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A Mixed Methods Approach to Studying Risk Perceptions Among Latina Patients in the Emergency Department: Gender Roles and HIV Risk Behaviors

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A MIXED METHODS APPROACH TO STUDYING RISK PERCEPTIONS AMONG
LATINA PATIENTS IN THE EMERGENCY DEPARTMENT: GENDER ROLES
AND HIV RISK BEHAVIORS

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Dedication

I dedicate this dissertation to my mother, Regina Cardoso. Thank you for your unconditional love, support, and encouragement to pursue my dreams. You inspire me every day to become a better person. “Te amo mãe”. To my husband, Christopher Smith. Thank you for your support and encouragement. I am so happy to have share this journey with you and look forward to more future journeys together. To my greatest friends since high school, Katherine and Charlene. I admire you and I value our friendship. Thank you for your kind words of encouragement all these years. To my friends Theresinha, Celia, Rosi, Katia, Junior, Marcos and Tania. Without you, this dissertation study would not have been possible.

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AND HIV RISK BEHAVIORS

by

JULIANA DE ALMEIDA CARDOSO SMITH, M.A., B.A.

DISSERTATION

Presented to the Faculty of the Graduate School of
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Abstract

The intersection of race and gender are critical determinants of healthcare experiences. Women from minority groups face unequal access to healthcare, such as HIV testing; consequently, leading to worse outcomes in several health conditions compared to Non-Hispanic White females, including HIV rates. Human Immunodeficiency Virus (HIV) affects an estimated 1.2 million individuals in the United States, disproportionately affecting ethnic minorities. Latinas are estimated to be four times more likely to be diagnosed with HIV compared to white females. Despite the availability of HIV testing in Emergency Departments across the United States, patients may still underreport their HIV risk and have low HIV risk perception, leading to lower HIV testing utilization. The explanatory sequential mixed methods study aimed to quantitatively and qualitatively assess HIV risk behaviors, gender roles, and HIV risk perception of Latinas currently in relationships and admitted to a level-I Emergency Department in the U.S.-Mexico border region. Results from the qualitative study ($N=8$) were used to explain findings from the quantitative study ($N=80$). Findings from this study can potentially assist with clinical recommendations and in the development of culturally sensitive HIV prevention programs, such as brief interventions, for this population.

Keywords: HIV risk perception, Gender roles, Emergency Department

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Brief Statement of the Problem

Women from minority groups, including Latinas, are at a higher risk for facing additional barriers for obtaining healthcare access and testing/ treatment utilization in the United States, compared to Non-Hispanic White females. Human Immunodeficiency Virus (HIV) remains a public health concern that disproportionately affects Latinas compared to Non-Hispanic White females, with the majority of Latinas who become HIV positive (approximately 90%) reporting heterosexual intercourse as the most common mode of transmission.

Even when seeking healthcare and despite the availability of HIV testing in Emergency Departments across the United States, Latina patients may still underreport their HIV risk. One possible reason is that adherence to gender roles may be associated with low HIV risk perception among female patients. Additionally, negative culture specific female gender roles, such as self-silencing marianismo, and perceived partner's negative masculine gender roles, such as male privilege and selfish conduct, may further contribute to decreased HIV risk perception. The current mixed methods study quantitatively and qualitatively assessed HIV risk behaviors, gender roles, and HIV risk perception of Latinas admitted to a level-I Emergency Department in the U.S.-Mexico border region. We first conducted an assessment of the challenges faced by this population through a quantitative assessment, and then we further explored the issues at hand with a qualitative assessment. The quantitative portion of the study comprised of 80 participants and investigated whether gender roles, including culture specific gender roles, are significantly associated with HIV risk perception. The qualitative portion of the study provided insights into Latinas' conceptualization of gender roles, their relationship experiences, HIV risk behaviors and HIV risk perceptions using an intersectional theoretical lens. Results from the quantitative study indicated that participants' self-silencing was significantly and positively associated with HIV

risk perception. The qualitative study described multiple facets that participants discussed associated with gender roles. Overall study findings indicate that HIV interventions among Latinas may benefit from incorporating strategies to better equip Latinas to overcome self-silencing.

Introduction

HIV IN THE UNITED STATES

The U.S. government's investment in the domestic response to HIV is more than 280 billion dollars annually (HHS, 2019). The lifetime medical costs savings from avoiding an HIV infection have been estimated to range from 229,800 dollars to 485,000 dollars per individual (Schackman et al., 2015; Centers for Disease Control and Prevention [CDC], 2019). Even a one-time HIV screening in the general population may also be cost effective related to medical savings associated with prevention of individuals from becoming HIV positive (Paltiel et al., 2005; Farnham et al., 1996). Hence, the CDC recommends routine HIV screening in health-care settings for all adults, aged 13-64, and repeat screening for individuals considered at higher risk, such as men who have sex with men (MSM) and bisexual men (CDC, 2019). Nevertheless, approximately 55% of adults aged 18-64 and 28% of individuals considered at a higher risk have never been tested for HIV (CDC, 2010). In 2018, there were 1.1 million individuals living with Human Immunodeficiency Virus (HIV) in the United States and 38,500 new diagnoses each year (CDC, 2015). Furthermore, 1 in 7 individuals who have HIV are not aware of their HIV status (CDC, 2019) and an estimated 45% of individuals who are HIV positive reside in the Southern states and these states account for approximately half of new HIV diagnoses (CDC, 2018).

Several short-term and long-term consequences of HIV may occur if the disease progresses. Possible consequences may include: decreased immune system, decline in cognitive capacity, and increased rates of mental illnesses (Hong & Banks, 2015; Canizares et al., 2014; Nanni et al., 2014; Aljasseem et al., 2014; Arseniou et al., 2013). Individuals with late HIV diagnoses may face several additional complications (Fisher, 2008), such as increased risk

associated with HIV mobility and mortality, including multiple opportunistic complications simultaneously (Sabin et al., 2004).

There are also psychological implications to HIV infection which include decreased quality of life (Olson et al., 2019; Mitchell et al., 2017; Millar et al., 2017; Althoff et al., 2016). Other aspects of mental health negatively influenced by HIV include increased risk for depression, anxiety, and dementia (Beer et al., 2019; Chakradhar, 2019; Olivieri-Mui et al., 2019; Pence et al., 2018). Interestingly, there are also gender differences among HIV positive patients in several domains related to perceived health-related quality of life, with women reporting significantly less positive well-being, weaker sense of coherence, and less social support than men, even when having less advanced progression of the disease (Mrus et al., 2005; Cederfjall et al., 2001). Additionally, previous research indicates that women with HIV have decreased hope (Chivate et al., 2017) and increased disclosure concerns, health worries and poorer sexual functioning, compared to men with HIV (Fekete et al., 2016) Because women with HIV may disproportionately experience worse perceived quality of life compared to men with HIV, it is critical to further explore cultural factors associated with HIV risk perception to potentially increase HIV testing among females.

Although HIV infections have declined between 1990 and 2013, the rate of HIV decline has leveled off since 2013, suggesting continuous spread in HIV. One of the possible reasons for this plateau is due to ineffective prevention efforts (CDC, 2019). Previous national HIV prevention efforts have often neglected the health disparities associated with rates of HIV diagnoses in minority groups, such as Hispanics/ Latinos (; CDC, 2018; Pellowski et al., 2013). Latinas/ Hispanic females who are disproportionately affected by HIV compared to their

Caucasian female counterparts would benefit from increased culturally adapted interventions (Ruiz-Perez et al., 2017)

HIV PREVENTION EFFORTS: “ENDING THE HIV EPIDEMIC”

In the State of the Union Address on February 2019, President Trump promised to end HIV transmission by 2030 through national efforts (U.S. Department of Health and Human Services [HHS], 2020). More specifically, the plan aims to reduce HIV incidence by 75% within five years and by at least 90% within a decade (HHS, 2020). The plan centers on utilizing several strategies to improve outcomes within the HIV treatment cascade. These strategies include increasing earlier diagnoses, earlier treatment access, and adherence to antiretroviral therapy (ART) for individuals with HIV. Additionally, the plan aims to increase access and utilization to pre-exposure prophylaxis (PrEP), or medication to reduce the chances of becoming HIV positive for individuals who are at a higher risk of contracting the virus. Active partnerships at the city, county, and state levels among organizations and institutions, e.g. emergency departments and healthcare settings, are key components to successfully achieve the ending the HIV epidemic plan (Fauci et al., 2019). However, HIV risk perception for individuals who may be at risk and engage in risk behaviors needs to be improved to achieve the full benefits of these larger scale strategies.

HIV RATES IN THE U.S. AND THE INTERSECTION OF GENDER AND ETHNICITY

Current trends indicate that HIV diagnoses among women have declined in recent years. However, HIV continues to affect women. In 2016, an estimated 258,000 women were HIV positive, accounting for 23% of all individuals with HIV, and more than 7,000 women were diagnosed with HIV in the U.S. in 2017 (CDC, 2019). In 2015, only approximately 51% of the women with HIV achieved viral suppression. Hispanic females/ Latinas accounted for 3% of

new HIV cases, and the primary means of transmission was through heterosexual contact (88%) (CDC, 2018). In 2016, Hispanic females/ Latinas were four times more likely to become HIV positive and three times more likely to die from HIV complications compared to Caucasian females (CDC, 2017). There are several challenges associated with effectively decreasing the incidence among Latinas. Such challenges include: socioeconomic factors, fear of disclosing immigration status and possible deportation, not knowing their male partner's risk factors (e.g. injection drug use, number of sexual partners), their own risk behaviors (multiple sex partners, injection use, unprotected sex), lack of sex education, cultural factors (e.g. machismo and marianismo), and low HIV risk perception (CDC, 2019; CDC, 2013; Zambrana et al., 2004). Additionally, previous research indicates the importance of relational and cultural context in developing HIV prevention programs targeted towards Latinas (Kates et al, 2020; Garcia et al., 2018; Ibanez et al., 2017)

The United States Census Bureau defines Hispanic or Latino ethnicity as being “a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race” (United States Census Bureau, 2019). Individuals of Latino or Hispanic heritage reached a record 59.9 million in 2018 (United States Census Bureau, 2019) and increased from 16% to 18% of the total U.S. population between 2008 and 2018 (Pew Research Center, 2019). Latinos are among the youngest ethnic groups in the U.S. with the fastest population growth in the Southern region of the U.S., growing 33% from 2008 to 2018, reaching 22.7 million in 2018 (Pew Research Center, 2019). Immigrants from Mexico accounted for approximately 26.8% of all foreign-born individuals living in the U.S. in 2015 (Pew Research Center, 2017). Even though Latinos account for 18% of the U.S. population, they are disproportionately affected by HIV, accounting for 26% of new HIV diagnoses nationally in

2017 (CDC, 2018) and the highest productivity losses compared to HIV diagnoses in other ethnicities (Hutchinson et al., 2006). The majority of women who became infected with HIV reported heterosexual contact as the transmission mode in which they acquired the disease. The majority of women diagnosed with HIV did not report engaging in risk behavior, potentially indicating low HIV risk perception (American Foundation for AIDS Research [AmfAR], 2017).

HIV RISK PERCEPTION AMONG HISPANIC FEMALES/ LATINAS

Latinas/ Hispanic females may have low perceived risk for HIV, even though they may engage in higher sexual risk behaviors, such as having multiple sex partners, having inconsistent condom use, and consuming drugs and alcohol during sex (Roberts & Kennedy, 2006). Latinas who report being in love with their partner perceive less risk of contracting HIV for themselves and their partner (Aguiar & Camargo, 2014). Loreto-Lara and colleagues (2008) found most of the Latina women in their study had low levels of HIV-related communication with their partners. Individuals are less likely to use condoms when they perceive their relationships to be close and intimate, even when not aware of their own or their partner's HIV status (Campbell et al., 2016; Exnet et al., 2003; Hirsch et al., 2002; Misovich et al., 1997). Since HIV testing practices and sexually protective behaviors (e.g. condom use) among Hispanics/ Latinos are significantly influenced by perceived risk for HIV (Lopez-Quintero et al., 2005; Fernandez et al., 2003; Sabogal & Catania, 1996), it is critical to better understand how Latinas perceive HIV risk, especially in a setting (e.g. Emergency Department), where HIV testing is available.

GENDER ROLES AND CULTURAL CONTEXT RELATED TO HIV PERCEPTIONS

Gender roles

Several studies have identified an association between gender roles and increased barriers for effective HIV prevention efforts (Brody et al., 2014; Jarama et al., 2007; Bowleg et al., 2000),

including among Latinas/ Hispanic females and African American women. Feminist ideology has been associated with the promotion of women's sexual well-being (Schick, Zucker, & Bay-Cheng, 2008). However, there is a gap in the literature of the association of feminist gender roles and HIV risk perception among Latinas/ Hispanic females.

Culture Specific Gender Roles: Self-Silencing Marianismo and Perceived Partner's

Negative Machismo

Culture specific gender roles, e.g., machismo and marianismo, have been associated with increased risk for HIV among Latinas (Ravelo et al., 2019; Sastre et al., 2015; Hernandez et al., 2012; Moreno, 2007). However, there is still limited research on current culture specific gender roles in relation to HIV risk behaviors and risk perceptions. More specifically, there is limited research on how Latinas/ Hispanic females perceive their partner's negative machismo levels.

Marianismo is primarily attributed to female cultural gender roles among Latinas/ Hispanic females, with both positive (e.g., inner strength) and negative (e.g., self-silencing) aspects. Rooted in Christianity, marianismo is the belief that women must emulate the Virgin Mary. At a young age, many Latinas may be socialized to be submissive, pure and chaste, dependent, agreeable to others' decisions and self-silencing (Castillo et al., 2010, Upchurch et al., 2001). Latinas/ Hispanic females who score high on subordination to others and self-silencing marianismo may be at risk for psychological distress (Ertl et al., 2019; Silva et al., 2018; Rodriguez et al., 2013). For example, the Silencing the Self Theory (Jack, 1991) holds that women's depression is closely related to experiences in close relationships, especially if women conform to traditional gender roles. Similarly, self-silencing marianismo may also influence HIV prevention and the experiences of minority women with HIV (Ramirez-Ortiz et al., 2018; Bruck-Segal et al., 2019). Hence, it is necessary to understand the association between self-silencing

marianismo and HIV risk perception among Latinas/ Hispanic females who are in a setting in which HIV testing is available.

Machismo is a multifaceted construct that is used to describe male gender roles in the Latino/ Hispanic culture. The complexity of machismo is reflected in the current literature (Arniciega et al, 2008; Gutmann, 2007; Galanti, 2003), such as the existence of positive aspects (e.g. bravery, honor, and a commitment to family) and negative aspects (e.g. dominance, aggression, and a sense of privilege). Such complexity is exemplified in Gutmann's ethnographic work in which both men and women constantly negotiate and re-negotiate the definitions of what a man is across multiple settings (Cohen, 1998; Gutmann, 1996). Wentzell (2013) also discusses the complexities of "compound masculinities" based on her ethnographic work. Wentzell interviewed 250 men at a urology clinic in Mexico and concluded that men's definitions of masculinity may be fluid as men age. Such fluidity includes a range of different elements, such as cultural, social and physical changes. Furthermore, each man may express his concept of maleness in a unique manner influenced by cultural behaviors and alternative features of behaviors (Falicov, 2010; Garfield, 2010; Gutmann, 2003; Brod, 1987). Previous research indicates that reducing the negative aspects of machismo may lead to more efficient HIV prevention strategies (Woods et al, 2018; Ferrer et al., 2016; Ibanez et al., 2016). Ravelo and colleagues (2019) argue that future HIV prevention efforts may benefit from addressing both marianismo and machismo within the Latinx population, such as the burden associated with high family responsibility. Hence, increased understanding of perceived partner's negative machismo may inform HIV risk perception and HIV prevention strategies for Latina patients.

THEORETICAL BACKGROUND

Even though there are debates within the feminist perspective field, feminism can be thought of as “attentive to issues of difference, the questioning of social power, resistance to scientific oppression, and a commitment for political activism and social justice” (Hesse-Biber et al., 2004, pg.1) and its goal is to “center on and make problematic women’s diverse situations and the institutions that frame those situations” (Creswell, 2013). Additionally, feminist research aims to empower the voices of participants. For example, Anzaldua (1987) uses a feminist framework to describe the border region not only as a geographic location, but also as a hybrid, that is, in reference to mixed cultures, in which Latinas must negotiate their identities, such as their ethnicities. Feminist perspectives have been employed in previous literature to investigate how to improve women’s HIV risk reduction policies. For instance, researchers have targeted HIV reduction interventions in African American females using a Black Feminist perspective (Gentry, Elifson, & Sterk, 2005) and have found that living arrangements should be included in HIV reduction programs. Given the importance of addressing health disparities for Latinas using a feminist perspective (Amaro et al., 2001), the study employs a feminist theoretical background.

HYPOTHESES

The primary aim of the current explanatory sequential mixed methods study was to investigate the effects of gender roles on HIV risk perception among Latina female patients in the Emergency Department. More specifically, the aims of the study were: 1) to assess the association of HIV sexual risk behaviors to HIV risk perceptions, 2) to investigate how gender roles, self-silencing marianismo, and perceived partner’s negative machismo, are associated with HIV risk perception, 3) to qualitatively describe the perceived characteristics of gender roles, relationship dynamics, and HIV risk perception through a female perspective.

To this end, the first effort was to conduct a quantitative assessment of the current challenges/issues faced by this population. The second effort was to further explore these themes through a qualitative assessment.

The following hypotheses were tested:

H₁: Reported HIV risk behaviors are significantly and positively associated with HIV risk perception, while controlling for relationship length.

H₂: Gender roles are significantly and positively associated with HIV risk perception, while controlling for HIV risk behaviors and relationship length.

H₃: Self-silencing marianismo and perceived partner's negative machismo are negatively associated with HIV risk perception, while controlling for HIV risk behaviors, gender roles, and relationship length.

Method

DESIGN

The study employed an explanatory sequential mixed methods design. The quantitative portion of the research study was conducted prior to the qualitative portion. Mixed methods design focuses on collecting, analyzing, and combining both quantitative and qualitative data in a single study or a series of studies (Creswell, 2011). Its purpose is to provide a more in-depth understanding of phenomena, behaviors, and thoughts, and minimize the weakness of each type of data. More specifically, an explanatory research design uses qualitative data and analysis to explain the quantitative results (Creswell & Clark, 2011).

Mixed methods designs have been increasingly utilized in HIV literature within the past five years (e.g. Fredericksen et al., 2019; Rice et al., 2019). Given the increased interest in mixed-methods research to address culture and health behaviors, such as the increased use of “mixed methods” and “multimethods” in projects funded by the National Institutes of Health (NIH) since 1996 (Creswell et al., 2011) it is critical to integrate participants’ social constructions of gender roles, risk and protective behaviors to existing measures. Figure 1 illustrates the steps of the current study.

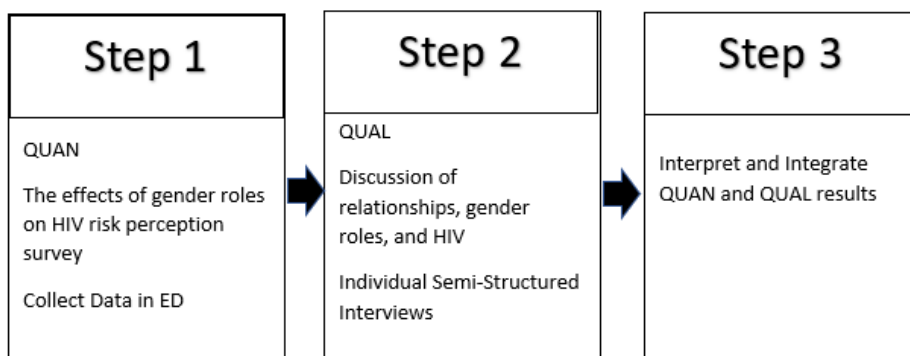


Figure 1. Explanatory Research Design adapted from Creswell and Clark (2011) that outlines steps taken in the current study.

Figure 1. Explanatory Research Design

Eligible participants in the Emergency Department completed a voluntary survey ($N=80$) during their hospitalization. Among participants who completed the survey, a total of eight participants ($N=8$) later completed a voluntary semi-structured interview in a private office. Results from the qualitative stage were used to explain results from the quantitative stage. Institutional Review Board (IRB) approval from the University of Texas at El Paso and Compliance approval from the hospital in which study recruitment occurred were obtained.

QUANTITATIVE STUDY

Participants

Eighty patients ($N=80$) were recruited from the Emergency Department of a major Level I Trauma Center located in the U.S.-Mexico Border. According to the American Trauma Society (ATS), a Level I Trauma Center is “capable of providing total care for every aspect of injury- from prevention through rehabilitation” (ATS, n.d.). Among the primary elements attributed to Level I Trauma Centers are: 24-hour-in-house coverages by trained medical staff in multiple medical specialties, programs for substance abuse screening and patient intervention, and organized teaching and research efforts to improve medical care (ATS, n.d.). The recruitment site is a Level I Trauma Center, not-for-profit, community hospital that provides medical care to the uninsured as well as one of the major teaching hospitals in the region that is well-positioned to serve a large number of Hispanic/ Latino patients. Given that HIV testing is readily available in major medical settings in the United States, it is important to understand the reasons in which HIV tests may be underutilized. One possible reason is that patients may have low HIV risk perception and therefore do not request HIV testing.

Eighty ($N=80$) female Hispanic females/Latina patients ($M_{age}= 37.27$ years; $SD= 12.5$; range 18-61) were recruited from the Emergency Department at a Level I trauma Center for the

quantitative stage. The majority of participants were born in the United States (82.5%) and were currently in a relationship (e.g., having a boyfriend) (53.8%). Participants reported relationship length for all relationship statuses in months ($M= 86.01$, $SD= 115.41$) and the majority of participants (37.5%) reported their partner's ethnicity as Mexican American. See Table 1 for further descriptive statistics of participants who completed the quantitative portion of the study. Patients who completed the survey received a 20-dollar gift card and an informational pamphlet with HIV information and local resources.

Materials and Procedure

G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) was used to estimate the necessary sample size for the quantitative portion of the study to detect a medium effect for an R^2 increase within a linear multiple regression fixed model with .80 power. First, to test for an effect size of 0.15 with a power of .80 for 1 predictor (HIV sexual risk behavior) while controlling for relationship length, an a-priori power analysis yielded a sample of 55 participants necessary. Second, to test for an effect size of 0.15 with a power of .80 for 1 predictor (gender roles) while controlling for HIV risk behaviors and relationship length, an a-priori power analysis yielded a sample of 55 participants necessary. Third, to test for an effect size of 0.15 with a power of .80 for 2 predictors (self-silencing marianismo and perceived partner's negative machismo), while controlling for gender roles, HIV sexual risk behaviors and relationship length, an a-priori power analysis yielded a sample of 68 participants necessary. To test for an effect size of 0.15 with a power of .80 for all 5 predictors, an a-priori power analysis yielded a sample of 92 participants necessary. Recruitment in the Emergency Department lasted from April 2019 to March 2020. There was an assessment of risk and benefit to conduct additional recruitment and data collection in an Emergency Department environment during the COVID19 pandemic. Out of caution for all

involved, data collection was suspended. The researcher followed safety regulations within the Emergency Department at all times during recruitment, which included the use of an identification badge and “Foam In/ Foam Out”, or the use of hand sanitizer before entering and after leaving patients rooms. Furthermore, the researcher also wore a university shirt to reduce patient’s potential concerns related to law enforcement agencies. During recruitment (See Appendix A for recruitment chart), the researcher identified female patients aged 18 years or older who were in private rooms in the Emergency Department for possible research participation. Patients who were designated as Level I Trauma patients, e.g. serious car accidents victims, were not approached for study participation due to the severity of their symptoms and possible life-threatening medical conditions. Additionally, patients who were under custody of law enforcement agencies, such as Border Patrol and the Police Department, were not approached. For patients who were not Level I traumas and were not under custody, the researcher asked medical staff (e.g. nurse, physician) if the patient would be able to provide informed consent if approached. The researcher then further determined patients’ ability to provide informed consent by ensuring that patients correctly understood the information on the consent form. Patients who agreed to voluntarily participate in the study completed the survey and received a 20-dollar gift card and an information pamphlet about HIV and local resources (See Appendix B for Pamphlet) Participant’s responses were identified by a self-generated identification code (Yurek, 2008) (See Appendix C for Self-Generated ID) to ensure anonymity and confidentiality.

For the purposes of the current study, relationship was defined as currently in a heterosexual relationship (e.g. having a boyfriend), legally married to a male partner, or in a domestic partnership with a male partner. Inclusion criteria included the following: female

gender, self-reported Hispanic/ Latino origin, aged 18 years or older, currently in a heterosexual relationship, able to read/speak English and able to provide informed consent. Inability to provide informed consent was attributed to: individuals who experience bipolar disorder or psychosis, head/ brain injury, diagnoses of schizophrenia or depression, dementia, severe cognitive impairment, acute risk of suicide, ongoing psychiatric treatment, and intoxication as shown by BAC (Blood Alcohol Concentration) or AUDIT (Alcohol Use Disorders and Intoxication Test) scores.

Instruments

Participants completed a survey through QuestionPro using an iPad. The researcher did not randomize the order of the items. Demographic questionnaire completed by participants included demographic information such as: age, education attainment, relationship length, and income. Participants were asked questions related to substance use, their sexual history and demographic information about their partners (e.g., income, ethnicity, and race). Additionally, the following scales were completed by participants:

Language Experience and Proficiency Questionnaire (LEAP-Q): Language proficiency in English was assessed using the LEAP-Q developed by Marian et al., (2007). Higher scores indicate higher proficiency in English.

Brief HIV Knowledge Questionnaire (HIV-KQ-18): The short version of the HIV-KQ-18 consists of 18 items and measured HIV knowledge. Developed by Carey & Schroder (2002), the HIV-KQ-18 scale has shown strong psychometric properties with strong internal consistency of ($\alpha = .89$) and strong test-retest reliability. The scale includes 18 forced choice statements in which the participant must select either “true”, “false”, or “don’t know”. Correct responses were assigned a

score of 1. Total scores range from 0 to 18. Higher scores indicated higher HIV-related knowledge.

The Short Version of the Gender Role Beliefs Scale (GRBS): This 10- item scale was used to measure gender role beliefs. Item development was guided by feminist theory by the scale authors, Brown and Gladston (2012). Higher scores are associated with strong feminist beliefs. The psychometric properties of the scale include strong internal consistency ($\alpha = .74$) and good test-retest reliability ($r = .86$). Item examples include: “Women with children should not work outside the home if they don't have to financially” and “Women should have as much sexual freedom as men”

The Machismo Scale: This 31-item scale was used to measure machismo. Developed by Castro and colleagues (2010), the Machismo Scale measure contains several subscales that explores attitudes towards: 1) protecting family, 2) expressing emotions, 3) male privilege, 4) caring conduct, 5) honorable conduct and 6) selfish conduct. The current study included only 2 subscales from the 31-item scale. We calculated a combination of the male privilege and selfish conduct subscales, since high scores on these two subscales may be associated with high risk behaviors. Higher scores reflected higher perceived partner's negative machismo levels. Items include “When it comes to family decisions, the man's opinion is always the most important and should never be questioned” and “Men who can drink a lot of alcohol impress their friends with their strength”

The Marianismo Beliefs Scale (MBS): This 24-item scale was used to measure Marianismo. Developed by Castillo et al. (2010), the scale items can be divided into five factors: 1) family pillar, 2) virtuous and chaste, 3) subordinate to others, 4) silencing to maintain harmony, and 5) spiritual pillar. The MBS has demonstrated strong psychometric properties and good internal validity (e.g., all factors with an $\alpha > .75$). Means were calculated for the silencing to maintain harmony and used

in the analysis, in which higher scores indicate higher self-silencing marianismo. A sample item includes “A woman should not discuss birth control”

Perceived Risk HIV Scale: Developed by Napper et al. (2012), this 10-item scale was used to measure perceived risk for HIV. Higher scores indicate of greater HIV risk perception. Response options were presented in a Likert format ranging from 1 (lowest risk perception) to 4 (higher risk perception). Overall scores ranged from 10 (lowest HIV risk perception) to 40 (highest HIV perception). Sample items included “There is a chance, no matter how small, I could get HIV” and “I think my chances of getting infected with HIV are”.

HIV Risk-Taking Behavior Scale (HRBS): The 11-item short scale assesses two categories of risk behaviors associated with increased risk for HIV: drug-use and sexual behavior. Developed by Darke et al. (1990), the item responses are on a 5-point Likert scale. The psychometric properties of the scale have indicated a Cronbach alpha of .70 and test-retest ($r=.86$). Higher scores in the sexual risk subscale indicate higher engagement in risk behaviors. Scores for the sexual behavior subscale were used to describe participant’s HIV sexual risk behaviors.

Analytic Approach

Descriptive statistics were computed to assessed means and frequencies regarding participant characteristics. We performed a missing data analyses using SPSS and we conducted reliability analyses for the subscales by computing Guttman-Cronbach’s alpha (α). Additionally, we conducted a hierarchical regression using SPSS. The variables were entered in the following order in the hierarchical regression:

Step 1: We regressed HIV risk perception on HIV risk behaviors. We hypothesized that HIV risk behaviors would be significantly and positively associated with HIV risk perception, while controlling for relationship length.

Step 2: We regressed HIV risk perception on gender roles. We hypothesized that gender roles would be significantly and positively associated with HIV risk perception, while controlling for HIV risk behaviors and relationship length.

Step 3: We regressed HIV risk perception on silencing self to maintain harmony and perceived partner's negative machismo. We hypothesized that self-silencing marianismo and perceived partner's negative machismo each would be significantly and negatively associated with HIV risk perception, while controlling for HIV risk behaviors, gender roles, and relationship length.

Results

RELIABILITY ANALYSES

We conducted reliability analyses using SPSS Version 25 (IBM, 2017). Cronbach's alpha (α) was used to assess internal consistency of the scales. The reliability for the scales and subscales of the present study were obtained. For the criterion variable of HIV risk perception, the Perceived Risk of HIV Scale, the reliability estimate was $\alpha = 0.82$. The GRBS scaled yielded a Cronbach's alpha of $\alpha = 0.62$. The self-silencing subscale of the Marianismo scale yielded a Cronbach's alpha of $\alpha = 0.81$ and the negative machismo subscale yielded a Cronbach's alpha of $\alpha = 0.61$. The negative machismo subscale was composed of items of the male privilege and selfish conducting, reflecting participants perceived negative machismo of their partner. The HRBS sexual risk subscale had poor internal consistency indicated by a Cronbach's alpha of $\alpha = 0.24$. Table 4 presents the means, standard deviations, and reliability coefficients of the scales and subscales obtained in the present study.

MISSING DATA

Missing data ranged from 7.5% to 11.3% on the criterion and the predictor variables (HIV risk perception, gender roles, self-silencing marianismo, and negative machismo). We conducted a Missing Value Analysis (MVA) with an EM method estimation using SPSS to assess whether data is Missing at Random (MAR) or Missing not at Random (MNAR). We conducted Little's Missing Completely at Random (MCAR) Test (Little, 1988) ($\chi^2 = 41.664$, $df = 32$, $p = .118$). Since Little's MCAR test was not significant, we determined that the current missing data is Missing at Random (MAR). Given that is MAR, we decided to proceed with conducting 20 data imputations for the present analysis. We conducted 20 data imputations based on the recommendation of Graham and colleagues (2007) for the number of imputations for missing data.

HIERARCHICAL REGRESSION

We conducted a hierarchical regression to assess the associations of gender roles, self-silencing marianismo, and perceived partner's negative machismo to HIV risk perception. (See Table 5 for pooled estimates of the regression). We inspected collinearity statistics, more specifically Tolerance and VIF values, for the independent variables that were significantly correlated (gender roles, self-silencing marianismo, and perceived partner's machismo). While we could not completely rule out multicollinearity as a potential issue, we determined that multicollinearity most likely did not significantly limit our analysis. We conducted a four-stage hierarchical multiple regression with HIV risk perception as the criterion variable. The covariate, relationship length, was entered at step one of the regression analysis to control for the potential impact of relationship length on HIV risk perception. HIV sexual risk behavior was entered in the second step, while controlling for relationship length. Gender roles were entered in the third

step, while controlling for relationship length and HIV sexual risk behaviors. Self-silencing marianismo and perceived partner's machismo were entered in the fourth step of the analysis, while controlling for relationship length, HIV sexual risk behaviors, and gender roles.

For the analysis based on pooled estimates in step 1 of the model, the covariate of relationship length was not significant ($\beta = -.017$, $SE = .010$, $p = .101$, $sr^2 = .066$). For step 2, relationship length ($\beta = -.017$, $SE = .010$, $p = .106$, $sr^2 = .065$) and HIV sexual risk behaviors ($\beta = -.017$, $SE = .010$, $p = .662$, $sr^2 = .004$) did not account for significant variability of HIV risk perception. For step 3, relationship length ($\beta = -.017$, $SE = .010$, $p = .100$, $sr^2 = .068$), HIV sexual risk behaviors ($\beta = .097$, $SE = .208$, $p = .640$, $sr^2 = .004$), and gender roles ($\beta = -.028$, $SE = .065$, $p = .671$, $sr^2 = .003$) did not account for a significant variability of HIV risk perception. However, for step 4, while HIV sexual risk behaviors ($\beta = -.117$, $SE = .205$, $p = .569$, $sr^2 = .005$), gender roles ($\beta = -.007$, $SE = .074$, $p = .928$, $sr^2 = .000$), and perceived partner's negative machismo ($\beta = -.037$, $SE = .075$, $p = .627$, $sr^2 = .003$) did not account for significant variability of HIV risk perception, relationship length ($\beta = -.020$, $SE = .010$, $p = .047$, $sr^2 = .091$) and self-silencing marianismo ($\beta = .349$, $SE = .134$, $p = .009$, $sr^2 = .094$) were significantly associated with HIV risk perception, explaining 9% and 9.5%, respectively, of the unique variance that the predictor brought to the model.

The data did not support hypothesis 1 that proposed HIV sexual risk behaviors are significantly and positively associated with HIV risk perception, after controlling for relationship length. Additionally, the data did not support hypothesis 2, which proposed that gender roles are significantly and positively associated with HIV risk perception, after controlling for the impact of HIV risk behaviors and relationship length. The data also did not support hypothesis 3 that perceived partner's negative machismo is significantly and negatively associated with HIV risk

perception, while controlling for the effects of gender roles, HIV sexual risk behaviors, and relationship length. The data did support the hypothesis that self-silencing marianismo is significantly associated with HIV risk perception, while controlling for gender roles, HIV sexual risk behaviors, and relationship length. However, the data demonstrated the opposite direction of association in which we had hypothesized: self-silencing marianismo was significantly and positively associated with HIV risk perception.

Given our findings from the quantitative assessment, we were interested in further exploring the associations of gender roles and risk behaviors with HIV risk perception. We especially interested in whether self-silencing and perceived negative male gender roles would be discussed by participants. Therefore, we conducted individual semi-structure interviews to better understand Latinas' perceptions.

Qualitative Study

PARTICIPANTS

Eight participants ($M_{age} = 38.25$ years; $SD = 13.35$; range 23-60) completed an individual semi-structured interview in a private office located at the University of Texas at El Paso. The majority of participants were born in the United States (87.5%). Participants reported the length of their current relationship in months ($M = 47.29$, $SD = 47.61$; range = 1-108). See Table 2 for demographic characteristics of participants of the qualitative study. Three participants reported their partner's ethnicity as African American and five participants reported their partner as Mexican or Mexican American. Interviews lasted from 45 to 132 minutes ($M_{ime} = 75.25$ minutes). The main difference of the subset of participants who completed both the survey and the qualitative interviews from those who only completed the quantitative survey was relationship length; participants who completed the qualitative interviews had on average shorter current relationships. See Table 3 for

demographic characteristics of participants who completed only the surveys and of participants who completed both the survey and the interview. There was an assessment of risk and benefit to conduct additional interviews during the COVID19 pandemic. Out of caution for all involved, data collection for the qualitative study was suspended

MATERIALS AND PROCEDURE

We employed a social constructivist perspective to conduct an interview using a semi-structured interview guide with open-ended probes of how Latinas/ Hispanic females perceive gender roles and cultural influences. In addition, an intersectional theoretical lens was employed in the study. We describe the assumptions, paradigm worldview, theoretical lens of the qualitative portion of the study.

In qualitative research, the researcher is the instrument of data analysis by exploring and interpreting the meaning of the data (Jacelon & O'Dell, 2005). A qualitative approach describes, either explicitly or implicitly, the purpose and stages of the research, the role of the researcher, and the method of data analysis. Examples of qualitative approaches include case studies, ethnographic studies, grounded theory, narrative research, and phenomenological studies. Paradigm worldview may be defined as “a general orientation about the world and the nature of the research a researcher holds” (Creswell, 2009, pg.6). Among the four worldviews are postpositivism, advocacy/participatory, pragmatism, and constructivism (Creswell, 2009). A theoretical lens, or framework, provides a particular perspective to examine a topic within qualitative research.

Phenomenological Assumption

Phenomenological research, considered both a perspective and approach to qualitative research, attempts to understand individual's perceptions and experiences of a particular

situation. Phenomenological data analysis incorporates a reduction methodology based on the researcher analyses specific statements, themes and its meanings (Creswell, 1998). This approach allows the researcher to set biases aside and understand how an individual understands and experiences an event, whether or not it differs from social preconceptions.

Paradigm Worldview

Social constructivism emphasizes the importance of culture and social context in the understanding and experiences of events as well as how individuals construct knowledge based on such understanding (Derry, 1999). Therefore, this study assumes that Latinas are perceiving their HIV risk based on their meaning ascribed to their experiences in the social world. More importantly, a social constructivist perspective holds key assumptions that: 1) Reality is socially constructed, 2) Knowledge is intrinsically linked to social interactions and culture, and 3) Learning is a continuous social process. This interpretative framework is critical in its emphasis on cultural contexts and therefore, presents itself as an essential perspective to adopt in health disparities research.

Theoretical Lens for Qualitative Stage

We adopted an intersectional theoretical lens for the qualitative portion of the study. Intersectionality, or “the relationship among multiple dimensions and modalities of social relations and subject formations”, demonstrates the complexity that arises when multiple dimensions of social constructions and behaviors are considered (McCall, 2008). In the current study, the researcher’s interest was primarily on how women who identify themselves as females and are of Hispanic/ Latino origin socially construct their perceived relationship experiences and gender role beliefs and/or gender role adherences. The use of intersectionality is particularly prominent in women and gender studies research and in feminist approaches. Scholars of color

(e.g., Moraga and Anzaldúa 1981; Hull et al. 1982) demonstrated the importance of the intersection of gender and other social identities, such as race, to better understand social constructions of knowledge, perceptions, and experiences.

The qualitative effort of the study aimed to describe how: 1) Hispanic/ Latino gender roles may influence HIV Risk Perception, and 2) Latinas perceive Hispanic/ Latino gender roles. Participants from the quantitative assessment were invited to complete an additional individual interview in a private office located at the University of Texas at El Paso at a future date after their hospital admission. Inclusion criteria to participate in the second portion (qualitative assessment) of the study was to have completed the survey (quantitative assessment) in the Emergency Department. The researcher called potential participants who demonstrated interest in completing the interview. Later, the researcher called participants the day before the interview to confirm and provide parking directions.

Participants were provided with a parking pass on their arrival for the interview. The researcher administered the informed consent to participants and conducted the interview in a private office with the doors closed to ensure confidentiality and anonymity of responses. Participants consented for the interview to be audio recorded in a password-protected recording device in which only the researcher had access to. Participants' actual names were never revealed on the audio recording and the files were saved using the same self-generated ID from the quantitative stage). The interview guide (See Appendix D for sample interview questions) used by the researcher contained both close ended and open-ended questions that addressed participants' perception of gender roles, their perception of their partner's gender roles, HIV knowledge, and HIV perception. Example questions included: "Did you ever discuss with your partner your sexual history and his? How was that experience", "What do you know about HIV? Where did you first

learn this information?”, “In your opinion, how are you similar or different to women living in this region?” and “Describe a time when you thought you were or could have been at risk for getting HIV”. Participants who completed the interview received a 50-dollar gift card. Transcription was completed by a private transcription company and the researcher ensured transcription accuracy by listening to the audio and comparing it to the transcript. The researcher did not find any discrepancies between the audios and the transcripts.

ANALYTIC APPROACH

The researcher compared each transcript to the audio to ensure quality and accuracy. The researcher hypothesized key initial codes that would arise from the transcripts. Each code was tabulated, combined and catalogued into related patterns into sub-themes (Aronson, 1995) by an iterative process. This facilitates the emergence of patterns for interpretation. Thematic analysis was utilized to identify emergent patterns, or “themes”. Due to the nature of the present study as a mixed methods design, we proposed the following a-priori initial codes to identify potential themes in the data:

Code 1: Power differential: unequal decision-making power within the dyad

Code 2: Tension between partners: sources of conflict that impact the relationship

Code 3: Women’s role: belief of how a woman should act

Code 4: Men’s role: belief of how a man should act

Code 5: Latino/ Hispanic culture: the impact of culture on perceptions and behaviors

Code 6: HIV knowledge: knowledge of HIV transmission and/or health consequences

Code 7: Trust: trust in partner’s behaviors

Code 8: Risk behaviors: either self or partner’s risk behaviors

Code 9: Not at risk: presumed safety from HIV

Code 10: At risk: presumed risk for HIV

A-priori codes were developed to compare whether qualitative codes would be similar to the constructs investigated in the quantitative stage. Hypothesized codes included codes associated with gender roles, cultural factors, trust, and risk perceptions for HIV. There were several anticipated themes expected to emerge from the thematic analysis. First, differential power relationships, in which Latinas may not have as much saying as their male partners in sexual health decisions. Second, El Paso as a main cultural force in gender roles. That is, it is expected that the border region will be a main factor in adherence to cultural gender roles. Third, a lack of formal sex education and preventive measures. Fourth, the presumed safety associated with low perceived HIV risk.

Results from Qualitative Study

FINDINGS

As previously mentioned, we conducted eight interviews that were analyzed. Qualitative analysis was used to extract themes from the interviews. This approach was used through a combination of deductive and inductive analysis. Deductive analysis was conducted through the development of a-priori codes, or references in the interviews of the quantitative measures. Inductive analysis was conducted through identifying new codes relevant to the current study during the analysis using Microsoft Excel. We tabulated proposed codes and codes that emerged and were relevant to the current study. The researcher identified and tabulated the frequency of codes on Microsoft Excel and included the example of each code. Once the initial coding was completed, focused coding was conducted and this process provided a total of 180 codes that were retained in categories related to the variables of interest in the study. The purpose of focused coding was to search for the most common or significant codes. Additionally, the objective of the focused

coding was to identify recurrent patterns and multiple layers of meanings and interconnections among codes. All participants are identified by a pseudo name to protect their anonymity.

Having developed a dictionary of codes and conducted a focused coding related to gender roles and risk perception and behaviors, we identified several themes emerging from the interviews.

The themes that emerged were the following:

1. The Source of HIV Behaviors: the Self and the Partner (s) Risk Behaviors
2. The Multifaceted Perception of Risk for HIV: I am at Risk or Not at Risk?
3. Sources of Sexual Knowledge: Family, Clinics, and School
4. The Perception of and Adherence to Gender Roles

The themes and codes are summarized in table 6 and described in more detail below.

Themes

The Source of HIV Behaviors: The Self and The Partner(s) Risk Behaviors

All participants ($N=8$) discussed sex behaviors that they have engaged in or sex behaviors that their current or previous partner(s) have engaged in. Marta, (aged 27), describes engaging in unprotected sex with multiple sex partners as shown in the following quote: “Right now, I'm sleeping with two guys”. Participants also described their past or current partner’s engagement in sex behaviors with other women, which may have placed them at risk for contracting HIV. For example, Ana (aged 46), who contracted HIV as a result of her husband’s engagement in unprotected sex with other women, stated that: “It was the behaviors of my husband on turning home and cheating and everything who was bringing this disease”. Ana reported it is critical for her to ensure that her current boyfriend, whom she reports does not engage in sex behaviors with others, uses protection during intercourse. Only one participant reported drug use in the past. Jessica (aged 60), who is a former sex worker and a recovering substance use addict, reported

that: “I started drinking a lot after that happened, like crazy, on top of the heroin”. Jessica emphasized during the interview the importance of more effective needle sharing prevention strategies to decrease HIV risk for individuals who inject intravenous drugs, such as heroin.

The Multifaceted Perception of Risk for HIV: I Am at Risk or Not at Risk?

Six participants reported instances in which they perceived themselves to not be at risk for HIV. Participants mentioned several factors directly associated with their determination of low perceived risk of HIV for themselves. Among the factors mentioned are: the healthcare system, a lack of knowledge of their partner’s risk behaviors, and their partners actions. Related to the healthcare system, Ana’s mention of how an interaction with a physician in Mexico influenced her to have low perception of HIV risk: ”So when I got a kind of infection on the female area, genitals, or whatever you can call it, the doctor told me don't worry, this is something that happens on times when women are sexually active, but it’s nothing to worry about”. The doctor’s omission of Ana’s increased risk for HIV led her to erroneously have low HIV risk perception. Marta discusses her rationale for her assessment of her current primary partner: “He seems like a very introverted guy, like he's not—like we went out and I studied his personality. He's not very outgoing. He's very introverted. Even if a female were to come at him, I'd still think that it would take them some time to go to that person sexually, because when I did it, he was like—he stopped me at all costs” Marta’s statement reflects an emphasis on her partner’s actions and personality which influenced her low risk perception of HIV.

Six participants discussed how they perceived themselves to be at risk with their previous or current partners. The primary reason participants provided for having perceived themselves at risk for HIV at least once in their lives was a lack of certainty of their previous partners’ monogamy. Two of the six participants reported currently perceiving themselves at risk for HIV.

Carolina (aged 52) reports a fear of getting a sexually transmitted disease or HIV infection from her boyfriend or any other partner. Carolina states that: “And I wouldn't want to go to meet another man and start all over again. Like, I don't know, I'm just afraid, you know, getting disease or infections or—cause I feel at my age, I don't want to get an infection”. She reports being monogamous but has concerns that her boyfriend may still currently be engaging in unprotected sex with his wife who he is separated from. Carolina states her fear of acquiring HIV guides her perception of HIV risk, especially because she has a family member who is HIV positive and fears for the possible health consequences of the disease.

Sources of Sexual Health Knowledge: Family, Clinics, and School

Three participants mentioned how there is a lack of sexual health information and education available for women. Jessica admits that she does not have as much knowledge about sexual health and HIV/AIDS, and that this lack of knowledge permeates amongst Latinas. She states: “And it's the lack of knowledge, that they [Latinas] don't know about these AIDS, that AIDS, and that there's help. They really don't know that there's help out there.” Four participants discussed the source in which they learned about sexual health and HIV, even though their primary source of knowledge provided limited information. The primary sources of information mentioned were family members, health clinics, and school. Elena (aged 39) and married stated that: “I think that's more when my mom started talking to us about it [sex and HIV], you know”. Elena mentions how her mother taught her the importance of safe sex. Ana discusses how she learned about sexual health in a clinic in which she volunteered after she acquired HIV. She also mentioned how there were limited opportunities for sexual health education in Mexico.

The Perception of and Adherence to Expected Gender Roles

Men's Gender Roles

All participants described their current views on male gender roles of both within their relationships and at a social level. The main characteristics attributed to male gender roles included: men as supportive partners and family members, machismo, male camaraderie and secretive. Five women described their past or current partners as being supportive within the relationship. Elena states: “well, he's very patient and he helps me around like when I stay there overnight with him like we both help each other with housework or washing or kind of like something's getting us more together and he sees a difference from me to I guess to his other woman [wife whom he is separated from].” Examples of support included caring for them during illness and encouraging them to pursue professional development.

Three participants explicitly mentioned the term “machismo” or described their current or past partner as “machista” at times. For example, Elena states that “Yeah. I think a little bit more of like the—they do have their mind sometimes, you know, and I speak as a—not just mine, you know, but like conversations that I've had with friends that are married that, you know, some— he still has a little bit of that machista mentality in the sense of like, “Oh well when I get home, food is already made or the clothes are going to be washed or the kids are going to be fed at home or whatever.” The primary characteristic mentioned was that there was a male expectation that the woman will be responsible for house duties (e.g., cleaning the house, cooking).

Two participants discussed how they have witnessed instances of male camaraderie. Male camaraderie was explained by both participants as a means of perpetuating social norms. For example, Ana stated: “So my husband got the pills [for a sexually transmitted disease], and I

don't know, the doctor spoke with him more openly and freely because the doctor didn't allow me to be there in the appointment, but the situation was fixed.” Ana’s perception was that her gender prevented her from having accurate information because both men excluded her from the conversation. Susana (aged 23) discussed her perception that maladaptive behavior (e.g., drinking) may also be encouraged within male groups. Three participants also discussed how, at times, they attribute being secretive as a male characteristic. For instance, Jessica states that “That and our culture is like that. You know? Why would I take that, you know? Because they don’t want to admit to themselves that they’ve been messing around. They don’t want to feel like they’re messing around. In other words, it’s a secret. I mean, it’s for real”. Jessica describes the intersection of culture and gender that may promote secrets among relationships.

Women’s Gender Roles

All participants described their perceptions of how women are expected to behave and how they have behaved within their past and current relationships. The characteristics associated with women included: being outspoken, silencing themselves, having marriage as a priority, being independent, and having the family as a priority. Seven women provided examples in which they voiced their opinions within their past or current relationships, such as advocating for protection with their partners. Barbara (aged 27) recalled her discussion with her partner of not removing her intrauterine device (IUD):” I’ll take it out when I want to and either way, if it has to happen, even if I have it on, I could still get pregnant. I mean, there's no reason why I haven't gotten pregnant with or without the device so why are you pressuring me?” She felt empowered to decide when to become pregnant, despite pressure from her family to have children.

Six participants also provided examples in which they felt a need to self-silence at times within their previous or current relationships. They discussed the hardships of breaking the

socialization pattern that encourages self-silencing, especially as it relates to sexual health, of which some were exposed to as they were growing up. Susana stated that: “You don't talk about that [sex]; that's inappropriate. You're not going to ask, and you're not going to tell because if you probably are asking, that means you're out doing something you shouldn't be doing, and then you start getting in trouble for asking and those types of things.” Some participants, linked self-silencing to a fear of being shamed for possibly having multiple sex partners.

Three participants discussed how they were socialized from an earlier age to believe on the priority of getting married. Ana stated that “Your main obligation is buying the fairytale that you get married and you will live happily ever after and then you don't need to work”. She described how as she was growing up in Mexico, her family told her that one of her priorities should be to get married. Three women described the importance of having independence in their lives, especially of being able to work. Julia stated that “Because I'm used to doing everything on my own, like not dependable. Like I guess I feel like I'm a female and we have to do it”. Participants mentioned that both professional independence and family are important in their lives. Four women mentioned the importance of family and their children in their lives and how it impacted their previous or current relationships. Carolina stated that “My family made me stay until it started affecting my kids. I couldn't do it anymore. I left, and I was at a very young age when I left my husband, and my kids were babies.” She describes how being a mother was important to her and affected her decision to remain in an unfaithful marriage for a while. Her emphasis on being a good mother eventually allowed her to overcome the pressure from her family against divorcing her husband.

Discussion

We completed a quantitative assessment to better understand the association of gender roles and HIV risk perception among Latina/ Hispanic female patients in the Emergency Department. Additionally, we conducted a qualitative assessment through individual semi-structured interviews to better understand how Latinas perceive gender roles, sexual risk behaviors, and HIV risk perception. The key findings of the present study include a significant positive association between self-silencing marianismo and HIV risk perception and a negative association between relationship length and HIV risk perception, in the last step of the hierarchical regression. Furthermore, Latinas described multifaceted gender roles related to themselves and their previous and current partners and instances of both voicing their opinions and of self-silencing.

QUANTITATIVE FINDINGS

We found that on average, Latinas who are in longer relationships had significantly lower scores in HIV risk perception and that self-silencing was significantly and positively associated with higher HIV risk perception scores. Our findings are consistent with the literature that longer relationships are associated with decreased risk perception for sexually transmitted infections and HIV (Mehrotra et al, 2009) and that future studies should address relationship length in prevention efforts among Latinas/ Hispanic females (Castaneda, 2000). It is interesting that self-silencing marianismo was significantly and positively associated with HIV risk perception. Higher scores of self-silencing have previously been associated with higher levels of depression among women (Cramer, Gallant, & Langlois, 2005; Thompson, Whiffen, & Aube, 2001; Jack, 1991). While research has investigated the association of self-silencing to HIV risk among midlife and older women (Jacobs & Thomlison, 2009), further research is needed to better

understand the mechanisms of the effects of self-silencing on HIV risk perception. While previous research (Bonar et al., 2014) has demonstrated adequate internal consistency of the HIV Risk Taking Behavior Scale (HRBS), our study found that the internal consistency of the sexual subscale was inadequate among a sample of Latina/ Hispanic females.

QUALITATIVE FINDINGS

Qualitative findings indicate participants attributed risk behaviors to themselves or it to their partners. Specifically, risk behaviors attributed to partners consisted of partners from previous relationships, with one participant reporting her previous partner's infidelity as the reason for divorcing him. Risk behaviors engaged by self were having multiple sex partners and drug use. Participants mentioned almost equally of situations in which they perceived themselves to be at risk and not at risk. Participants perceived themselves to be at risk for HIV in previous relationships or during the beginning of their current relationship. Most participants discussed limited knowledge of sexually transmitted infections and HIV.

In relation to gender roles, most participants described their current partners as being supportive and few describe negative male gender roles of their previous partners. Three participants ascribed negative "machista" characteristics to their partners, even though their partners were not Mexican or Mexican American. Women discussed how preconceived notions of negative gender roles are diminishing among Mexican American males and how gender roles are being re-negotiated. Interestingly, women mentioned several instances of voicing their opinions or of situations of self-silencing, such as feeling uncomfortable discussing their sexual history or protection with their partners. Women felt more empowered to voice their opinions and views in their current relationships, compared to their previous relationships.

QUANTITATIVE AND QUALITATIVE FINDINGS

HIV sexual risk behaviors was not significantly associated with HIV risk perceptions in the quantitative stage. Similarly, few participants reported engaging in risk behaviors themselves in their current relationship during the interview. HIV sexual risk behaviors were mostly explained by their perceptions that their previous partners may have engaged in risk behaviors. Perceptions of HIV risk were low for current relationships. For the quantitative stage, gender roles were not significantly associated with HIV risk perception. During the interviews, participants mentioned empowerment in voicing their opinions at times. Women's perceptions of negative machismo characteristics in their partner were not significantly associated with HIV risk perception. Notably, the issues of machismo and negative characteristics related to male gender roles arose in the subset of participants who completed in-depth interviews. When describing their previous partners, women referred to their previous partners as secretive, unfaithful and related negative characteristics of male gender roles. In contrast, when women described their current male partners, they referred to more positive characteristics of male gender roles (e.g., supportive). For women's gender roles, self-silencing marianismo was significantly associated with HIV risk perception. More specifically, women described in the interviews situations in which they did not feel comfortable discussing sexual history and health, which was further compounded by the perceptions of sexual discussions as taboo among Latinos.

POSITIONALITY AND REFLECTIONS

As a Brazilian-American Latina researcher, I constantly engaged in how my positionality may have influenced my research focus and trajectory. Feminist theory suggests that one's life experiences and personal characteristics (e.g., gender, academic training) can influence questions investigators seek to answer and their research approach. For example, my experience as a Latina

graduate student, and marital status can shape the research questions I ask, my approach to answer them. I constantly reflected on the concept of the “insider-outsider” status, which is frequently discussed in feminist-based research. The notion of the “insider-outsider” status refers to the degree to which the researcher is located within or outside the group or population in which her or she researchers. My insider position as a female, Latina and currently married facilitated me to develop rapport with participants and to share the discussions of similar experiences. Participants appeared to feel comfortable discussing previous and current relationships as well as their sexual history. My outsider position as someone who did not grow up in the U.S./ Mexico border, is not of Mexican heritage, and does not speak fluent Spanish, may have led to some participants explaining their views and experiences in greater detail.

LIMITATIONS

There are several limitations to the current study. First, we did not counterbalance the administration of the measures. Thus, all participants have completed the measure of HIV risk perception at the end of the survey. Therefore, the measure may have been disproportionately affected by participant fatigue. Second, the study is underpowered to detect smaller effect sizes among the variables used. Third, participants may have constituted a biased sample of the population being studied. For example, participants who consented to the study may have felt more comfortable completing sex and drug use questions, compared to other patients in the Emergency Department. Fourth, causal assumptions cannot be made based on the data from the present study, since it consisted of a one-time assessment.

The recruitment for the study had to be terminated earlier to ensure both the researcher and patient safety due transmission concerns of the Coronavirus (COVID-19) pandemic. Additionally, the El Paso Walmart shooting that occurred in August, 2019 in which 22

individuals were killed, may also have affected participants' global perceptions of risk. HIV risk perception was the criterion variable of the study and may have been influenced by an overall increased risk perception. For example, one participant discussed how she feared for her safety after the shooting and another participant described her perception of increased discrimination and violence towards Hispanics/ Latinos. Additionally, the present study may be underpowered to achieve data saturation in relation to the qualitative study. This may affect the generalizability of the findings.

CURRENT RECOMMENDATIONS FOR BEST PRACTICES AND FUTURE DIRECTIONS

Based on the findings of the current study, we recommend public health interventions to expand how risk is conceptualized in ways that go beyond an individual focus to a relational focus, as risk is produced within relationships, with self-silencing being a piece of that relationship that may indicate a power differential where an individual not engaging in risk behaviors may be at risk because of the actions of their current partner or past partners. For clinical settings, we recommend the following strategies and recommendations for best practices: the development of materials (e.g. pamphlets) to decrease cognitive distortions associated with self-silencing among Latina patients and the training of specific skill sets for women to effectively discuss sexual health with their partners. Furthermore, we recommend increased awareness among health professionals that Latinas may be at risk of internalizing self-silencing, which may lead to underreport of several risk behaviors and perceptions, especially as it relates to sexual risk behaviors. Clinicians may benefit from encouraging a model of empowerment that associates sexual health discussion with the importance of advocating for self for Latinas.

Based on our current findings, we recommend for future research to develop and evaluate measures that are of both individual focus and relational focus when assessing sexual risk

behaviors among this population. Furthermore, future studies are needed to better understand the mechanisms associated with self-silencing, which is one facet of marianismo, and HIV risk perception (e.g., mediation and moderation models) among a population of health-seeking Latinas/ Hispanic females who may have access to HIV testing, yet may underperceive their risk for HIV. Additionally, future research should also further investigate the association of factors related to self-silencing (e.g. being a survivor of domestic violence) with HIV risk perception.

Table 1. Sample Demographics for Quantitative Stage: Frequencies, Means and Standard Deviations

Demographics	N (%)	M (SD)
Age	80 (100%)	37.27 (12.5)
Country of Birth		
Mexico	14 (17.5)	
United States	66 (82.5)	
Health Insurance		
Yes	24 (30)	
No	37 (46.3)	
Unsure	1 (1.3)	
Did not answer	18 (22.5)	
Annual Income		
Less than \$10,000	27 (33.8)	
\$10,000-\$19,999	18 (22.5)	
\$20,000-\$29,999	17 (21.3)	
\$30,000-\$39,999	6 (7.5)	
\$40,000-\$49,999	2 (2.5)	
\$50,000 or more	8 (9.9)	
Did not answer	2 (2.5)	
Relationship Status		
In a relationship	43 (53.8)	
Legally Married	22 (27.5)	
In a Domestic Partnership	8 (10)	
Dating	7 (8.8)	
Relationship Length in Months		86.01 (115.41)
Partner's ethnicity		
Mexican	22 (27.5)	
Mexican American	30 (37.5)	
Another Hispanic, Latino, or Spanish	10 (12.5)	
Not of Hispanic Origin	10 (12.5)	
Unknown/ Not Sure	5 (6.3)	
Partner's race		
White	51 (63.8)	
Black or African American	5 (6.3)	
American Indian or Alaska Native	1 (1.3)	
Unknown/ Not sure	12 (15)	
Did not answer	11 (13.8)	

Table 2. Sample Demographics for Qualitative Stage: Frequencies, Means and Standard Deviations

Demographics		N (%)	M (SD)
Age		8 (100)	38.25 (13.35)
Country of Birth	Mexico	1 (12.5)	
	United States	7 (87.5)	
Health Insurance	Yes	3 (37.5)	
	No	4 (50)	
	Did not answer	1 (12.5)	
Annual Income	Less than \$10,000	1 (12.5)	
	\$10,000-\$19,999	1 (12.5)	
	\$20,000-\$29,999	2 (25)	
	\$30,000-\$39,9999	1 (12.5)	
	\$40,000-\$49,9999	1 (12.5)	
	\$50,000 or more	1 (12.5)	
	Did not answer	1 (12.5)	
Relationship Status	In a relationship	3 (37.5)	
	Legally Married	1 (12.5)	
	In a Domestic Partnership	2 (25)	
	Dating	2 (25)	
Relationship Length in Months			47.29 (47.61)
Partner's ethnicity	Mexican American	4 (62.5)	
	Not of Hispanic Origin	3 (37.5)	
Partner's race	White	2 (25)	
	Black or African American	3 (37.5)	
	Unknown/ Not sure	2 (25)	
	Did not answer	1 (12.5)	

Table 3. Participants who completed only the quantitative (QUAN) survey (N=72) and participants who completed both the quantitative survey and interview (QUAN + QUAL) (N=8)

Demographics		N (%) QUAN + QUAL	N (%) QUAN ONLY	M (SD) QUAN + QUAL	M (SD) QUAN ONLY
Age		8 (100)	72 (100)	38.25 (13.35)	37.17 (12.5)
Country of Birth	Mexico	1 (12.5)	13 (18.1)		
	United States	7 (87.5)	59 (81.9)		
Health Insurance	Yes	3 (37.5)	21 (29.2)		
	No	4 (50)	33 (45.8)		
	Did not answer	1 (12.5)	56 (77.8)		
Annual Income	Less than \$10,000	1 (12.5)	26 (36.1)		
	\$10,000-\$19,999	1 (12.5)	17 (23.6)		
	\$20,000-\$29,999	2 (25)	15 (20.8)		
	\$30,000-\$39,999	1 (12.5)	5 (6.9)		
	\$40,000-\$49,999	1 (12.5)	1 (1.4)		
	\$50,000 or more	1 (12.5)	7 (9.8)		
	Did not answer	1 (12.5)	1 (1.4)		
Relationship Status	In a relationship	3 (37.5)	23 (31.9)		
	Legally Married	1 (12.5)	31 (43.1)		
	In a Domestic Partnership	2 (25)	7 (9.7)		
	Dating	2 (25)	11 (15.3)		
Relationship Length in Months				47.29 (47.61)	89.95 (120.97)
Partner's ethnicity	Mexican/ Mexican American	4 (62.5)	47 (65.3)		
	Not of Hispanic Origin	3 (37.5)	8 (11.3)		
Partner's race	White	2 (25)	47 (65.3)		
	Black or African American	3 (37.5)	4 (5.6)		
	Unknown/ Not sure	2 (25)	10 (13.9)		
	Did not answer	1 (12.5)	10 (13.9)		

Table 4. Summary of Reliabilities, Intercorrelations, Means, and Standard Deviations for Scores on the GRBS, MBS, Machismo, and PRHS.

Measures	1	2	3	4	5	α	M	SD
1.HRBS	---					.238	12.24	3.539
2. GRBS	.008	---				.624	37.74	7.322
3. MBS	-.172	-.111	---			.808	13.87	6.018
4. Machismo	-.260*	.413**	.297*	---		.611	41.04	6.086
5. PRHS	.003	-.105	.222	-.064	---	.818	18.49	5.187

Note. Correlations, M and SD based on pooled results from multiple imputations. The short version of the GRBS was used. Items 7-11 from the HRBS were added to create a sexual risk subscale. Items 16-21 from the MBS were added to create the self-silencing subscale. Items related to male privilege and selfish conduct (1, 3, 5, 6, 8, 9,10, 11, 12, 13, 17, 18, 23, 25, 31) were added to create a negative machismo factor. The male privilege and the selfish conduct subscales had a pooled correlation of .737**

** . Correlation is significant at the 0.01 level (2-tailed)

* . Correlation is significant at the 0.05 level (2-tailed)

Table 5. Summary of Hierarchical Regression Analysis for Variables Predicting HIV Risk Perception

Variable	β	$SE(\beta)$	t	sr^2
<i>Step 1</i>				
Relationship Length	-.017	.010	-1.660	.066
<i>Step 2</i>				
Relationship Length	-.017	.010	-1.638	.065
HIV risk behaviors	.091	.208	.438	.004
<i>Step 3</i>				
Relationship Length	-.017	.010	-1.667	.068
HIV risk behaviors	.097	.208	.468	.004
Gender roles	-.028	.065	-.425	.003
<i>Step 4</i>				
Relationship Length	-.020	.010	-2.023*	.091
HIV risk behaviors	.117	.205	.57	.005
Gender Roles	-.007	.074	-.091	.000
Marianismo	.349	.134	2.609*	.094
Machismo	-.037	.075	-.487	.003

Note: * $p < .05$, ** $p < .01$

Table 6. Qualitative Findings

Themes	Main Codes	Main Sub-codes	Example	Frequency
<i>The source of HIV Risk Behaviors</i>	<i>Risk behaviors</i>			
		<i>Self</i>	“Right now, I’m sleeping with two guys”	23
		<i>Partner’s</i>	“The experience that I had once is when my husband always tells me that he was doing overtime in his job. I never know that overtime was not exactly overtime, he was cheating to me “	15
<i>The perception of risk for HIV</i>	<i>Risk perception</i>			
		<i>Not at risk</i>	“I ended up dating these men every time they came into town. I was paid very good money. I didn’t like it, I didn’t like being with these men, but I felt safe with them.”	17
		<i>At risk</i>	“Yeah, I knew what I was getting myself into. I knew that there was a possibility that these guys could have something.”	16
<i>The sources of Sexual Health Knowledge</i>	<i>Sexual Health Knowledge</i>			
		<i>Family</i>	“So I think that's more when my mom started talking to us about it [sexual health], you know”	4
		<i>Clinic</i>	“That clinic brings the [sexual health] knowledge to us training to bring the same information to young teenagers”	2
		<i>School</i>	“Around the same time, they bring the same [sexual health] information on classes, but the classes are like integrated secondary school”	2
<i>The perception of expected gender roles or the adherence to gender roles</i>	<i>Men’s Roles</i>			
		<i>Supportive</i>	“He's like he knows how to treat me well. He treats me well, then, well see, he just acts like a man and supportive, very patient”	13
		<i>Machismo</i>	“Because over there in Mexico, the men are more known to be like the head of the family and like what they call them—macho, machismo, where it's like they're supposed to be taking care of the family and	7

			outside, like work and everything, bringing money to the house, and women are supposed to stay at home.”	
		<i>Camaraderie</i>	“I think they influence each other and they—that’s just a guy thing.”	7
		<i>Secretive</i>	“Because they don’t want to admit to themselves that they’ve been messing around. They don’t want to feel like they’re messing around. In other words, it’s a secret. I mean, it’s for real”	5
	<i>Women’s Roles</i>			
		<i>Outspoken</i>	“I feel like if I wanted to tell him something, we’d be okay about it”	17
		<i>Silencing</i>	“Well, I think as women, like conversations that we would have with our friends, some women would not be comfortable talking with their husbands about.”	16
		<i>Marriage as priority</i>	“You are going to have marriage and then you will have kids and you will be too busy to work in your profession.”	9
		<i>Independent</i>	“I guess maybe they [women] were like doing stuff or they rather just be on their own like not to depend on nobody.”	9
		<i>Family as priority</i>	“And I’m like, I feel if you love your man, take care of your man”	8

References

- Aguiar, A. D., & Camargo, B. V. (2014). Romantic relationships, adolescence and HIV: Love as an element of vulnerability. *Paidéia (Ribeirão Preto)*, 24(58), 165–176. doi: 10.1590/1982-43272458201404
- Aljassem, K., Raboud, J. M., Hart, T. A., Benoit, A., Su, D., Margolese, S. L., . . . Loutfy, M. R. (2014). Gender differences in severity and correlates of depression symptoms in people living with HIV in Ontario, Canada. *Journal of the International Association of Providers of AIDS Care*, 15(1), 23-35. doi:10.1177/2325957414536228
- Althoff, K. N., Smit, M., Reiss, P., & Justice, A. C. (2016). HIV and ageing: improving quantity and quality of life. *Current opinion in HIV and AIDS*, 11(5), 527–536. <https://doi.org/10.1097/COH.0000000000000305>
- Amaro, H., Raj, A., & Reed, E. (2001). Women’s sexual health: The need for feminist analyses in public Health in the decade of behavior. *Psychology of Women Quarterly*, 25(4), 324-334. doi:10.1111/1471-6402.00032
- American Foundation for AIDS Research (amfAR). (2017). Statistics: Women and HIV/AIDS. Retrieved from: <http://www.amfar.org/About-HIV-and-AIDS/Facts-and-Stats/Statistics--Women-and-HIV-AIDS/>
- American Trauma Society (n.d.). Retrieved from: <https://www.amtrauma.org/page/traumalevels>
- [Anzaldúa, G. \(1987\). *Borderlands: The new mestiza = La frontera*. San Francisco: Spinsters/Aunt Lute.](#)
- Arciniega, G. M., Anderson, T. C., Tovar-Blank, Z. G., & Tracey, T. J. (2008). Toward a fuller conception of Machismo: development of a traditional Machismo and Caballerismo Scale. *Journal of Counseling Psychology*, 55(1), 19-33. doi:10.1037/0022-0167.55.1.19

Aronson, J. (1995). A Pragmatic View of Thematic Analysis. *The Qualitative Report*, 2(1), 1-3.

Retrieved from <http://nsuworks.nova.edu/tqr/vol2/iss1/3>

Arseniou, S., Arvaniti, A., & Samakouri, M. (2013). HIV infection and depression. *Psychiatry and Clinical Neurosciences*, 68(2), 96-109. doi:10.1111/pcn.12097

Beer, L., Tie, Y., Padilla, M., & Shouse, R. L. (2019). Generalized anxiety disorder symptoms among persons with diagnosed HIV in the United States. *Aids*, 33(11), 1781–1787. doi: 10.1097/qad.0000000000002286

Bowleg, L., Belgrave, F. Z., & Reisen, C. A. (2000). Gender roles, power strategies, and precautionary sexual self-efficacy: Implications for Black and Latina women's HIV/AIDS protective behaviors. *Sex Roles: A Journal of Research*, 42(7-8), 613–635.

<https://doi.org/10.1023/A:1007099422902>

Brod, H. (1987). The case for men's studies. In H. Brod (Ed.), *The making of masculinities* (pp. 39–62). Winchester, MA: Allen & Unwin

Brody, L. R., Stokes, L. R., Dale, S. K., Kelso, G. A., Cruise, R. C., Weber, K. M., . . . Cohen, M. H. (2014). Gender Roles and Mental Health in women with and at Risk for HIV. *Psychology of Women Quarterly*, 38(3), 311-326. doi:10.1177/0361684314525579

Brown, M.J., & Gladstone, N. (2012)/ Development of a short version of the Gender Role Beliefs scale. *International Journal of Psychology and Behavioral Sciences*, 2(5), 154-158. doi: 10.5923/j.ijpbs.20120205.05

Bruck-Segal, D., Schwartz, R. M., Cohen, M. H., Weber, K. M., Burke-Miller, J. K., Kassaye, S., & Brody, L. R. (2019). The costs of silencing the self and divided self in the context of physical abuse, racial/ethnic identity, and medication adherence in women living with HIV. *Sex Roles*. doi: 10.1007/s11199-019-01086-0

- Campbell, A. N. C., Brooks, A. J., Pavlicova, M., Hu, M.-C., Hatch-Maillette, M. A., Calsyn, D. A., & Tross, S. (2016). Barriers to condom use: Results for men and women enrolled in HIV risk reduction trials in outpatient drug treatment. *Journal of HIV/AIDS & Social Services*, 15(2), 130–146. doi: 10.1080/15381501.2016.1166090
- Cañizares, S., Cherner, M., & Ellis, R. (2014). HIV and aging: effects on the central nervous system. *Seminars in Neurology*, 34(01), 027-034. doi:10.1055/s-0034-1372340
- Carey, M. P., & Schroder, K. E. (2002). Development and Psychometric Evaluation of the Brief HIV Knowledge Questionnaire. *AIDS Education and Prevention*, 14(2), 172-182. doi:10.1521/aeap.14.2.172.23902
- Castaneda, D. (2000). The close relationship context and HIV/AIDS risk reduction among Mexican Americans. *Sex Roles*, 42 (7/8)
- Castillo, L. G., Perez, F. V., Castillo, R., & Ghosheh, M. R. (2010). Construction and initial validation of the Marianismo Beliefs Scale. *Counselling Psychology Quarterly*, 23(2), 163-175. doi:10.1080/09515071003776036
- Castro, F. G., Kellison, J. G., Boyd, S. J., & Kopak, A. (2010). A methodology for conducting integrative mixed methods research and data analyses. *Journal of Mixed Methods Research*, 4(4), 342-360. doi:10.1177/1558689810382916
- Cederfjäll, C., Langius-Eklöf, A., Lidman, K., & Wredling, R. (2001). Gender differences in perceived health-related quality of life among patients with HIV Infection. *AIDS Patient Care and STDs*, 15(1), 31–39. doi: 10.1089/108729101460083
- Centers for Disease Control and Prevention (CDC). HIV Incidence: Estimated Annual Infections in the U.S., 2010-2016. (2019, February 27). Retrieved March 5, 2020, from <https://www.cdc.gov/nchhstp/newsroom/2019/HIV-incidence.html>

Centers for Disease Control and Prevention (CDC). Estimated HIV incidence and prevalence in the United States, 2010-2016. *HIV/AIDS surveillance supplemental report*. 2019;24(1).

Retrieved March 5, 2020 from

<https://www.cdc.gov/hiv/pdf/library/reports/surveillance/cdc-hiv-surveillance-supplemental-report-vol-24-1.pdf>.

Centers for Disease Control and Prevention (CDC). Screening in clinical settings. (2019, October 21). Retrieved March 5, 2020, from

<https://www.cdc.gov/hiv/clinicians/screening/clinical-settings.html>

Centers for Disease Control and Prevention (CDC). Health Disparities & Populations at Risk.

(2016, May 24). Retrieved from <https://www.cdc.gov/nchhstp/health-disparities-risk.html>

Centers for Disease Control and Prevention (CDC). HIV among women. (2020, January 21).

Retrieved from <https://www.cdc.gov/hiv/group/gender/women/index.html>

Chakradhar, S. (2018). A tale of two diseases: Aging HIV patients inspire a closer look at Alzheimers disease. *Nature Medicine*, 24(4), 376–377. doi: 10.1038/nm0418-376

Chivate, P., Umate, M., Nimkar, S., & Sousa, A. D. (2017). Gender differences in perceived stigma and hope in people living with HIV / AIDS: an exploratory study. *International Journal Of Community Medicine And Public Health*, 4(2), 487. doi: 10.18203/2394-6040.ijcmph20170278

Cohen, D. (1998) Review of Gutmann, Matthew C., *The Meaning of Macho: Being a Man in Mexico City*. *H-Urban, H-Net Reviews*

Cramer, K. M., Gallant, M. D., & Langlois, M. W. (2005). Self-silencing and depression in women and men: Comparative structural equation models. *Personality and Individual Differences*, 39, 581-592.

- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods research* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Creswell, J.W., Klassen AC, Plano Clark VL, Smith KC for the Office of Behavioral and Social Sciences Research. *Best practices for mixed methods research in the health sciences*. August 2011. National Institutes of Health.
- Creswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed method approaches*. Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.
- Creswell, J.W. (2013). *Qualitative inquiry & research design: choosing among the five approaches*. Thousand Oaks, CA: Sage Publications, Inc.
- Darke, S., Hall, W., Heather, N., Ward, J., & Wodak, A. (1991). The reliability and validity of a scale to measure HIV risk-taking behaviour among intravenous drug users. *AIDS*, 5(2), 181-185. <http://dx.doi.org/10.1097/00002030-199102000-00008>
- Derry, S. J. (1999). A Fish called peer learning: Searching for common themes. In M. O'Donnell & A. King (Eds.)
- Erdfelder, E., Faul, F., & Buchner, A. (2005). Power analysis for categorical methods. In B. S. Everitt & D. C. Howell (Eds.), *Encyclopedia of statistics in behavioral science* (pp. 1565–1570). Chichester, U.K.: Wiley.
- Ertl, M. M., Rentería, R., Dillon, F. R., Babino, R., Rosa, M. D. L., & Brenner, R. E. (2019). Longitudinal associations between marianismo beliefs and acculturative stress among Latina immigrants during initial years in the United States. *Journal of Counseling Psychology*, 66(6), 665–677. doi: 10.1037/cou0000361

- Exnet, T., Hoffman, S., Dworkin, S., & Ehrhardt, A. A. (2003). Beyond the male condom: The evolution of gender-specific HIV interventions for women. *Annual Review on Sex*, 14, 114–136.
- Falicov, C. J. (2010). Changing Constructions of Machismo for Latino Men in Therapy: “The Devil Never Sleeps.” *Family Process*, 49(3), 309–329. doi: 10.1111/j.1545-5300.2010.01325.x
- Farnham, P. G., Gopalappa, C., Sansom, S. L., Hutchinson, A. B., Brooks, J. T., Weidle, P. J., ... Rimland, D. (2013). Updates of lifetime costs of care and quality-of-life estimates for HIV-infected persons in the United States. *Journal of Acquired Immune Deficiency Syndromes*, 64(2), 183–189. doi: 10.1097/qai.0b013e3182973966
- Fauci A. S, Redfield, R.R, Sigounas, G, Weahkee, M.D., Giroir, B.P. (2019) Ending the HIV epidemic: A plan for the United States. *JAMA*. 321(9):844–845.
doi:10.1001/jama.2019.1343
- Fekete, E. M., Williams, S. L., Skinta, M. D., & Bogusch, L. M. (2016). Gender differences in disclosure concerns and HIV-related quality of life. *AIDS Care*, 28(4), 450–454. doi: 10.1080/09540121.2015.1114995
- Fernandez, M.I., Bowen, G.S., Perrino, T., Royal, S., Mattson, T., Arheart, K.L., Cohn, S. (2003). Promoting HIV-testing among never tested Hispanic-men: A doctor’s recommendation may suffice. *AIDS and Behavior*, 7(3), 253-262.
- Ferrer, L., Cianelli, R., Villegas, N., Reed, R., Bernales, M., Repetto, P., ... Peragallo-Montano, N. (2016). Exploring the masculine identity in the context of HIV prevention in Chile. *Journal of Nursing Scholarship*, 48(2), 128–138. doi: 10.1111/jnu.12190

- Fisher M (2008) Late diagnosis of HIV infection: major consequences and missed opportunities. *Current Opinion Infectious Diseases*, 21 (1): 1-3. 10.1097/QCO.0b013e3282f2d8fb.
- Fredericksen, R.J., Fitzsimmons, E., Gibbons, L.E. (2019) How do treatment priorities differ between patients in HIV care and their providers? A Mixed-Methods study. *AIDS and Behavior*. <https://doi.org/10.1007/s10461-019-02746-8>
- Galanti, G. (2003). The Hispanic family and male-female relationships: An overview. *Journal of Transcultural Nursing*, 14(3), 180-185. doi:10.1177/1043659603014003004
- Garcia, J. R., Gesselman, A. N., Massey, S. G., Seibold-Simpson, S. M., & Merriwether, A. M. (2018). Intimacy through casual sex: Relational context of sexual activity and affectionate behaviours. *Journal of Relationships Research*, 9. doi: 10.1017/jrr.2018.10
- Garfield, R. (2010). Male emotional intimacy: How therapeutic men's groups can enhance couples therapy. *Family Process*, 49(1): 109–122.
- Gentry, Q. M., Elifson, K., & Sterk, C. (2005). Aiming for More Relevant HIV Risk Reduction: A Black Feminist Perspective for Enhancing HIV Intervention for Low-Income African American Women. *AIDS Education and Prevention*, 17(3), 238-252. doi:10.1521/aeap.17.4.238.66531
- Graham, J. W., Olchowski, A.E., & Gilreath, T.D. (2007) “How many imputations are really needed? Some practical clarifications of multiple imputation theory.” *Prevention Science* 8: 206–213.
- Gutmann, M. C. (1996). *The meanings of macho: being a man in Mexico City*. Berkeley (Calif.): University of California Press.
- Gutmann, M. C. (2007). *Fixing men: sex, birth control, and AIDS in Mexico*. Berkeley: University of California Pres

- Hernandez, A. M., Zule, W. A., Karg, R. S., Browne, F. A., & Wechsberg, W. M. (2012). Factors that influence HIV risk among Hispanic female immigrants and their implications for HIV prevention interventions. *International Journal of Family Medicine*, 2012, 876381. <https://doi.org/10.1155/2012/876381>
- Hesse-Biber, S. N., & Yaiser, M. L. (2004). *Feminist perspectives on social research*. United States: Oxford University Press.
- Hirsch, J. S., Higgins, J., Bentley, M. E., & Nathanson, C. A. (2002). The social constructions of sexuality: Marital fidelity and sexually transmitted disease – HIV risk in a Mexican migrant community. *American Journal of Public Health*, 92, 1227–1237. doi:10.2105/ajph.92.8.1227
- Hong, S., & Banks, W. A. (2015). Role of the immune system in HIV-associated neuroinflammation and neurocognitive implications. *Brain, Behavior, and Immunity*, 45, 1-12. doi:10.1016/j.bbi.2014.10.008
- Hull, G. T., Scott, P. B., Smith, B. (Eds.) (1982). *All the women are white, all the blacks are men, but some of us are brave: black women's studies*. Old Westbury, NY: Feminist.
- Hutchinson, A. B., Farnham, P. G., Dea, H. D., Ekwueme, D. U., del Rio, C., Karimoto, L., & Kellerman, S. E. (2006). The economic burden of HIV in the United States in the era of highly active antiretroviral therapy. *Journal of Acquired Immune Deficiency Syndrome*, 43, 451-457.
- Ibañez, G. E., Whitt, E., Avent, T., Martin, S. S., Varga, L. M., Cano, M. A., & O'Connell, D. J. (2016). 'Love and trust, you can be blinded': HIV risk within relationships among Latina women in Miami, Florida. *Ethnicity & Health*, 22(5), 510–527. doi: 10.1080/13557858.2016.1244737

- Jacelon, C.S., O'Dell, K.K. (2005). Analyzing qualitative data. *Urologic Nursing*, 25(3):217-220.
- Jacobs, R. J., & Thomlison, B. (2009). Self-Silencing and age as risk factors for sexually acquired HIV in midlife and older women. *Journal of Aging and Health*, 21(1), 102–128. <https://doi.org/10.1177/0898264308328646>
- Jarama, S. L., Belgrave, F. Z., Bradford, J., Young, M., & Honnold, J. A. (2007). Family, cultural and gender role aspects in the context of HIV risk among African American women of unidentified HIV status: An exploratory qualitative study. *AIDS Care*, 19(3), 307–317. doi: 10.1080/09540120600790285
- Kates, J., Millett, G., Dawson, L., Honermann, B., Jones, A., Sherwood, J., ... Kuenzle, K. (2020). The broader context of “Ending the HIV Epidemic: A Plan for America” initiative. *American Journal of Public Health*, 110(1), 58–60. doi: 10.2105/ajph.2019.305429
- Little, R.J. (1988) A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, 83:404, 1198-1202, DOI: 10.1080/01621459.1988.10478722
- Lopez-Quintero, C., Shtarkshall, R., & Neumark, Y. D. (2005). Barriers to HIV-testing among Hispanics in the United States: Analysis of the National Health Interview Survey, 2000. *AIDS Patient Care and STDs*, 19(10), 886-897. doi:10.1089/apc.2005.19.886
- Loreto Lara, C., Rosina Cianelli, A., Lilian Ferrer, L., Margarita Bernales, S., & Natalia Villegas, R. (2008). Comunicación de pareja y VIH en mujeres en desventaja social. *Horizonte de enfermería*, 19(2), 35–43.

- Marian, Blumenfeld, & Kaushanskaya (2007). The Language Experience and Proficiency Questionnaire (LEAP-Q): Assessing language profiles in bilinguals and multilinguals. *Journal of Speech Language and Hearing Research*, 50 (4), 940-967.
- McCall, L. (2009). Chapter 2. In *Intersectionality and beyond: law, power and the politics of location* (pp. 49–76). London: Routledge-Cavendish.
- Mehrotra, P., Noar, S. M., Zimmerman, R. S., & Palmgreen, P. (2009). Demographic and personality factors as predictors of HIV/STD partner-specific risk perceptions: Implications for interventions. *AIDS Education and Prevention*, 21(1), 39–54. doi: 10.1521/aeap.2009.21.1.39
- Millar, B. M., Starks, T. J., Gurung, S., & Parsons, J. T. (2017). The impact of comorbidities, depression, and substance use problems on quality of life among older adults living with HIV. *AIDS and behavior*, 21(6), 1684–1690. <https://doi.org/10.1007/s10461-016-1613-5>
- Misovich, S. J., Fisher, J. D., & Fisher, W. A. (1997). Close relationships and elevated HIV risk behavior: Evidence and possible underlying psychological processes. *Review of General Psychology*, 1(1), 72-107. <http://dx.doi.org/10.1037/1089-2680.1.1.72>
- Mitchell, M. M., Nguyen, T. Q., Isenberg, S. R., Maragh-Bass, A. C., Keruly, J., & Knowlton, A. R. (2017). Psychosocial and service use correlates of health-related quality of life among a vulnerable population living with HIV/AIDS. *AIDS and behavior*, 21(6), 1580–1587. <https://doi.org/10.1007/s10461-016-1589-1>
- Moreno, C. L. (2007). The relationship between culture, gender, structural factors, abuse, trauma, and HIV/AIDS for Latinas. *Qualitative Health Research*, 17(3), 340–352. doi: 10.1177/1049732306297387

- Mrus, J. M., Williams, P. L., Tsevat, J., Cohn, S. E., & Wu, A. W. (2005). Gender differences in health-related quality of life in patients with HIV/AIDS. *Quality of Life Research*, 14(2), 479–491. doi: 10.1007/s11136-004-4693-z
- Nanni, M. G., Caruso, R., Mitchell, A. J., Meggiolaro, E., & Grassi, L. (2014). Depression in HIV Infected Patients: a Review. *Current Psychiatry Reports*, 17(1). doi:10.1007/s11920-014-0530-4
- Napper, L. E., Fisher, D. G., & Reynolds, G. L. (2012). Development of the Perceived Risk of HIV Scale. *AIDS and Behavior*, 16(4), 1075–1083. doi.org/10.1007/s10461-011-0003-2
- Olivieri-Mui, B., Mcguire, J., Cahill, S., Griffith, J., & Briesacher, B. (2019). People living with HIV in U.S. nursing homes in the fourth decade of the epidemic. *Journal of the Association of Nurses in AIDS Care*, 30(1), 20–34. doi: 10.1097/jnc.0000000000000033
- Olson, B., Vincent, W., Meyer, J. P., Kershaw, T., Sikkema, K. J., Heckman, T. G., & Hansen, N. B. (2019). Depressive symptoms, physical symptoms, and health-related quality of life among older adults with HIV. *Quality of Life Research*, 28(12), 3313–3322. doi: 10.1007/s11136-019-02271-0
- Paltiel, A. D., Weinstein, M. C., Kimmel, A. D., Seage, G. R., Losina, E., Zhang, H., ... Walensky, R. P. (2005). Expanded screening for HIV in the United States – an analysis of cost-effectiveness. *New England Journal of Medicine*, 352(6), 586–595. doi:10.1056/NEJMsa042088
- Pellowski, J. A., Kalichman, S. C., Matthews, K. A., & Adler, N. (2013). A pandemic of the poor: Social disadvantage and the U.S. HIV epidemic. *American Psychologist*, 68(4), 197–209. doi: 10.1037/a0032694

- Pence, B. W., Mills, J. C., Bengtson, A. M., Gaynes, B. N., Breger, T. L., Cook, R. L., ...
Mugavero, M. J. (2018). Association of increased chronicity of depression with HIV
appointment attendance, treatment Failure, and mortality among HIV-infected adults in
the United States. *JAMA Psychiatry*, 75(4), 379. doi: 10.1001/jamapsychiatry.2017.4726
- Pew Hispanic Center (2019) Statistical Portraits. Retrieved March 5, 2020, from
<https://www.pewresearch.org/hispanic/category/statistical-portraits/>
- Ramírez-Ortiz, D., Rojas, P., Sánchez, M., Cano, M. Á., & Rosa, M. D. L. (2018). Associations
of Self-Silencing and Egalitarian Attitudes with HIV Prevention Behaviors Among
Latina Immigrant Farmworkers. *Journal of Immigrant and Minority Health*, 21(2), 430–
433. doi: 10.1007/s10903-018-0773-y
- Ravelo, G. J., Sanchez, M., Cyrus, E., Rosa, M. D. L., Peragallo, N., & Rojas, P. (2019).
Associations between gender norms and HIV self-efficacy among Latina immigrants in a
farmworker community. *Ethnicity & Health*, 1–13. doi: 10.1080/13557858.2019.1659234
- Rice, W. S., Turan, B., Fletcher, F. E., Nápoles, T. M., Walcott, M., Batchelder, A., ... Turan, J.
M. (2019). A mixed methods study of anticipated and experienced stigma in health care
settings among women living with HIV in the United States. *AIDS Patient Care and
STDs*, 33(4), 184–195. doi: 10.1089/apc.2018.0282
- Roberts, S. T., & Kennedy, B. L. (2006). Why are young college women not using condoms?
Their perceived risk, drug use, and developmental vulnerability may provide important
clues to sexual risk. *Archives of Psychiatric Nursing*, 20(1), 32–40. doi:
10.1016/j.apnu.2005.08.008

- Rodriguez, K. M., Castillo, L. G., & Gandara, L. (2013). The influence of marianismo, ganas, and academic motivation on Latina adolescents' academic achievement intentions. *Journal of Latina/o Psychology*, 1(4), 218–226. doi: 10.1037/lat0000008
- Ruiz-Perez, I., Murphy, M., Pastor-Moreno, G., Rojas-García, A., & Rodríguez-Barranco, M. (2017). The effectiveness of HIV prevention interventions in socioeconomically disadvantaged ethnic minority women: A systematic review and meta-analysis. *American Journal of Public Health*, 107(12), e13–e21. <https://doi.org/10.2105/AJPH.2017.304067>
- Sabin, C. A., Smith, C. J., Gumley, H., Murphy, G., Lampe, F. C., Phillips, A. N., ... Johnson, M. A. (2004). Late presenters in the era of highly active antiretroviral therapy. *AIDS* 8(16), 2145–2151. doi: 10.1097/00002030-200411050-00006
- Sabogal, F., & Catania, J. A. (1996). HIV Risk Factors, Condom Use, and HIV Antibody Testing among Heterosexual Hispanics: The National AIDS Behavioral Surveys (NABS). *Hispanic Journal of Behavioral Sciences*, 18(3), 367-391. doi:10.1177/07399863960183007
- Sastre, F., De La Rosa, M., Ibanez, G. E., Whitt, E., Martin, S. S., & O'Connell, D. J. (2015). Condom use preferences among Latinos in Miami-Dade: emerging themes concerning men's and women's culturally-ascribed attitudes and behaviours. *Culture, health & sexuality*, 17(6), 667–681. <https://doi.org/10.1080/13691058.2014.989266>
- Schackman, B. R., Fleishman, J. A., Su, A. E., Berkowitz, B. K., Moore, R. D., Walensky, R. P., ... Losina, E. (2015). The lifetime medical cost savings from preventing HIV in the United States. *Medical Care*, 1. doi: 10.1097/mlr.0000000000000308

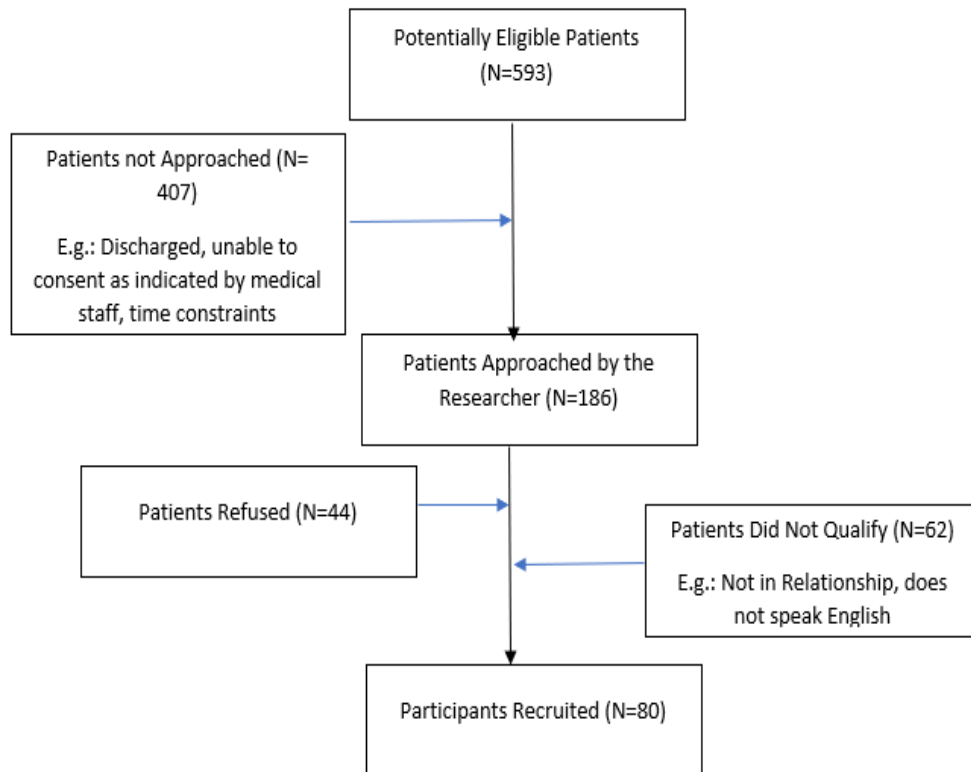
- Schick, V. R., Zucker, A. N., & Bay-Cheng, L. Y. (2008). Safer, better sex through feminism: The role of feminist ideology in women's sexual well-being. *Psychology of Women Quarterly*, 32(3), 225–232. doi: 10.1111/j.1471-6402.2008.00431.x
- Thompson, J. M., Whiffen, V. E., & Aube, J. A. (2001). Does self-silencing link perceptions of care from parents and partners with depressive symptoms? *Journal of Social and Personal Relationships*, 18, 503-516
- United States Census Bureau (n.d.). Retrieved from https://factfinder.census.gov/help/en/hispanic_or_latino_origin.htm
- Silva, N. D., Verdejo, T. R., Dillon, F. R., Ertl, M. M., & Rosa, M. D. L. (2018). Marianismo beliefs, intimate partner violence, and psychological distress among recently immigrated, young adult Latinas. *Journal of Interpersonal Violence*, 088626051877826. doi: 10.1177/0886260518778263
- Upchurch, D. M., Aneshensel, C. S., Mudgal, J., & McNeely, C. S. (2001). Sociocultural contexts of time to first sex among Hispanic adolescents. *Journal of Marriage and Family*, 63(4), 1158–1169. <https://doi.org/10.1111/j.1741-3737.2001.01158.x>
- U.S. Department of Health & Human Services (2020, February 27). What is 'Ending the HIV Epidemic: A Plan for America'? Retrieved March 5, 2020, from <https://www.hiv.gov/federal-response/ending-the-hiv-epidemic/overview>
- Wentzell, E. A. (2013). *Maturing masculinities: aging, chronic illness, and Viagra in Mexico*. Durham: Duke University Press.
- Woods, T. M., Altman, C. E., Chávez, S., & Gorman, B. K. (2018). Gender, migration and perceptions of HIV risk in Mexico. *Culture, Health & Sexuality*, 20(12), 1333–1346. doi: 10.1080/13691058.2018.1434238

Yurek, L. A., Vasey, J., & Havens, D. S. (2008). The use of self-generated identification codes in longitudinal research. *Evaluation Review*, 32(5), 435-452.

doi:10.1177/0193841x08316676

Zambrana, R. E., Cornelius, L. J., Boykin, S. S., & Lopez, D. S. (2004). Latinas and HIV/AIDS Risk Factors: Implications for Harm Reduction Strategies. *American Journal of Public Health*, 94(7), 1152-1158.

Appendix A. Recruitment Chart



Recruitment chart.

Appendix B. Participant Pamphlet

Resources in El Paso

Aliviane, Inc.
1900 Wyoming, Suite A
El Paso, Texas 79903
Tel: (915) 782-4042
Fax: (915) 856-2272
E-mail: info@aliviane.org

Anonymous HIV testing, confidential HIV testing, risk reduction counseling, health education/risk reduction, HIV prevention education, STD prevention education, hepatitis prevention education, street outreach, peer education, substance abuse intervention, educational materials, case management for HIV/AIDS, HIV early intervention, support groups. Spanish speaking staff available.

City of El Paso Department of Public Health
5115 El Paso Drive, Suite B
El Paso, Texas 79905
Tel: (915) 771-1200
Fax: (915) 771-1201

Anonymous HIV testing, confidential HIV testing, STD testing, TB testing, health education/risk reduction, HIV prevention education, STD prevention education, hepatitis prevention education, educational materials, STD clinical treatment, TB clinical treatment, physician on-site, nurse on-site, hepatitis vaccine, Paps with STD exams. Spanish speaking staff available.

Sources:

Information obtained from Texas Department of State Health Services and the Center for Disease Control and Prevention

About HIV

Basic information about HIV and resources list for El Paso

For further questions, contact:

Juliana Cardoso Smith

jcardoso@miners.utep.edu

Resources in El Paso

International AIDS Empowerment
800 Montana Avenue
El Paso, Texas 79902
Tel: (915) 590-2118
Toll Free: (888) 767-8474
Fax: (915) 590-2127
E-mail: skiprosenthal@internationalaids.org
Web: www.internationalaids.org [IAE]

Anonymous HIV test (free), confidential HIV test (free), prevention counseling, peer counseling, health education/risk reduction, HIV prevention education, STD prevention education, hepatitis prevention education, peer education, case management for HIV/AIDS, clothing assistance, financial assistance, food pantry, support groups, volunteer services, HIV infected and affected Speakers' Bureau, smoking cessation. Spanish speaking staff available.

La Fe CARE Center
1505 Mesalero
El Paso, Texas 79925
Tel: (915) 772-3366
Fax: (915) 772-2178
E-mail: jojeda@htq.net or rchavez@htq.net

Anonymous HIV testing, confidential HIV testing, peer education, case management for HIV/AIDS, primary care clinic, clinical treatment for HIV/AIDS, nurse on-site, physician on-site, hepatitis education/counseling, Hepatitis A vaccine-adults, Hepatitis B vaccine-adults, TB testing, prescription assistance, dental care, immunizations, support groups, peer counseling, food pantry, transportation, volunteer services, buddy program, housing assistance, home visits/home health care, brochures.

SPCAA Project CHAMPS El Paso
1201 East Schuster, Building 1A
El Paso, Texas 79902
Tel: (915) 533-3393
Fax: (915) 533-3378
E-mail: aserrano@spscaa.org
Web: www.spscaa.org [SPCAA]
Contact for services

By the numbers...

*Approximately one in four people living with HIV infection in the United States are women.**

Most new HIV infections in women are from heterosexual contact (84%).

An estimated 88% of women who are living with HIV are diagnosed, but only 32% have the virus under control.

Hispanics or Latinos are disproportionately affected by HIV, relative to other races/ethnicities.

The estimated new HIV infection rate among Hispanics or Latinos in 2010 in the United States was more than 3 times as high as that of whites.

How can I reduce my risk of getting HIV?

Anybody can get HIV, but here are some ways:

- Get tested and know your partner's HIV status.
- Have less risky sex.
- Use a condom every time you have vaginal, anal, or oral sex.
- Limit your number of sexual partners. I
- Talk to your health care provider about pre-exposure prophylaxis (PrEP). (Medication that helps to prevent HIV)
- Don't inject drugs.
- Also, talk to your doctor about questions you have

What is HIV?

HIV stands for human immunodeficiency virus. It is the virus that can lead to acquired immunodeficiency syndrome, or AIDS. Unlike some other viruses, the human body cannot get rid of HIV. That means that once you have HIV, you have it for life.

How is HIV passed from one person to another?

HIV can be transmitted in three main ways:

- Sexual transmission (via unprotected sex without a condom)
- Transmission through blood (such as used needles and blood donations)
- Mother-to-child transmission (during pregnancy, labor, delivery or breastfeeding).

In the United States, HIV is spread mainly by having sex with someone who has HIV. In general:

Anal sex is the highest-risk sexual behavior.

Vaginal sex is the second highest-risk sexual behavior.

Having multiple sex partners or having other sexually transmitted infections can increase the risk of infection through sex.

Appendix C: Self-generated Identification Codes

Subject-Generated Identification Code (SGIC)

What is the . . .

First letter of mother's first name? _____

Number of older brothers (living and deceased)? _____

Number representing the month you were born? _____

First letter of middle name (if none, use X): _____

Subject-Generated Identification Code: _____

Appendix D. Sample Interview Questions

Gender roles:

- 1) I am interested in your experience as a Latina living in the US/ Mexico border. Can you tell me more about it?
- 2) How do you think you should behave in your relationship and towards your partner? Do you think you behave like that?
- 3) In your opinion, how are you similar or different to women living in this region?
- 4) How do you think El Paso influences how women who are in relationships behave?
- 5) How do you think men should behave?
- 6) How do you think men should behave towards their partners?
- 7) How do you think El Paso contributes to how men behave?
- 8) How do you think your partner behaves like to or different from other men in El Paso?
- 9) Has your partner ever made you feel uncomfortable because of your gender?
- 10) Describe an experience talking to your partner about sex.
- 11) Did you ever discuss with your partner your sexual history and his? How was that experience.
- 12) Do you ask your partner to use protection when having intercourse? If not, would feel comfortable if you ever felt like you needed to?
- 13) Who do you think should have the power to decide aspects associated with sex in a relationship? (e.g. use of condoms, frequency of intercourse)

HIV knowledge:

- 14) What do you know about HIV? Where did you first learn this information?

HIV risk perception:

- 15) What do you think places Hispanic women at risk for HIV?
- 16) Describe a time when you thought you were or could have been at risk for getting HIV
- 17) Was there a time when you thought your partner was at risk for getting HIV? Why?

- 18) What do you think are the chances that you or your partner might become infected with HIV?
- 19) What are your thoughts about getting tested for HIV?
- 20) Did you get tested for HIV today? Why or why not?

HIV risk behavior:

- 21) Describe a time when you had sex and did not use protection.
- 22) Describe a time when you and your partner talked about protection.
- 23) Was there a time when you were diagnosed with a sexually transmitted infection? Describe it.

Vita

Juliana de Almeida Cardoso Smith earned her Bachelor of Arts degree in Psychology from Hunter College in 2012. She completed a Masters of Arts degree in Psychology from Queens College in 2014. During that time, she also taught as a Psychology Adjunct, graduating in 2013. While she was pursuing her first Masters degree, she was also working in the Emergency Department at Bellevue Hospital/ NYU Langone Medical Center in New York City helping survivors of sexual assaults with their experiences in the Emergency Department. She joined the doctoral program in Psychology at the University of Texas at El Paso in 2014. She completed a Graduate Certificate in Women and Gender Studies at the University of Texas at El Paso in 2019 and her Masters in Arts degree in Experimental Psychology in 2019. While at the University of Texas at El Paso she has served as an Assistant Instructor in Psychology for the courses of Introduction to Psychology and Statistical Methods.

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