and they hypothesized that the three previous structures – Sexual Division of Labor, Sexual Division of Power, and Cathexis – generate “different exposures and risk factors that influence a woman's risk for disease” (pg. 313). In recent writings by Wingood (2019) the authors assert that amongst women the ability to protect themselves is complicated in intimate relationships where women must negotiate for condom use (Piper et al., 2019). Specifically, in this work, we plan to explore disease risk in terms of HIV vulnerability, or an increased risk of

acquiring HIV. Safer sexual behaviors in heterosexual sex acts will be used to operationalize this risk using the Safe Sex Behavior Questionnaire (SSBQ; Dilorio et al., 1992).

The paucity of current research focusing on silencing the self, depression, and sexual relationship power together as additional factors potentially impacting HIV vulnerability in AAW is an untapped area of exploration. In exploring these concepts and understanding their potential influence on HIV vulnerability among AAW, there lies the potential to improve prevention and intervention strategies. The use of the Theory of Gender and Power to guide the examination of depression, STS, and SRP in the population of women adds a new approach in comparison to other behavioral theories, which primarily explore intentions to change behavior while not accounting for the influence of the self-in-relation to broader societal structures (Wingood & DiClemente, 2000). Theories that don't acknowledge the influence of societal structures on women, in this case specifically AAW, may further disenfranchise women who have complex, gender-sensitive, and culturally bound experiences (DeMarco & Lanier, 2014) that underlie choice and decision-making. Table 1 illustrates the conceptual table and concepts for the study.

Table 1*Concept Table*

TGP Structure	Concept	Conceptual Definition	Operational Definition
<i>Sexual Division of Labor</i>	Socioeconomic exposures	Socioeconomic exposures affecting access to healthcare and lifestyle of individual(s); includes inequities related to privilege, power, control, and includes a patriarchal system that influences the political, social, and economic relations and institutions structured around the gender inequality of men and women (American Psychological Association, 2022; Crompton, 2001).	Socioeconomic exposures- educational background, income, and employment status (American Psychological Association, 2022).
<i>Cathexis</i>	Depressive symptoms	The persistent feeling of sadness or loss of interest that characterizes depression and can lead to a range of behavioral and physical symptoms. These may include changes in sleep, appetite, energy level, concentration, daily behavior, or self-esteem. (CDC.gov, 2019c; Hammen & Watkins, 2018)	<i>PHQ9 scale</i> -(Kroenke et al., 2001; Kroenke et al., 2010)
<i>Cathexis</i>	Silencing-the-Self (STS)	Women's use of self-silencing to conceal their true feelings out of desires to maintain relationships, avoid rejection, obtain the approval of significant others. This behavior contributes to a fall in self-esteem, and loss of self over time. (Abrams et al., 2018; Bruck-Segal et al., 2020; Jack, 1992)	<i>TSTS scale</i> (Jack, 1992)
<i>Sexual Division Power</i>	Sexual Relationship Power (SRP)	SRP is defined as a constraint on women who lack relationship control, have decreased decision-making dominance and a gender-based imbalance exists within a relationship and leads to increased vulnerability for women. (McMahon et al., 2015; Pulerwitz, 2000)	<i>SRPS scale (SRPS)</i> Combines the Relationship Control and Decision-Making Dominance factors (Pulerwitz, 2000)
HIV	HIV	The exposures, risk factors, and biological properties interacting to increase women's susceptibility to diseases, including HIV, a virus that attacks the body's immune system and can lead to AIDS if untreated. (Adapted from (CDC.gov, 2019b; Wingood & Clemente, 2002)	N/A
HIV Knowledge	HIV Knowledge	An individual's knowledge about HIV transmission, prevention, and consequences. (Carey & Schroder, 2002)	<i>Brief HIV Knowledge Questionnaire- HIV KQ-18-</i> (Carey & Schroder, 2002)
HIV Vulnerability	HIV Vulnerability	Safer sex behaviors (SSB) are the proxy outcome variable for HIV vulnerability and is defined as those sexually related practices to avoid or reduce the risk of exposure for HIV. Vulnerabilities include the social, psychological, cultural, structural, political, and economic factors that shape experience and impact STI, HIV transmission. (Dilorio et al., 1992; Parker, 2001; Pouget, 2017)	<i>Safe Sex Behavioral Questionnaire (SSBQ)</i> (Dilorio et al., 1992)

Research Purpose

Guided by the Theory of Gender and Power, the purpose of this research was to examine the influence of depressive symptoms, silencing the self (STS), and sexual relationship power (SRP) on the HIV vulnerability of AAW in the South.

Specific Aims and Research Questions

The aims and research questions of this study were to:

AIM 1: Characterize depressive symptoms, self-silencing, sexual relationship power, HIV knowledge, and safer sex behaviors among AAW living in the South.

RQ1.1: Among AAW living in the South, are there differences in depressive symptoms, self-silencing, sexual relationship power, HIV knowledge, and safer sex behaviors?

RQ1.2: Among AAW living in the South, what are the differences in depressive symptoms, self-silencing, sexual relationship power, HIV knowledge, and safer sex behaviors by participant subgroups based on education, employment, and socio-economic status?

AIM 2: Investigate the influence of depressive symptoms, self-silencing, HIV knowledge and sexual relationship power on safer sex behaviors among AAW living in the South.

RQ2.1: Among AAW living in the South, how well do the measures of depressive symptoms, self-silencing, HIV knowledge and sexual relationship power predict safer sex behaviors and which of the predictor variables are the best predictors of safer sex behaviors?

RQ2.2: Among AAW living in the South, are there differences in education, employment, or socio-economic status variables that enhance the predictive ability of the regression model?

CHAPTER 2: REVIEW OF THE LITERATURE

The purpose of this research project was to examine the influence of depressive symptoms, silencing the self (STS), and sexual relationship (SRP) on the HIV vulnerability of AAW in the South. Consistent with the purpose of this study but with a broader scope, the review of literature will critically examine the literature related to depressive symptoms, silencing the self (STS), sexual relationship power (SRP) on HIV vulnerability among women in the United States.

Literature Search

A search strategy was conducted by an Academy of Health Information Professional (AHIP) certified medical librarian on September 22, 2021, and again on February 20, 2023 to ensure no new research was missed due to the gap in time. The literature search was performed using the following electronic databases: CINAHL, MEDLINE, PsycINFO, SCOPUS, SocINDEX, and Sociological abstract. The date parameters, 2008-present, were used because 2008 was the first year in which the U.S. was able to estimate the number of new HIV infections each year based on a direct measure of new infections (Hall et al., 2008). The following key words were included in the search: *woman, women, female, HIV, sexual relationship power, gender power, silencing the self, depression*. MESH terms were created and entered in the six databases. Keywords used for all databases, and the full search strings are listed in Appendix J. The literature review research did not involve human subjects and thus did not require IRB approval.

The database search yielded a total of 9,168 articles, after duplicates ($N = 4,899$) were removed and 4,269 articles remained for screening. The remaining articles were imported into

Covidence, a web-based systematic review management platform designed to collate articles for review by researchers (Veritas Health Innovation Ltd., 2022). Use of Covidence increases rigor through the review and blinding process, reduces bias, allows for evidence to be presented in a reliable, structured, and reproducible method; and includes steps to search for relevant studies, extract data, assess the quality of the data, and then analyze and present the results (Kellermeyer et al., 2018). Inclusion criteria were articles that were: peer reviewed primary research articles conducted in the U.S., focused on cisgender heterosexual women ≥ 18 years old, had HIV risk and/or vulnerability as the dependent variable, and focused on depressive symptoms, STS, and SRP as independent variables. Exclusion criteria were articles that were: not peer reviewed or primary research, not conducted in the U.S., focused on adolescents, men, transgender women, or sex workers, had a sample that only included women living with HIV, and discussed SRP in the context of GBV/IPV, including rape. A PRISMA flow diagram (Figure 2) was created to outline the review process used for identification of articles (Page et al., 2021). The flow diagram illustrates the flow of information through the different phases of a review. It maps out the number of records identified, included, and excluded, and the reasons for exclusions.

A broad search was initially conducted using the search terms mentioned previously to ensure no pertinent citations were omitted. Conducting a broad search was preferable to missing critical citations examining depressive symptoms, silencing the self, SRP, and HIV vulnerability. When performing a broad search many articles unrelated to the purpose of the review may be retrieved, explaining the initially large quantity ($N = 4269$) of articles and the subsequent reduction ($n = 4138$) after inclusion and exclusion criteria were applied. During the first stage of the review process, two reviewers (W.G. and C.C.) independently screened each title, and abstract for eligibility ($n = 4269$). After the first stage review the authors met to discuss and

reconcile any discrepancies which were noted. Upon conclusion of this stage, 131 articles were eligible for full-text review. Each reviewer (W.G. and C. C.) independently reviewed the 131 full text articles applying the inclusion and exclusion criteria and 96 of those studies were excluded for the following reasons: not peer reviewed ($n = 27$), did not contain the independent variables of depressive symptoms, silencing the self and sexual relationship power, ($n = 25$), HIV risk/vulnerability was not the dependent variable ($n = 21$), the sample included only adolescents <18 years, sex workers, men, or transgender women ($n = 13$), sexual relationship power was examined in context of GBV/IPV, including rape ($n = 4$), not conducted in the U.S. ($n = 3$), and sample only included women living with HIV ($n = 3$). Upon conclusion of these steps, 35 articles were eligible for inclusion in the review (See Figure 2 – PRISMA diagram).

Data Analysis

Data analysis requires that data are ordered coded, categorized, and summarized into a unified and integrated conclusion about the research problem (Whittemore & Knafl, 2005). From the 35 articles the following data information was extracted and ordered by chronological dates, and categorized according to type of article (qualitative, quantitative, mixed methods).

Information was organized into a review matrix (Appendix K). The creation of folders and subfolders within the matrix allowed for organization and to gain clarity from the large quantity of material (Garrard, 2017). Each reviewer (W. G. and C. C.) independently assessed the 35 articles to determine level of evidence in the evidence hierarchy (Dearholt & Dang, 2012). The reviewers met to discuss and resolve any discrepancies in assessment of the studies and level of evidence determined. The studies were assessed on a prescribed rating scale for appraisal (Level I, II, III). Level I indicates RCT or experimental study, Level II indicates quasi experimental study, Level III indicate non-experimental, exploratory studies. Level of evidence for the articles

reviewed were all Level III, except one (Wingood et al., 2011) which was a Level I RCT. Articles were also assessed for demographic characteristics, study design, sample, setting, method, author(s), year, framework for study, and the variables of silencing the self, depression, and sexual relationship power. Additional categories were then created throughout the analysis process if relevant to the review purpose. Full access to the articles can be retrieved via databases or from the corresponding authors within the matrix.

Data Reduction

The primary sources included in this literature review were divided into subgroups according to level of evidence, region of the country (North, South, East, West) and characteristics stated above. The Theory of Gender and Power (TGP) by Connell (1987), as modified by Wingood & DiClemente (2002), was used as the guiding framework to define the terms, structure the categories, and organize the findings of this review, as a reliable and valid coding procedure enhances methodological rigor (Broome, 1993; Whittemore & Knafl, 2005).

Data display

Visual displays of the data were also created using matrices tables and keyword MeSH terms to enhance the visualization of the data across the primary sources.

Results

Study Design and Method of Data Collection

Studies that were included in this review were published from 2008- 2021, as 2008 was the earliest time period the U.S. began to capture data on incidences of HIV to estimate new infections per year (Hall et al., 2008). It was noted that 17 (49%) of the articles were published between 2008- 2014 and included in this review because of their inclusion of the study variables (depression, STS, SRP). The largest group of articles were published in 2015 and 2019; five and

six articles respectively. Other articles were published earlier than 2015, with just one that was published in 2021 (Bond et al., 2021). Twenty two articles (63%) were quantitative studies with the majority of these (n = 17) being correlational, cross-sectional designs (Altshuler & Rhee, 2015; Berenson et al., 2015; Bonacquisti & Geller, 2013; Campbell et al., 2009; Dévieux et al., 2015; Elifson et al., 2010; Gonzalez et al., 2010; Hahm et al., 2012; Harris, K. et al., 2009; Jacobs & Thomlison, 2009; Klein et al., 2008; Knudsen et al., 2008; McCabe et al., 2017; Patterson, 2019; Staton-Tindall et al., 2015; Stokes & Brody, 2019; Villar-Loubet, et al., 2016). There were three secondary analyses (Fang et al., 2019; Ramirez et al., 2018; Rinehart et al., 2017), one longitudinal cohort study (Brody et al., 2014), and one RCT (Wingood et al., 2011). Twelve studies (34%) were qualitative studies (Abreu et al., 2010; Bond et al., 2021; Bontempi, et al., 2008; Hahm et al., 2011; McLellan et al., 2013; Newsome et al., 2018; Odlum et al., 2019; Piper et al., 2019; Smith, K., 2015; Teitelman et al, 2010; Teitelman et al., 2015; Woolf-King & Maisto, 2015 al., 2015). The remaining article was a mixed methods study (Zukoski et al., 2011). Multiple conceptual frameworks were used to guide the research found in these studies. Thirty-one percent (n = 11) used the TGP as a framework (Dévieux et al., 2015; Elifson et al., 2010; Hahm et al., 2011; Hahm et al., 2012; Jacobs & Thomlison, 2009; Odlum et al., 2019; Piper et al., 2019; Rinehart et al., 2017; Smith, K., 2015; Wingood et al., 2011; Woolf-King & Maisto, 2015) while other articles were atheoretical (Altschuler & Rhee, 2015; Abreu et al., 2010; Berenson et al., 2015; Bonacquisti & Geller, 2013; Bond et al., 2021; Campbell et al., 2009; Gonzalez-Guarda et al., 2010; Harris, K. et al., 2009; Stokes & Brody, 2019). Some articles did not use a defined theoretical framework to guide the study but framed the importance of future research considerations utilizing a feminist perspective and intersectionality focus (Bond et al., 2021), or the impact gender, power, and relationship dynamics or TGP have on women

(Campbell et al., 2009; Harris, K. et al., 2009; Teitelman et al., 2010 and 2015; Villar-Loubet et al., 2016). Various other theoretical frameworks were used within individual studies to support the research, such as: Grounded theory (Bontempi et al. 2008); Syndemic theory (Fang et al., 2019); Theory of reasoned action, Theory of planned behavior (Klein et al., 2008; Smith, K., 2015); Health belief model, Relational theory (Knudsen et al., 2008); Self in relation (McCabe et al., 2017); Sociological theory, Social construction framework (McLellan et al., 2013); PEN-3 (Newsome et al., 2018); Social cognitive theory (Jacobs & Thomlison, 2009; Ramirez- Ortiz et al., 2018; Wingood et al., 2011); Social Ecological Model (Piper et al., 2019), Theory of Reasoned Action, Social identity and Ethnic identity (Patterson, 2019); and Social exchange theory, and Resource theory (Zukoski et al., 2011).

The studies used various measures to assess the primary independent variables of interest: depressive symptoms, STS, and SRP. There was only one study which measured all three variables (Brody et al., 2014). Depressive symptoms were measured using three different scales. The Center for Epidemiological Studies Scale (CES-D) was the measurement used to assess depressive symptoms among participants in the majority of articles (Brody et al., 2014; Dévieux et al., 2015 et al., 2015; Elifson et al., 2010; Gonzalez-Guarda et al., 2010; Klein et al., 2008; McCabe et al., 2017; Villar-Loubet et al., 2016; Staton et al., 2015). The Depression and Anxiety Stress Scale (Elifson et al., 2010; Klein et al., 2008), and the Global Appraisal of Individual Needs Scale (Staton-Tindall et al., 2015) were the other tools used for measuring depressive symptoms. To measure SRP, thirteen articles used the original measurement developed by Pulerwitz et al. (2000), which is the only tool that specifically measures sexual relationship power dynamics (Altschuler & Rhee, 2015; Berenson et al., 2015; Bonacquisti & Geller, 2013; Brody et al., 2014; Campbell et al., 2009; Dévieux et al., 2015; Hahm et al., 2012; Harris, K. et

al., 2009; Knudsen et al., 2008; Patterson, 2019; Stokes & Brody, 2019; Villar-Loubet et al., 2016; Zukoski et al., 2011). To capture STS variable, four articles (Brody et al., 2014; Jacobs & Thomlison, 2009., 2009; Ramirez-Ortiz et al., 2018; Stokes & Brody, 2019) used the tool developed by Dana Jack & Dill (1992). Several studies which specifically focused on Hispanic women utilized the acculturation scale (Gonzalez-Guarda et al., 2010; Patterson, 2019; Zukoski et al., 2011).

Select Characteristics of the Study Samples

The sample sizes of the studies ranged from 10 - 33,705 participants; the upper limit for the largest sample is reflective of the three secondary analyses studies (Fang et al., 2019; Ramirez et al., 2019; Rinehart et al., 2017). All study samples included women who were HIV negative, an a priori inclusion criterion, to avoid confounding with the higher rates of depressive symptoms found among people living with HIV (Simoni et al., 2011). Of the studies reviewed, three sampled males, however the data was disaggregated by the study authors, so assessment of the findings related to female participants was possible for the purpose of this review (Fang et al., 2019; Woolf-King & Maisto, 2015; Zukoski et al., 2011).

Ten studies included White women within the sample demographics (Altschuler & Rhee, 2015; Berenson et al., 2015; Bonacquisiti et al., 2013; Campbell et al., 2009; Dévieux et al., 2015; Elifson et al., 2010; Fang et al., 2019; Jacobs & Thomlison, 2009., 2019; Knudsen et al., 2008; Staton-Tindall et al., 2015). Of the studies reviewed there was representation from a diverse group of women to include Latinas, Asian/APIs, Native Americans, and AAs. However, Hahm et al., 2011 and 2012 were the only studies which focused exclusively on Asian/API individuals. There was one additional study that included Asian women as well as Native American women as part of the study sample (Altschuler & Rhee, 2015).

In this review there were several studies which included Latina women as the priority population or part of the sample population (Abreu et al., 2010; Altschuler & Rhee, 2015; Berenson et al., 2015; Dévieux et al., 2015 et al., 2015; Fang et al., 2019; Gonzalez-Guarda et al., 2010; Jacobs & Thomlison, 2009., 2009; McCabe et al., 2017; McLellan et al., 2013; Odlum et al., 2019; Ramirez-Ortiz et al., 2018; Rinehart et al., 2017; Villar-Loubet et al., 2016; Wingood et al., 2011; Zukoski et al., 2011). The largest ethnicity represented were studies with AAW in the sample groups or that had samples primarily comprised of AAW (Altschuler & Rhee, 2015; Berenson et al., 2015; Bonacquisiti & Geller, 2013; Bond et al., 2021; Bontempi et al., 2008; Brody et al., 2014; Campbell et al., 2009; Dévieux et al., 2015 et al., 2015; Elifson et al., 2010; Harris, K. et al., 2009; Jacobs & Thomlison, 2009., 2009; Klein et al., 2008; Knudsen et al., 2008; McLellan et al., 2013; Newsome et al., 2018; Patterson, 2019; Piper et al., 2019; Rinehart et al., 2017; Smith et al., 2015; Stokes & Brody, 2019., 2019; Teitelman et al., 2010; Teitelman et al., 2015; Woolf-King & Maisto, 2015). Three studies focused on the population of women who were specifically of Caribbean descent (Jacobs & Thomlison, 2009., 2009; Patterson, 2019; Stokes & Brody, 2019). There was one study that collected data specifically from Historically Black Colleges and Universities (HBCUs; Stokes & Brody, 2019) and another explored the differences solely between AAW and AA Jamaican women and the study variables (Patterson, 2019). Patterson acknowledged HIV research has furthered knowledge of HIV among AAW/Black women, but little is known about what or if cultural differences exist among different groups of AAW/Black women in the U.S. (Patterson, 2019).

The studies were conducted in several U.S. geographic locations. The state represented most frequently within the studies was Florida, specifically the Miami area (Dévieux et al., 2015 et al., 2015; Gonzalez-Guarda et al., 2010; Jacobs & Thomlison, 2009., 2009; McCabe et al.,

2017; Ramirez-Ortiz et al., 2018; Rinehart et al., 2017; Villar-Loubet et al., 2016). Other Southern states represented included one study in rural NC/Alabama (McLellan et al., 2013), Georgia (Elifson et al., 2010; Klein et al., 2008; Piper et al., 2019); Kentucky (Staton et al., 2015), North Carolina (Bontempi et al., 2008), and Tennessee/Louisiana (Fang et al., 2019) and Texas (Rinehart et al., 2017). The studies conducted in the Northeast/East region included: Boston, Massachusetts (Hahm et al., 2011 and 2012; Stokes & Brody, 2019), Connecticut (Patterson, 2019), New York City (Berenson et al., 2015; Bond et al., 2021; Rinehart et al., 2017; Smith, K., 2015), and Philadelphia (Bonacquisti & Geller, 2013). One study was conducted in the West: Los Angeles, California (Altschuler & Rhee, 2015)]. The studies conducted in the Mid-West included: Chicago (Brody et al., 2014; Newsome et al., 2018) and Michigan (Harris, K. et al., 2009). Finally, one study was conducted in Puerto Rico (Abreu et al., 2010) and the rest included multiple U.S. geographic regions (Campbell et al., 2009; Odlum et al., 2019; Woolf-King & Maisto, 2015; Knudsen et al., 2008).

Synthesis of Findings and Outcomes

The findings were synthesized to best represent how SRP, STS, and depressive symptoms are related to HIV vulnerability among women. Each of these concepts are embedded within the structures identified in the TGP framework: Sexual Division of Labour, Sexual Division of Power, Cathexis, and their relationship with HIV vulnerability among women.

Sexual Division of Labor: Socioeconomic Exposures

Poverty, Education

Based on the demographic information for the women in these studies which assessed income, most of the women can be classified as either living in deep poverty (low income), at poverty level, on public governmental assistance, homeless, part of the working poor

(un/underemployment) or receive money from a partner. The exception is a sample of women with higher incomes equal or more than 75K in the Fang et al., 2019 article. Interestingly, the studies with women that had the least available personal/household income were studies with women of color, and of these a large percentage were AAW. Twenty-three studies had AAW who had low income/poverty level income within the demographic sample of the population (Altschuler & Rhee, 2015; Berenson et al., 2015; Bonacquisti et al., 2013; Bond et al., 2021; Bontempi et al., 2008; Brody et al., 2014; Campbell et al., 2009; Dévieux et al., 2015; Elifson et al., 2010; Harris, K. et al., 2009; Jacobs & Thomlison, 2009; Klein et al., 2008; Knudsen et al., 2008; McLellan et al., 2013; Newsome et al., 2018; Patterson, 2019; Piper et al., 2019; Rinehart et al., 2017; Smith, K., 2015; Stokes & Brody, 2019; Teitelman et al., 2010; Teitelman et al., 2015; Woolf-King & Maisto, 2015).

For those studies that evaluated educational attainment, most of the women in the studies were educated at less than high school/through high school level. Eleven sample groups of women had graduated high school or had some college (Bond et al., 2021; Brody et al., 2014; Campbell et al., 2009; Dévieux et al., 2015; Jacobs & Thomlison et al., 2009; Knudsen et al., 2008; Rinehart et al., 2017; Teitelman et al., 2010; Teitelman et al., 2015; Villar-Loubet et al., 2016; Zukoski et al., 2011). Three studies had women who graduated college (Newsome et al., 2018; Odlum et al., 2019) or held an advanced degree (Piper et al., 2019).

Income and education are socioeconomic factors for women and increase risk for poverty and HIV (Durvusala, 2018). Along with these socioeconomic exposures, and in the presence of violence/substance usage one study discussed the intersectionality of food insecurity as an additional socioeconomic exposure, that led to greater anal sex in the women, both further impacting woman's risk for HIV (Villar-Loubet et al., 2016). Campbell et al. (2009) found that

women who relied on economic support from a partner had 60% more unprotected sexual encounters than women who did not need support.

Sexual Division of Power

Substance Use

Several studies found substance use limited a woman's decision-making abilities, reduced power to use or not use condoms, further increasing HIV risk (Gonzalez-Guarda et al., 2010; Hahm et al., 2011; Knudsen et al., 2008; McCabe et al., 2017; Rinehart et al., 2017). In Asian Pacific Islander women (Hahm et al., 2011) over half of the women reported use of alcohol or substances during sex, and these women also had more complex sexual histories thereby further increasing HIV risk. Additionally, among Hispanic women several studies discussed acculturation and the impact for Hispanic women with increased alcohol use/abuse and intravenous drug use, but also acknowledged that the women may practice more use of condoms during the encounters (Abreu et al., 2010; Villar-Loubet et al., 2016; Zukoski et al., 2011).

Physical abuse

Physical abuse/IPV can include physical abuse, sexual coercion, emotional and psychological abuse, and stalking (CDC.gov, 2021a). Several studies found physical abuse was shown to affect condom use, and often operates within a difference in power in the relationship (Abreu et al., 2010; Berenson et al., 2015; Bonacquisti et al., 2013, Dévieux et al., 2015 et al., 2016; Gonzalez-Guarda et al., 2010). Often physical abuse may be worsened in the presence of alcohol or substance use. Among women with substance use history, intimate partner violence tended to co-exist (Gonzalez-Guarda et al., 2010; Hahm et al., 2011; Knudsen et al., 2008; McCabe et al., 2017; Rinehart et al., 2017). One study with Hispanic women found that Hispanic women with greater income were more likely to report drug abuse (Gonzalez-Guarda et al.,

2010), and additionally half of these participants reported being victims of at least one form of abuse (physical, sexual and/or psychological) during childhood and adulthood (Elifson et al., 2010; Gonzalez-Guarda et al., 2010; Klein et al., 2008). Psychological abuse often accompanies other forms of violence (Gonzalez-Guarda et al., 2010).

Sexual Relationship Power (SRP)

Eleven studies utilized the TGP as a framework (Dévieux et al., 2015 et al., 2015; Elifson et al., 2010; Hahm et al., 2011; Hahm et al., 2012; Jacobs & Thomlison, 2009; Odlum et al., 2019; Piper et al., 2019; Rinehart et al., 2017; Smith, K., 2015; Wingood et al., 2011; Woolf-King & Maisto, 2015). The framework as defined by Wingood & DiClemente (2002) was the most utilized version of the framework. The studies identified that higher physical exposures experienced by women included physical/sexual abuse, partners disapproval or refusal to use condoms during sex for protection, and sexual relationship power ([SRP]; Wingood & DiClemente, 2002) impacted women and increased HIV risk (Dévieux et al., 2015 et al., 2015; Elifson et al., 2010; Hahm et al., 2011; Hahm et al., 2012; Jacobs & Thomlison, 2009; Odlum et al., 2019; Piper et al., 2019; Rinehart et al., 2017; Smith, K., 2015; Wingood et al., 2011; Woolf-King & Maisto, 2015). Studies noted that SRP violence experienced within romantic relationships operates within a gender power imbalance, through having a high-risk steady partner, or a partner who disapproves of practicing safer sex, and a lack of access to drug treatment or HIV prevention education (Berenson et al., 2015; Bonacquisti & Geller, 2013; Campbell et al., 2009; Dévieux et al., 2015 et al., 2015; Elifson et al., 2010; Gonzalez-Guarda et al., 2010; McCabe et al., 2017).

SRP expressed within a woman's dyadic relationship operates on a psychological level (Berenson et al., 2015). As such, women in some studies discussed the existence of SRP even

when they didn't know what to call it or how to name it (Altschuler & Rhee, 2015; Berenson et al., 2015; Bonacquisti & Geller, 2013; Brody & et al., 2014; Campbell et al., 2009; Dévieux et al., 2015 et al., 2015; Hahm et al., 2012; Harris, K. et al., 2009; Knudsen et al., 2008). This imbalance of power was expressed in more than half of the articles by the women participants and found that it was a factor as women tried to make decisions to use or not use condoms and men became angry, violent, coercive to encourage use of substances or alcohol for women to comply or left (Abreu et al., 2010; Altschuler & Rhee, 2015; Berenson et al., 2015; Bonacquisti & Geller, 2013; Bontempi et al., 2008; Brody et al., 2014; Campbell et al., 2009; Dévieux et al., 2015 et al., 2015; Gonzalez-Guarda et al., 2010; Hahm et al., 2011; Hahm et al., 2012; Harris, 2009; Knudsen et al., 2008; McCabe et al., 2017; Patterson, 2019; Stokes & Brody, 2019; Villar-Loubet et al., 2016; Woolf-King & Maisto, 2015; Zukoski et al., 2011). Because women cannot control the wearing of male condoms, this dilemma was found to put women at a disadvantage for the use of condoms, especially, in the presence of a power imbalance (Bonacquisti & Geller, 2013; Fang et al., 2019). Women's risk for contracting HIV in heterosexual relationships was found to be increased when they have low power in their relationships and society, such as, when they are financially dependent, food insecure, suffer from depression/mental health challenges, use of substances, use of silencing-the-self to cope, and lack control over sexual/ reproductive decision-making (Berenson et al., 2015; Bonacquisti & Geller, 2013; Hahm & Lee, 2012; Villar-Loubet et al., 2016).

Cathexis

Cathexis is defined as those structures of emotional, affective attachments women have with men, and the resulting social norms which structure women's lives. One way this structure manifests for women is through the social norms of appropriate gendered behaviors and

sexuality for women. Among the women in the studies various cathexis were expressed through culture/gender norms, silencing the self, depression, religiosity, and several other findings which will be expanded upon in the following sections.

Cultural/Gender Norms

Several social exposures were specifically noted among women. First, the impact of cultural and gender norms may condition some women to operate outside of what may be in their best interests. This was a recurring theme expressed in some of the studies; particularly among women of color (Altschuler & Rhee, 2015; Berenson et al., 2015; Bonacquisti & Geller, 2013; Brody et al., 2014; Campbell et al., 2009; Dévieux et al., 2015 et al., 2015; Gonzalez-Guarda et al., 2010; Hahm et al., 2012; Jacobs & Thomlison, 2009; Harris, K. et al., 2009; Klein et al., 2008; Knudsen et al., 2008; McCabe et al., 2017; Patterson, 2019; Ramirez-Ortiz et al., 2018; Staton-Tindall et al., 2015; Stokes & Brody, 2019; Villar-Loubet et al., 2016; Woolf-King & Maisto, 2015; Zukoski et al., 2011). Secondly, in Hispanic and Asian cultures, women reported that they were expected to be submissive, let the man lead, and not to be confrontational (Bond et al., 2021; Brody et al., 2014; Gonzalez-Guarda et al., 2010; Hahm et al., 2012; Ramirez-Ortiz et al., 2018; Villar-Loubet et al., 2016; Wingood et al., 2011). Hispanic women spoke of *machismo and marianismo*, traditional gender role practices in the Latino culture (Gonzalez-Guarda et al., 2010; Ramirez-Ortiz et al., 2018; Villar-Loubet et al., 2016). Asian women did not have a name for the gender role practice, but acknowledged cultural expectations for women included submissiveness, and violation of this norm may bring shame to the individual as well as her entire family (Hahm et al., 2011; Hahm et al., 2012). Lastly, in several studies women perceived their place in society to be lower than men, afforded men more control within the society, and experienced decreased SRP (Gonzalez-Guarda et al., 2010; Hahm et al., 2012;

Ramirez-Ortiz et al., 2018; Villar-Loubet et al., 2016). These expectations may make it difficult for Asian and Hispanic women to negotiate condom use and other safer sex behaviors with their male partners, increasing their risk for HIV. Bond et al. (2021) discussed the intersectionality found among AAW and the impact of sexual scripts and stereotypes. These scripts and stereotypes can have the effect of generating negative messaging for some AAW. Potentially the messages can become internalized creating issues related to low self-esteem and mental health challenges (Bond et al., 2021; Prather et al., 2018). From the historical, societal, and systemic stereotypes experienced by AAW, these events can lead some women to adapt to gender expectations by assuming more gender/cultural normative behaviors of submissiveness or acceptance of other behaviors. The behaviors women mentioned included having less power, increased competition among women (performing activities), and having to trust that the male partner was being monogamous (Campbell et al., 2009; Elifson et al., 2008; Newsome et al., 2018; Odlum et al., 2019).

Fifteen studies, including three studies from within the last five years, utilized or mentioned the TGP as a framework, acknowledging the importance and impact gender exerts in the lives and relationships of women (Brody et al., 2014; Campbell et al., 2009; Dévieux et al., 2015; Elifson et al., 2010; Gonzalez-Guarda et al., 2010; Hahm et al., 2011; Hahm et al., 2012; Jacobs & Thomlison, 2009; Odlum et al., 2019; Piper et al., 2019; Rinehart et al., 2017; Smith, K., 2015; Teitelman et al., 2010; Wingood et al., 2011; Zukoski et al., 2011).

Silencing the Self

Several studies identified that gender roles adopted by women within relationships can impact relationships and potentially affect overall mental health and self-esteem for women (Altschuler & Rhee, 2015; Brody et al., 2014; Jack & Dill, 1992). To cope, women used

silencing the self (STS) behaviors as a mechanism and strategy to protect themselves (Brody et al., 2014; Jacobs & Thomlison, 2009; Ramirez et al., 2018; Stokes & Brody, 2019).

Alternatively, two studies reported rejection based self-silencing or rejection sensitivity (which correlated with STS); as women adopted cultural gender norms in behavior, they also demonstrated had less power (Berenson et al., 2015; Bond et al., 2021). Women with increased STS behaviors had decreased self-efficacy and condom use within relationships (Brody et al., 2014; Jacobs & Thomlison, 2009; Ramirez-Ortiz et al., 2018; Stokes & Brody, 2019). Yet, of the articles examined, only four specifically discussed silencing the self and explored this as a variable to measure (Brody et al., 2014; Jacobs & Thomlison, 2009; Ramirez-Ortiz et al., 2018; Stokes & Brody, 2019). Other findings revealed STS behavior can negatively impact choice (Altshuler & Rhee, 2015; Hahm et al., 2012; Jacobs & Thomlison, 2009; Smith, K., 2015), increase risk for depression (Brody et al., 2014; Devieux et al., 2016; Elifson et al., 2010; Fang et al., 2019; Gonzalez et al., 2010; Klein et al., 2008; McCabe et al., 2017; Staton-Tindall et al., 2015; Villar-Loubet et al., 2016), and cause women to engage in risky behaviors, such as decreased use of condoms (Stokes & Brody, 2019), thus increasing risk for HIV.

Depression/Depressive Symptoms

Depression is a major health concern and yet was only noted within eight studies for how it impacts women and their choices (Brody et al., 2014; Devieux et al., 2015 et al., 2015; Elifson et al., 2010; Gonzalez et al., 2010; Klein et al., 2008; McCabe et al., 2017; Staton-Tindall et al., 2015; Villar-Loubet et al., 2016). Increased rates of depressive symptoms were noted to be a key variable that influenced women's risky behaviors; in other words, the more depressive symptoms expressed by women, the less condom use was noted (Brody et al., 2014; Devieux et al., 2015 et al., 2015; Elifson et al., 2010; Gonzalez et al., 2010; Klein et al., 2008; McCabe et al., 2017;

Staton-Tindall et al., 2105; Villar-Loubet et al., 2016). In a study of incarcerated Appalachian women, a population of women who have multiple needs including mental health, history of trauma/abuse, and substance usage, as much as 80% of the women self-reported depressive symptoms (Staton-Tindall et al., 2015). When depressive symptoms are coupled with STS, women may have more increased rates of depression further impacting risk for HIV (Brody et al., 2014; Carr et al, 2014; Jack & Dill, 1992; Jackson, 2017). The findings from the Dévieux et al (2015) study indicate that having a history of mental health problems is associated with increased barriers to using condoms, and it is mediated by both a current state of depression and reduced power in their current relationships (Dévieux et al., 2015). Increased rates of depression were also related to STS and SRP (Brody et al., 2014; Dévieux et al., 2015 et al., 2015). In several studies it was noted that either STS, SRP, or depression were found to impact women risk, through increasing barriers to safer sex, or decreased use of condoms (Berenson et al., 2015; Bonacquisti et al., 2013; Bond et al., 2021; Brody et al., 2014; Campbell, 2009; Devieux et al., 2016). However, just eight of the studies isolated depression as a key variable in the studies (Brody et al., 2014; Dévieux et al., 2015 et al., 2015; Elifson et al., 2010; Gonzalez-Guarda et al., 2010; Klein et al., 2008; McCabe et al., 2017; Staton-Tindall et al., 2015; Villar-Loubet et al., 2016).

Religion

Religiosity is practiced within various cultures and acts as an important support resource, particularly among women of color. Three studies identified religion and the link to power imbalances and empowerment among women (Odlum et al., 2019; Patterson, 2019; Piper et al., 2019). In four studies that included the following population of Asian-Pacific Islanders (API), Hispanic, and AAW, religion was directly assessed (Hahm et al., 2012; Odlum et al., 2019;

Patterson, 2019; Piper et al., 2019). Among API in Hahm et al. (2012) quantitative study, religion as an individual factor in participants had no effect on SRP (Hahm et al., 2012). However, among AAW and Hispanic women religion influenced SRP and whether women engaged in vaginal/anal sex which may increase HIV risk (Altschuler & Rhee, 2015; Piper et al., 2019; Villar-Loubet, 2016). These two populations expressed the importance of religion in their lives, and the greater the religiosity the greater protection against depression was found in one group of AAW (Klein et al., 2008), and less risky behaviors were found in another group of younger AAW participants (Klein et al., 2008). As a group, AAW represent as much as 66-88% of AA church congregations in the U.S. (Piper et al., 2019). Religiosity among both Hispanic women and AAW was seen to increase women's adherence to traditional gender norms (Odlum et al., 2019; Piper et al., 2019). The only study of community churches found that Southern faith-based organizations may pose a challenge for women who want to be more empowered and make safer sex-based choices than religion may allow (Piper et al., 2019).

Lack of Perceived Risk/Midlife

HIV does not discriminate based on age, and many women contract HIV from their heterosexual partners; however, many women aged 50 and older fail to acknowledge they are at risk for HIV (Smith, K., 2015). Married versus single women did yield some evidence for HIV risk in the studies in that married women in one study were found to practice condomless sex at twice the rate of single women (Elifson et al., 2010). Additionally, women who are older may have less experience with condom use and application than younger women (Smith, K., 2015). Nineteen studies which included a sample of women who may be divorced, older single women/never married, or widowed noted this population did not always recognize risks in their relationships (Altschuler & Rhee, 2015; Abreu et al., 2010; Berenson et al., 2015; Bontempi et al.,

2008; Brody et al., 2014; Fang et al., 2019; Gonzalez-Guarda et al., 2010; Harris, K. et al., 2009; Jacobs & Thomlison, 2009, 2009; Klein et al., 2008; McLellan et al., 2013; Odlum et al., 2019; Patterson, 2019; Piper et al., 2019; Ramirez-Ortiz et al., 2018; Rinehart et al., 2017; Smith, K., 2015; Villar-Loubet et al., 2016; Woolf-King & Maisto, 2015). Three studies specifically focused on older/midlife women of color without including younger women in the sample; a diverse population of women (Jacobs & Thomlison, 2009., 2009), Hispanic Dominican women (Odlum et al., 2019) and AAW (Smith, K., 2015). In Jacobs (2009) study, significant relationships were found between the psychosocial variables of self-esteem, self-silencing, and sexual assertiveness, where age and ethnicity were found to contribute to the variance and self-silencing significantly influenced safer sex behaviors. Additionally, within this population of women the focus of their gynecological care was primarily on pregnancy if they were still having periods, and other STIs, rather than risks for HIV. Other findings reveal that the women who were married or in long-term monogamous relationships, felt they were not at risk for HIV because of the marital/main partner status of the relationship and there was no need to use condoms, (Elifson et al., 2010; Ramirez-Ortiz et al., 2018; Smith, K., 2015). Additionally, Smith (2015) found that women considered having sex with their marital/main partner afforded them protection from HIV (80%) despite the partner having risk. Yet, three of the women in this study acknowledged the continued use of condoms because there was a large “trust factor” which must be granted. In other studies women also acknowledged an awareness of behaviors that placed them at risk, because of a lack of control they could not change the partners behavior (Abreu et al., 2010; Bonacquisti & Geller, 2013; Bond et al., 2021; Dévieux et al., 2015 et al., 2015).

Discussion

The literature reviewed explored several factors which impact women, women's lives, and relationships, and their increased risk for HIV within the United States (U.S.). Women are vulnerable for HIV throughout their lives through relational decision-making processes. The decision-making process is further impacted by several factors related to gender, race/ethnicity, power, and geography. These factors may exhibit behaviorally and psychologically in women as depression, silencing the self, sexual relationship power.

Women who are less supported and have multiple stressors affecting their daily quality of life have more instances of unprotected sex (Berenson et al., 2015; Dévieux et al., 2016; Hahm et al., 2011). These stressors may include poverty, food insecurity, homelessness, incarceration, low educational status, addiction, as well as gender, racism, and systemic issues that impact women's lives (Berenson et al., 2015; Hahm et al., 2011; Harris, K. et al., 2009; Villar-Loubet et al., 2016). These are a few of the stressors that may exhibit themselves in the emotional, psychological, behavioral choices that women may find themselves dealing with in life. In the study's authors acknowledged the impact of intersectionality which exists among women of color, especially AAW (Altschuler & Rhee, 2015). This intersection of gender and race are tightly bound together and must be considered when assessing risk (Bond et al., 2021; Harris, K. et al., 2009; Smith, K., 2015) among women.

Certain geographical regions have higher rates of new HIV diagnoses than other areas. The Southern U.S. has the highest rates of new HIV diagnoses and has higher rates of poverty (Reif et al., 2014; Reif et al., 2016; Reif et al., 2017). Among the studies reviewed populations of women located in Southern regions were from various states. The five states which strictly focused on populations located in the South were Alabama, Atlanta, Florida, Kentucky, North

Carolina (McLellan et al., 2013; Elifson et al., 2010; Klein et al., 2008; Piper et al., 2019; Staton-Tindall et al., 2015). Other studies included populations of women in Louisiana, Tennessee, and Texas (Fang et al., 2019; Rinehart et al., 2017) in addition to states not situated in the South. The Southern U.S. traditionally is considered "The Bible Belt" and encompasses many of the states experiencing an increase in HIV diagnosis; as such, the traditions, and mores governing sex have historically been more rigid (Brunn et al., 2011). Additionally, because the highest group of new HIV diagnoses are in the South, religion may play a crucial role in the lives of those who reside in this traditionally religious region and may be integral towards prevention efforts.

According to current data from CDC, nine states in the Southern U.S. are the current target focus for the Ending HIV Epidemic (EHE) initiative by 2030 (Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Texas) because of high prevalence of HIV in those areas (CDC, 2022b; CDC, 2023). While the studies reviewed drew on populations from the EHE target states, greater work remains to help meet the goal.

Lesser-known factors which impact a woman's risk include depressive symptoms, STS, and SRP as women seek to develop or maintain relationships and cope with the stressors. Women's psychological well-being can be affected and lead women to participate in or place themselves in situations that increase risk for HIV.

There exists a gender differential in which women live their lives and this differential is exhibited within women's sexual relationship dynamics. To understand this, we must first acknowledge its existence and the potential for risk it poses on women's health and increased HIV exposure for women (Wingood & DiClemente, 2000). Using the Theory of Gender and Power (Connell, 1987), silencing the self, depressive symptoms, and sexual relationship power allows us to explore these as risk factors impacting HIV risk in women. The more aligned

women are with traditional gender roles, the less empowered they may be, and the more likely they are to practice unsafe sex practices (Bond et al., 2021). This was a frequent finding in studies among the Hispanic (machismo/marianismo) and Asian Pacific Islander (submissiveness/shame) cultures (Gonzalez-Guarda et al., 2010; Hahm et al., 2011; Hahm et al., 2012; Ramirez-Ortiz et al., 2018; Villar-Loubet et al., 2016; Wingood et al., 2011). Women identified the difficulty in protecting themselves in the presence of traditional gender role expectations (Gonzalez-Guarda et al., 2010; Hahm et al., 2011; Hahm et al., 2012; Ramirez-Ortiz et al., 2018; Villar-Loubet et al., 2016; Wingood et al., 2011). While AAW may not have a term for the impact of relationships mediated by gender, there may exist a similar sociocultural phenomenon constructed by power imbalances. One crucial reason is the structural forces in the society may restrain AAW from being able to negotiate safer sex because of the gender imbalance (Altschuler & Rhee, 2015; Berenson et al., 2015; Bonacquisti & Geller, 2013; Villar-Loubet et al., 2016). This is particularly important to understand regarding HIV risk for AAW, coupled with issues related to mass incarceration, systemic racism, prior trauma, and other determinants affecting AAs; as well as other women of color (Harris, K. et al., 2009; Hahm et al., 2011). Women with higher SRP are more apt to use protection, thereby decreasing HIV risk (Harris, K. et al., 2009). If a woman has low SRP, it may prevent her from feeling empowered to protect herself from risk, despite understanding that risk may exist (Abreu et al., 2010; Bonacquisti et al., 2013; Newsome et al., 2018). This power dynamic also has a strong effect on the psychological distress women experience (Harris, K. et al., 2009).

One-way psychological distress manifests itself through depressive symptoms. Women are twice as likely to experience depression as men, and AAW have even more significant rates of depression than their other female counterparts; although research on depression in women in

general lags far behind (Carr et al, 2014; Mayo Clinic, 2019; Mayo Clinic, 2021; Villarroel & Terlizzi, 2020). Many participants utilized various methods to try to deal with the depressive symptoms or stressors by use of alcohol, substances, “going along to get along”, and use of religion (Brody et al., 2014; Dévieux et al., 2016; Elifson et al., 2010; Gonzalez-Guarda et al., 2010; Klein et al., 2008; McCabe et al., 2017; Staton-Tindall et al., 2015). As a result of the psychological distress, such as depression, women may utilize a number of coping mechanisms, including STS. STS develops in some women out of a desire to maintain relationship with the partner (Brody et al., 2014; Jacobs & Thomlison, 2009; Ramirez-Ortiz et al., 2018; Stokes & Brody, 2019). As women seek to do this, it places them at risk by negating individual wants, needs, desires, and placing themselves last in the care process. Women realize that condom use is not always within their control and that the power imbalance places them at a disadvantage. This may help explain why women who understood their partners elevated risk, did not use protection, or leave the relationship (Berenson et al., 2015). Dévieux et al (2016) found women with higher depressive symptoms expressed feeling closer to their partner through condomless sex (Dévieux et al., 2016). Constantly suppressing one’s thoughts, feelings, desires can manifest as depressive symptoms exhibited through silencing the self (Jack & Dill, 1992; Wardlaw & Shambley-Ebron, 2019).

As women find themselves at midlife and older, as well as some who were married, or in longer-term relationships, there is an inability to always recognize their risk for HIV within these seemingly committed environments (Altschuler & Rhee, 2015; Elifson et al., 2010; Jacobs & Thomlison, 2009; Odlum et al., 2019). More importantly, some older women, despite being from communities in which HIV risk is quite prevalent are unaware of their risk. This reveals that women are not always aware of what risk may or may not look like for themselves as they age.

Implications and Recommendations for Future Study

The research surrounding depression among women of color is lacking, especially considering the multiple stressors in which they live (Berenson et al., 2015; Hahm et al., 2011). More research is needed to further evaluate and confirm study results apply to women in the Southern U.S. and more specifically AAW in the South given the higher prevalence in this population of women.

The articles reviewed were primarily nonexperimental, descriptive correlational designs suggesting a lack of diversity in methodological approaches in this topical area. Extending the qualitative research approach may allow for more in-depth conversations with participants to elicit additional information that may provide greater knowledge of STS, SRP, and depressive symptoms and their effects on women, especially among women of color.

Within the literature reviewed, many of the studies focused on women from within lower socioeconomic status. There exists a need for future studies to explore whether depression, STS, and SRP are dynamics that exist independent of socioeconomic status. This is important and can be useful when planning future prevention interventions for women and conversations conducted with women from various ethnic groups.

Women in the U.S. are not a monolithic group and treating them as such may not allow for culturally and gender specific information to be discovered. Gender and sexually normative expectations, behaviors, and roles may differ across the cultures. Among different ethnicities lie various cultural norms which must be taken into consideration as HIV prevention strategies are developed (Patterson, 2017).

Given that the Southern U.S. is the area with higher rates of new diagnosis more research in this geographical region is needed. Of the nine most impacted Southern states just half were

represented in the articles reviewed (Bonacquisti et al., 2013; Bontempi et al., 2008; Campbell et al., 2009; Dévieux et al., 2015; Elifson et al., 2010; Fang et al., 2019; González-Guarda et al., 2010; Jacobs & Thomlison, 2009; Klein et al., 2008; Knudsen et al., 2008; McCabe et al., 2017; McLellan et al., 2013; Piper et al., 2019; Ramirez-Ortiz et al., 2018; Rinehart et al., 2017; Staton-Tindall et al., 2015; Villar-Loubet et al., 2016; Wingood et al., 2011). Ten of the articles were written since 2017, perhaps due to the heightened awareness of social and structural inequities communities of color face and the geographical factors that influence the distribution of those inequities. It is not known if and how SRP, STS, and depression affect women within the Southern U.S. Additionally, does educational attainment or other demographics affect women who reside in the Southern U.S. differently? AAW have higher rates of advanced education than their male counterparts and we may not fully understand how or if the dynamics of SRP, STS, and depression impact this subgroup of women (Anthony et al., 2021). In the U.S. we know that women are twice as likely to suffer and be diagnosed with depression than men (Mayoclinic.org, 2019). However, women of color within the U.S. may not suffer more mental health frequencies than the rest of the population; but due to the challenges and multiple traumas faced by people of color current research may not necessarily reflect this fact when assessing women's health (mhanational.org). The effects of poverty, oppression, racism takes a daily toll on the mental health of people of color (mhanational.org). The recent Covid-19 epidemic has illuminated the mental health struggles of people in the US. However, more current research in the mental health area can help improve treatment and prevention efforts for women who are also at risk for HIV.

The women in the mid-life demographic who are single/divorced/widowed may find the dating scene much different than when they encountered it years ago. Researchers should endeavor to determine what strategies can be put in place to assist these women and keep them

healthy. Given that current practices are making only a modest impact on rates of HIV for AAW (Rao & Lipira, 2018), and studies on depression do not currently reflect the incidence/prevalence in this community of women, focused interventions using various theoretical frameworks such as TGP and with awareness of the intersectionality that exists among women of color may help target specific interventions for this population of women.

Limitations

Care was taken to conduct a broad initial search to yield all relevant articles that examined STS, SRP, and depressive symptoms and their relationships with HIV vulnerability among women in the U.S.; however, there is a possibility that not all studies examining these issues were retrieved. As these studies only focused on a handful of states it is not known if these findings would extend across all geographical regions within the U.S. From 2017 to present, a limited number of published research on the topics populated for review, resulting in a relatively dated set of literature. This reveals new opportunities for more recent research given the EHE initiative. Articles that explored STS, SRP, and depressive symptoms together were nonexistent except one (Brody et al., 2014), other studies may have only included one or two these variables, limiting our understanding of the relationships between these important concepts in HIV prevention.

Conclusion

This review of the literature aimed to explore the multifaceted variables of STS, SRP, and depression that impact women's lives and their risk for HIV. The synthesis of these findings suggest low sexual relationship power, depression, and silencing the self all represent potential factors amenable to change that require additional investigation to understand their relationships to one another and whether they warrant attention for targeted interventions to prevent HIV

among women. Additionally, examining gender, race/ethnicity, age, geographical location, religiosity, and midlife risk may be important areas to consider when developing prevention strategies. Ultimately, these findings are useful in informing future research and potential interventions aimed at optimizing the health of women who are vulnerable to HIV.

CHAPTER 3: RESEARCH METHODS

Introduction

Guided by the Theory of Gender and Power, the purpose of this research was to examine the influence of depressive symptoms, silencing the self (STS), and sexual relationship (SRP) on the HIV vulnerability of AAW in the South. Chapter three reviews the study design, setting, sample and sampling process, protection of human subjects, instruments, data collection procedures, and data analysis procedures. A discussion of limitations is included along with a concluding summary.

Design

A cross-sectional descriptive study design with purposive and snowball sampling methods was used to study the relationships between silencing the self, depressive symptoms, and sexual relationship power on HIV vulnerability among AAW in the South (Bigsby, 2017; Polit & Beck, 2017). HIV knowledge was examined as a control variable to avoid any confounding effects of participants' HIV knowledge. The study design was appropriate because it allowed us to describe the relationships between STS, depressive symptoms, SRP, and HIV vulnerability among AAW in the South (Polit & Beck, 2017). Purposive and snowball sampling were appropriate because they elicited information from a small segment of the population (i.e., the priority population of AAW), helped to contain study costs, and allowed for timely data collection (Galloway, 2005; Hatcher, 2013; Polit & Beck, 2017). Guided by the Theory of Gender & Power, the proposed aims and research questions were:

AIM 1: To characterize depressive symptoms (PHQ-9), self-silencing (TSTS), sexual relationship power (SRPS), HIV knowledge (HIV KQ-18), and safer sex behaviors (SSBQ) among AAW living in the South.

RQ1.1: Among AAW living in the South, were there differences in depressive symptoms, self-silencing, sexual relationship power, HIV knowledge, and safer sex behaviors?

RQ1.1 Statistical Analysis: Scale, subscale, and scale item score distributions, mean, standard deviation, and internal consistency reliability were computed for the participant sample.

RQ1.2: Among AAW living in the South, what are the differences in depressive symptoms, self-silencing, sexual relationship power, HIV knowledge, and safer sex behaviors (by participant subgroups based on education, employment, and socio-economic status)?

RQ1.2 Statistical Analysis: Independent t-tests were used to compare mean differences between subgroups based on education and socio-economic status (i.e., total family income) on the study variables.

AIM 2: To investigate the influence of depressive symptoms, self-silencing, HIV knowledge and sexual relationship power on safer sex behaviors among AAW living in the South.

RQ2.1: Among AAW living in the South, how well do the measures of depressive symptoms, self-silencing, HIV knowledge and sexual relationship power predict safer sex behaviors and which of the predictor variables are the best predictors of safer sex behaviors?

RQ2.1 Statistical Analysis: Standard multiple regression was used to examine the influence of the predictor variables and the strength of the predictor variables in explaining the total variance in safer sex behaviors.

RQ2.2: Among AAW living in the South, were there differences in education, employment, or socio-economic status variables that enhance the predictive ability of the regression model?

RQ2.2 Statistical Analysis: The regression model was tested on subgroups that meet sample size requirements and important control variables were evaluated by adding them to the regression model and examining how strongly the model predicts safer sex behaviors.

Sample

Inclusion criteria for the study included people who: identify as AA/Black, were between the ages of 18-65 years, spoke and read English, resided in the Southern United States, identify as heterosexual, cisgender women, and reported being currently sexually active. Women/girls under the age of 18 were not sampled, as the growth and developmental issues found with adolescents may be a confounding factor (Association of Maternal Child Health Programs [AMCHP], 2021; American Psychological Association.org [APA], 2023). The upper age limit of 65 years was extended from other studies to capture data from women who are aging, divorced, or widowed and may be at increased risk for HIV. As of 2015, data showed that 50% of individuals who are living with HIV are 50 years and older (Brown & Adeagbo, 2021; DeGrazia & Scrandis, 2015, p. 151). AAW have higher rates of HIV and STIs than other groups, higher rates of delayed treatment for HIV (Prather et al., 2018) and women who are 55 years and older are the only age group who did not see a reduction in HIV diagnosis from 2010-2016 (Brown et al., 2020; Brown & Adeagbo, 2021). There is a paucity of research focused on the sexual health behaviors of older AAW as most research is directed towards the younger population of AAW (Smith & Larson, 2015). Therefore, this age demographic may not always be on the forefront of providers mind when assessing for HIV risk and care. Exclusion criteria included people who

identify as male, or women not born in the U.S. Additionally, the Southern U.S. is a collection of 16 states that have been identified as a focus area of attention by the CDC (CDC.gov, 2021b). These states are Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia (CDC.gov, 2021b).

The exclusion criteria were intentionally selected to avoid including women who may have been exposed to different social and structural factors as opposed to women living in the U.S (Adimora et al., 2021). Current research studies reveal stark differences in HIV rates in women which are apparent in both prevalence and incidence; especially among women of color versus White women, and in AAW, and women aging with comorbidities (Adimora et al., 2021). Within the U.S., research is limited on the mechanisms that link socioeconomic and structural factors to HIV diagnosis outcomes (Ransome et al., 2016). This research aimed to broaden the participation of the priority population. Using *a priori* analysis, sample size and power were found using the formula from Tabachnick & Fedell (2013). The formula: $N > 50 + 8m$, where m is the number of independent variables (predictors). In this study there were seven predictors that gave a sample size $> 50 + 8 \times 7 = 106$; allowing for missing data, we aimed for a sample size of 120 participants (Tabachnick et al., 2013). IRB approval was obtained prior to participant recruitment and data collection.

Setting and Recruitment

The South is currently the epicenter for most new HIV diagnosis and deaths from HIV in the U.S. and North Carolina is among the states included in the south census region (CDC, 2019b; Darlington & Hutson, 2017; Reif et al., 2017) therefore, North Carolina was chosen as the focus location for this study (Ahrens et al., 2021; Census.gov, 2023). In accordance with the

CDC – EHE; the Southern U.S. is identified as a group of 16 states in the lower half of the U.S. territory (CDC.gov, 2021b; data commons, n. d.).

Recruitment occurred at data collection sites from organizations that largely serve the AA community in North Carolina: Historically Black Colleges and Universities (HBCUs) and African American churches. HBCUs have a diverse mix of AAW between the students, sororities, staff, and faculty. Nationally, there are 104 HBCUs, and of these, 100 are located within 69 counties in the South (Sutton et al., 2017). HBCUs have been shown to have higher rates of HIV on the campuses which may be influenced by the elevated rates of HIV within the communities where they are located (Sutton et al., 2017). Shaw University in Raleigh, NC and Fayetteville State University in Fayetteville, NC are both HBCUs which were utilized as sites for recruitment.

Shaw University is a private liberal arts college affiliated with the Baptist church, one of the oldest HBCUs in the country, and the first HBCU in the South (shawu.edu, 2022). Shaw University has a total student enrollment population of 1283 students in undergraduate and graduate degree seeking programs. The student body is 41.2 % male, 58.9 % female: and 59.4 % AA (National Center for Education Statistics, n. d.).

Fayetteville State University (FSU) was created in 1867 to educate freed AAs. The total student enrollment consists of 6726 degree seeking students in graduate and undergraduate programs. The student body is 28.9 % male, 71.1% female: and 57.0% AA (nces.ed.gov, n.d.; uncfsu.edu).

Kinches Chapel Christian Church is a Baptist Church located in rural Franklin County, NC. Franklin County was established in 1779 (NC Department of Commerce, 2022; Office of State Budget and Management, 2020; Srikanth, 2016). Kinches Chapel has a small congregation

with approximately 60 AAW members. The church has been in existence since 1865 and serves the surrounding community. Because the congregation is predominately from the AA community, this recruitment site provided access to an older population (www.kincheschapelcc.com). The county is home to diverse racial/ethnic groups, of which 25% are AA; 86% of the citizens in the county have at least a high school education, while 22% have a bachelor's degree (United States Census Bureau.gov, n.d.). Research has found AA churches are a significant driver of social support, provide support during illness, and can improve health and decrease depression in AAW (Blakey, 2016; Taylor et al., 2017b). Additionally, the AA church may provide potential older participants from economic and social strata not typically represented from the staff and faculty at HBCUs. The locations used in our study are representative of AA communities in the South and were specifically chosen for their unique focus on AAW and the cultural significance for AAs. After several months of recruitment, IRB approval was obtained to add East Carolina University Student Health Services as an additional recruitment site to enhance recruitment.

Recruitment of participants was done face-to-face at the sites, via the FSU and Shaw University email lists, FSU and Shaw University Facebook groups, and through self-referral flyers [see Appendix Fig. A-9]. To show appreciation for participant's time and completion of the survey questions, participants were entered in a raffle for one of several nominal incentives in the form of a \$50 multi-use gift card. A letter of support from each of these sites was obtained prior to IRB approval.

Data Collection

Data was self-reported by participants and collected via surveys/questionnaires using the structured measurement tool questions for PHQ-9 scale for depression (Kroenke et al., 2001;

Kroenke et al., 2010), Silencing the Self [The Silencing the Self Scale, (Jack & Dill, 1992)], Sexual Relationship Power Scale (Pulerwitz, 2000), Brief HIV Knowledge-KQ-18 (Carey & Schroder, 2002), and Safe Sex Behavioral Questionnaire [SSBQ, (Dilorio et al., 1992)]. The face-to-face data collection occurred once a week for each site location (a total of three times per week) on a secure IRB-approved device via REDCap ®. All data was stored securely using REDCap® (Research Electronic Data Capture), an electronic data capture tool hosted at East Carolina University.

Measurements

Polit and Beck (2017) discussed that data is obtained in quantitative studies through the measurement of constructs (p. 297). The constructs, as previously defined for this study, have each been operationalized using a specific measurement tool (Table 1). These measures were used to evaluate each of the variables found within the specific aims: STS, depressive symptoms, SRP, HIV knowledge, and HIV vulnerability as measured by safer sex behavior.

Screening & Demographic Questionnaire

Based on the study inclusion criteria, a short questionnaire was used during recruitment to identify eligible participants for participation (Polit and Beck, 2017). Please see Appendix Fig. A 8 for the questions. Once determined as eligible, participants proceeded to complete a more detailed Demographic Questionnaire including education, income, and employment status.

Depressive Symptoms (Patient Health Questionnaire-9; PHQ-9)

Depressive symptoms were operationalized in this sample using the PHQ-9, self-report, nine-item questionnaire derived from the full PHQ (Kroenke et al., 2001; Kroenke et al., 2010). The questionnaire measures eight major depressive and anxiety symptoms and has a total of nine items. The advantage of this scale is that it has half the questions of other depression specific

scales, thus reduced participant burden with comparable specificity and sensitivity ($\alpha=0.89$; Kroenke et al., 2001; Kroenke et al., 2010). The instrument questions are on a 4-point Likert-style scale and consists of 9 items. Scores can range from 0-27. Total PHQ-9 scores of 5, 10, 15, and 20 represent cutpoints for mild, moderate, moderately severe, and severe depression, respectively (Kroenke et al., 2001; Kroenke et al., 2010; Levis et al., 2019). Additionally, Question 9 is a single screening question for suicide risk. A patient who answers yes to Question 9 needs further assessment for suicide risk by an individual who is competent to assess this risk (National HIV Curriculum, n.d). Participants who screened positive were referred to Wakebrook Crisis Center (uncmedicalcenter.org). The scale was initially tested, and validity was established with 3,000 patients from primary care, OB/GYN clinics who were 18 years or older, mostly female, and of the following racial identities: White-79%, AA-13%, Hispanic-4% (Kroenke et al., 2001; Kroenke et al., 2010).

The PHQ-9 is a three-page self-administered questionnaire. It assesses nine diagnoses divided into threshold disorders. Depression is diagnosed if five or more of the nine symptoms are present. Scores can range from 0-27; each item can be scored “0” (not at all) to “3” (nearly every day). The PHQ-9 was divided into categories of increasing severity: 0–4, 5–9, 10–14, 15–19, and 20 or greater (Kroenke et al., 2001; Kroenke et al., 2010). Test-retest reliability was excellent and correlation between what the patient chose in clinic and via telephone with mental health practitioners were identical (Kroenke et al., 2001; Kroenke et al., 2010). In the original study, those with no depressive disorder had a PHQ-9 score less than 10, while most patients (88%) with major depression had scores of 10 or greater. Scores less than 5 signified the absence of a depressive disorder, while those 15 or greater indicated major depression (Kroenke et al., 2001; Kroenke et al., 2010). The cutpoint for the study used scores of 10 or greater.

Silencing the Self Scale

The concept of Silencing the Self was operationalized using the Silencing the Self Scale [STSS; (Jack & Dill, 1992)], an instrument created by Dana Jack and Diana Dill (1992) to investigate gender-specific schemas to isolate how women make and maintain intimacy. The STSS scale has four subscales and consists of 31 Likert questions on a 5-point scale with a possible scale range of scores from 31-155. The subscales measure: 1) Externalized self-perception (judging the self by external standards), 2) Care as self-sacrifice (securing attachments by putting the needs of others before the self), 3) Silencing the self (inhibiting one's self-expression and action to avoid conflict and possible loss of relationship), 4) The divided self (the experience of presenting an outer compliant self to live up to feminine role imperatives while the inner self grows angry and hostile; Jack & Dill, 1992). STSS was derived from a longitudinal study of clinically depressed women and found to have internal consistency (Cronbach alpha= 0.86; Jack & Dill, 1992). The STSS has been previously tested with the following populations: 63-college undergraduate students (White, middle class), 140-women in a shelter (AAW-5%, the rest identified as White, Hispanic, Asian, or Native American), and 270-women from a Pregnancy and Health study who were all White (Jack & Dill, 1992). The STSS has been found to be consistent and reliable and have excellent test-retest reliability scores (Jack & Dill, 1992). However, this scale has not been fully explored when applied to the population of AAW.

Sexual Relationship Power Scale

The concept of sexual relationship power was operationalized using the Sexual Relationship Power Scale (SRPS), a 23-item scale with two subscales created by Pulerwitz (2000) and used to assess a woman's ability to safely negotiate safer sexual practices. Safer

sexual practices can be constrained when there is an unequal power within a relationship and result in increased risk for HIV and other STIs among women (McMahon et al., 2015). The SRPS subscales include relationship control (RC; 15 items) and decision-making dominance (DMD; 7 items). The majority of the items use a 4-point Likert scale ranging from 1= strongly agree to 4= strongly disagree and other questions assessing the DMD use question stems such as, “Who usually has more say about the following decision...” Three answer choices are available to choose: 1) Your Partner, 2) Both of you equally or 3) You (Pulerwitz et al., 2000). Higher scores indicate greater sexual relationship power and more consistent condom use (Pulerwitz, 2000). Initially the SRPS tool was administered (N=388) to women at an urban health clinic who reported having a primary male partner and identified as LatinX women - 89%, AA-8%, White-1% at the mean age of 27 years (eligibility was 18-45 years) (Pulerwitz, 2000). This scale has been used and found to be valid and reliable (alpha= 0.84) within this population of women (McMahon et al., 2015; Pulerwitz, 2000).

HIV Knowledge -KQ-18

HIV knowledge was measured using the HIV Knowledge Questionnaire (KQ-18; 18-item version), a self-administered, brief measure of an individual’s HIV-related knowledge (Carey & Schroder, 2002). The instrument contains 18 items (‘true’, ‘false’, ‘don’t know’) related to an individual’s knowledge regarding sexual transmission of HIV (Carey & Schroder, 2002). A single summary score is calculated, and higher scores are significant for greater HIV-related knowledge (Carey & Schroder, 2002). The instrument was originally created from three study samples: 1) Women’s Health Project (WHP1) - A sample of 210 low-income women, mean age= 34, 76% AAW, 11% White, 12 other ethnicities (Carey & Schroder, 2002; Maisto et al., 1997); 2) WHP2- A sample of 357 low-income women, mean age 30 years, 87% AAW, 7% White, 5%

other ethnicities (Carey & Schroder, 2002); and 3) the Health Improvement Project (HIP)- A sample of 464 men and women, mean age 46 years, receiving treatment at one of six outpatient psychiatric clinics associated with two local hospitals, 22% AA, 67% White, 11% other ethnicities (Carey & Schroder, 2002). The KQ-18 has an internal consistency $\alpha = .75-.89$ (Carey & Schroder, 2002). A major component for HIV prevention includes HIV knowledge of individuals by identifying knowledge about disease transmission and self-protective behaviors as one of the determinants of behavior change (Carey & Schroder, 2002).

Safe Sex Behavioral Questionnaire (SSBQ)

The SSBQ is a 27-item measurement to assess frequency of safer sex behaviors amongst adolescents (Dilorio et al., 1992). Condoms are an inexpensive and readily available method of prevention for pregnancy and a wide array of STIs, to include HIV. However, college students and adolescents may continue to harbor misconceptions about how HIV is transmitted, and therefore may be at risk. Additionally, knowledge and awareness of HIV may not translate to affect behavior change (Dilorio et al., 1992).

The SSBQ was developed by Dilorio (1992) in response to other scales which measured individual behavior risk and did not consider interpersonal/communication skills, assertiveness, negotiation of condom use, avoidance of substances as factors to be considered which may impact condom use (Dilorio et al., 1992).

The SSBQ questions are categorized into four major areas: (a) protection during intercourse, b) avoidance of risky behaviors - anal sex, (c) avoidance of bodily fluids, and (d) interpersonal skills (communication)- elicit history and negotiate the use of safer sex practices (Dilorio et al., 1992). Safer sex behaviors are defined as sexually related practices that avoid or reduce the risk of exposure to HIV and the transmission of HIV (Dilorio et al., 1992). Types of

items include "I avoid direct contact with my sexual partner's blood" and "I initiate the topic of safer sex with my potential sexual partners." All items were initially evaluated by investigators and final 27 items were selected by content experts (Dilorio et al., 1992).

Content validity index was found to be 98%. Items were rated on a 4-point scale Likert scale from never (1) to always (4). The total possible scores ranged from 27 to 108 with higher scores indicating greater frequency of use of safer sex practices.

To assess reliability a convenience sample of freshman from a large Southeastern University was utilized. 179 students responded to the questionnaire, and of those students 89 were currently sexually active. The participants ages ranged from 18 to 20, had a mean age of 18.2 years, 52% were male, 94% were White, 99% were single, and 92% were heterosexual (Dilorio et al., 1992). Cronbach's $\alpha = 0.82$ for all items. This scale has not been validated in this population and illustrates the need for validation with this research.

Data Analysis Plan

The survey questionnaire captured demographic information about the population characteristics of AAW including age, current co-morbidities, history of present/prior STIs, if current sexual activity with a male partner, income level, educational background, marital/relationship status, number of children, self-identified race, self-identified gender, employment status, and religious preference. This information was obtained through self-administered surveys on the REDCap® platform while face to face with participants or self-referral from flyers.

The interview questions progressed from general (and least obtrusive) to more specific. Questions were designed to elicit information related to depressive symptoms, sexual risk,

gender power roles-relationship control and sexual decision- making, HIV knowledge, and the use of sexual protective strategies among African American women.

The aims/research questions and related statistical analyses for this study were:

AIM 1: To characterize depressive symptoms, self-silencing, sexual relationship power, HIV knowledge, and safer sex behaviors among AAW living in the South.

RQ1.1: Among AAW living in the South, what are the differences in levels of depression, self-silencing, sexual relationship power, HIV knowledge, and safer sex behaviors among study participants?

RQ1.1 Statistical Analysis: Scale, subscale, and scale item score distributions, mean, standard deviation, and internal consistency reliability was computed for the participant sample.

RQ1.2: Among AAW living in the South, what are the relationships among the study instrument total scale scores and subscale scores and are the relationships the same for participant subgroups based on education, employment, and socio-economic status?

RQ1.2 Statistical Analysis: Pearson correlations was used to evaluate relationships between total scale and subscale scores for the total group and for subgroups based on education, employment, and socio-economic status.

AIM 2: To investigate the influence of depressive symptoms, self-silencing, HIV knowledge and sexual relationship power on safer sex behaviors among AAW living in the South.

RQ2.1: Among AAW living in the South, how well do the measures of depressive symptoms, self-silencing, HIV knowledge and sexual relationship power predict safer sex behaviors and which of the predictor variables are the best predictors of safer sex behaviors?

RQ2.1 Statistical Analysis: Standard multiple regression was used to examine the influence of the predictor variables and the strength of the predictor variables in explaining the total variance in safer sex behaviors.

RQ2.2: Among AAW living in the South, are there differences in education, employment, or socio-economic status variables that enhance the predictive ability of the regression model?

RQ2.2 Statistical Analysis: The regression model was tested on subgroups that met sample size requirements and important control variables were evaluated by adding them to the regression model to examine how strongly the model predicted safer sex behaviors.

Data Management and Ethical considerations

Data Management

Each participant was assigned a random unique identifier for the study, which is maintained and stored in a password protected, secure electronic file called PirateDrive, and only accessible to study personnel. All survey data was collected and managed using REDCap® (Research Electronic Data Capture), an electronic data capture tool hosted at East Carolina University, and included the screening questions, demographic questionnaire, STSS, PHQ-9, SRPS, KQ-18, and SSBQ instruments. REDCap® is a secure, web-based software platform designed to support data capture for research studies, providing 1) an intuitive interface for validated data capture; 2) audit trails for tracking data manipulation and export procedures; 3) automated export procedures for seamless data downloads to common statistical packages; and 4) procedures for data integration and interoperability with external sources (Harris, P. et al., 2010). Cleaning of data and missing data items was done with the assistance of a qualified statistician who provided input and assistance with all data handling procedures.

Ethical Considerations

IRB approval was obtained from the University and Medical Center Institutional Review Board (IRB) at East Carolina University. AAW classify as a protected class under federal law and therefore require special attention and consideration during the study. Protection of information followed best practices for data management found in the data management section. When inclusion criteria were met and an individual agreed to participate, then informed consent was obtained from study participants via REDCap®.

The consent document included “key points” as governed by the revised 2018 Common Rule guidelines and the purpose of the study was provided. Informed consent was given in plain language (plainlanguage.gov, n.d.) and written below the 8th grade level to ensure participants understand the document. Informed consent given via electronic devices increases understanding of a study, this can be particularly helpful when using electronic sources for data collection and with those who have a low educational level (Grady et al., 2017). None of the participants expressed distress during the study, however a plan was in place in the event of a participant expressing distress or anxiety. The plan was to halt data collection and refer the participant to Wakebrook Crisis Stabilization Center at 984-974-4800 (operates 24/7, 365 days). Participants were informed that they could quit the study at any time without any repercussions and all their questions will be answered.

Limitations

Several limitations must be acknowledged with this study design. First, the population is from a sample of women within the Southern U.S., and it is not known if this information will apply to all AAW. Secondly, the small sample size may not be generalizable to the entire population of AAW within the Southern U.S. While this study will extend typical age ranges for

recruitment, it is possible that some women who are in the upper age range may decline to participate or not answer the questions with full disclosure due to the subject matter. Thirdly, the survey data will be self-reported by the participants and respondent's memory recall may impact the data quality (Colombo et al., 2020). Lastly, correlation studies do not prove causation and future studies are warranted that employ study designs which can begin to fully understand the impact of depressive symptoms, silencing the self, and sexual relationship power as factors for HIV prevention.

Conclusion/Summary

The described research design and methods utilized served to understand the influence of depression, STS, and SRP on HIV vulnerability among AAW. Ultimately, this research will inform the development of future HIV prevention interventions prioritizing AAW in the South.

CHAPTER 4: FINDINGS

The relationships between depressive symptoms, silencing the self, sexual relationship power and HIV vulnerability among AAW in the Southern U.S. have not been fully explored or understood. The primary purpose of this cross-sectional descriptive study which utilized purposive and snowball sampling methods was to examine the relationships between silencing the self, depressive symptoms, and sexual relationship power on HIV vulnerability among AAW in the South. The study used five survey tools to capture respondents' information regarding depressive symptoms using the PHQ-9, Silencing the Self Scale, Sexual Relationship Power Scale, HIV Knowledge Questionnaire, and Safe Sex Behavior Questionnaire among AAW residing in the Southern U.S. This chapter presents the information about missing data and the sample demographic data first, followed by the findings from the instruments related to each of the research questions.

Missing Data & Demographic Characteristics

Missing Data

In this study, 278 individuals answered the screening questions, with a total of one hundred and thirty-five individuals (N=135) meeting eligibility criteria. Upon assessing the data of those 135 participants for missing and incomplete data, data from 28 individuals were removed to yield a final total of 107 participants who had complete surveys. Using an *a priori* analysis, minimum sample size was estimated from a formula used to estimate minimum sample size from the number of predictors in predicting a numerical outcome in multiple linear regression - $N > 50 + 8m$, where m is the number of independent predictors (Tabachnick & Fedell, 2013). In this study there were seven predictors which suggested a minimum sample size greater

than 106. After allowing for a missing data rate of 10%, we aimed for a sample size of 117 participants. The final sample for this study consisted of 107 AAW, who were between the ages of 18- 65 and had complete survey data.

Demographics

Table 2 presents the sociodemographic characteristics of the study participants. The participants were almost evenly divided between having a bachelor's degree or not, with over 70% having household incomes less than \$75,000 annually. Over half of the participants reported working full time (59.8%) and having never been married (54%), with almost 18% either divorced, separated, widowed. The most prevalent religious affiliations included Baptist and Catholic, with about 17% preferring not to answer. All of the participants were sexually active, with half of them reporting one sexual partner while 19% reported having 4 or more sexual partners. Table 5 shows that twenty-one (n=21) individuals were found to have experienced moderately severe or severe depressive symptoms. Participants scoring higher than 10 were provided with a resource to Wakebrook for additional follow-up. Referral to this resource was automatically prompted from within REDCap®.

Table 2 

Sociodemographic Characteristics of Study Participants

Characteristic	n	%
African – American race	107	100.0
Currently in a heterosexual relationship	107	100.0
Marital status		
Married	34	31.8
Never married	54	50.5
Divorced	10	9.3
Separated	5	4.7
Widowed/other	4	3.7

Table 2 (continued)*Sociodemographic Characteristics of Study Participants*

Characteristic	n	%
Highest level of education		
Less high school graduate	4	3.7
High school graduate	11	10.3
Some college or associate degree	37	34.6
Bachelor's degree	22	20.6
Post graduate studies	33	30.8
Household income		
< \$25,000	31	29.0
\$25,000 - <50,000	27	25.2
\$50,000 - <75,000	18	16.8
\$75,000 - <100,000	10	9.3
>\$100,000	21	19.6
Employment status		
Not employed and not looking	16	15.0
Not employed and looking	8	7.5
Part time	17	15.9
Full time	64	59.8
Other	2	1.9
Religious group		
Baptist	41	38.3
Catholic	32	29.9
Prefer not to answer	18	16.8
Other	15	14.0
Islam	1	<1.0
Number of sexual partners		
1	58	54.2
2	16	15.0
3	13	12.1
4 or more	20	18.6

Table 3

<i>PHQ-9 Cut-off Categories</i>		Frequency	Percent	Valid Percent	Cumalitive Percent
Valid	1 minimal	57	53.3	53.3	53.3
	2 mild	29	27.1	27.1	80.4
	3 moderate	11	10.3	10.3	90.7
	4 moderately severe	8	7.5	7.5	98.1
	5 severe	2	1.9	1.9	100.0
	Total	107	100.0	100.0	

Analysis of Research Questions

Research Question 1.1

Among AAW in the South, are there differences in depressive symptoms (PHQ-9), self-silencing (TSTS), sexual relationship power (SRPS), HIV knowledge (KQ-18), and safe sex behaviors (SSBQ)?

Instruments

The data was captured in an electronic format within REDCap® using the five instruments and a researcher-designed demographic survey described in Chapter 3 and available in the Appendices (H- Figure 8). The instruments auto populated in REDCap® to allow participants to move through each one seamlessly until all questions were answered. If the participants could not complete the surveys at one time a unique identification number was given by the system to the participant for later use.

Table 6 presents the means, standard deviations, range of possible scores, and Cronbach's alpha for each of the scales and subscales. Two of the measures had alphas below .70, Care as Self-Sacrifice (STSS2), subscale of Silencing the Self scale, and the HIV knowledge questionnaire. In the STSS2, the correlations among the 9 items was low resulting in a lower alpha, while in the HIV knowledge measure most of the participants had high scores resulting in

a small standard deviation. Table 7 presents the individual HIV knowledge items along with their correct answer and mean percent correct. Items with the highest correct responses include items 3 (99%), 4 (96%), and 10 (99%). The most difficult item was item 9 where 56% of the participants reported the correct answer. The average percent correct for the participants was 82.3% with scores ranging from 44% to 100%.

Table 4

Means, Standard Deviations, and Psychometric Properties for Study Scales and Subscales

Scale / Subscale	Items	M	SD	Range	Cronbach's α
PHQ9	9	5.74	5.39	0-27	.89
STSS total score	31	74.11	19.27	31-155	.91
Externalized Self-Perception (STSS1)	6	5.26	5.59	6-30	.82
Care as Self-Sacrifice (STSS2)	9	22.25	5.67	9-45	.68
Silencing the Self (STSS3)	9	21.59	6.80	9-45	.75
Divided Self (STSS4)	7	15.01	5.25	7-35	.77
SRPS total score	23	32.77	4.61	23-84	.89
Relationship Control (SRPS1)	15	49.30	8.23	15-60	.91
Decision-Making Dominance (SRPS2)	8	16.23	2.49	8-24	.70
HIV knowledge	18	14.82	2.34	0-18	.61
SSBQ total score	24	73.65	10.30	24-96	.85

Note. PHQ9 = Patient Health Questionnaire; STSS = The Silencing the Self Scale; SRPS = Sexual Relationship Power Scale; SSBQ = Safe Sex Behavioral Questionnaire.

Table 5

HIV Knowledge Items by Participant Response

		Answer	% Correct
1.	Coughing and sneezing do not spread HIV	T	66
2.	Can get HIV by sharing a glass of water with someone with HIV	F	68
3.	Penis withdrawal before a man climaxes keeps a woman from getting HIV	F	.99
4.	Women can get HIV from anal sex	T	.96
5.	Showering/washing genitals after sex prevents HIV	F	.94

Table 5 (continued)

<i>HIV Knowledge Items by Participant Response</i>		Answer	% Correct
6.	All pregnant women infected with HIV quickly show signs of being infected	F	.77
7.	People who have been infected with HIV show signs of being infected	F	.90
8.	There is a vaccine that stops adults from getting HIV	F	.76
9.	Likely to get HIV by deep kissing, putting tongue in partner's mouth if partner infected with HIV	F	.56
10.	A woman cannot get HIV if she has sex during her period	F	.99
11.	There is a female condom that can help decrease chance of getting HIV	T	.64
12.	A natural skin condom works better against HIV than a latex condom	F	.77
13.	A person taking antibiotics will not get HIV	F	.92
14.	Having sex with multiple partners increases chance of getting HIV	T	.93
15.	Taking a test for HIV one week after having sex will tell a person if she/he has HIV	F	.71
16.	A person can get HIV sitting in a hot tub or swimming pool with a person who has HIV	F	.83
17.	A person can get HIV from oral sex	T	.88
18.	Using Vaseline or baby oil with condoms lowers risk of getting HIV	F	.93

Research Question 1.2

Among AAW living in the South, what are the differences in depressive symptoms, self-silencing, sexual relationship power, HIV knowledge, and safer sex behaviors by participant subgroups based on education, employment, and socio-economic status?

Education

Among the total participants (N=107), those individuals with less than a bachelor's degree (n = 52) had higher scores on the PHQ9 scale, STSS total scale score, and on three of the STSS subscales – externalized self-perception, care as self-sacrifice, and divided self - when compared to those with a bachelor's degree or greater (n = 55). Those with at least a bachelor's degree scored significantly higher on the HIV knowledge scale (Table 8).

Table 6

Differences in Depressive Symptoms, Self-Silencing, Sexual Relationship Power, HIV Knowledge, and Safe Sex Behavior Between Education Levels

Variable	< Bachelor		≥ Bachelor		t	p	η^2
	M	SD	M	SD			
PHQ9	7.00	5.64	4.55	4.94	2.41	.018	.05
STSS1	17.01	5.13	13.53	5.50	3.46	.001	.10
STSS2	28.23	5.04	20.76	5.87	2.89	.005	.07
STSS3	22.87	5.67	20.38	7.58	1.91	.059	.03
STSS4	16.10	4.65	13.98	5.60	2.14	.037	.04
STSS total	79.88	16.45	68.65	20.27	3.14	.002	.09
SRPS1	48.06	8.81	50.57	7.52	1.53	.13	.02
SRPS2	16.44	2.52	16.04	2.46	0.84	.401	.01
SRPS total	32.25	5.06	33.25	4.13	1.13	.262	.01
HIV	14.23	2.47	15.38	2.08	2.61	.01	.06
SSBQ total	73.10	10.24	74.18	10.42	0.54	.588	<.01

Note. PHQ9 = Patient Health Questionnaire; STSS1 = Externalized Self-Perception; STSS2 = Care as Self-Sacrifice; STSS3 = Silencing the Self; STSS4 = Divided Self; STSS total = The Silencing the Self Scale total score; SRPS1 = Relationship Control; SRPS2 = Decision-Making Dominance; SRPS total = Sexual Relationship Power Scale total score; HIV = HIV knowledge score; SRBQ = Safe Sex Behavior Questionnaire total score. Less than bachelor's degree n = 52 (48.6%) and bachelor's degree or higher n = 55 (51.4%).

Socioeconomic Status

Participants with household incomes less than \$75,000 per year (n = 76) had higher scores on the PHQ9 scale, STSS total scale score, and on two of the STSS subscales –

externalized self-perception and divided self - when compared to those with incomes of \$75,000 or greater (n = 31). Those with the higher incomes scored significantly higher on the HIV knowledge scale Table 9.

Table 7

Differences in Depressive Symptoms, Self-Silencing, Sexual Relationship Power, HIV Knowledge, and Safe Sex Behavior Between Income Levels

Variable	< \$75k		≥ \$75k		t	p	η^2
	M	SD	M	SD			
PHQ9	6.55	5.62	3.74	4.22	2.51	.014	.06
STSS1	16.22	5.32	12.90	5.63	2.88	.005	.07
STSS2	22.62	5.34	21.35	6.40	1.05	.298	.01
STSS3	22.39	6.53	19.61	7.16	1.94	.055	.03
STSS4	15.54	5.14	13.71	5.35	1.65	.037	.04
STSS total	76.78	18.43	67.58	20.00	2.28	.024	.05
SRPS1	48.91	8.24	50.26	8.26	0.78	.444	.01
SRPS2	16.38	2.62	15.87	2.11	0.58	.338	.01
SRPS total	32.64	5.06	33.06	4.32	0.43	.671	<.01
HIV	14.43	2.40	15.77	1.91	2.77	.007	.07
SSBQ total	72.57	9.77	76.32	11.20	1.73	.087	.03

Note. PHQ9 = Patient Health Questionnaire; STSS1 = Externalized Self-Perception; STSS2 = Care as Self-Sacrifice; STSS3 = Silencing the Self; STSS4 = Divided Self; STSS total = The Silencing the Self Scale total score; SRPS1 = Relationship Control; SRPS2 = Decision-Making Dominance; SRPS total = Sexual Relationship Power Scale total score; HIV = HIV knowledge score; SRBQ = Safe Sex Behavior Questionnaire total score. Participants with total family income less than \$75,000 n = 76 (71.0%) and participants with total family income of \$75,000 or higher n = 31 (29.0%).

Employment

The employment variable was not used because we do not know whether those participants not employed were students or were women who do not need to work.

Research Question 2.1

Among AAW living in the South, how well do the measures of depressive symptoms, self-silencing, HIV knowledge and sexual relationship power predict safer sex behaviors and which of the predictor variables are the best predictors of safer sex behaviors?

The first step in Research Question 2.1 was to examine the Pearson correlations among the potential predictor variables and dependent variable of safe sex behavior (Table 10). Of the eight potential predictors (i.e., independent variables), four had statistically significant correlations with the dependent variable of safe sex behavior (SSBQ). These statistically significant predictors included PHQ9 (-.23, small negative correlation), STSS1 (-.20, small negative correlation), STSS4 (-.37, medium negative correlation), and Sexual Relationship Power Scale subscale relationship control (SRPS1, .25, positive small correlation). The intercorrelations among the four significant predictors were all less than .60, indicating no multicollinearity.

Table 11 shows the results of the multiple regression analysis where the predictor variables of PHQ9, STSS1, STSS4, and SRPS1 were used to predict safe sex behavior (SSBQ). Preliminary analyses showed no violations of the assumptions of normality, linearity, multicollinearity, and homoscedasticity. The four predictor variables explained 15.4 percent of the variability in the safe sex behavior scores, $R^2 = .154$, $F(4, 106) = 4.66$, $p = .002$, a medium effect size. Only the divided-self subscale of the Silencing the Self scale (STSS4) was statistically significantly associated with safe sex behavior ($p = 0.14$). The negative B coefficient indicates that lower scores on the divided-self subscale were associated with higher scores (i.e., safer sex behavior) on the safe sex behavior total scale.

Table 8*Correlations for Study Variables*

Variable	1	2	3	4	5	6	7	8	9
1. PHQ9	—								
2. STSS1	.45**	—							
3. STSS2	.21*	.49**	—						
4. STSS3	.18	.60**	.57**	—					
5. STSS4	.38**	.58**	.46**	.71**	—				
6. HIV	-.19	-.18	-.17	-.22*	-.19	—			
7. SRPS1	-.16	-.41	-.33**	-.54**	-.61**	.12	—		
8. SRPS2	.01	-.06	-.25**	-.29**	-.34**	-.04	.27**	—	
9. SSBQ	-.23*	-.20*	-.06	-.16	-.37**	.06	.25**	.15	—

Note. PHQ9 = Patient Health Questionnaire; STSS1 = Externalized Self-Perception; STSS2 = Care as Self-Sacrifice; STSS3 = Silencing the Self; STSS4 = Divided Self; SRPS1 = Relationship Control; SRPS2 = Decision-Making Dominance; SSBQ = Safe Sex Behavior Questionnaire total score.

* $p < .05$. ** $p < .01$.

Table 9*Multiple Regression Analysis Summary for Predicting Safe Sex Behavior*

Variable	B	SE	95% CI	β	p
PHQ9	-0.250	0.199	[-0.644, 0.144]	-.131	.211
STSS1	0.143	0.218	[-0.290, 0.576]	.078	.514
STSS4	-0.648	0.259	[-1.162, -0.134]	-.330	.014
SRPS1	0.081	0.146	[-0.208, 0.370]	.065	.580

**Note.* $R^2 = .154$ ($N = 107$, $p = .002$). PHQ9 = Patient Health Questionnaire; STSS1 = Externalized Self-Perception; STSS4 = Divided Self; SRPS1 = Relationship Control.

Research Question 2.2:

Among AAW living in the South, are there differences in education, employment, or socio-economic status variables that enhance the predictive ability of the regression model?

The addition of education and income, either singly or together, did not add or significantly increase the predictive ability of the regression model.

CHAPTER 5: DISCUSSION

The purpose of the research was to examine the influence of depressive symptoms, silencing the self (STS), and sexual relationship power (SRP) on the HIV vulnerability of AAW in the South. The Theory of Gender and Power (Connell, 1987; Wingood & DiClemente, 2002) guided the study and informed the data collection and analysis. In this chapter, the findings from this study are discussed considering the existing literature on HIV prevention among AAW in the Southern U.S., along with the study strengths and limitations, and a discussion of implications for research and practice.

Characteristics of the Study Sample

The study sample consisted of 107 AAW, who self-identified as AA/Black, between the ages of 18-65 years, able to speak and read English, and residing in the Southern United States. The participants identified as heterosexual, cisgender women, and reported being currently sexually active. The participant demographics within this study varied slightly from those identified in the Chapter 2 review of the literature. All the participants in this study identified as AAW whereas, the literature review identified studies with samples consisting of AAW, White, LatinX, Asian (2 studies; Hahm et al., 2012 and Hahm & Lee, 2011), Native American (1 study) women, and three studies included women of Caribbean descent (Jacobs & Thomlison, 2009; Patterson, 2015; Stokes & Brody, 2019). The specificity of our study sample, AAW only, was intentional and allowed for an in-depth investigation of the specific sociocultural and psychological factors impacting this population of women. The self-reported ages of the women in our study ranged 18 – 65 years old, while the studies in the literature review similarly involved women who were a minimum of 18 years old but only seventeen studies included samples with

women 50 years and older. Again, the decision to include women greater than 50 years old in this study was intentional, so that the experiences of this older group of women who are also vulnerable to HIV, but often excluded from research could be investigated. In this study sample all women identified as heterosexual, cisgender, and acknowledged a sexual encounter within the past year as a condition of the inclusion criteria. The literature review did not indicate any studies with an exclusion criterion regarding last sexual encounter, however, this was an important criterion to our team as it ensured participants were in an active or recent relationship. The marital status of the participants in this study was similar to those found in the literature. The educational status of the sample in this study was quite different from the studies in the literature review.

Of the sample in this study, 92 (86%) out of the 107 participants had some college, a bachelor's, or higher degree. This was expected, as the recruitment sites included colleges/universities. The educational status of the majority of the participants in the literature review was a high school education or less. Eleven (11) studies had women who had a high school diploma or some college and only 3 studies had women who were college graduates or had an advanced degree. The majority (85%) of the women in our study worked part-time, full-time, or were not employed, but were looking. Within the prior studies noted in the literature, the samples of women were living in deep poverty, low income, at poverty level, on public governmental assistance, unhoused, part of the working poor (un/underemployment) or receiving money from a partner (ASPE.HHS.gov., n. d.; ERS.USDA.gov., 2023). Again, inclusion of women with higher educational status was deliberate to explore the experience of AAW from a wide range of life circumstances and likely reflects the higher income status for this sample. Educational and income levels of women have been found to impact women's HIV vulnerability

(Fisher & Ryan, 2021; Pahl et al., 2022; Schaeffer, 2022; Wingood & DiClemente, 2002).

Among AAW, those women with higher income and education levels have greater HIV knowledge and awareness (Randolph et al, 2020). This was noted in our study sample of participants on the KQ-18 (HIV Knowledge tool); 90% of participants had higher levels on the knowledge questions. Research has also shown that women with less than HS education have greater HIV/STI risks (Painter et al., 2020).

Interpretation of Findings

There is a plethora of research focused on silencing the self, depression, sexual relationship power, and women's vulnerability to HIV in which these variables are examined individually. The literature review for this study revealed there was just one other study that looked at these specific variables simultaneously, and it was completed over a decade ago in 2014 (Brody et al., 2014). To our knowledge, this study examining depression, silencing the self, sexual relationship power and HIV vulnerability among AAW in Southern U.S. is the only study looking at all three variables as applied to this specific population of women.

Depressive symptoms

The data from our findings reveals that amongst our sample of $n = 107$ individuals, all of the participants acknowledged some form of depressive symptoms (100%) as measured by the PHQ-9 tool, with 80.4% of participants reporting that they experience minimal to mild depressive symptoms and 19.7% participants reporting moderate to severe symptoms. This data suggests that depressive symptoms among this sample of AAW are impactful and reflects previous findings in the literature regarding depression among women. Women experience depression at rates that are twice as much as men (Albert, 2015; Brody et al., 2018; Malhi & Mann, 2018). However, studies of depression among AAW and other women of color lag in the

research, which is concerning given that AAW are also less likely to seek help (Chin et al., 2021; Nelson et al., 2020; Richards. E., n.d.; Walton & Boone, 2019). This study helps extend the knowledge and literature concerning AAW and depression. A study by Nelson et al. (2020) found AAW are one of the most undertreated groups for depression in the U.S. (Nelson et al., 2020).

The results for the PHQ-9 administered with the sample in this study found that for the nine question items the Cronbach's alpha was 0.89. In the original study by Kroenke et al. (2001), the Cronbach alpha results for two sample groups were a Primary Care Study site (Cronbach's alpha = 0.89) and an OB-Gyn study site (Cronbach's alpha = 0.86), indicating good re-test reliability was seen in our study. We noted 21 (19.7%) individuals in our sample had PHQ-9 scores of 10 or higher, indicating moderate to severe levels of depressive symptoms, but all women in our study acknowledged some level of depressive symptomatology. Prior research has shown that higher levels of depressive symptoms is a factor for higher HIV vulnerability among women (Brody et al., 2014), yet there were only eight studies in the literature review that examined depression and how it impacts women and their relational choices (Brody et al., 2014; Dévieux et al., 2015; Elifson et al., 2010; Gonzalez et al., 2010; Klein et al., 2008; McCabe et al., 2017; Staton-Tindall et al., 2105; Villar-Loubet et al., 2016). Increased rates of depressive symptoms have been noted to be a key variable influencing women's risky sexual behaviors; in other words, the more depressive symptoms expressed by women, the less condom use was noted (Brody et al., 2014; Dévieux et al., 2015 et al., 2015; Elifson et al., 2010; Gonzalez et al., 2010; Klein et al., 2008; McCabe et al., 2017; Staton-Tindall et al., 2105; Villar-Loubet et al., 2016).

Silencing the Self

The correlations among the STS Scale subscales in this study demonstrated a medium to large effect among these four subscales and had Cronbach's alpha ranging between 0.68 to 0.91 with the lowest scored item being STSS2 (i.e., Care as Self-sacrifice Subscale). These results mirror the original study using this scale in which the Cronbach's alpha across the subscales = 0.65 – 0.86, and where the subscale with the lowest score was also Care as Self-sacrifice (STSS2) at 0.65, 0.60, 0.81, in three sample groups respectively (Jack, 1992). Notably, this is the first time this scale has been used in a sample of only AAW (Jack, 1992).

From these findings we posit that the cumulative impact from the various stressors experienced by AAW, has an impact, and may lead them to adopt the behavior of silencing the self. Prior research suggests that racism, gender inequity, intersect and negatively impact the physical and mental health of AAW (Caiola, 2014; Crenshaw, 1989). Perhaps the internalized or externalized messages affect AAW and their relational interactions and could be a path leading them to silencing the self (Szymanski et al., 2016).

The intersectionality of race, gender, and sexism experienced by AAW permeates throughout their lived experience in the U.S. The physical embodiment of being Black and female in America, represents the tug of war that AAW experience internally and in which they live their lives. These experiences may influence the behavior of STS and ultimately increase depressive symptoms. Harrington et al. (2010) discusses how the internalization of these feelings and pressures has a negative impact on the mental health of AAW (Harrington et al., 2010). Moreover, when depressive symptoms are coupled with STS, it may actually increase rates of depression, further impacting risk for HIV (Brody et al., 2014; Carr et al., 2014; Jack, 1991). The findings from the Dévieux et al. (2015) study indicated that having a history of mental health

problems is associated with increased barriers to using condoms, and it is mediated by both a current state of depression and reduced power in their current relationships (Dévieux et al., 2015).

Participants with less than a bachelor's degree had higher scores on depressive symptoms (PHQ9), Silencing the Self total score (STSS total), and the Silencing the Self subscales of Externalized Self-perception (STSS1), Care as Self-sacrifice (STSS2), and Divided Self (STSS4). Our finding supports the research that STS is associated with depression and simultaneously addressing these two concerns may be extremely useful in mental health treatment for AAW (Nelson et al., 2021; Remien et al., 2019) and subsequently impact HIV vulnerability. AAW identifying with the cultural themes of being a strong Black woman, sacrificing self for others, and suppressing self may influence AAW decisions to not seek care for their depressive symptoms (Nelson et al., 2021). Prevention studies can help with devising treatment services to improve mental health outcomes in this population of women. Provider awareness help increase mental health support, and the routine use of PHQ - 9 screenings at provider visits. The PHQ – 9 is a brief tool, can easily be completed while awaiting a provider visit, and offers an opportunity for an open dialogue regarding mental health issues in a culturally sensitive manner. Integration of screening for depression would enhance prevention and potentially improve mental health care for those with symptoms (Remien et al., 2019).

The link between depression and silencing the self (STS) as women seek to maintain relationships has not been fully explored when applied to AAW. The initial study sample composition by the originator of the scale, Dana Jack (1992), had a high percentage of White women in the study (83%). The author recommended that future studies include a focus on gender, race, ethnicity (Jack, 1992). The utilization of STS behavior is a protective coping

mechanism to maintain relationships by women limiting their voices. STS is seen within relationships where an uneven power/gender dynamic exists, and women cope through limiting their voices to maintain relationships or prevent rejection (Bruck-Segal et al., 2020; DeMarco & Lanier, 2014; Dévieux et al., 2015; Maji & Dixit, 2019). Jack's (1992) work asserts this imbalance of relational power leads women to silence thoughts, feelings, and actions, and overtime this STS leads the woman to experience anger, decline in self-esteem, and a loss of self (Jack, 1992). Our study found that STS was statistically significant among women with annual incomes up to \$75,000 compared to those women with incomes greater than or equal to \$75,000, and those women had higher scores on the STS divided self-subscale. Thus, women using STS behaviors may not protect themselves during intimate relationships, which can increase HIV vulnerability (Abrams et al., 2018; DeMarco & Lanier, 2014; Jack, 1992; Wingood & DiClemente, 1992).

Sexual Relationship Power

The Sexual Relationship Power Scale (SRPS), a 23-item scale developed by Pulerwitz, Gortmaker, and DeJong (2000) was designed to measure relationship power among women in intimate and sexual relationships (Pulerwitz et al., 2000). SRPS subscale findings in our study indicated that from the two subscales comprising SRP (relationship control; SRPS1 and decision-making dominance; SRPS2) had a small η^2 effect (not much variance) and were not statistically significant between the income and educational status of the participants. We noted higher scores on the subscales of the Sexual Relationship Power Scale (SRPS) were inversely associated with lower scores on the Silencing the Self subscales. Thus, indicating women who felt more empowered within the spaces of their relationships exhibited less STS behaviors. The Cronbach's alpha for each subscale were 0.91 (SRPS1) and 0.70 (SRPS2), respectively. These

values were consistent with the original study findings of SRPS1 = 0.85, SRPS2= 0.63, and total score = 0.84 (Pulerwitz et al, 2000) and the updated findings using SRPS instrument from McMahon (2015), SRPS1= 0.85, SRPS2= 0.57 and total score = 0.86 (McMahon et al., 2015).

SRPS subscales 1 & 2 among this sample were not found to be statistically significant with p- values of 0.444 (SRPS1) and 0.338 (SRPS2) among those earning less than 75,000 as opposed to those earning greater than 75,000 annually. The SRPS subscales were also not found to be statistically significant, 0.13 (SRPS1) and 0.401 (SRPS2), among those with less than a bachelor's degree versus those with greater than a bachelor's degree. It is not known whether the impact from higher incomes and higher educational status of this group of AAW is the primary reason. Forty-six percent of the participants had incomes between \$50,000 - over \$100,000 annual incomes, and 86% had some college or higher level of education. Prior studies have shown women with lower socioeconomic status, who engage in substance usage, experience homelessness and have other social disadvantageous social factors tended to have lower SRP in the relationships (Brody et al., 2014; DeMarco & Lanier, 2014; Smith & Larson, 2015; Smith, T.K., 2016; Stokes & Brody, 2019; Zukoski et al., 2011). Some of these determinants were not known or explored with this sample. Within prior research studies that included women who were older, women with higher incomes, and higher educational status also revealed outcomes of higher levels of self-empowerment among those sampled (Altschuler & Rhee, 2015; McMahon et al., 2015). Additionally, women who were older, tended to be married, and in monogamous relationships, may have impacted our study as well, but we do not have age disaggregated data to know for certain. The age criteria for our study were 18 – 65 years of age, and 32% of the women participating were married. The other 70% were either never married, divorced, separated, or other. The extension of age to 65 years old may have impacted SRP in this sample,

however, we do not have the age data disaggregated in this sample. Altschuler and Rhee (2015) also acknowledged that more studies should focus on those women 50 and up who as group are at increasing risk for HIV (Altschuler & Rhee, 2015). A woman's ability to have sufficient agency in sexual decision making within her intimate relationship is crucial to reducing women's HIV vulnerability and further research is warranted.

In this study sample, we see that there was an inverse relationship between SRP and both STS and depression. In other words, as STS/depression increased SRP decreased. This correlates with the original research and other studies, although Pulerwitz acknowledged correlation with physical violence which was not the focus of this study (Jack, 1992; Hahm, 2012; Hahm et al., 2011; Pulerwitz et al., 2000; Wingood & DiClemente). The findings from this study illustrated several factors which should be considered moving forward. Many AAW who are sexually active may not necessarily be in a monogamous relationship, as found in our Chapter 2 review of literature (Abrams et al., 2018; Knudsen et al., 2008; Newsome et al., 2018). In our study 73 (66%) of the women sampled were either never married (51%), divorced (9.3%), separated (5%), or widowed/other (4%). Many potential participants who expressed interest in the study were unable to participate because it had been greater than a year since they had a sexual encounter. The AAW who were married were (32%) of the participants. There may be many reasons for the results based on the marital status, but we should not assume the group of never married, divorced, separated women are asexual and without risk for HIV. Women's risk for contracting HIV in heterosexual relationships was found to be increased when they have low power in their relationships and lack control over sexual/ reproductive decision-making (Berenson et al., 2015; Bonacquisti & Geller, 2013; Hahm & Lee, 2012; Villar-Loubet et al., 2016) and increases women's sexual risk behaviors (SRB) within relationships (Pahl et al., 2022).

Religiosity

The women in the sample were asked to identify their religious preferences and a majority of participants identified with a particular religious tradition. In the literature it was noted that many AAW have symptoms of depression that are not identified, or they do not recognize that their symptoms are evidence of depression (Chinn & Redmond, 2021; Fang et al., 2019; Klein et al., 2008). Because many AAW use the support of religion as an adaptive behavior; and most study participants identified some form of religious preference, religion and religious communities could be a valuable resource for improving the health of AAW. Prior research suggests that amongst AAW, religion is a crucial arena of support and has been throughout history for the AA communities. Use of religion can be instrumental yet only one study recognized the patriarchal struggle within the AA church in their study and the influence on the primarily female congregation (Piper et al., 2019). Additionally, the following studies examined how religion impacted women and HIV vulnerability (Elifson et al., 2010; Klein et al., 2008; Lipira et al., 2019; Piper et al., 2019; Shaw & El-Bassel, 2014). Among some women the use of religion provided a protective factor; women who had significant religious support were found to have lower unprotected sex (Elifson et al., 2010). Religion may act as a resilience resource for women at risk/vulnerable to HIV experiencing depression (Lipira et al., 2019; Shaw & El-Bassel, 2014). Piper et al. (2019) found that women who had strong familial religious beliefs struggled to assert themselves in relationships and engaged in risky sex practices (Piper et al., 2019). AAW may be the reluctant to seek mental health care due to ethnicity, culture, medical mistrust, and stigmatization (Randolph et al., 2020). AAW may replace mental health care with religiosity which may be a component of the cathexis (Patterson, 2019), as described in the Theory of Power and Gender. The majority of AAW in the study self-identified with some

religious tradition, as such exploring AAW and religion is an overlooked opportunity identified within the literature (Patterson, 2019; Zukoski et al., 2011). Providing AAW with greater awareness of these concepts discussed, screening for depressive symptoms, and openness within religious spaces, from young adulthood throughout and across the lifespan can be instrumental in empowering AAW in the South and across the U.S. and aid in HIV prevention efforts (Piper et al., 2019).

Strengths and Limitations

There were several strengths and limitations identified within this study. A major strength was identifying significant gaps within the literature related to depressive symptoms, STS, and SRP. The literature search conducted in Chapter 2 determined that only one previous study (Brody et al., 2014), had examined all the variables of depression, silencing the self, sexual relationship power, and HIV vulnerability among women as found in this study. Although, that sample contained women with and without HIV as the primary sample (data was disaggregated) it was done in 2014. The most recent studies from our literature review examining at least one of the variables of interest were done in 2019, which may have coincided with the EHE initiative by the CDC (CDC, 2019). Although this research is not generalizable to all AAW, it indicates more research should be done with more rigorous methodologies so as to increase the level of evidence among the studies. Our study also extends and contributes to the literature on depressive symptoms, silencing the self, and sexual relationship power and how they may operate together to increase vulnerability for HIV among AAW in Southern U.S. This is crucial, as the Southern U.S. is currently the region most affected by HIV, and AAW are the most impacted among females in the nation (Brody et al., 2014; Randolph et al., 2020). The information found in our study can be used to create interventions to improve AAW's mental

health, but also to inform AAW decisions regarding the impact the economic and social conditions that influence the course of their lives.

The focus of our study sought participants who were AAW, specifically in the Southern U.S., from areas of higher education and income levels, and women aged > 50 years or more. This provides an additional window into a segment of a population of women who are usually overlooked in studies regarding HIV, and who may have increased vulnerability for HIV. Some women who are 50 years old or more, may not always recognize the relationships that they engage in that may pose a risk, or the impact depression, silencing the self, and sexual relationship power may have within their intimate relationships. More recent studies focused on gender, older women, race, ethnicity, culture as factors are needed (McMahon et al., 2015; Patterson, 2019; Smith, T.K. & Larson, E., 2014) to impact the HIV epidemic in this population of women. Despite the results showing safer sex behaviors impacted this group of participants inversely with STSS4 (as STSS4 decreased, safer sex behaviors increased), it may be useful as a construct and needs to be evaluated further. Additional studies focused on AAW and examining the impact of gender inequity with AAW from all income and educational levels in the U.S would help elucidate the impact of depression, silencing the self, sexual relationship power among AAW, to determine further correlational relationships which may exist.

A limitation of this study was not including participants without a recent sexual relationship within the past year. Many prospective participants expressed they were not eligible because they had not been sexually active for long periods of time. This may be an indication of the uneven sex ratio that exists between AAW and AAM within the AA culture, where colleges tend to have higher female populations, churches are more heavily attended by women, and other

social areas that would enable comingling of males and females, may limit the ability of women older than 50, with higher education, and incomes to find partners.

The sample size was adequate for this initial study; however, it may not be generalizable to all AAW in the Southern states or the wider United States. This population of AAW were highly educated overall as evidenced by higher KQ-18 scores and higher income levels (as compared to prior studies included in the literature review) which may have impacted the results. Therefore, additional studies should be considered and expanded with a specific focus on gender and power. Inclusion of studies focused on religion among AAW who may use religion in lieu of seeking mental health care could also provide additional knowledge for HIV prevention. The willingness to partner with AAW churches could help to increase awareness of HIV prevention strategies and, provide AAW an environment that they feel is a welcoming space.

Implications for Practice

Future implications of this study in nursing include increasing mental health awareness and the behavior of silencing the self. The participants in this study each attested to experiencing some level of depressive symptoms. Also, silencing the self as a behavior was evident and correlated among this group of AAW with their ability to protect themselves from HIV within relationships. This information is significant and if acted upon through patient education can have positive impacts for AAW. Several schemas of AAW exist such as the “strong Black woman,” exceptional resilience, overly sexual, and other schemas (Abrams et al., 2018; Bond et al., 2021). Many AAW may have been acculturated with such schemas and live their lives by these social expectations, which may impact their mental health. By identifying and naming what AAW feel, being seen, and heard can help decrease the stigmatization of mental health among AAW and increase acceptance for seeking psychological care. Nurses are uniquely positioned to

interact with AAW in the healthcare arena as the first contact with the patient. Increased use of screening tools such as the PHQ-9 at provider visits to detect those AAW who are experiencing depressive symptoms can enhance getting those women into therapy or referred care for mental health care. This detection and screening could help reduce AAW vulnerability to HIV (Lipira et al., 2019).

As noted in the studies from the literature review, AAW may sometimes be treated as a monolithic group. However, Patterson (2019) posits that there are intercultural, ethnic influences which can exist and impact AAW (Patterson, 2019), and these influences may represent another less explored area impacting women's HIV vulnerability. This can and should be explored more fully for its impact among this population. Reframing healthcare and policy makers attitudes about AAW mental health needs and factors that affect their mental health, will allow them to have a wider perspective focused on AAW as individuals and this may open the door for AAW to engage and express themselves to reduce HIV and health disparities more fully.

Summary

Chapter 5 has provided a discussion of the findings from this research study examining depressive symptoms, silencing the self, sexual relationship power and HIV vulnerability among AAW in the Southern U.S. Vulnerability to HIV affects women and disproportionately affects women in the Southern U.S., especially AAW. Through the prism of the Theory of Gender and Power we examined the impact of depression, STS, and SRP and what we found is there is an association between depressive symptoms and STS. Mental health problems increase risk for HIV through direct or indirect pathways (Remien et al., 2019). As STS decreases the ability for women to protect themselves increases. This provides a new opportunity for prevention efforts as applied to AAW. It is possible that a different sample could yield more conclusive information

which this author feels may be advantageous to further aid in our understanding of HIV vulnerability among women more broadly, and AAW specifically.

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APPENDIX A: NOTIFICATION OF UMCIRB APPROVAL



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building · Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office 252-744-2914  Fax 252-744-2284
rede.ecu.edu/umcirb/

Notification of Exempt Certification

From: Social/Behavioral IRB

To: [wanda goodwyn](#)

CC: [Courtney Caiola](#)

Date: 12/13/2022

Re: [UMCIRB 21-000791](#)

Depressive Symptoms, Silencing the Self, Sexual Relationship Power and HIV Vulnerability
Among African American Women in South

I am pleased to inform you that your research submission has been certified as exempt on 12/13/2022. This study is eligible for Exempt Certification under category # 2ab.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

Document

Email and social media script(0.01)

EXAMINING SYMPTOMS OF DEPRESSION, SILENCING THE SELF, SEXUAL
RELATIONSHIP POWER AND HIV VULNERABILITY AMONG AFRICAN AMERICAN
WOMEN IN THE SOUTHERN UNITED STATES (0.01)

GoodwynRecruitment Flyer.docx(0.01)

Description

Recruitment
Documents/Scripts

Study Protocol or Grant
Application

Recruitment
Documents/Scripts

GoodwynW Study-Telephone Screening Script_template.docx(0.01)	Recruitment Documents/Scripts
KQ-18(0.01)	Surveys and Questionnaires
Mental Health Resources(0.01)	Surveys and Questionnaires
PHQ9 id date 08.03.pdf(0.01)	Surveys and Questionnaires
Screening Questionnaire(0.01)	Surveys and Questionnaires
Silencing the Self(0.01)	Surveys and Questionnaires
SRPS- Pulerwitz(0.01)	Surveys and Questionnaires
SSBQ-Dilorio(0.01)	Surveys and Questionnaires
WGSurvey-Consent-Paragraph-for-Exempt-Research-11-15-2022.doc(0.01)	Consent Forms

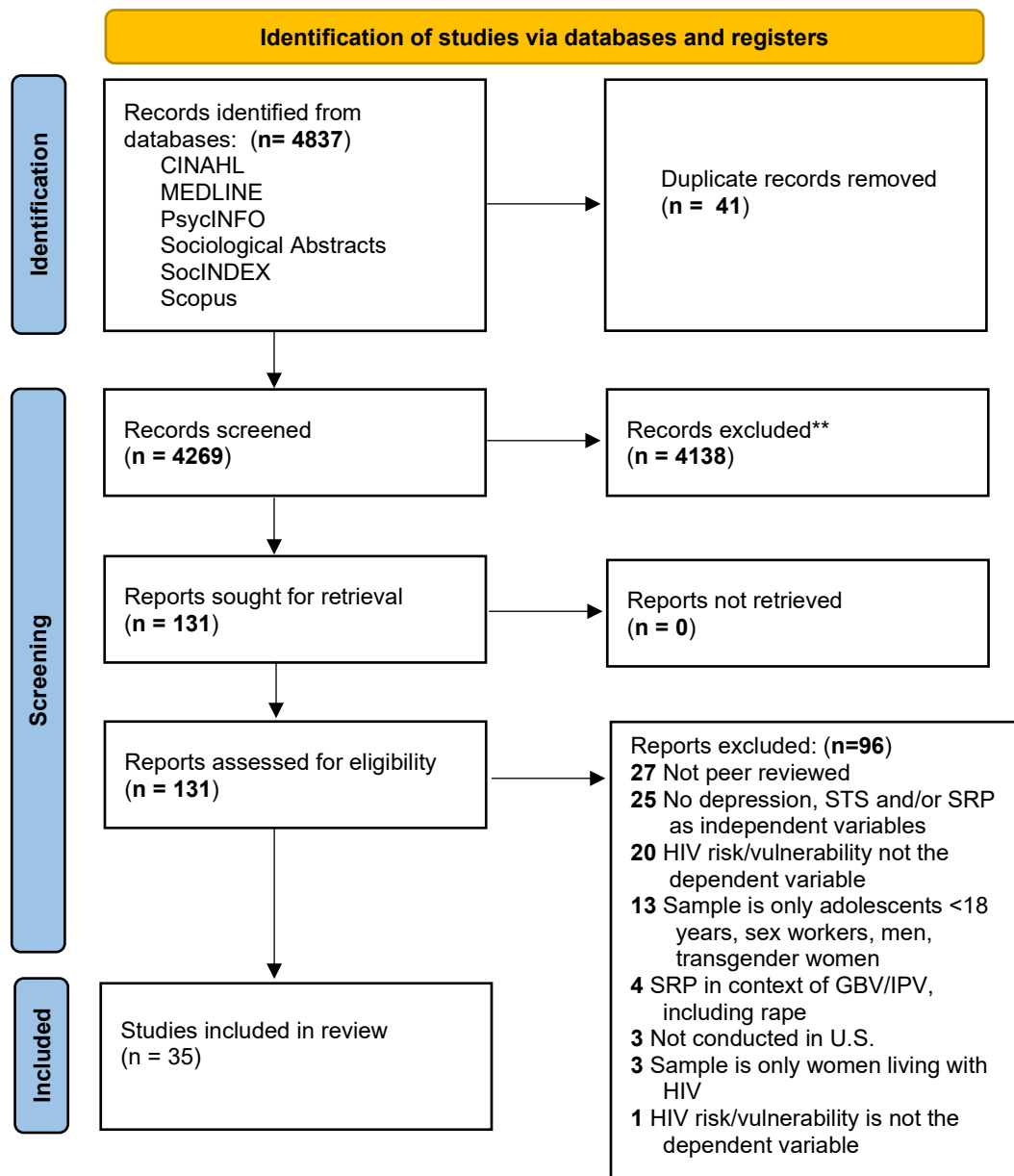
For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

APPENDIX B: PREFERRED REPORTING ITEMS FOR SYSTEMATIC REVIEW AND META ANALYSIS

Figure 2

PRISMA Self-silencing, sexual relationship power, and HIV: A review of the literature



Note: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

APPENDIX C: SILENCING THE SELF SCALE

Figure 3

Silencing the Self Scale

The Silencing the Self Scale

By Dana Crowley Jack

Please circle the number that best describes how you feel about each of the statements listed below. If you are not currently in an intimate relationship, please indicate how you felt and acted in your previous intimate relationships.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1. I think it is best to put myself first because no one else will look out for me.	1	2	3	4	5
2. I don't speak my feelings in an intimate relationship when I know they will cause disagreement.	1	2	3	4	5
3. Caring means putting the other person's needs in front of my own.	1	2	3	4	5
4. Considering my needs to be as important as those of the people I love is selfish.	1	2	3	4	5
5. I find it is harder to be myself when I am in a close relationship than when I am on my own.	1	2	3	4	5
6. I tend to judge myself by how I think other people see me.	1	2	3	4	5
7. I feel dissatisfied with myself because I should be able to do all the things people are supposed to be able to do these days.	1	2	3	4	5
8. When my partner's needs and feelings conflict with my own, I always state mine clearly.	1	2	3	4	5
9. In a close relationship, my responsibility is to make the other person happy.	1	2	3	4	5
10. Caring means choosing to do what the other person wants, even when I want to do something different.	1	2	3	4	5

Figure 3 (continued)

Silencing the Self Scale

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
11. In order to feel good about myself, I need to feel independent and self-sufficient.	1	2	3	4	5
12. One of the worst things I can do is to be selfish.	1	2	3	4	5
13. I feel I have to act in a certain way to please my partner.	1	2	3	4	5
14. Instead of risking confrontations in close relationships, I would rather not rock the boat.	1	2	3	4	5
15. I speak my feelings with my partner, even when it leads to problems or disagreements.	1	2	3	4	5
16. Often I look happy enough on the outside, but inwardly I feel angry and rebellious.	1	2	3	4	5
17. In order for my partner to love me, I cannot reveal certain things about myself to him/her.	1	2	3	4	5
18. When my partner's needs or opinions conflict with mine, rather than asserting my own point of view I usually end up agreeing with him/her.	1	2	3	4	5
19. When I am in a close relationship I lose my sense of who I am.	1	2	3	4	5
20. When it looks as though certain of my needs can't be met in a relationship, I usually realize that they weren't very important anyway.	1	2	3	4	5
21. My partner loves and appreciates me for who I am.	1	2	3	4	5
22. Doing things just for myself is selfish.	1	2	3	4	5

Figure 3 (continued)

Silencing the Self Scale

Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
23. When I make decisions, other people's thoughts and opinions influence me more than my own thoughts and opinions.				
1	2	3	4	5
24. I rarely express my anger at those close to me.				
1	2	3	4	5
25. I feel that my partner does not know my real self.				
1	2	3	4	5
26. I think it's better to keep my feelings to myself when they do conflict with my partner's.				
1	2	3	4	5
27. I often feel responsible for other people's feelings.				
1	2	3	4	5
28. I find it hard to know what I think and feel because I spend a lot of time thinking about how other people are feeling.				
1	2	3	4	5
29. In a close relationship I don't usually care what we do, as long as the other person is happy.				
1	2	3	4	5
30. I try to bury my feelings when I think they will cause trouble in my close relationship(s).				
1	2	3	4	5
*31. I never seem to measure up to the standards I set for myself.				
1	2	3	4	5

APPENDIX D: SEXUAL RELATIONSHIP POWER SCALE

Figure 4

Sexual Relationship Power Scale

BASELINE QUESTIONNAIRE

Interview Date: ____/____/____

Patient Study ID: ____

Assessor Initials: ____

(SRP)

Sexual Relationship Power Scale (Pulerwitz et al., 2000)

INTERVIEWER READ OUT LOUD: Now I am going to read a list of things that might describe your current partner. Please tell me how closely this describes your current partner.

During the past week: (Bubble only one response to the following questions)	Strongly Agree	Agree	Disagree	Strongly Disagree
1. If I asked my partner to use a condom, he would get violent.	☐	☐	☐	☐
2. If I asked my partner to use a condom, he would get angry.	☐	☐	☐	☐
3. Most of the time, we do what my partner wants to do.	☐	☐	☐	☐
4. My partner won't let me wear certain things.	☐	☐	☐	☐
5. When my partner and I are together, I'm pretty quiet.	☐	☐	☐	☐
6. My partner has more say than I do about important decisions that affect us.	☐	☐	☐	☐
7. My partner tells me who I can spend time with.	☐	☐	☐	☐
8. If I asked my partner to use a condom, he would think I'm having sex with other people.	☐	☐	☐	☐
9. I feel trapped or stuck in our relationship.	☐	☐	☐	☐
10. My partner does what he wants, even if I do not want him to.	☐	☐	☐	☐
11. I am more committed to our relationship than my partner is.	☐	☐	☐	☐
12. When my partner and I disagree, he gets his way most of the time.	☐	☐	☐	☐
13. My partner gets more out of our relationship than I do.	☐	☐	☐	☐
14. My partner always wants to know where I am.	☐	☐	☐	☐
15. My partner might be having sex with someone else.	☐	☐	☐	☐

Figure 4 (continued)

Sexual Relationship Power Scale

BASELINE QUESTIONNAIRE

Interview Date: ____/____/____

Patient Study ID: ____

Assessor Initials: ____

INTERVIEWER READ OUT LOUD: I am going to read a list of decisions that happen in relationships. Please tell me if you, your partner, or both of you equally make these decisions.

During the past week: (Bubble only one response to the following questions)	Your Partner	Both of You Equally	You
16. Who usually has more say about whose friends to go out with?	☐	☐	☐
17. Who usually has more say about whether you have sex?	☐	☐	☐
18. Who usually has more say about what you do together?	☐	☐	☐
19. Who usually has more say about how often you see one another?	☐	☐	☐
20. Who usually has more say about when you talk about serious things?	☐	☐	☐
21. In general, who do you think has more power in your relationship?	☐	☐	☐
22. Who usually has more say about whether you use condoms?	☐	☐	☐
23. Who usually has more say about what types of sexual acts you do?	☐	☐	☐

APPENDIX E: PATIENT HEALTH QUESTIONNAIRE

Figure 5

PATIENT HEALTH QUESTIONNAIRE (PHQ-9) Scale

PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

NAME: _____ DATE: _____

Over the last 2 weeks, how often have you been
bothered by any of the following problems?
(use "✓" to indicate your answer)

	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3
7. Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8. Moving or speaking so slowly that other people could have noticed. Or the opposite —being so figety or restless that you have been moving around a lot more than usual	0	1	2	3
9. Thoughts that you would be better off dead, or of hurting yourself	0	1	2	3

add columns + +

(Healthcare professional: For interpretation of TOTAL, TOTAL:
please refer to accompanying scoring card).

10. If you checked off <i>any</i> problems, how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all	_____
	Somewhat difficult	_____
	Very difficult	_____
	Extremely difficult	_____

APPENDIX F: BRIEF HIV KNOWLEDGE QUESTIONNAIRE

Figure 6

BRIEF HIV KNOWLEDGE QUESTIONNAIRE (HIV-KQ-18)

HIV-KQ-18			
For each statement, please circle “True” (T), “False” (F), or “I don’t know” (DK). If you do not know, please do not guess; instead, please circle “DK.”			
	True	False	I don’t know
1. Coughing and sneezing DO NOT spread HIV.	T	F	DK
2. A person can get HIV by sharing a glass of water with someone who has HIV.	T	F	DK
3. Pulling out the penis before a man climaxes/cums keeps a woman from getting HIV during sex.	T	F	DK
4. A woman can get HIV if she has anal sex with a man.	T	F	DK
5. Showering, or washing one’s genitals/private parts, after sex keeps a person from getting HIV.	T	F	DK
6. All pregnant women infected with HIV will have babies born with AIDS.	T	F	DK
7. People who have been infected with HIV quickly show serious signs of being infected.	T	F	DK
8. There is a vaccine that can stop adults from getting HIV.	T	F	DK
9. People are likely to get HIV by deep kissing, putting their tongue in their partner’s mouth, if their partner has HIV.	T	F	DK
10. A woman cannot get HIV if she has sex during her period.	T	F	DK
11. There is a female condom that can help decrease a woman’s chance of getting HIV.	T	F	DK
12. A natural skin condom works better against HIV than does a latex condom.	T	F	DK
13. A person will NOT get HIV if she or he is taking antibiotics.	T	F	DK
14. Having sex with more than one partner can increase a person’s chance of being infected with HIV.	T	F	DK
15. Taking a test for HIV one week after having sex will tell a person if she or he has HIV.	T	F	DK
16. A person can get HIV by sitting in a hot tub or a swimming pool with a person who has HIV.	T	F	DK
17. A person can get HIV from oral sex.	T	F	DK
18. Using Vaseline or baby oil with condoms lowers the chance of getting HIV.	T	F	DK

APPENDIX G: SAFE SEX BEHAVIORAL QUESTIONNAIRE

Figure 7

Safe Sex Behavioral Questionnaire (SSBQ)

SAFE SEX BEHAVIOR QUESTIONNAIRE (SSBQ) (DiIorio, et al., 1993)

Directions: Below is a list of sexual practices. Please read each statement and respond by indicating **your degree of use of these practices**.

1 = Never 2 = Sometimes 3 = Most of the Time 4 = Always

1. I insist on condom use when I have sexual intercourse.
1 2 3 4
 2. I use cocaine or other drugs prior to or during sexual intercourse.
1 2 3 4
 3. I stop foreplay long enough to put on a condom (or for my partner to put on a condom).
1 2 3 4
 4. I ask potential sexual partners about their sexual histories.
1 2 3 4
 5. I avoid direct contact with my sexual partner's semen or vaginal secretions.
1 2 3 4
 6. My partner and I use spermicide as well as a condom with each act of sexual intercourse.
1 2 3 4
 7. I have sexual intercourse with someone who injects drugs (IV drugs) into his/her veins.
1 2 3 4
 8. I ask my potential sexual partners about a history of bisexual/homosexual practices.
1 2 3 4
 9. I engage in sexual intercourse on a first date.
1 2 3 4
 10. I abstain from sexual intercourse when I do not know my partner's sexual history.
1 2 3 4
 11. I avoid sexual intercourse when I have sores or irritation in my genital area.
1 2 3 4
 12. If I know an encounter may lead to sexual intercourse, I carry a condom with me.
1 2 3 4
 13. I insist on examining my sexual partner for sores, cuts, or abrasions in the genital area.
1 2 3 4
 14. If I disagree with information that my partner presents on safer sex practices, I state my point of view.
1 2 3 4
-

Figure 7 (continued)

Safe Sex Behavioral Questionnaire (SSBQ)

1 = Never 2 = Sometimes 3 = Most of the Time 4 = Always

15. I engage in oral sex without using protective barriers such as a condom or rubber dam.
1 2 3 4

16. I use rubber gloves for sexual foreplay when I have cuts or abrasions on my hands.
1 2 3 4

17. If swept away in the passion of the moment, I have sexual intercourse without using a condom.
1 2 3 4

18. I engage in anal intercourse.
1 2 3 4

19. I ask my potential sexual partners about a history of IV drug use.
1 2 3 4

20. If I know an encounter may lead to sexual intercourse, I have a mental plan to practice safer sex.
1 2 3 4

21. If my partner insists on sexual intercourse without a condom, I refuse to have sexual intercourse.
1 2 3 4

22. I avoid direct contact with my sexual partner's blood.
1 2 3 4

23. It is difficult for me to discuss sexual issues with my sexual partners.
1 2 3 4

24. I initiate the topic of safer sex with my potential sexual partner.
1 2 3 4

25. I have sexual intercourse with someone who I know is a bisexual or gay.
1 2 3 4

26. I engage in anal intercourse without using a condom.
1 2 3 4

27. I drink alcoholic beverages prior to or during sexual intercourse.
1 2 3 4

APPENDIX H: STUDY PARTICIPANT SCREENING QUESTIONNAIRE

Figure 8

Screening Questions/Survey:

1. What race/ethnicity do you self-identify with? (Must be African American /Black)
2. What is your gender that you identify with? (Must be woman)
Woman
Man
Nonbinary
3. Does the gender you identify with match the sex you were assigned at birth? (Yes/No)
a. (Must be YES) _____
4. Are you able to speak and read English? (Must be yes) _____
5. What year were you born? (Must be between 1957- 2004) _____
6. What country were you born in? (Must be U.S.) _____
7. Are you currently sexually active and in a heterosexual relationship (must be YES)
☐ Yes
☐ No
a. Number of partners in past year _____

Demographic Questions:

1. What City & State do you live in? _____
2. How long have you lived in Southern United States? _____ years/months
3. What is your marital status?
☐ married ☐ divorced ☐ separated ☐ widowed ☐ never married
☐ other (specify): _____
4. Which of the following best represents your current household income?
☐ less than \$25,000 per year ☐ \$75,000 - \$99,999 per year
☐ \$25,000 - \$49,999 per year ☐ \$100,000 - \$199,999 per year
☐ \$50,000 - \$74,999 per year ☐ \$200,000 or more per year
5. Which of the following best represents the highest level of education that you have completed?
☐ less than high school ☐ associate degree
☐ some high school ☐ bachelor's degree
☐ high school graduate ☐ post graduate studies
☐ some college ☐ other (specify): _____

Screening Questions/Survey:

6. Are you currently employed? Which of the following best describes you? Check only one option.

- ☐ I am not currently employed, and I am not looking for a job
- ☐ I am not currently employed but I am looking for a job
- ☐ I am working part time
- ☐ I am working full time
- ☐ I am not any of these. I am (specify): _____

7. How many people reside in your household? _____

a. What is your total yearly income from all sources? _____

8. How many children (under the age of 18 years) currently live in your home? _____

9. Do you have any current health illnesses (Ex: blood pressure, diabetes, STI)?

Type of Health Illness	Please explain
Physical Illness (Ex. Blood pressure, diabetes, STI)	
Mental disability	

10. Please specify your religious group:

- a. Catholicism/Christianity
- b. Judaism
- c. Islam
- d. Buddhism
- e. Hinduism
- f. Other (please specify) _____
- g. Prefer not to say

THANK YOU FOR COMPLETING THIS SURVEY

APPENDIX I: RESEARCH STUDY RECRUITMENT FLYER

Figure 9

Recruitment Flyer

Participants Needed



Be heard. Break your silence.

We are conducting research to understand how relationship factors may impact Black/AA women's safe sex behaviors and risk for HIV.

Are you...

- Black / African American
- Between 18-65 years old
- Heterosexual Woman
- Sexually active
- English speaking

Participants will be asked to complete one set of survey questions online taking approximately 20-30 minutes. When you complete the questions you will be given the option of entering your name into a raffle to receive one of ten \$50 gift cards.

Enter raffle to win a gift card upon study completion!

Time commitment:
approx. 20-30 mins



For More information :
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UMCIRB #21-000791
FSU #2023P-0022

APPENDIX J: KEYWORD SEARCH AND MEDICAL SUBJECT HEADINGS

Databases	MeSH Terms
CINAHL	((MH("Women") OR TI(women OR woman OR female*)) OR AB(women OR woman OR female*)) AND ((MH("Sexual Partners" OR "Sexual Intercourse" OR "Sexual Behavior") OR TI(Sexual-relationship* OR Sex-role* OR Sexual-behavior* OR Sexual-partnership* OR Sexual-risk-behavior* OR Gender-role* OR Gender OR Relationship-dynamic* OR Man-sharing OR Interpersonal-relationship*) OR AB(Sexual-relationship* OR Sex-role* OR Sexual-behavior* OR Sexual-partnership* OR Sexual-risk-behavior* OR Gender-role* OR Gender OR Relationship-dynamic* OR Man-sharing OR Interpersonal-relationship*)) AND (MH("Depression" OR "Power") OR TI(Power OR Empower* OR Mental-health OR Depress* OR Quality-of-life OR Silencing-the-self OR Self-silencing OR Self-advoca* OR Self-efficacy OR Sense-of-self OR Unmitigated-communion OR Choice-restrict* OR Decision-making OR Mutuality OR Control OR Protection OR Risk-taking OR Risk-seeking) OR AB(Power OR Empower* OR Mental-health OR Depress* OR Quality-of-life OR Silencing-the-self OR Self-silencing OR Self-advoca* OR Self-efficacy OR Sense-of-self OR Unmitigated-communion OR Choice-restrict* OR Decision-making OR Mutuality OR Control OR Protection OR Risk-taking OR Risk-seeking)))) AND (MH("Human Immunodeficiency Virus") OR TI(HIV OR Human-immunodeficiency-virus) OR AB(HIV OR Human-immunodeficiency-virus))
MEDLINE	((("Women"[Mesh] OR women[tiab] OR woman[tiab] OR female*[tiab]) AND (("Sexual Behavior"[Mesh] OR "Sexual Partners"[Mesh] OR Sexual-relationship*[tiab] OR Sex-role*[tiab] OR Sexual-behavior*[tiab] OR Sexual-partnership*[tiab] OR Sexual-risk-behavior*[tiab] OR Gender-role*[tiab] OR Gender[tiab] OR Relationship-dynamic*[tiab] OR Man-sharing[tiab] OR Interpersonal-relationship*[tiab]) AND ("Depression"[Mesh] OR "Power, Psychological"[Mesh] OR Power[tiab] OR Empower*[tiab] OR Mental-health[tiab] OR Depress*[tiab] OR Quality-of-life[tiab] OR Silencing-the-self[tiab] OR Self-silencing[tiab] OR Self-advoca*[tiab] OR Self-efficacy[tiab] OR Sense-of-self[tiab] OR Unmitigated-communion[tiab] OR Choice-restrict*[tiab] OR Decision-making[tiab] OR Mutuality[tiab] OR Control[tiab] OR Protection[tiab] OR Risk-taking[tiab] OR Risk-seeking[tiab]))) AND ("HIV"[Mesh] OR HIV[tiab] OR Human-immunodeficiency-virus[tiab]))
PSYCINFO	((DE("Human Females") OR TI(women OR woman OR female*)) OR AB(women OR woman OR female*)) AND ((DE("Sexual Partners" OR "Psychosexual Behavior") OR TI(Sexual-relationship* OR Sex-role* OR Sexual-behavior* OR Sexual-partnership* OR Sexual-risk-behavior* OR Gender-role* OR Gender OR Relationship-dynamic* OR Man-sharing OR Interpersonal-relationship*) OR AB(Sexual-relationship* OR Sex-role* OR Sexual-behavior* OR Sexual-partnership* OR Sexual-risk-behavior* OR Gender-role* OR Gender OR Relationship-dynamic* OR Man-sharing OR Interpersonal-relationship*)) AND (DE("Interpersonal Control" OR "Depression (Emotion)") OR TI(Power OR Empower* OR Mental-health OR Depress* OR Quality-of-life OR Silencing-the-self OR Self-silencing OR Self-advoca* OR Self-efficacy OR Sense-of-self OR Unmitigated-communion OR Choice-restrict* OR Decision-making OR Mutuality OR Control OR Protection OR Risk-taking OR Risk-seeking) OR AB(Power OR Empower* OR Mental-health OR Depress* OR Quality-of-life OR Silencing-the-self OR Self-silencing OR Self-advoca* OR Self-efficacy OR Sense-of-self OR Unmitigated-communion OR Choice-restrict* OR Decision-making OR Mutuality OR Control OR Protection OR Risk-taking OR Risk-seeking)))) AND (DE("HIV") OR TI(HIV OR Human-immunodeficiency-virus) OR AB(HIV OR Human-immunodeficiency-virus))

Databases	MeSH Terms
SCOPUS	TITLE-ABS(((women OR woman OR female*) AND ((Sexual-relationship* OR Sex-role* OR Sexual-behavior* OR Sexual-partnership* OR Sexual-risk-behavior* OR Gender-role* OR Gender OR Relationship-dynamic* OR Man-sharing OR Interpersonal-relationship*) AND (Power OR Empower* OR Mental-health OR Depress* OR Quality-of-life OR Silencing-the-self OR Self-silencing OR Self-advoca* OR Self-efficacy OR Sense-of-self OR Unmitigated-communion OR Choice-restrict* OR Decision-making OR Mutuality OR Control OR Protection OR Risk-taking OR Risk-seeking)))) AND (HIV OR Human-immunodeficiency-virus))
SOCINDEX	((DE("Women") OR TI(women OR woman OR female*) OR AB(women OR woman OR female*)) AND ((DE("Human Sexuality" OR "Sexual Psychology" OR "Sexual Partners") OR TI(Sexual-relationship* OR Sex-role* OR Sexual-behavior* OR Sexual-partnership* OR Sexual-risk-behavior* OR Gender-role* OR Gender OR Relationship-dynamic* OR Man-sharing OR Interpersonal-relationship*) OR AB(Sexual-relationship* OR Sex-role* OR Sexual-behavior* OR Sexual-partnership* OR Sexual-risk-behavior* OR Gender-role* OR Gender OR Relationship-dynamic* OR Man-sharing OR Interpersonal-relationship*)) AND (DE("Mental Depression" OR "Control (Psychology)") OR TI(Power OR Empower* OR Mental-health OR Depress* OR Quality-of-life OR Silencing-the-self OR Self-silencing OR Self-advoca* OR Self-efficacy OR Sense-of-self OR Unmitigated-communion OR Choice-restrict* OR Decision-making OR Mutuality OR Control OR Protection OR Risk-taking OR Risk-seeking) OR AB(Power OR Empower* OR Mental-health OR Depress* OR Quality-of-life OR Silencing-the-self OR Self-silencing OR Self-advoca* OR Self-efficacy OR Sense-of-self OR Unmitigated-communion OR Choice-restrict* OR Decision-making OR Mutuality OR Control OR Protection OR Risk-taking OR Risk-seeking)))) AND (DE("HIV status") OR TI(HIV OR Human-immunodeficiency-virus) OR AB(HIV OR Human-immunodeficiency-virus))
SOCIOLOGICAL ABSTRACT	((SU("Females") OR AB, TI(women OR woman OR female*)) AND ((SU("Human Sexuality" OR "Sexual Behavior") OR AB, TI(Sexual-relationship* OR Sex-role* OR Sexual-behavior* OR Sexual-partnership* OR Sexual-risk-behavior* OR Gender-role* OR Gender OR Relationship-dynamic* OR Man-sharing OR Interpersonal-relationship*)) AND (SU("Depression (Psychology)" OR "Power") OR AB, TI(Power OR Empower* OR Mental-health OR Depress* OR Quality-of-life OR Silencing-the-self OR Self-silencing OR Self-advoca* OR Self-efficacy OR Sense-of-self OR Unmitigated-communion OR Choice-restrict* OR Decision-making OR Mutuality OR Control OR Protection OR Risk-taking OR Risk-seeking)))) AND AB, TI(HIV OR Human-immunodeficiency-virus)

Note. All searches were conducted on September 22, 2021 and February 22, 2023 then entered into Covidence database (<https://www.covidence.org>).

APPENDIX K: REVIEW MATRIX

Table 2
Review Matrix

	Author (year)	Title	Research design	LOE	Participants	Framework	Concept
1	Altschuler & Rhee (2015)	Relationship power, sexual decision making, and HIV risk among midlife and older women	Quant./Correl	IIIB	110 ♀, 40% LatinX, 36% W, 20% AA, 4.5% Asian, Native, & Middle Eastern. Ages 40-80 yrs. Greater Los Angeles metrop. area.	Feminist underpinnings	SRP
2	Abreu et al., (2010)	Understanding the barriers that reduce the effectiveness of HIV/AIDS prevention strategies for Puerto Rican women living in low-income households in Ponce, PR: A qualitative study	Qualit.	IIIA/B	4 focus groups-interviews, N=39 ♀, ages 21-67, Public Housing in Southern region (Ponce, PR)	None	SRP
3	Berenson et al., (2015)	Rejection sensitivity, perceived power, and HIV risk in the relationships of low-income urban women	Quant., correl., crosssectional/retrospective	IIIB	N=159, 18 yr. and up ♀, Heterosexual, HIV -, urban hospital ER in NYC	None	SRP
4	Bonacquisti & Geller (2013)	Condom-use intentions and the influence of partner-related barriers among women at risk for HIV	Quant., Correlational	IIB	N=90, HIV-, Phila., Pa., ages: 18-45 yrs., non-Hispanic (n = 78; 86%) and African American (n = 61, 68%). Age of the sample was 28-45 years.	None	SRP
5	Bond et al., (2021)	Race-based sexual stereotypes, gendered racism, and sexual decision making among young black cisgender women	Qualit. Descript.	IIIA/B	4 focus groups, age 18 and 25, living in New York City	Mentioned themes informed by an intersectional framework, Black Feminist Thought	SRP
6	Bontempi & Quinn (2008)	Our men are grinding out: A qualitative examination of sex ratio imbalances, relationship power, and low-income African American women's health	Qualit.	III A/B	Five focus groups with N=24 African American women, aged 18-57 years, public housing in rural North Carolina	None	SRP
7	Brody et al., (2014)	Gender roles and mental health in women with and at risk for HIV	Quant., Longit.Cohort Cross-sect.	IIIB	Low-income AAW from the same community, HIV+(n=100); HIV-(n=42)	None	Depr., STS, SRP

Table 2 (continued)
Review Matrix

	Author (year)	Title	Research design	LOE	Participants	Framework	Concept
8	Campbell et al., (2009)	Relationship power and sexual risk among women in community-based substance abuse treatment	Quant	IIIB	urban (n=6), suburban (n=6) settings, located geographically in the West (n=2), Midwest (n=2), Northeast (n=4), Southeast (n=4) USA. N=515 women recruited from community treatment programs -May 2004 to October 2005	Mentioned TGP	SRP
9	Dévieux et al., (2015)	Depression, abuse, relationship power and condom use by pregnant and postpartum women with substance abuse history	Quant.	IIB	N=224 pregnant or recently (up to 6 months) postpartum women in substance abuse treatment. located in multicultural, low income, urban areas of Miami-Ft. Lauderdale	TGP	Depr
10	Elifson et al., (2010)	Predictors of unsafe sex among at-risk heterosexual women	Qualit.	IIIB	Face-to-face structured interviews, n= 178 sexually active adult at-risk heterosexual women in Atlanta, Georgia	TGP	Depr
11	Fang et al., (2019)	Social support, mental health needs, and HIV risk behaviors: A gender-specific, correlation study	Quant./2° Analysis	IIIB	2016 Behavioral Risk Factor Surveillance System (BRFSS) data from Louisiana, Michigan, Rhode Island, and Tennessee. N=33,705	Syndemic Theory	Depr
12	González-Guarda et al., (2010)	Drugs, women and violence in the Americas: U.S. quantitative results of a multi-centric pilot project (phase 2)	Quant. (phase 2)	IIIB	N=92, two phases from July 2006 to June 2007 in South Florida. Women of Hispanic/Latino decent, Spanish, between the ages of 18 and 60	Mentioned themes informed by an intersectional framework, Black Feminist Thought	SRP
13	Hahm & Lee (2011)	Sexual attitudes, reasons for forgoing condom use, and the influence of gender power among Asian-American women: A qualitative study	Qualit.	III A/B	N=24 sexually active API women (in-depth interviews from a larger study, which included n=501 Korean, Chinese, and Vietnamese survey participants	TGP	SRP
14	Hahm et al., (2012)	Gender power control, sexual experiences, safer sex practices, and potential HIV risk behaviors among young Asian-American women	Quant.	IIB	(N= 355)-study focused on young women sexual behaviors	TGP, Bronfenbrenner's Ecological Systems Theory	SRP

Table 2 (continued)
Review Matrix

	Author (year)	Title	Research design	LOE	Participants	Framework	Concept
15	Harris et al., (2010)	Associations between HIV risk, unmitigated communion, and relationship power among African American women	Quant.	IIIB	N=217 African American adult women, between 18 and 45 years of age	None stated- focused on gender dynamics as a basis for research	SRP
16	Jacobs & Thomlison (2009)	Self-silencing and age as risk factors for sexually acquired HIV in midlife and older women	Quant., cross-sectional, correlational	IIIB	S. Florida-A community-based sample of ethnically diverse women (N = 572) between the ages of 50 and 93	TGP, SCT, Bronfenbrenner	STS
17	Klein et al., (2008)	Drugs, women and violence in the Americas: U.S. quantitative results of a multi-centric pilot project (phase 2)	Quant./ prospective cohort	IIIB	N= 250 women, primarily AA., conducted in the Atlanta, Georgia metropolitan area, interviews conducted between August 1997 and August	Theory of reasoned action/theory of planned behavior, some elements from the health belief model	Depr
18	Knudsen et al., (2008)	Sexual attitudes, reasons for forgoing condom use, and the influence of gender power among Asian-American women: A qualitative study	Quant./cross-sectional study	IIIB	N=304 female subjects between March 2007 and April 2008. F2F interviews. Participants recruited from one correctional facility in four states: Connecticut, Delaware, Kentucky, and Rhode Island	Relational Model, (women's relationships can promote healthy choices when those relationships are supportive and positive)	SRP
19	McCabe et al., (2017)	Alcohol misuse, depressive symptoms, and HIV/STI risks of US Hispanic women	Quant.	IIIB	N= 548, US Hispanic women, between the ages of 18 and 50, and recruited from (1) a community-based social service (2) an urban Florida Department of Health	Self-in relation theory	SRP
20	McLellan et al., (2013)	"A man's gonna do what a man wants to do": African American and Hispanic women's perceptions about heterosexual relationships: A qualitative study	Qualit./ cross-sectional	III A/B	N= 60, HIV- heterosexual AAW from rural counties in North Carolina and Alabama, and Hispanic women from an urban county in Southern Florida, 18–59 years of age	Social construction framework, sociological theory with sexual scripting	SRP
21	Newsome et al., (2018)	Educated and At-Risk: How the Shortage of Available Partners Influences HIV Risk for College-Educated African American Women	Qualit.	IIIC	Sample of 10 participants, pilot study, college-educated AAW, age 25- 34. in Chicago, Illinois	PEN-3 Cultural Model	SRP

Table 2 (continued)
Review Matrix

	Author (year)	Title	Research design	LOE	Participants	Framework	Concept
22	Odlum et al., (2018)	Exploring HIV concern in a population of Dominican American women midlife and older	Qualit.	III A/B	Sample of WICER women 50 years of age, n=60 Dominican American women, ages 57–73, Focus group sessions	TGP	SRP
23	Patterson (2019)	Intragroup Differences among African Jamaican and African American Women: Empowerment, Male Condom-use Intentions and Negotiation	Qualit.	IIIB	African-descent women; 50 African Jamaican women and 52 African American women (N = 102; ages 18–54 years, antipoverty agency located in Hartford, Connecticut	Theoretical framework included social identity theory, ethnic identity theory, and the theory of reasoned action.	SRP
24	Piper et al., (2019)	A qualitative exploration of religion, gender norms, and sexual decision-making within African American faith-based communities	Qualit.	III A/B	42 qualitative interviews gathered from female members of 16 predominantly African American churches in Atlanta, GA. Ages 20-72	TGP and social ecological model	SRP
25	Ramírez-Ortiz (2019)	Associations of self-silencing and egalitarian attitudes with HIV prevention behaviors among Latina immigrant farmworkers	Quant. / 2° analysis	IIIB	Latina immigrant farmworkers from Miami-Dade County, Florida (n = 232). Ages: 18-50	Social cognitive theory	STS
26	Rinehart et al., (2017)	Assessing the theory of gender and power: HIV risk among heterosexual minority dyads	Quantit. / 2°analysis, cross-sectional	IIB	African American and Hispanic women, 18–50 years, final dataset had a total of 533 main partner dyads	TGP	SRP
27	Smith (2015)	Sexual protective strategies and condom use in middle-aged african american women: A qualitative study	Qualit.	IIIC	Ten African American women-middle-age recruited from low-income neighborhoods in New York City (NYC)., ages 45 to 56	TGP and TPB	SRP
28	Staton-Tindall (2015)	An exploratory study of mental health and HIV risk behavior among drug-using rural women in jail	Quant.	IIIB	Face-to-face interviews, n=136 women recruited from rural jail facilities located in three Kentucky counties in Appalachia	None	Depr
29	Stokes & Brody (2019)	Self-silencing, but not sexual relationship power associated with condom use for black college-aged women	Quant, descriptive, cross-sectional.	IIIC	N=57 participants identified as Black/African American, ages 18 - 22. Data collected at several colleges and universities in two major cities in Massachusetts	None	STS

Table 2 (continued)*Review Matrix*

	Author (year)	Title	Research design	LOE	Participants	Framework	Concept
30	Teitelman et al., (2010)	Condom coercion, sexual relationship power, and risk for HIV and other sexually transmitted infections among young women attending urban family planning clinics	Qualit./ cross sectional	III A/B	30 young African American women participated, from an urban family planning clinic, between 18- 25	None	SRP
31	Teitelman et al., (2015)	Young women's views on testing for sexually transmitted infections and HIV as a risk reduction strategy in mutual and choice-restricted relationships	Qualit.	III A/B	N=30; semi-structured interviews were conducted with African American women ages 18-24	None	SRP
32	Villar-Loubet et al., (2016)	Social and psychological correlates of unprotected anal intercourse among Hispanic American women: Implications for STI/HIV prevention	Quant./ cross sectional	IIIB	Sample was among N= 514 HIV-negative Hispanic women, 18 to 59 years of age, residing in one urban county in Southern Florida	None	Depr., SRP
33	Wingood et al., (2011)	Efficacy of a health educator-delivered HIV prevention intervention for Latina Women: A randomized controlled trial	Quant./ 2-arm, randomized, controlled trial	1A	N=252 Latina women aged 18 to 35 years in Miami, Florida, in 2008 to 2009	TGP, SCT	SRP
34	Woolf-King & Maisto (2015)	The effects of alcohol, relationship power, and partner type on perceived difficulty implementing condom use among african american adults: An experimental study	Qualit.	1B	N=299 (151 women and 148 men) heterosexual African American adults	TGP	SRP
35	Zukoski et al., (2011)	Exploring power and sexual decision making among young Latinos residing in rural communities.	Quant. & Qual.-mixed methods	IIIB	A sample of young Latinos (n =58) who live in rural communities in the Northwest	Social exchange, resource theory, and TGP	SRP

