2015-01-01

Sexual Self-Esteem And Its Relation To Substance Use And Sexual Risk In A Sample Of Latino Men Who Have Sex With Men And Who Are Living With Hiv

Miriam Pando

University of Texas at El Paso, mpando3@miners.utep.edu

Follow this and additional works at: https://digitalcommons.utep.edu/open_etd

Part of the Psychology Commons

Recommended Citation

https://digitalcommons.utep.edu/open_etd/1118

This is brought to you for free and open access by DigitalCommons@UTEP. It has been accepted for inclusion in Open Access Theses & Dissertations by an authorized administrator of DigitalCommons@UTEP. For more information, please contact lweber@utep.edu.
SEXUAL SELF-ESTEEM AND ITS RELATION TO SUBSTANCE USE AND SEXUAL RISK IN A SAMPLE OF LATINO MEN WHO HAVE SEX WITH MEN AND WHO ARE LIVING WITH HIV

MIRIAM PANDO
Department of Psychology

APPROVED:

John S. Wiebe, Ph.D., Chair

Jennifer Eno Louden, Ph.D.

Julia Lechuga, Ph.D.

Oralia Loza, Ph.D.

Charles Ambler, Ph.D.
Dean of the Graduate School
SEXUAL SELF-ESTEEM AND ITS RELATION TO SUBSTANCE USE AND SEXUAL RISK IN A SAMPLE OF LATINO MEN WHO HAVE SEX WITH MEN AND WHO ARE LIVING WITH HIV

by

MIRIAM PANDO, B.S.

THESIS

Presented to the Faculty of the Graduate School of
The University of Texas at El Paso
in Partial Fulfillment
of the Requirements
for the Degree of

MASTER OF ARTS

Department of Psychology
THE UNIVERSITY OF TEXAS AT EL PASO
May 2015
Acknowledgements

I would like to sincerely thank my primary mentor Dr. John S. Wiebe, as well as my secondary mentor, Dr. Theodore V. Cooper for their guidance, support, and patience. Drs. Wiebe and Cooper have provided me with incredible opportunities that have helped me grow as a person, clinician, and researcher. I will always be grateful. I would also like to thank my committee members, Drs. Julia Lechuga, Oralia Loza, and Jennifer Eno Louden for their support and guidance throughout this project. Finally, I would like to thank my colleagues and lab members at UTEP, and the clinic staff and patients at Centro de Salud La Fe CARE Center.
Abstract

The objective of the present study was to assess whether sexual self-esteem -- an individual’s tendency to feel sexually pleased, attractive, and in control of their sexual thoughts, feelings, and behaviors -- influences the relationship between substance use and sexual risk behavior in a sample of men who have sex with men (MSM) and who are living with HIV. We sampled 106 Latino adult MSM living with HIV who were being treated at a clinic in El Paso, Texas that offers comprehensive HIV/AIDS services. We assessed demographic variables, as well as two domains of sexual self-esteem (i.e., overall feeling of attractiveness and sexual control), substance use patterns, and sexual risk behavior, with a series of survey measures.

In comparison to other research investigating the sexual self-esteem of MSM living with HIV, we observed moderate levels of perceived physical attractiveness with higher levels of perceived sexual control. We also observed moderate levels of substance use. Of the 106 MSM surveyed, 30.5% reported illicit drug use in the past 30 days and 24% reported problem drinking. Additionally, 12.9% of the sample engaged in unprotected sex in the past six months with an HIV-negative or a partner whose HIV status was unknown. As hypothesized, perceived physical attractiveness positively correlated with sexual control. Also, although alcohol use was positively correlated with having more sexual partners it did not correlate with any other measure of sexual risk. Additionally, illicit drug use did not significantly predict number of sexual partners in the past six months nor did it predict other sexual risk. We also did not find support for our hypotheses that perceived physical attractiveness and sexual control would moderate the relationship between substance use and sexual risk.

Results from this sample differed substantially from those obtained with other samples. The absence of consistent links between sexual risk behaviors and measures for appearance-related
distress and substance use is an encouraging finding that warrants further study. In general, these results suggest that large subgroups of Latino MSM living with HIV report safer sexual behavior even in the context of substance use and related mental health conditions such as appearance-related distress.
# Table of Contents

Acknowledgements .................................................................................................................. iv

Abstract ........................................................................................................................................ v

Table of Contents ....................................................................................................................... vii

List of Tables ................................................................................................................................ ix

List of Figures ............................................................................................................................... x

Chapter 1: Introduction
   1.1 HIV Among MSM .................................................................................................................. 1
   1.2 Sexual Risk in MSM .............................................................................................................. 1
   1.3 Self-esteem and Sexual Risk ................................................................................................. 2
   1.4 The Function of Substance Use ......................................................................................... 3
   1.5 Global Self-esteem and Sexual Risk ................................................................................... 4
   1.6 Deconstructing Self-esteem ............................................................................................... 5
   1.7 Components of Sexual Self-esteem .................................................................................... 6
   1.8 Influences of Gender and Sexual Orientation .................................................................... 8
   1.9 Influences of Demographic and Sociocultural Factors on Body Image ......................... 12
   1.10 Risk Factors for Body Dissatisfaction and Perceptions of Physical Unattractiveness .... 16
   1.11 The Function of Substance Use ....................................................................................... 18
   1.12 Coping Theory .................................................................................................................. 22
   1.13 Aims and Hypothesis ......................................................................................................... 25

Chapter 2: Methods
   2.1 Participants .......................................................................................................................... 28
   2.2 Measures .............................................................................................................................. 29
   2.3 Procedures ............................................................................................................................ 40
   2.4 Analysis ................................................................................................................................ 41

Chapter 3: Results
   3.1 Sociodemographic Characteristics ................................................................................... 40
   3.2 Sexual Self-esteem Scores ................................................................................................. 47
   3.3 Substance Use Patterns ...................................................................................................... 47
   3.4 Sexual Risk Behavior ........................................................................................................ 48
List of Tables

Table 1: Scale Reliability and Scores. ........................................................................................................... 39
Table 2: Participant Characteristics . ............................................................................................................ 46
Table 3: Substance Use Patterns .................................................................................................................. 49
Table 4: Number of Unprotected Sex Acts in the Past 6 Months with an HIV-negative or Status Unknown Partner ........................................................................................................................................... 50
Table 5: Sexual Risk, Perceptions of Attractiveness, Sexual Control, and Alcohol Use Correlations ...................................................................................................................................................................... 53
Table 6: Past 30-day Illicit Drug Use and Sexual Risk .................................................................................. 53
Table 7: Hierarchical Linear Regression Explaining Number of Sexual Partners .................. 57
Table 8: Hierarchical Linear Regression Explaining Number of Sexual Partners .................. 59
List of Figures

Figure 1: Moderation 1 - Substance Use, Perceptions of Attractiveness, and Sexual Risk........ 27
Figure 2: Moderation 2 - Substance Use, Sexual Control, and Sexual Risk. .......................... 27
Figure 3: Path Diagram for Two-Mediator Model. ................................................................. 43
Chapter 1: Introduction

1.1 Prevalence of HIV/AIDS in Men Who Have Sex with Men

Over the past decade, the annual number of new HIV infections has, in general, remained stable in the United States, at about 50,000 new HIV infections per year (Centers for Disease Control and Prevention [CDC], 2014b). Some groups, however, are disproportionately affected. Men who have sex with men (MSM) are more severely affected by HIV than any other group in the U.S. In 2012, MSM accounted for 64% of that year’s new U.S. HIV cases despite representing around 4% of the total U.S. population (CDC, 2014b). This also represents a 12% increase in new infections reported among this group over 2008 (CDC, 2014b). Latinos have also been over-represented in numbers of new HIV cases, accounting for 21% of new cases in general despite representing approximately 16% of the total U.S. population (CDC, 2013a). Not surprisingly then, Latino MSM seem to be at particularly increased risk. In 2012, Latino men accounted for 86% (9,168) of all new HIV cases among Latinos in the U.S., and most (81% or 7,405) of these new cases among Latino men were attributed to male-to-male sexual contact (CDC, 2014c). Overall, Latino MSM accounted for 24% (7,404) of new HIV infections among all MSM living in the U.S. in 2012.

1.2 Prevalence of Sexual Risk in Men Who Have Sex with Men

These data indicate that a subset of people living with HIV continues to engage in high-risk sexual practices. Literature suggests that among MSM living with HIV, 43% engage in unprotected anal intercourse (UAI) and 26% with partners of unknown or HIV-seronegative status (Crepaz et al., 2009). Furthermore, other surveys that have investigated rates of sexual risk among Latino MSM in the U.S. have reported high rates of UAI, with estimates ranging from 30% to 50% (Diaz, 2013). A number of psychosocial and behavioral factors like self-
esteem and substance use have been previously shown to be important in predicting sexual risk behavior in MSM living with HIV. Nonetheless, greater clarity is needed about their contribution and interconnection with sexual risk.

1.3 Self-Esteem and Sexual Risk

Global self-esteem is classically defined as “a positive or negative attitude toward the self” (Rosenberg, 1965, p. 30). Mona, Gardos, and Brown (1994) further argue that the term “self” is made up of two components: 1) the physical self, consisting of characteristics associated with physical appearance and 2) the physiological self, consisting of feelings, attitudes, desires, judgments, and behaviors that are characteristic of the physical self. In general, self-esteem relates to self-acceptance, self-respect, and feelings of self-worth (Rosenberg, 1965, p. 30). Additionally, it has been identified as a vital component for sexual wellbeing (Hally & Pollack, 1993) and safer sex practices (Ethier et al., 2006). Previous research also suggests that self-esteem moves us to make healthy, constructive, and adaptive life decisions (e.g., Katz, Rodin, & Devins, 1995; Swinney, 2002); unlike low self-esteem, which endangers self-protective responses, leading to self-destructive decisions such as engaging in high risk sexual behavior (Goodson, Buhi, & Dunsmore, 2006; Shrier, Harris, Sternberg, & Beardslee, 2001).

In particular, loss of sexual control (i.e., a perceived loss of control over one’s sexual thoughts, feelings, and behavior) has been closely associated with low self-esteem, substance use, and sexual risk in samples of MSM (Benotsch, Kalichman & Kelly, 1999). Research has demonstrated that among sexually marginalized groups like MSM, believing one has the right to make choices regarding sexuality, open communication, ability to negotiate and agree on sexual choices within and outside of relationship has the potential to decrease sexual risk and are essential in promoting consistent condom use (Lim et al., 2013). Low self-esteem may serve as a
risk factor for a sense of loss of personal choice regarding sexual behavior which, in turn, weakens commitment to safer sex practices. Similarly, components of the self that influence self-esteem and that have also been predictors of loss of sexual control are body and physical esteem (Barbara, 2002). Martin and Knox (1997) found that MSM with greater body dissatisfaction were more likely to engage in unprotected sex due to low self-evaluation.

1.4 The Function of Substance Use

While overwhelming evidence demonstrates the link between substance use and sexual risk among MSM living with HIV (e.g., Benotsch, Kalichman, & Kelly, 1999; Fernández et al., 2009; Halkitis, Green, & Carragher, 2006; Heath, Lanoye, & Maisto, 2012; Koblin et al., 2007; Ober et al., 2009), that link seems to be intertwined with complex psychologically driven motivators, such as increased self-esteem, increased confidence, and feelings of acceptance and attractiveness (Kurtz, 2005; Nakamura et al., 2009; Semple, Patterson, & Grant, 2002; Theodore et al., 2011). However, the role that psychological and behavioral factors like self-esteem, feelings of unattractiveness, and loss of sexual control play in the likelihood of substance use and sexual risk is still unclear in MSM living with HIV. A number of studies have attempted to examine these associations; however, they relied on qualitative methods (Barbara, 2002; Kurtz, 2005; Patterson, & Grant, 2002; Semple, Halkitis, Fischgrund, & Parsons, 2005). Qualitative studies have the potential to inform ongoing research in the field. Nevertheless, as their primary objective is gaining a deep understanding of a specific phenomenon, rather than an overall description of a large sample of a population, they often rely on smaller samples. Only a few larger scale studies on these complex associations exist to date (Benotsch, Kalichman & Kelly, 1999; Halkitis, Fischgrund, & Parsons, 2005; Nakamura et al., 2009). For example, Benotsch, Kalichman, and Kelly (1999) assessed the influence of predictors such as substance use and self-
esteem on high-risk sexual practices in a sample of 112 ethnically diverse MSM living with HIV. Results showed that men who scored lower on a self-esteem scale were less likely to control sexual impulses including sexual thoughts and behavior, to engage in more cocaine use concurrent with sex, and to participate in sexual risk behavior such as unprotected sex with more partners.

1.5 Global Self-Esteem and Sexual Risk

Research studying the independent predictive power of depression and self-esteem upon sexual risk behaviors among a sample of predominantly Hispanic MSM has produced conflicting findings. For instance, while De Santis et al. (2008) replicated previous work showing that higher levels of depressive symptoms were associated with less safe sexual behavior, they also found a positive relationship between self-esteem and sexual risk behavior. It is important to note that the HIV status of this sample was not assessed, and could have influenced the findings.

Health status has been identified as an important confounding variable, especially among at-risk groups. Failing to account for health status could ultimately impact the predictive power of self-esteem and can bias the results of studies involving self-esteem. For instance, both viral (e.g., HIV, Hepatitis B, herpes and genital warts) and bacterial (e.g., chlamydia, gonorrhea, non-gonoccal urethritis, and trichomoniasis) sexually transmitted infections (STIs) have been found to diminish self-esteem among both female and male samples (Squires, 1998). Antonucci and Jackson (1983) further state that poor physical health is related to low self-esteem. In their sample of adults aged 21 years or older, individuals who reported a health problem, regardless of the type and severity, had significantly lower self-esteem. Squires (1998) also found that subjects who had a viral STI had lower sexual self-esteem scores than individuals who had a bacterial STI (e.g., chlamydia, gonorrhea, trichomoniasis) who, in turn, had lower scores than individuals who had never experienced an STI. Thus, another reason for inconsistencies in the
self-esteem and sexual risk literature may be the lack of specificity with which investigators have measured the influence of self-esteem upon the practice of safer sex. That is, investigators have relied on global measures of self-esteem, a more distal construct to sexuality and sexual behavior, instead of using a measure of sexual self-esteem which is more proximal to the construct of interest, sexual behavior. Adding to the body of conflicting results, other investigators have found no relationship between self-esteem and sexual behavior (Abel, Adams, & Stevenson, 1994).

1.6 Deconstructing Self-esteem

Researchers have proposed that conflicting results are not just because of a failure to account for potential confounders or the use of different measurement scales; they are also due to self-esteem being too general a construct. Global or general self-esteem relates to a broader sense of self. An individual’s appraisals of the self can differ across various aspects of that individual’s identity (Zeanah & Schwarz, 1996). For instance, an individual may have a positive overall self-image in most domains of life, like education, career, and culture, yet feel insecure about sexuality (Coopersmith, 1967). For individuals such as this, a measure of global self-esteem may not be sensitive enough to accurately describe the relationship between sexual self-esteem and risk behavior (Oattes & Offman, 2007). Consequently, there has been an interest in deconstructing general self-esteem. Sexual self-esteem, a separate but contributing component of global self-esteem (Zeanah & Schwarz, 1996), has captured the attention of researchers looking into safer sex practices among young female and male samples (Grabe, 2004; Squiers, 1998) as it reflects personal judgments in the more proximal domain of sexuality. Sexual self-esteem is a tendency to value or devalue one’s sexuality. It reflects personal beliefs of one’s abilities and attributes in relation to sexual behavior (Zeanah & Schwarz, 1996). Thus, it reflects
an individual’s tendency to feel sexually pleased, attractive, and in control of sexual thoughts, feelings, and behavior in a sexual situation. However, despite the specificity that could be added to the sexual risk literature by investigating a more proximal component to sexuality, the quantitative literature on samples of MSM living with HIV has continued to focus on the relationship between global self-esteem and sexual risk. Studying sexual self-esteem and even its subcomponents (e.g., body satisfaction, overall feelings of attractiveness and desirability, sexual control) that are more proximal to the construct of interest, sexual risk, may be fundamental to the understanding of safer sex practices in samples of MSM living with HIV.

1.7 Components of Sexual Self-Esteem

Braden (1969) explains that certain factors are critical in the development of self-esteem and correspondingly in the development of a high sexual self-esteem and healthy sexuality. Such factors include beliefs of physical attractiveness and body satisfaction, in addition to other factors like the importance of sex in one’s life, the value placed on sexual pleasure, evaluations of the opposite sex and their bodies, and gender roles. Growing on theories like Braden’s, a body of research has extended the multidimensionality of global self-esteem to sexual esteem. That is, sexuality is also multidimensional, and thus, individuals may evaluate themselves differently on distinct dimensions of their own sexuality identity (Jorgensen, 1983; Winters, 1988).

Investigators propose three dimensions of sexual self-esteem: attractiveness, desirability, and self-worth (Jorgenson, 1983); others propose more dimensions, such as feeling safe during sex (i.e., as opposed to feeling anxious or fearful), a general tendency to value one’s sex life, being able to pleasure oneself, fantasy, and imagination (Gaynor & Underwood, 1995). The proposed dimensions, however, are problematic. Squires (1998) conducted a comprehensive review of assessments for sexual self-esteem, and concluded that most models do not explain sexual self-
esteem well and do not have adequate predictive power. Zeanah & Schwarz (1996) proposed a more comprehensive and sound view of sexual self-esteem. Informed by existing literature and the authors’ own research, a confirmatory factor analysis proposed five dimensions of sexual self-esteem: perceptions of physical attractiveness, skill and experience, control, moral judgment, and adaptiveness. The present study will focus on perceptions of physical attractiveness and control as the main components of interest when it comes to sexual self-esteem. The primary rational behind focusing on two subcomponents (i.e., perceptions of physical attractiveness and control) relative to all subcomponents of sexual self-esteem is that substance use and sexual risk among MSM appear to be intertwined with sexual control and psychological motivators, like self-esteem, confidence, and feelings of attractiveness (e.g., Benotsch, Kalichman, & Kelly, 1999; Fernández et al., 2009; Halkitis, Fischgrund, & Parsons, 2005; Nakamura et al., 2009) and not with other proposed domains of sexual self-esteem like adaptiveness (i.e., the agreement between sexual, thoughts, feelings, and behaviors and other personal goals; Zeanah & Schwarz, 1996) or sexual experience. Most of the research surrounding sexual self-esteem has been conducted using adolescent and young college samples for whom sexual identity is developing (e.g., Hensel, Fortenberry, O'Sullivan, & Orr, 2011; Hilberink, Kruijver, Wiegerink, & Vliet Vlieland, 2013; Merten, & Williams, 2014; Schick, Calabrese, Rima, & Zucker, 2010; Swenson, Houck, Barker, Zeanah, & Brown, 2012). For many students the college years are a time for sexual experimentation with various partners -- a moment of sexual discovery (Cochran & Peplau, 1991). Thus, for adolescents and young college samples, measuring sexual experience and skill, for instance, seems to be more relevant than among experienced samples, such as the adults in the current investigation.
Moral judgment is another domain of sexual self-esteem, and research indicates the importance of moral judgment to the sexual health of MSM living with HIV (e.g., Godin et al., 1996; Nimmons & Folkman, 1999; van Kesteren et al., 2007); however, it will not be explored in this study due to its minimal association to the subcomponent of main interest: perceptions of physical attractiveness. Research testing the psychometric soundness of the five factor model of sexual self-esteem reported low Pearson correlations among these subscales (observed correlations range from .25-.29), and moral judgment was less correlated with attractiveness, compared to the other subscales (Johnson, 2001; Squires, 1998). As previously stated, other research investigating the influence of appearance related distress and its influence on the substance use patterns and sexual risk behavior of MSM, have investigated distress in conjunction with sexual control and not with other subcomponents like skill, experience and moral judgment (Barbara, 2002; Benotsch, Kalichman, & Kelly, 1999; Semple, Zians, Grant, & Patterson, 2006; Wilson, Díaz, Yoshikawa, & Shrout, 2009).

1.8 Influences of Gender and Sexual Orientation

Heterosexual Females. To date, the construct of sexual self-esteem is better understood in relation to sexual risk among heterosexual females than among MSM. Cultural expectations for slender bodies and physical beauty in women have set the stage for a myriad of adverse consequences such as body shame (Monro & Huon, 2005), disordered eating (Adams, Katz, Beauchamp, Cohen, & Zavis, 1993), and sexual risk (Littleton, Breitkopf, & Berenson, 2005). For instance, Grabe (2004) observed that sexual self-esteem and HIV-related sexual risk were negatively associated in a young heterosexual female sample. In a longitudinal study, Grabe measured the effect of body dissatisfaction on HIV-related sexual risk in a sample of adolescents and young adult women at three time points (5 year intervals between assessments). In addition
to investigating the hypothesis in a longitudinal context the author also used cross-sectional analyses. It was expected that the effect of body image on sexual risk-behavior would be strongest during adolescence or young adulthood and subside by the time women reached adulthood. Thus, as sexual objectification declines with age, the related negative behaviors would also decline in frequency (e.g., engage in sex to alleviate concerns). Cross-sectional analyses were then conducted in attempt to account for the possibility that the effect of body image dissatisfaction on sexual risk may be shorter than the time lags present in the longitudinal design (i.e., 5 years between assessments). Such analysis rendered a significant positive relationship between body image dissatisfaction and risky sexual practices at Time 1 ($r = .16, p < .01$), but significance was no longer present at Time 2 ($r = 0.06, p < .10$, NS) and Time 3 ($r = 0.04, p < .10$, NS). While body dissatisfaction was not predictive of risky sexual activity at Time 2 and Time 3, longitudinal direct effect models of body dissatisfaction on sexual risk showed that increases in dissatisfaction from Time 1 to Time 2 ($\beta = 0.50, p < .01$) predicted higher levels of participation in risky sexual practices at Time 2. This effect was not observed at Time 3.

Furthermore, depression and affirmation motives (i.e., using sex as a way to feel accepted or desirable) were found to mediate the relationship between body dissatisfaction and risky sexual practices (Grabe, 2004). Similarly, Adler and Hendrick (1991) have substantiated such findings, demonstrating that women with higher self-esteem ($r = 0.20, p < .05$) and higher sexual self-esteem ($r = 0.20, p < .05$) are more likely to engage in contraceptive use. Adler and Hendrick further stated that high sexual self-esteem characterizes individuals who can think about and prepare in advance for sexual interactions, and in turn strengthens contraceptive use self-efficacy. Thus, sexual self-esteem may influence the way in which we approach or avoid sexual experiences and the ability to communicate about sex (Gaynor & Underwood, 1995). Previous
research seems to indicate that for a subset of individuals, intrapersonal characteristics, such as higher levels of self-esteem and sexual self-esteem, are associated with safer sex practices.

*Gay Males and Non-gay-identified Men Who Have Sex with Men.* Researchers have demonstrated that gay communities have adopted an emphasis on male physical attractiveness, especially thinness and muscularity (e.g., Yelland & Tiggemann, 2003). This emphasis on thinness, muscularity, and physical attractiveness has placed gay men at risk for experiencing some of the maladaptive cognitions and behaviors found in heterosexual women, such as body dissatisfaction (Peplau et al., 2009), concern with body weight, low self-esteem, and disordered eating (Yelland & Tiggemann, 2003). What is less known is whether there are differences in body satisfaction between men who self-identify as gay and men who have sex with men and do not identify as gay. The term “gay” relates to a person’s sense of identity; “men who have sex with men” describes sexual behavior, and it is unrelated to identification (Wilton, 2009). This is an important distinction to make especially among African American and Latino MSM as there are high reported rates of non-gay-self-identified men and bisexual behavior among these groups of men (Finlinson, Colón, Robles, & Soto, 2006). Nevertheless, authors investigating body dissatisfaction in samples of MSM suggest that theories of body dissatisfaction and physical unattractiveness in gay men are applicable to MSM (e.g., Halkitis, Fischgrund, & Parsons, 2005). Specifically, Halkitis, Fischgrund, and Parsons (2005), mention that like gay men, certain subcultures of MSM in general tend to value sexual attractiveness and experience to a degree that may be unattainable for some men. The choice of researchers to focus on gay men or MSM depends on the purpose of the study (Meyer & Wilson, 2009). A study of risk for HIV/AIDS may focus on a term that relates more to behavior (i.e., MSM) as behavior impacts risk behavior regardless of personal identity (Meyer & Wilson, 2009). An investigation of differences in
weight, body satisfaction, and eating attitudes and behaviors based on gender or sexual identity may use a term (i.e., gay) that relates to how an individual identifies (Herzog, Newman, & Warshaw, 1991; Peplau et al., 2009; Yelland & Tiggemann, 2003). For example, Yelland and Tiggemann (2003) investigated body concerns in a community sample of 52 self-identified gay men in addition to comparison groups consisting of 51 self-identified heterosexual men and 55 heterosexual women. Gay men were found to be significantly less satisfied with their current level of muscularity compared to heterosexual men ($t[155] = 2.14, p < .05$). They also did not differ from heterosexual women in satisfaction with body shape, current weight, and muscularity (all $t < 1, p > .05$). Furthermore, gay men scored significantly higher than heterosexual men ($t[153] = 2.16, p < .05$), but lower than heterosexual women ($t[153] = 3.44, p < .001$) on body dissatisfaction. On drive for thinness, gay men scored significantly higher than heterosexual men ($t[153] = 3.81, p < .001$), but not significantly different from women ($t[153] < 1, p > .05$).

Similar results were obtained on a disordered eating scale, where gay men scored significantly higher than heterosexual men, but did not differ from heterosexual females. It is important to note that although gay men may not have reported as much body dissatisfaction as women, they still experienced a similar level of determination to be attractive and to reach their ideal body characterized by thinness and muscularity. They experienced more body concerns and disordered eating than heterosexual men, and on many measures of body concerns, scored as poorly as women did, thereby remaining a group at risk for low self-esteem, body dissatisfaction, and a general feeling of physical unattractiveness (Peplau et al., 2009; Yelland & Tiggemann, 2003). Peplau and colleagues (2009) also looked at differences in degree and prevalence of body dissatisfaction among a large sample of self-identified heterosexual and gay men and heterosexual women, and found that compared to heterosexual men, and similar to heterosexual
women, gay men reported significantly lower appearance evaluations, more negative effects of their body image on quality of life, and more preoccupations with weight. In addition, 42% of gay men, compared to only 22% of heterosexual men, reported that the way they felt about their bodies had a negative impact on their sex lives. This body of research suggests that even though gay men may not be as dissatisfied with their physical appearance as heterosexual women, they are still substantially more concerned with physical attractiveness and display more body dissatisfaction than heterosexual men.

1.9 Influences of Demographic and Sociocultural Factors on Body Image

In addition to gender and sexual orientation, other correlates of appearance-related distress and body dissatisfaction that have been reported include age, socio-economic status (SES), ethnicity, and acculturation. The body image research also demonstrates that age is an influential factor in perceptions of body image, especially among ethnic/racial minorities. A meta-analysis reported that the largest difference between ethnic minorities and Whites in relation to eating disturbances and body dissatisfaction was that they were more prevalent among college samples compared to high school and non-clinical samples (Wildes & Emery, 2001). Thus among college samples, White samples report significantly greater levels of eating disturbances and body dissatisfaction compared to ethnic/racial minorities in high school and non-clinical samples. This finding also challenges the notion that SES and education influence eating disturbance and body dissatisfaction.

Research on appearance related distress and disordered eating among ethnic/racial minorities is limited, with most investigations focusing on White, middle-class samples (Le Grange, Telch, & Tibba, 1998). Nevertheless, the existing literature shows that culture plays an
integral part in the development of eating disorders and body dissatisfaction (Rutt & Coleman, 2001). Most of the work done on the influence of culture on body image has focused on African American women (Flynn & Fitzgibbon, 1998). Many researchers who have studied eating disturbances and body dissatisfaction in African Americans have found lower levels of eating disturbances and body dissatisfaction compared to those found in White samples. For instance, a meta-analysis by Wildes, Emery, and Simons (2001) investigated the role of ethnicity and culture in the development of eating disturbance and body dissatisfaction and found that White samples reported greater eating disturbances and body dissatisfaction than non-White samples. A comparison of effect sizes across studies with White and non-White samples showed that effect sizes were greatest when studies compared White samples to black samples. The effect sizes for these samples were positive and significant ($p < .001$), which indicated that White samples showed more symptoms of eating pathology and body dissatisfaction compared to black samples. Of particular interest was the finding that not only did black samples display fewer concerns over weight and dieting than White samples, they also weighed more than White samples. It is important to note that research demonstrates that the eating patterns of African Americans become more disturbed as they adopt the White, non-Hispanic culture (Abrams, Allen, & Gray, 1993).

Concerning body image in Latinos, this subgroup has been the least-studied minority group (Rutt & Coleman, 2001). Authors propose that this may be due to the lack of instruments adapted to measure body image in Latinos (Rutt & Coleman, 2001). A lack of research in body image and appearance-related distress among Latinos and the need for adapted assessments may have contributed to inconsistent results observed in the body image literature. Furthermore, existing research has concentrated on Latino females (Frederick, Forbes, Grigorian, & Jarcho,
For instance, certain studies suggest that body dissatisfaction is equally common among Latino and White females and less common among African American and Asian females (Caro et al., 1996; Cash & Henry, 1995). Other investigations have reported that Latinos demonstrate less body dissatisfaction than Whites but more body dissatisfaction than African Americans (Altabe, 1998). Authors propose that inconsistencies in findings may be due to the use of measures that were not psychometrically fit to assess the body image of minority samples (Rutt & Coleman, 2001).

Research comparing level of body dissatisfaction and disordered eating of Latino males to that of other groups is even more limited. However, despite limited availability, fewer inconsistencies in the findings are apparent (Ganem, de Heer, & Morera, 2009). The research that exists suggest that Latino men are just as likely as White men to experience body dissatisfaction (Frederick, Forbes, Grigorian, & Jarcho, 2007; Ricciardelli, McCabe, Williams, & Thompson, 2007), and African American men experience less body image disturbance than White and Latino samples (Altabe, 1998). Ricciardelli, McCabe, Williams, and Thompson (2007) conducted a comprehensive review investigating body image concerns and other related behaviors. Twelve out of the sixteen reviewed studies found no difference between Latino and Whites males on image concerns. Additionally, Latino males were more likely than White males to engage in extreme body change strategies like vomiting, using diet pills, and binge eating. Finally, African American men had more body satisfaction and were less likely to perceive themselves as overweight compared to White and Latino men.

Acculturation has been a factor thought to influence the eating patterns and body satisfaction of non-White populations (Gentile, Raghavan, Rajah, & Gates, 2007). However, investigations on the influence of acculturation on the body dissatisfaction of Latinos have been
inconsistent in their results. For example, Ayala et al. (2007) did not find a significant association between acculturation and body satisfaction in a sample of 167 Latinos. In contrast, Nieri et al. (2005) found that higher levels of body satisfaction were observed among Latino adolescents who were less acculturated to the U.S. culture. Authors have concluded that not enough research exists to substantiate the influence of acculturation on eating disorders and body satisfaction (Wildes, Emery, & Simons, 2001). Others argue that inconsistencies in the existing body dissatisfaction and acculturation literature are due to methodological weaknesses (e.g., inconsistent use of measures and definitions of acculturation; Salant & Lauderdale, 2003).

Mexican American men, like other Latino men, are commonly described using a traditional cultural trait known as *machismo* (Pompper, 2010). This is a cultural value that encompasses traits like sexuality and virility, perceptions of low sexual control (Wilson, Diaz, Yoshikawa, & Shrout, 2009), toughness, power, and competition (Pompper, 2010). Other authors consider *machismo* to also embody strength and muscularity (Warren, 2008). Latino male cultural values such as machismo and high levels of self-esteem may influence findings involving sexual self-esteem and body satisfaction of Latino men. Studies of self-esteem in Latino MSM and heterosexual men have found high levels of self-esteem among men, yet have noted concurrent high levels of depression and substance abuse among the same samples (Vasquez et al., 2011). Authors mentioned that because high levels of self-esteem are a Latino male value, men may have over-reported positive responses on measures of self-esteem for social desirability (Vasquez et al., 2011). Men may also be particularly concerned with being perceived as weak or unhealthy, and machismo may influence Latino men’s willingness to admit having body dissatisfaction or perceptions of physical unattractiveness. Furthermore, given that
body dissatisfaction and perceptions of physical unattractiveness are highly associated with heterosexual women, Latino men may be reluctant to admit such self-perceptions.

1.10 Risk Factors for Body Dissatisfaction and Perceptions of Physical Unattractiveness

Among heterosexual women, authors have suggested that the drive to achieve the thin ideal is a consequence of sociocultural pressures emphasizing the importance of appearance, body shape, and weight. Authors have similarly argued that body image concerns and disordered eating patterns found in self-identified gay men are a result of pressure that exists within the gay community to reach the ideal body shape and appearance (Herzog, Newman, & Warshaw, 1991; Siever, 1994). Thus, both women and gay men have been targeted, whether it is through social media, relationships, or gay subculture, adding pressure to maintain a desirable body. As is the case with heterosexual women, the pressure placed on gay men to be physically attractive and the subsequent heightened emphasis on physical appearance by gay male subculture puts them at risk for developing a number of maladaptive behavioral and psychological responses.

Another risk factor for gay men can be how they believe others regard them physically. This was observed by Yelland and Tiggemann (2003), who found that self-identified gay men scored higher on average ($M = 3.44, SD = 1.11$) compared to heterosexual men ($M = 3.00, SD = 1.08, t(155) = 2.25, p < .05$), on a scale assessing how important they thought their physical appearance was to other people. Even though gay men scored slightly higher on average compared to women, this difference was not significant ($M = 3.15, SD = 0.78, t(155) = 1.54, p > .05$). Building upon literature suggesting that self-identified gay men and heterosexual women are dissatisfied with their bodies because of a common emphasis on physical attractiveness and thinness, some authors have suggested that such concerns and subsequent self-consciousness are based on a desire to attract and please men (Siever, 1994). Studies have shown that men are
more concerned than women with the physical attractiveness of a potential sexual or romantic partner (Stroebe, Insco, Thompson, & Layton, 1971). Women, on the other hand, are more concerned with other characteristics, such as personality, status, power, and income (Hatfield & Sprecher, 1986). Consequently, both gay men as well as heterosexual women may put increased emphasis on being physically appealing to attract a potential male partner. Furthermore, because physical attractiveness is less important in attracting a female partner, heterosexual men and lesbian women are perhaps less susceptible to pressure to be physically attractive, and thus, experience less body dissatisfaction, as observed in the existing literature (Siever, 1994). Siever (1994) studied a college sample of self-identified lesbian women, gay men, heterosexual women and heterosexual men. Results revealed significant differences among all groups on measures of importance of physical attractiveness ($F(9, 475) = 2.81, p < .01$) and body satisfaction measures ($F(9, 494) = 14.49, p < .01$). Specifically, lesbian women were the least concerned with their physical attractiveness and experienced the least body dissatisfaction, followed by heterosexual men. Compared with the other groups, lesbian women expressed that physical attractiveness was neither important to them in their evaluations of their sexual partners nor did they believe it was important to their partners. Gay men and heterosexual women, in contrast, showed significantly more concern over their physical attractiveness and were more dissatisfied with their bodies compared to the other two groups. In contrast with many past findings that heterosexual females are less interested in the physical appearance of their partners compared to heterosexual men, the heterosexual women, as well as the gay and heterosexual men, were more concerned with the physical appearance of their sexual partners compared to lesbian women.

As is the case for heterosexual women, stereotypes of gay male attractiveness negatively impact gay men who do not fit these images, contributing to a reduction in self-esteem (Yelland
& Tiggemann, 2003). In the context of HIV, research investigating body changes taking place after an HIV diagnosis has documented weight loss, lipoatrophy (wasting) and lipodystrophy (fat redistribution), all of which have been associated with diminished self-confidence, social and sexual problems (e.g., sexual dysfunction), anxiety, depression (Chapman, 2002; Tate & George, 2001), and multiple stigmas and worries of looking weak, old, and unhealthy (Barbara, 2002; Kelly, Langdon & Serpell, 2009; Murray & Adam, 2001). Considering the apparent body image susceptibilities among MSM and the physiological changes induced by HIV medication and the virus itself, there seems sufficient theoretical reason to suspect that physical concerns can influence sexual behavior in MSM living with HIV. Nevertheless, quantitative literature on sexual self-esteem among individuals living with HIV is nearly non-existent despite its reflection of characteristics that facilitate sexual risk, such as perceptions of attractiveness and body dissatisfaction and sexual control (e.g., Grov, Golub, Mustanski, & Parsons, 2010; Grabe, 2004; Squiers, 1998). Qualitative accounts of the relationship between sexual risk behavior and factors like body satisfaction, confidence, and sexual attractiveness (i.e., sexual self-esteem) are more prevalent. One such investigation was led by Barbara (2002), who interviewed treatment providers who worked with substance-using MSM. They found that men who engaged in substance-induced sexual risk behavior often did so to escape from preoccupation with a poor body image and to feel sexually desirable.

1.11 The Function of Substance Use

In a quantitative study conducted in San Diego, California, investigators looked at factors associated with initiating methamphetamine use and their relation to sexual risk behavior in a sample of MSM living with HIV (Nakamura et al., 2009). A factor analysis confirmed four main reasons for initiating methamphetamine use. These motivators were: to party, to cope, for
energy, and to improve self-esteem. The investigators also employed logistic regression to assess whether any of the motivators were related to binge methamphetamine use. Results indicated that using methamphetamine to increase self-esteem was associated with a four-fold rise in binge methamphetamine use.

In a similar fashion, a study conducted in South Florida tested the association between body dissatisfaction and drug use in a sample of 42 MSM living with HIV, a large percentage of whom were Latino (Theodore et al., 2011). Authors were interested in testing whether there existed an association between body dissatisfaction and methamphetamine use. As hypothesized, they found a rather strong association between methamphetamine use and body dissatisfaction \((r = 0.41, p < .01)\). A hierarchical regression analysis was also conducted to assess unique contribution of body dissatisfaction in explaining methamphetamine use. Findings revealed that body satisfaction accounted for an additional 5.4% of the variance in methamphetamine use above and beyond that accounted for by circuit party attendance, alcohol use, and marijuana use. The link between self-esteem and methamphetamine use in MSM living with HIV is of relevance to public health and any efforts dedicated to preventing the spread of HIV as existing literature investigating stimulant drugs, especially methamphetamine use, has demonstrated a strong link with HIV-related sexual risk behavior (e.g., Fernández et al., 2009; Halkitis, Green, & Carragher, 2006; Heath, Lanoye, & Maisto, 2012; Koblin et al., 2007; Ober et al., 2009).

Semple, Patterson, and Grant (2002) qualitatively studied motivators for methamphetamine use and the interaction between methamphetamine use and sexual risk in a sample of MSM living with HIV. The study was conducted in San Diego among 25 individuals of diverse racial and ethnic backgrounds. Even though the majority described themselves as
moderate methamphetamine users, 97% of the sample used methamphetamine before and during sex, and 84% engaged in risky sexual behavior when under the influence of the substance. The authors also identified two major motivators for methamphetamine use: sexual enhancement and self-medication of emotional distress related to being HIV-positive. Participants described using methamphetamine to help them cope with a negative self-image resulting from an HIV-positive diagnosis. Some identified with terms like “ugly, tainted, and unwanted” after being diagnosed with HIV. Methamphetamine relieved negative self-perceptions and helped manage social rejection, most of which occurred during sexual situations. Under the influence of methamphetamine, individuals reported feeling sexually uninhibited, sexually confident, attractive, and desirable.

A cross-sectional investigation consisting of both qualitative and quantitative components sought to explain methamphetamine use by interviewing 48 methamphetamine-using self-identified gay and bisexual men (Halkitis, Fischgrund, & Parsons, 2005). Out of the 48 participants, 27 were HIV-positive, 20 were HIV-negative, and one did not know his status. Among a sample living with HIV, 85.2% (n = 23) reported being likely to use methamphetamine for sexual reasons compared to 50% (n = 10) of the HIV-negative men. In addition, those in their 40s and 30s reported more use of methamphetamine for sexual reasons (91.7% and 68.1%, respectively) compared to men in their 20s (38.4%). Men reported using methamphetamine because it prolonged sexual encounters, intensified sexual feelings, and reduced any sex-related anxiety. Behavioral motivators for methamphetamine use were primarily to reduce inhibitions, to be more outgoing and to produce physical changes such as weight loss. Men also provided psychological motivators for methamphetamine use, such as to enhance mood and increase self-esteem. Older participants were more likely to endorse emotional motivators than the younger
participants. This is of particular interest to the present study as it involves an older sample. Finally, participants using meth for emotional reasons admitted to using the substance for its dissociative effects. It is possible that individuals may use substances to reduce their self-consciousness (or bodily awareness) and thereby their sources of tension. Furthermore, this body of research suggests that relying on substances, in particular stimulants like methamphetamine, to regulate emotions and to reduce self-consciousness may lead MSM living with HIV to disregard their commitment to safer sexual practices.

More support comes from Kurtz (2005), who led a qualitative study in Florida using a focus group of 15 MSM. Out of 15 men who participated, eight were Hispanic and six were HIV-positive. Similar to Halkitis, Fischgrund, and Parsons (2005), researchers studied motivators for and consequences of substance use, in particular the use of methamphetamine. Among other motivators for methamphetamine use, men reported using to alleviate fear related to physical unattractiveness due to aging and illness, and to lose sexual inhibitions. Consistent with theories of body dissatisfaction and physical unattractiveness in gay men, the author mentioned that certain subcultures of MSM tend to value sexual attractiveness and experience to a degree that may be unattainable for some men. Aging and being HIV-positive aggravates such concerns, and may motivate these individuals to engage in substance use. Finally, men reported using methamphetamine because it increased sexual arousal and lowered sexual inhibitions. The available evidence presented by Kurtz and colleagues supports the possible existence of an interaction effect between substance use and expectations regarding both physical attractiveness and sexual enhancement in the prediction of sexual risk behavior among MSM living with HIV.

In terms of other illicit drug that are of interest to the present sample, marijuana has been associated with sexual risk behavior in samples of Latino MSM (Barrón-Limón, 2012).
Furthermore, as the sample was collected from El Paso, Texas, a city located on the Texas-Mexico border, the non-medical use of psychotherapeutics may also be relevant due to the ease with which individuals can obtain prescription pharmaceuticals in Mexico (Wallisch & Spence, 2006). It is also essential to consider alcohol use patterns in this particular sample as alcohol remains the primary drug of abuse in Texas (Maxwell, 2014). In addition to its relation to risky sexual behavior in MSM (Heath, Lanoye, & Maisto, 2012), a body of research also suggest that Latinos living along the U.S.-Mexico border show more alcohol abuse and dependence compared to Latinos living in non-border areas (Wallisch & Spence, 2006).

1.12 Coping Theory

Substance Use Coping. Various mechanisms used by MSM men in efforts to cope with negative emotions are apparent in the quantitative and qualitative literature. Findings from samples of substance-using MSM indicate greater substance use coping. In particular, MSM may have a tendency to engage in substance use coping in efforts to avoid or reduce negative emotions as well as to enhance positive emotions (Martin, Pryce, & Leeper, 2005). Martin, Pryce and Leeper (2005) found that men who engaged in UAI tended to endorse drinking more alcohol in an effort to reduce tension compared to men who did not report UAI ($\chi^2 = 4.49, p = .03$). This tendency has also been documented for samples of HIV-positive MSM where stimulant drug use, like methamphetamine use, may be driven by psychological motivators such as increased self-esteem, increased confidence, and feeling of acceptance and attractiveness (e.g., Semple, Patterson, & Grant, 2002). Halkitis, Mukherjee and Palamar (2007) used multilevel modeling to study socio-demographic, psychological, and behavioral motivators of methamphetamine use as well as factors that predicted change in usage over a year in a sample of 293 MSM, 111 of whom were HIV-positive. Growth parameters indicated that more frequent
use at baseline was associated with higher levels of use to avoid unpleasant emotions ($\gamma = 0.03, p < .01$) and physical discomfort ($\gamma = 0.08, p < .01$) as well as with greater positive outcome expectancies for methamphetamine use ($\gamma = 0.02, p < .01$) one year later.

Theorists of appearance satisfaction and substance use have proposed that dissatisfaction with one’s appearance creates a form of self-consciousness that generates tension and anxiety (e.g., Hull, 1981). Individuals are, in turn, motivated to engage in substance use to relieve their self-consciousness and thereby their source of emotional distress or tension. Substances like alcohol, for instance, decrease self-awareness by interfering with the encoding of self-relevant information (Hull, Levenson, Young, & Sher, 1983). Stimulants like cocaine and methamphetamine reduce inhibitions, allowing for a mentality that is sexually confident and attractive (Halkitis, Fischgrund, & Parsons, 2005; Semple, Patterson, & Grant, 2002). Thus, for HIV-positive MSM dissatisfied with their appearance, substances may serve to regulate emotion and to decrease bodily awareness by reducing sensitivity to information regarding one’s appearance.

Avoidance Coping. Avoidance coping has also been associated with maladaptive behaviors like risky sexual behavior (Martin, Pryce, & Leeper, 2005). Martin and Knox (1997) propose an adaptation of the diathesis-stress model which theorizes that individuals with specific vulnerabilities have a higher probability of engaging in problematic behavior (e.g., substance use, sexual risk behavior) when they encounter sufficient environmental stress. In their adaptation, Martin and Knox (1997) propose that when individuals with particular vulnerabilities (e.g., being HIV-positive, having a low or unstable self-esteem, reliance on avoidance coping) encounter sufficient environmental stress (e.g., feeling undesirable in a particular sexual situation), risky sexual behavior may be initiated even if individuals are committed to safe sex
practices. A key vulnerability factor to this model is reliance upon avoidance coping to manage stress. That is, among those who rely on avoidance coping to deal with stress, sexual risk behavior is more likely to occur.

A desire to escape negative emotions and to ameliorate any preconceived anxieties about sexual encounters has been demonstrated to play an important role in sexual risk-taking among MSM (Folkman, Chesney, Pollack, & Phillips, 1992). In particular, it could be the case that feeling depressed about one’s appearance can bring about behavioral efforts to relieve negative affect. Baumeister and Scher (1988) propose that experiencing negative emotions, such as feeling undesirable, prompts individuals to engage in behaviors that provide a quick escape from their negative emotional states, such as having sex or using substances or both, thereby increasing their attention on short-term relief rather than on any long-term consequences. Individuals are thus willing to trade or risk undergoing a potential undesirable outcome in order to experience the more proximal desired outcome of relieving their negative emotions (Cooper, Wood, Orcutt, & Albino, 2002). In line with this perspective, engaging in risky sexual behavior and/or substance use to alleviate negative affect or tension may appeal to an individual for the immediate gratification, such as feeling attractive and less inhibited. This period of disengagement may then interfere with any attempts to consider potential long-term costs like HIV transmission, acquiring other STIs, or HIV-superinfection, which occurs when an individual already living with HIV becomes infected with a distinct HIV strain (Redd, Quinn, & Tobian, 2013).

Given the apparent maladaptive coping mechanisms, links found in the sexual risk literature among negative self-perceptions (e.g., body dissatisfaction, physical unattractiveness, feelings of undesirability), substance use, and sexual risk behavior, sexual self-esteem in HIV-
positive MSM remains understudied. Further, the negative consequences of a poor self-concept regarding sexuality and physical attractiveness have been primarily studied in heterosexual women, and sufficient quantitative data do not exist on MSM living with HIV (Theodore et al., 2011), and even less data exist among Latino MSM. Consequently, the proposed study looks to fill this gap.

1.13 Aims and Hypotheses

The objective of the present study is to quantitatively investigate sexual self-esteem of Latino HIV-positive men who have sex with men (MSM). Guided by the existing literature suggesting potential threats to a healthy sexual self-esteem in MSM, the attractiveness and sexual control sub-components of sexual self-esteem will be of focus. The present investigation also seeks to understand the implications low sexual self-esteem may have for substance use patterns and sexual risk taking among a sample of Latino MSM living with HIV. Although the relations between sexual self-esteem, substance use, and sexual risk have been largely overlooked in the HIV literature, the preceding review suggests that there are several pathways by which the relation may exist.

**H1:** Previous research demonstrates that appearance-related distress (e.g., feeling unattractive, body dissatisfaction, and overall low self-esteem) in a sexual situation weakens sexual control. Thus, we hypothesize that participants less satisfied with their appearance will exhibit more concern with losing control sexually and will have more difficulty controlling sexual behavior. That is, a positive association between perceptions of physical attractiveness and sexual control is hypothesized.

**H2:** A growing body of literature suggests that MSM living with HIV and engaging in substance use also engage in sexual risk behavior. Thus, we hypothesize that participants
engaging in illicit drug use or those engaging in more alcohol use, as indicated by higher scores on the AUDIT, will in turn engage in more risky sexual behavior.

**H3:** MSM living with HIV who are also high in appearance-related distress tend to report engagement in more sexual risk. Thus, we hypothesize that self-perceptions of attractiveness will be directly related to sexual risk-taking such that individuals dissatisfied with their appearance will report higher levels of risky sexual behavior.

**H4:** Furthermore, a body of research demonstrates a strong association between loss of sexual control and engagement in sexual risk behavior in Latino MSM. Thus, we hypothesize that sexual control will also be directly related to sexual risk-taking to the extent that individuals reporting more difficulty in controlling their sexual thoughts, feelings, and behavior will also report more sexual risk.

**H5:** It is then expected that among those with low perceived attractiveness, there will be a greater correlation between substance use and sexual risk compared to that among those with high perceived attractiveness. Figure 1 represents this hypothesis in graphical form.

**H6:** It is also expected that among those with low sexual control, there will be a greater correlation between substance use and sexual risk compared to that among those with high sexual control. Figure 2 represents this hypothesis in graphical form.
Figure 1: Hypothesis 5

Figure 2: Hypothesis 6
Chapter 2: Method

2.1 Participants

The data for this study were derived from Phase 2 of a two-phase longitudinal study investigating the association between substance use and sexual risk behavior in a sample of MSM living with HIV living along the U.S.-Mexico border. While all participants were MSM, not all identified as such. One item with seven response options ranging from “heterosexual only” to “gay only” assessed sexual identification. A large majority (74.5%) of the sample self-identified as gay only; however, 4.7% self-identified as gay mostly, 2.8% as gay somewhat more, 9.4% as heterosexual/gay equally, 3.8% as heterosexual somewhat, 1.9% as heterosexual mostly, and 2.8% as heterosexual only. Participants’ average age was 45.1 years ($SD = 10.9$, median = 45.5), and they reported an average of 11.2 years living with HIV ($SD = 7.6$, median = 9). Unemployment in this sample was high, with more than half of the sample being unemployed (53.8%). As expected from previous work with similar samples, income was low. The median annual household income of participants was $13,000 (SIQR = $7,550). Finally, almost half of the participants were currently renting (48.1%) and 26.4% owned a home. Sociodemographic characteristics are found in Table 2.

Participants were recruited from Centro de Salud Familiar La Fe CARE Center (La Fe), an HIV care clinic located in El Paso, Texas. Specifically, La Fe is a federally-qualified health services center that offers complete HIV/AIDS care to individuals living on the U.S.-Mexico border. In total, 150 Latino MSM of Mexican descent who were living with HIV took part in the first phase of the study. One hundred six participants took part in the second phase, taking place approximately 12 months after the first phase. Participants were included in the study only if they (a) self-identified as Latino/Hispanic, (b) self-identified as MSM, (c) were HIV+, (d) were
currently receiving HIV care at La Fe, (e) were at least eighteen years of age, and (f) provided informed consent. The University of Texas at El Paso’s Institutional Review Board (IRB) approved all procedures.

2.2 Measures

Sociodemographic Characteristics. Participants were asked for sociodemographic information including date of birth, educational level (i.e., less than high school, high school and/or some college, college degree), current living situation (i.e., a house, apartment, condo or room you rent; a house apartment, or condo you own; a family member’s house, apartment, or condo; someone else’s house, apartment, or condo (that is not family); shelter/group home; and other), current employment status (i.e., working full time, working part time, working odd jobs, not currently working), total annual household income in U.S. dollars, size of household, and marital status.

Sexual Self-Esteem Inventory (SSEI). Even though several scales have been developed to measure sexual self-esteem, most have limitations. Some are limited in their applicability, primarily containing items that indicate feelings about having sex, feelings about obtaining and using contraceptives, as well as feelings about discussing sex and contraception (Winter, 1998). Others simply consider sexual prowess (e.g., “I would rate my sexual skill quite highly,” Snell & Papini, 1989) or feelings an individual has in handling personal sexual desires and needs (e.g., “I am very satisfied with the way my sexual needs are currently being met,” Snell, Fisher & Walters, 1993). Thus, they are limited in their narrow definition of sexual self-esteem, disregarding other components like perceived sexual attractiveness or only measuring an individual’s ability to relate sexually to another person, missing subjective self-appraisals of sexuality. Others have attempted to develop scales that encompass more components of sexual
self-esteem, such as body image and safe sex practices. However, one of those more comprehensive scales has not been utilized in other research (Gaynor & Underwood, 1995) and the other has not been published (Reed, 1988).

The present study used a measure developed by Zeanah and Schwarz (1996). The sexual self-esteem inventory (SSEI) is an 81-item inventory, and it is one of the most comprehensive measures of sexual self-esteem. The SSEI covers five domains of sexual self-esteem: skill and experience, attractiveness, sexual control, moral judgment, and adaptiveness. Zeanah and Schwarz (1996) reported high internal consistency for the total scale (Cronbach’s alpha = .96). Test-retest reliability for the total scale or subscales was not calculated in the original study. To assess construct validity, several relationships were explored, and other theoretically-driven measures aside from the SSEI were included. These were a dating and relationship questionnaire, a sexual experience survey, a scale measuring sources of sexual satisfaction, Mosher’s Guilt Inventory (Mosher, 1988), and a demographics questionnaire. Discriminant validity was established by correlating Rosenberg’s Self-Esteem Scale, a measure of global self-esteem, with the Total SSEI scores and the SSEI subscale scores. Moderate correlations, ranging from .38 to .57, evidenced the discriminant validity of the scale, emphasizing its potential usefulness above that of a well-established measure of self-esteem. Furthermore, theoretically-driven hypotheses about the development and dynamics of sexual self-esteem were tested in efforts to further establish construct validity. For each subscale, it was hypothesized that certain women, distinguished by some combination of experience and/or personality characteristics, would score lower on a particular SSEI subscale than on any alternate SSEI subscale, or the total SSEI or on Rosenberg’s Self-Esteem Scale. For instance, to test the attractiveness scale, it was hypothesized that women who dated frequently with a number of partners evaluated their sexual
attractiveness more positively than women who did not date frequently and had fewer partners. This hypothesis was supported as the attractiveness scale correlated significantly with dating activity level \((r = 0.22, p < .001)\) and more strongly correlated with dating activity level compared to other subscales like Control \((r = 0.12, p < .05)\) and the general self-esteem measure \((r = 0.13, p < .05)\). For the Control subscale, it was hypothesized that women with high levels of sexual experience and activity but low levels of commitment to their sexual partners would have a lower level of satisfaction with the amount of control that they have in their sexual relationship. A multiple regression analysis rendered support for the hypothesis with an observed significant interaction between experience and commitment only for the Control subscale \((F = 15.7, p < .001)\) and the total SSEI score \((F = 5.4, p < .01)\). Similar strategies were employed to test the construct validity of the rest of the subscales. In sum, a number of tests rendered support for the psychometric properties of the SSEI, for its usefulness in measuring something different from what is traditionally measured by a global self-esteem measure, and for its usefulness in predicting sexuality-related variables.

Only the sexual control and attractiveness subscales of the SSEI were used in the present study. The Control subscale is a 16-item scale that concerns the ability to manage one’s own sexual thoughts, feelings, and interactions in sexual situations. The subscale includes items like “I worry that I won’t be able to stop something that I don’t want to do in a sexual situation.” Lower scores on the Control subscale indicate a lower ability to control sexual thoughts, feelings, and behavior, thereby contributing to lower sexual self-esteem in general [range of scores: 16-96]. Zeanah and Schwarz (1996) reported high internal consistency for the control subscale \((\alpha = .88)\). The Attractiveness subscale is a 17-item scale that addresses an individual’s sense of attractiveness, regardless of how others may perceive the individual. The subscale includes
items like “I am pleased with my physical appearance,” “I hate my body,” and “I worry that some parts of my body would be disgusting to a sexual partner.” Lower scores on the Attractiveness subscale indicate a lower overall sense of physical attractiveness, which also contributes to a reduction in overall sexual self-esteem [range of scores: 17-102]. Zeanah and Schwarz (1996) reported high internal consistency for the attractiveness subscale (α = .94). On all items of the SSEI, respondents answer each item on a six-point Likert-type scale, ranging from 1 (strongly disagree) to 6 (strongly agree).

Originally, the SSEI was developed to assess exclusively women’s sexual self-esteem; nevertheless, subsequent research has assessed its applicability in college men and has found it reliable. Observed Cronbach’s alphas range from .83 to .96 (numbers of items within each subscale range from 15 to 18 items) and test-retest correlations ranging from .86 to .95, with a two-week time lapse between testing (Squiers, 1998). Similar to Zeanah and Schwarz (1996), Squires (1998) tested numerous hypotheses to demonstrate the construct validity of the SSEI (and its subscales) within both female and male samples. Support for the hypotheses indicated good construct validity. For instance, authors hypothesized that differences in subjects’ SSEI scores (and subscale scores) would be found among different groups (e.g., gender, history of STDs, number of partners). In relation to gender, they predicted that males (M = 268.0, SD = 43.2) would have significantly higher total SSEI scores than females (M = 254.8, SD = 46.1) and this hypothesis was confirmed (t = 4.01, df = 955, p < .001). They also found that males (M = 72.9, SD = 17.9) had significantly higher Attractiveness Subscale scores than females (M = 63.9, SD = 19.9), (F = 41.1, p < .001). Additionally, males (M = 48.3, SD = 8.2) had significantly higher Control Subscale scores than females (M = 46.2, SD = 9.9) (F = 9.03, p < .01). Other hypotheses were supported, including that participants with zero sexual partners had significantly
lower Skill and Experience Subscale scores than participants with higher numbers of sexual partners in their lifetime.

As previously mentioned, the SSEI has been mainly used with non-Hispanic White females. To a lesser extent, it has also been employed in adult non-Hispanic White men and ethnic/racial minorities like Latino adolescents. Swenson et al. (2012) investigated the development of sexual self-esteem among adolescents with mental health problems and how it impacts sexual behavior. Fifty-seven percent of their sample identified as White adolescent males and females, and 29% identified as Latino adolescents. The authors employed the short form of the SSEI which contains 7 items per subscale. The internal consistency of the attractiveness and control subscales was adequate, with an $\alpha = .90$ and $\alpha = .75$, respectively.

*Simoni Sexual Behavioral Questions (SSB).* Sexual risk was assessed with an adapted self-report questionnaire that assesses sexual practices in the past six months. Items inquired about occurrences of vaginal or anal sex, as well as partner type. Partner type was coded as primary or casual. Seroconcordance and serodiscordance were also assessed by asking whether one’s partner’s HIV status was positive, negative or unknown. Furthermore, we asked whether or not a condom was used during each sexual encounter. Primarily, items are composed of incident self-reports (e.g., “How many times in the past six months did you have anal/vaginal sexual intercourse?” “with condoms?” versus “without condoms?”). As per Simoni et al. (2004), individuals were considered to have engaged in unsafe sex practices if they answered yes to at least one encounter of unprotected sex.

Some research warns about the negative consequences of dichotomizing measures of sexual risk, noting that accuracy and quantitative information are lost when dichotomizing measures (e.g., Schroder, Carey, & Vanable, 2003b). Thus, sexual risk remained a continuous
variable in our study, and it was conceptualized in three ways. In the first measure, the rate of condom use was calculated by dividing the number of times condoms were used by the total number of sexual encounters, regardless of partner type (i.e., primary vs. casual). Habit of condom use (or condom use consistency) was presented as a percentage. For instance, an individual that reported 100 instances of sexual acts with a partner who was HIV-negative or of unknown status and reported using a condom 50 times was given a score of .50 (i.e., 50%), indicating that he uses condoms 50% of the time he engages in sexual activity with a partner who is HIV-negative or of unknown status. The second measure assessed frequency of unprotected vaginal and anal intercourse, again, regardless of partner type. The number of unprotected sexual encounters was computed by subtracting the number of times condoms were used from the total number of sexual encounters. One instance of unprotected sex with a partner who is HIV-negative or of unknown status was considered one unit of unprotected sex. Measures considered only engagement in sexual encounters with HIV-negative and/or serostatus unknown partners. The final measure assessed number of sexual partners. Having more sexual partners within six months was also considered sexual risk.

The use of count data (e.g., frequency of condom use) or relative frequency data (e.g., ratios) depends on study goals. Most often, count data are used in intervention research where the goal of such studies is to reduce HIV risk. Relative frequency data like proportions, on the other hand, are more often used in correlational studies. Relative frequency data tend to relate more to socio-cognitive predictors of sexual risk as they reflect a desire to use condoms and habit of condom use (Schroder, Carey, & Vanable, 2003a). Nevertheless, researchers have warned against the use of one or the other, stating that using both increases precision. The present study
will then use both absolute counts and proportions of condom use, as well as number of sexual partners in the past six months.

Literature has identified a range of factors that influence the accuracy of self-reported sexual behavior, such as memory error influenced by factors like length of time passed since a sexual encounter (Schroder, Carey, & Vanable, 2003b). Nevertheless, in examining the reliability of self-reported sexual behaviors, Saltzman et al. (1987) interviewed self-identified gay men twice over six weeks and found good test-retest reliability for general sexuality items like number of sex partners. This and other literature that has assessed the reliability of self-reports (e.g., Coates et al., 1988; James, Bignell, & Gillies, 1991) indicate that sexual risk behavior can be reliably assessed by self-report. In fact self-reports, and in particular, count measures (i.e., asking participants to indicate the exact number of times they engaged in a sexual risk behavior, typically employing an open response format), compared to banded responses (i.e., asking for reports within assigned ranges), have emerged as the most precise and externally valid indices of HIV risk as noted by several reviews and critiques of the HIV-risk assessment literature (e.g., Fishbein & Pequegnat, 2000; Schroder, Carey, & Vanable, 2003b). Using banded response categories, such as indicating number of sexual partners from an assigned range (e.g., 0-5 or 6-10), does not provide the level of precision needed for effective risk assessment. Thus, incident reports, as opposed to banded responses, allow participants to report sexual risk precisely. Finally, the convergent validity of behavioral self-reports has been repeatedly assessed by comparing self-reported STIs and biomedical markers from medical records. Studies that have attempted such a task found a 93% agreement between self-reports of STI histories and medical records (Millstein & Moscicki, 1995).
The SSB has been used to assess the sexual risk behavior of Latino samples living with HIV along the U.S. Mexico border. In addition to its use with other minority populations (Simoni et al., 2004), the SSB has been employed in the principal investigator’s research laboratory to investigate sexual behavior of Latino MSM of Mexican descent who are living with HIV and who live along the U.S.-Mexico border. The SSB has demonstrated adequate internal consistency among the sample. One study investigating the relationship between sexual risk behavior and medication adherence among Latino MSM living with HIV and who have a history of childhood trauma reported an $\alpha = .74$, indicating adequate reliability (with 4 items; Lara, 2013). Other investigators have employed this scale to study sexual behavior in Latino men and women of Mexican decent living with HIV in the border region who presented depressive symptomatology and imperfect adherence (Simoni et al., 2013).

**Drug-Related Items.** Frequency of substance use was assessed with an adapted measure previously used among Latino drug users. The original items were developed by Judith Brook, David Brook, and their collaborators, and have since been used in several studies with Latino populations (e.g., Brook et al., 2003; Brook, Balka, & Whiteman, 1999; Castro et al., 2007). This scale has been found to be reliable (observed Cronbach’s alphas range from .63 to .77; Castro et al., 2006; Stice, Barrera, & Chassin, 1993). Research employing this measure as an outcome as well as a predictor measure by the same authors has also demonstrated validity. For instance, the present scale has been employed to predict sexual risk behavior among Colombian adolescents, and has done so effectively (Brook, Brook, Pahl, & Montoya, 2002). Additionally, intrapersonal, interpersonal, and environmental factors like ethnic and cultural identity, psychopathology, impulsivity, drug availability, and family bonding have been strong predictors of adolescent and adult substance use as measured by the present scale (e.g., Brook et al., 2001;
Castro et al., 2007; Castro et al., 2007). Finally, it has been demonstrated to work well with White, African American, and Latino samples living in the United States (Brook et al., 2001).

For the purpose of this study, participants self-reported past 30-day, past year, and lifetime use of marijuana/hashish, cocaine, amphetamines, and narcotics. One item measured use of each substance. They also reported frequency of tranquilizer and sedative use with and without a doctor’s prescription. Response options included categories ranging from 0 to 100+ times. Stimulants like cocaine and amphetamines are of particular interest to this study as they are frequently associated with sexual risk and self-esteem in HIV-positive MSM (Halkitis, Fischgrund, & Parsons, 2005; Nakamura et al., 2009; Semple, Patterson, & Grant, 2002; Theodore et al., 2011). Incidents of drug use was coded in an ordinal fashion, where 0 times was coded as 0, 1 to 2 times was coded as 1, 3 to 5 times was coded as 2, 6 to 9 times was coded as 3, 10 to 19 times was coded as 4, 20 to 39 times was coded as 5, 40 to 99 times was coded as 6, and 100+ times was coded as 7. Responses to past 30 day marijuana, cocaine, amphetamine, narcotics, and tranquilizers and sedatives without a doctor’s prescription were summed to create a drug use dummy variable that identified participants who reported past 30-day illicit drug use. The reasoning behind categorizing past 30-day illicit drug use was that responses to the drug use items in the past 30-days were positively skewed. That is, a large number of participants provide responses of “zero use” in the past 30 days, and the remainder of the sample showed a distribution of use. Such a distribution indicated the presence of two categories, use and no use in the past 30 days. MacCallum and colleagues (2002) warn against the dichotomization of continuous variables, stating that dichotomization leads to loss of effect size and loss of power, among other negative consequences to measurement and statistical analysis. However, they also describe cases in which categorization of continuous variables may be justified; such cases
include occasions where the distribution of a continuous variable is highly skewed. Furthermore, other research assessing substance use patterns in adolescent with a drug use measure similar to the one proposed in this study also summed across items of illicit drug use (e.g., marijuana/hashish, amphetamines, quaaludes/barbiturates, tranquilizers, hallucinogens, cocaine/crack) and reported yes/no use in the past 3 months (Stice, Barrera, & Chassin, 1993). This was done because the prevalence of adolescent substance use was low. Similarly, Vasquez and colleagues (2011) investigated correlates of substance abuse, like depression and self-esteem, among a sample of Latino men living in South Florida, half of whom were MSM. Given that most men in their sample reported never being drunk (77.4%) or high on drugs (79.9%) in the past 3 months, responses to both alcohol and illicit drug use questions were combined to create a substance use dummy variable that identified the presence or absence of substance use in the past 3 months.

**Alcohol Use Disorders Identification Test (AUDIT).** The AUDIT is a 10-item self-report measure developed by the World Health Organization (WHO) as a screening tool for problem drinking (Saunders, 1993). The AUDIT measures three domains of problem drinking: alcohol dependence, harmful drinking (drinking that leads to negative consequences for mental or physical health, or other areas of functioning like social or occupational) and hazardous drinking (drinking that increases the possibility for serious future problems like alcohol-related injuries; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). Sample items include: “How many drinks containing alcohol do you have on a typical day when you are drinking?” and “How often during the last year have you been unable to remember what happened the night before because of your drinking?” Most items are scored on a 5-point Likert-type scale ranging from 0 (never) to 4 (daily or almost daily). In the present study, items were summed to create an indicator of total
problem drinking. Total scores of 8 or more were considered problem drinking (range of scores: 0-40). A body of literature demonstrates the strong psychometric properties of the AUDIT (Bohn, Babor, & Kranzler, 1995), as well as its ability to detect problem drinking in HIV-positive samples (e.g., Cook et al., 2001; Heinz et al., 2014). On average, observed Cronbach’s alphas fall within the .80s (Reinert & Allen, 2002). One study investigating the influence of religious coping on the substance use patterns and sexual risk behavior of Latino immigrants living with HIV reported good reliability for the AUDIT (α = .81; Sanchez, 2013). Other research looking at alcohol use as a predictor of HIV risk behavior in a sample of Latinos who recently emigrated to South Florida also reported high reliability for the AUDIT (α = .95; Rojas et al., 2014).

*Scale Reliability in the Present Study.* Internal consistency estimates were derived using Cronbach’s alpha (Cronbach, 1951). According to Bernardi (1994) an α > .70 indicates adequate internal consistency. Cronbach’s alpha was calculated for the attractiveness and control subscales of the Sexual Self-esteem Inventory, the AUDIT, and the Simoni Sexual Behavior Questions. Reliability coefficients for all scales and subscales were moderate. Reliability coefficients can be found in Table 1.

<table>
<thead>
<tr>
<th>Scale Name</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sexual Self-esteem Inventory</td>
<td></td>
</tr>
<tr>
<td>- Attractiveness subscale (17 items)</td>
<td>.80</td>
</tr>
<tr>
<td>- Control subscale (16 items)</td>
<td>.80</td>
</tr>
<tr>
<td>Alcohol Use Disorders Identification Test (10 items)</td>
<td>.80</td>
</tr>
<tr>
<td>Simoni Sexual Behavior Questions (11 items)</td>
<td>.84</td>
</tr>
</tbody>
</table>

Table 1
*Scale Reliability and Scores*
Translation Process. When available, all assessments that had been already published and validated in Spanish were used. When an assessment did not have a published or validated Spanish version, each was translated by a professional certified translator from the Department of Language and Linguistics at the University of Texas at El Paso. Translation of assessments took several steps. First, assessments were translated in Spanish by a translator whose native language was Spanish. Second, assessments were back-translated by an additional certified translator whose native language was English. All measures were then assessed for phrasing and cultural relevance of terms by a committee of bilingual graduate students, a doctoral-level research psychologist, and the two translators. All committee members examined and agreed upon final changes. Prior to the initiation of the study, all assessments were tested by staff members and HIV+ peer advocates at Centro De Salud Familiar La Fe CARE Center (the center where all data were collected).

2.3 Procedures

Participants were initially contacted and screened by La Fe clinic staff, including medical assistants, nurses, and physicians. Staff members were able to identify whether someone was HIV+, Latino, and MSM through an assessment completed as part of the medical record. Once staff members were certain of participant eligibility through the review of the previously mentioned assessment and medical records, they referred interested patients to research assistants during their regular clinic appointments. For every participant whom research assistants were able to contact, regardless of whether referred individuals consented to the study, staff members were given $5. Individuals who consented to participate were scheduled for an appointment at the clinic. Since this study was conducted during the second phase of data collection, the
participants were re-contacted through phone, e-mail, or postal mail by research assistants. At this time, participants were asked if they would like to participate in the second round. Those who agreed were scheduled for an appointment at the clinic, and completed interviews in English or Spanish based on their language preference. Sixty-eight percent of the participants (n = 73) completed the interview in English and 33% (n = 33) did so in Spanish. Interviews were completed by trained research assistants from the Tertiary Prevention in Behavioral Medicine Laboratory headed by Dr. John S. Wiebe at the University of Texas at El Paso (UTEP). Research assistants were trained by a doctoral-level research psychologist in obtaining and documenting informed consent and in the administration of the quantitative and qualitative portions of the interview.

Participants gave written informed consent after being told of the study purpose, format, and risks. Participants were assessed through the use of survey measures and a structured interview that was recorded for later transcription. In total, the interview lasted from one to two hours. After completion, participants were compensated with $40.

2.4 Analysis

Power Analysis

A power analysis was conducted to determine the appropriate sample size necessary to perform a hierarchical multiple regression, the most complex analysis of the project and the analysis that requires the largest sample size for adequate power. Sample size determination for correlation studies using hierarchical multiple regression requires a power analysis using four parameters: power, probability level, anticipated effect size, and number of predictors. Power, the probability of correctly detecting a true difference between the means given its existence, was set at .80 and alpha, the probability of making a Type I error or the probability of falsely
detecting a difference between the mean, was set at .05. Previous research assessing the effect of body dissatisfaction and general self-esteem on sexual risk indicated that such predictors should explain 13% of the variability in sexual risk on average (range of variance accounted for is 8%-19%). Furthermore, a body of research demonstrates a strong association between sexual compulsivity and sexual risk behavior in Latino MSM. It is expected that 16% of the variance in sexual risk will be explained by sexual control (range of variance accounted for is 10%-22%).

The anticipated effect size was set at $f^2 = 0.13$, which was chosen in order to be able to detect the anticipated effect. Six predictor variables were used in the power analysis: two moderators (attractiveness and sexual control), one predictor (substance use), and three control variables (length of time in a relationship, partner type, and age). For a multiple regression analysis with 6 predictors where the squared multiple correlation is .13, $\alpha = .05$, and $\beta = .80$, the G*power computer program (Faul et al., 2007) indicated a total sample of 92 participants would be needed to detect a small to moderate effect size (i.e., $R^2 = 0.13$; Cohen, 1988).

**Correlations (H1, H2, H3, & H4)**

To test linear associations between continuous measures, Pearson and Spearman’s Rank-Order correlation analyses were used, each requiring a $p$ value of < .05 to determine level of significance. The first tested the linear relationship between self-appraisals of attractiveness and control over sexual thoughts, feelings, and behavior. A positive correlation was expected. The second correlation analysis tested the linear relationship between alcohol use patterns and sexual risk behavior. A positive correlation was expected. The third correlation analysis assessed the relationship between self-appraisals of attractiveness and sexual risk. A negative correlation was expected. The final correlation analysis assessed the relationship between sexual control and sexual risk. A negative correlation was expected.
Mann-Whitney test (H2)

To test whether engagement in any substance use in the past 30 days was associated with sexual risk behavior, the Mann-Whitney test was used, requiring a p value of < .05 to determine significance.

Hierarchical Regression (H5 & H6)

Hierarchical regression was used to test whether perceptions of attractiveness and sexual control each moderated the association between substance use and sexual risk. Hierarchical regression was also used to assess the unique contribution of the predictors to the dependent variable, sexual risk. The analysis was conducted using a p value of < .05. Figure 3 illustrates the path diagram for the two-mediator model.

Figure 3.
Clinical Significance. Clinical relevance is commonly assessed in intervention research (Jacobson & Truax, 1991). Nevertheless, it can also be extended to non-intervention contexts such as cross-sectional studies (Sierevelt, van Oldenrijk, & Poolman, 2007). Clinical significance speaks to the practical importance of the findings. The use of $p$ as the only mean of determining clinical significance leaves many questions unanswered. $P$ values are used to determine statistical significance, and the only thing they tell us is how likely it is that our results are reliable, rather than occurring by chance (Sierevelt, van Oldenrijk, & Poolman, 2007). Thus, the present study will establish clinical relevance of the observed relationships by comparing the strength of the relationships to those observed in other relevant samples. Additionally, effect sizes will be compared using Cohen’s $d$, to Cohen’s set of smallest worthwhile effect sizes also known as the minimal important difference (MID; Cohen, 1988). A $d = 0.0$ to $0.2$ is small, a $d = 0.3$ to $0.5$ is small to medium, a $d = 0.6$ to $0.8$ is medium to large, and a $d = 0.9$ to $2.0$ is large (Becker, 1998). Cohen’s $d$ can also be transformed into an $r$ and the square of $r$ would be a measure of effect size. According to Cohen an $R^2 = 0.00$ to $0.010$ is small, $R^2 = 0.022$ to $0.059$ is small to medium, $R^2 = 0.083$ to $0.138$ is medium to large, and $R^2 = .168$ to $0.500$ is large (Becker, 1998).
Chapter 3: Results

3.1 Sociodemographic Characteristics

A total of 106 Latino MSM living with HIV completed the interview. Statistical analyses were performed using SPSS 21 statistical software (IBM Corp., 2012). The following descriptive statistics were calculated for all 106 participants. More than half of the sample were not currently in a committed relationship (56.6%), and of those who were, 41.3% had been involved with their partners over 10 years. Primary partner HIV-status was divided and a small percentage of the sample reported being in a relationship with a partner of unknown status. Among those reporting engaging in sexual activity with casual partners in the past 6 months, approximately one third reported having seronegative partners and partners of unknown serostatus respectively. Frequencies and percentages can be found in Table 2.
<table>
<thead>
<tr>
<th>Demographics</th>
<th>Mean (SD)</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (Years)</td>
<td>45.1 (10.9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years Living with HIV</td>
<td>11.2 (7.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual Household Income</td>
<td>$20,083 ($29,106)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language Preference</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spanish</td>
<td>33</td>
<td>31.1</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>73</td>
<td>68.9</td>
<td></td>
</tr>
<tr>
<td>Residency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homeowner</td>
<td>28</td>
<td>26.4</td>
<td></td>
</tr>
<tr>
<td>Renting</td>
<td>51</td>
<td>48.1</td>
<td></td>
</tr>
<tr>
<td>Living in a family home</td>
<td>17</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Living in non-family home</td>
<td>10</td>
<td>9.4</td>
<td></td>
</tr>
<tr>
<td>Lived in Mexico in the Past 12 Months</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>10</td>
<td>9.4</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>96</td>
<td>90.6</td>
<td></td>
</tr>
<tr>
<td>Employment Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time</td>
<td>29</td>
<td>27.4</td>
<td></td>
</tr>
<tr>
<td>Part-time</td>
<td>12</td>
<td>11.3</td>
<td></td>
</tr>
<tr>
<td>Odd jobs</td>
<td>8</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Not currently working</td>
<td>57</td>
<td>53.8</td>
<td></td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heterosexual only</td>
<td>3</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Heterosexual mostly</td>
<td>2</td>
<td>1.9</td>
<td></td>
</tr>
<tr>
<td>Heterosexual somewhat</td>
<td>4</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Heterosexual/Gay equally</td>
<td>10</td>
<td>9.4</td>
<td></td>
</tr>
<tr>
<td>Gay somewhat more</td>
<td>3</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Gay mostly</td>
<td>5</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>Gay only</td>
<td>79</td>
<td>74.5</td>
<td></td>
</tr>
<tr>
<td>Relationship Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not in a committed relationship</td>
<td>60</td>
<td>56.6</td>
<td></td>
</tr>
<tr>
<td>In a committed relationship</td>
<td>46</td>
<td>43.4</td>
<td></td>
</tr>
<tr>
<td>With a man</td>
<td>43</td>
<td>93.5</td>
<td></td>
</tr>
<tr>
<td>With a woman</td>
<td>3</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>Primary Partner’s HIV-status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV-positive</td>
<td>31</td>
<td>43.1</td>
<td></td>
</tr>
<tr>
<td>HIV-negative</td>
<td>31</td>
<td>43.1</td>
<td></td>
</tr>
<tr>
<td>Status unknown</td>
<td>10</td>
<td>13.9</td>
<td></td>
</tr>
<tr>
<td>HIV-status of Casual Partners over the Past 6 Months (n = 75)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV-positive</td>
<td>24</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>HIV-negative</td>
<td>27</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Status unknown</td>
<td>24</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>
3.2 Sexual Self-Esteem Scores

The possible range of scores on the Attractiveness Subscale of the SSEI was from 17 to 102, with lower scores indicating feeling less attractive and higher scores indicating feeling more attractive. The total scores in this study ranged from 29 to 92 ($M = 65.6$, $SD = 14.4$). The possible range of scores on the Sexual Control Subscale was 16 to 96, with lower scores indicating less control and higher scores indicating more control. The total scores in this study ranged from 29 to 96 ($M = 71.4$, $SD = 13.3$). While there are no “cut-off” scores to indicate lower versus higher levels of SSE, the participants’ mean scores were compared to those obtained by other investigators measuring this construct. Overall, men in this sample obtained slightly higher sexual self-esteem scores compared to those reported by other samples of MSM ($M = 3.15$, $SD = 0.98$; range of scores 1-5; Træen et al., 2014). Specifically, sexual control scores in our sample were high, and they paralleled scores reported by other samples with older MSM living with HIV ($M = 15.5$, $SD = 3.05$; range of scores 8-17; Exner, Meyer-Bahlburg, & Ehrhardt, 1992). In comparison to college-aged heterosexual men ($M = 48.3$, $SD = 8.17$) and women ($M = 46.2$, $SD = 9.87$), men in this sample scored higher on the sexual control scale. Finally, men scored higher on perceived attractiveness than heterosexual female college students ($M = 63.9$, $SD = 19.9$) but less than heterosexual male college students ($M = 72.9$, $SD = 17.9$; Squires, 1998).

3.3 Substance Use Patterns

Overall, 30.5% percent of the sample reported engaging in any illicit drug use in the past 30 days. Among those reporting illicit drug use in the past 30 days, the majority reported using marijuana (17.0% of the entire sample), 6.7% reported using cocaine, 4.7% reported using amphetamine, 5.7% reported using sedatives, 8.5% reported using tranquilizers and 4.7% reported using narcotics, both of the last without a doctor’s prescription.
The AUDIT was used to assess hazardous drinking. Total scores of 8 or more are indicative of problem drinking. Among the sample, 24.0% obtained total scores of 8 or higher, indicating medium to high level of alcohol problems and possible alcohol dependence, and 76.0% obtained scores of 7 or less, indicating little to no alcohol problem (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). Frequencies and percentages of substance use can be found in Table 3. It is important to note that this study did not rely on biological markers to assess substance use. Instead it relied on self-report measures which run the risk of generating inaccurate results due to social desirability bias (Krumpal, 2013). That is, because individuals want to be seen in a favorable way, they may over-report socially desirable responses and under-report socially undesirable ones.

3.4 Sexual Risk Behavior

In the present study, 75.5% of the respondents (n = 80) were sexually active in the past six months and 24.5% reported no sexual activity (n = 26). Of the men reporting sexual activity, 15.8% reported engaging in unprotected sexual activity with a primary partner of HIV-negative or unknown status, 7.9% reported engaging in unprotected sexual activity with an HIV-negative casual partner, and 6.9% reported engaging in unprotected sex with a casual partner of unknown HIV status. Respondents also reported having an average of 3.2 (SD = 9.7) sexual partners in the past six months. Additionally, 81.2% of the sample reported using a condom 100% of the time they engaged in sexual activity with an HIV-negative or status unknown partner, while 10.0% reported using condoms half or less of the time they engaged in sexual encounters. In relation to the number of unprotected sexual acts reported with an HIV-negative or status unknown partner, 12.9% of the sample reported engaging in at least one instance of unprotected sex in the past 6 months. Finally, the mean frequency of protected sexual acts with an HIV-negative or status
unknown partner in the past six months was 11.0 times ($SD = 24.6$). Table 4 represents the frequency distribution of unprotected sex acts with an HIV-negative or status unknown partner and number of sexual partners in the past 6 months.

Table 3. *Substance Use Patterns*

<table>
<thead>
<tr>
<th>AUDIT score (N = 106)</th>
<th>Median (SIQR)</th>
<th>Skew (SE)</th>
<th>Kurtosis (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 (2)</td>
<td>1.1 (0.24)</td>
<td>0.34 (0.48)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Any Drug Use in the Past 30 Days</strong></td>
<td>32</td>
<td>30.5</td>
</tr>
<tr>
<td><strong>Past 30-Day Drug Use (n = 32)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marijuana</td>
<td>18</td>
<td>56.2</td>
</tr>
<tr>
<td>Cocaine</td>
<td>7</td>
<td>21.9</td>
</tr>
<tr>
<td>Amphetamines</td>
<td>5</td>
<td>15.6</td>
</tr>
<tr>
<td>Sedatives without a Doctor’s Prescription</td>
<td>6</td>
<td>18.7</td>
</tr>
<tr>
<td>Tranquilizers without a Doctor’s Prescription</td>
<td>9</td>
<td>28.1</td>
</tr>
<tr>
<td>Narcotics without a Doctor’s Prescription</td>
<td>5</td>
<td>15.6</td>
</tr>
</tbody>
</table>
Table 4
*Frequency of Unprotected Sex Acts and Number of Sexual Partners in the Past 6 Months with an HIV-negative or Status Unknown Partner*

**Number of Unprotected Sex Acts (N = 101)**

<table>
<thead>
<tr>
<th>Frequencies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>88</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
</tr>
</tbody>
</table>

**Condom Use Consistency (N = 101)**

<table>
<thead>
<tr>
<th>Frequencies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>1</td>
</tr>
<tr>
<td>13%</td>
<td>1</td>
</tr>
<tr>
<td>30%</td>
<td>1</td>
</tr>
<tr>
<td>33%</td>
<td>1</td>
</tr>
<tr>
<td>36%</td>
<td>1</td>
</tr>
<tr>
<td>40%</td>
<td>1</td>
</tr>
<tr>
<td>48%</td>
<td>1</td>
</tr>
<tr>
<td>50%</td>
<td>3</td>
</tr>
<tr>
<td>59%</td>
<td>1</td>
</tr>
<tr>
<td>67%</td>
<td>5</td>
</tr>
<tr>
<td>78%</td>
<td>1</td>
</tr>
<tr>
<td>83%</td>
<td>1</td>
</tr>
<tr>
<td>86%</td>
<td>1</td>
</tr>
<tr>
<td>100%</td>
<td>86</td>
</tr>
</tbody>
</table>

**Number of Sexual Partners (N = 106)**

<table>
<thead>
<tr>
<th>Median (SIQR)</th>
<th>Skew (SE)</th>
<th>Kurtosis (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (1.12)</td>
<td>7.53 (0.23)</td>
<td>63.7 (0.46)</td>
</tr>
</tbody>
</table>
3.5 **Hypothesis 1**

**H1:** *Participants less satisfied with their appearance will be more preoccupied with losing control sexually and will have more difficulty controlling sexual behavior.*

To test whether participants less satisfied with their physical appearance also reported a reduction in sexual control, a Pearson correlation was computed between the variables (See Table 5). A *p* value < .05 was used to determine significance. As expected, perceptions of physical attractiveness were significantly positively correlated with sexual control (*r* = 0.54, *p* < .001). These results suggest that Latino MSM living with HIV who feel more attractive also have more control over sexual thoughts, feelings, and behaviors. The amount of variance explained (i.e., *r*² = .29) is large (Cohen, 1988). The magnitude of this relationship was also stronger in this sample compared to other MSM living with HIV and a college sample (*r* in the other sample range from .32 to .42; Semple et al., 2006; Squires, 1998).

3.6 **Hypothesis 2**

**H2:** *Participants engaging in illicit drug use or those engaging in more alcohol use will in turn engage in more risky sexual behavior.*

Two analyses were utilized to evaluate whether engagement in more substance use was associated with the three-outcome measure of sexual risk behavior. For highly skewed continuous variables, such as all the measures of sexual risk and the AUDIT, nonparametric test were used (Spearman’s rank-order correlations and Mann-Whitney tests). Both analyses used a *p* value of < .05 to determine significance. A ratio of condom use was computed as an indicator of habit of condom use and consistency of self-protective behavior. Habit of condom use (or condom use consistency) was presented as a percentage. Frequency of condom use was another outcome measure, relying on absolute counts (i.e., instances of sexual risk). One instance of
unprotected sex with a partner who is HIV-negative or of unknown status was considered one unit of unprotected sex. Having more sexual partners in the past six months was a final indicator of sexual risk. Measures only considered engagement in sexual encounters with HIV-negative and/or serostatus unknown partners.

First, Spearman’s Rank-Order correlations were computed to test whether more alcohol use, indicated by obtaining higher scores on the AUDIT, was associated with engagement in more sexual risk behavior (See Table 5). Alcohol use was significantly positively correlated with having more sexual partners in the past 6 months ($r_s = 0.29$, $n = 100$, $p = .01$). Variance explained (i.e., $r^2 = 0.08$) is medium to large (Cohen, 1988). The magnitude of this relationship was slightly stronger in this sample compared to other Latino MSM ($r$ in other samples is .23; De Santis et al., 2012). We did not find support for the other measures of sexual risk, indicating that alcohol use did not predict condom use consistency and frequency of sexual risk encounters (See Table 5).

Second, a Mann-Whitney test was conducted to compare sexual risk scores between those with and without any illicit drug use in the past 30 days (which includes marijuana, cocaine, amphetamine, and sedatives, tranquilizers, and narcotics without a doctor’s prescription). Although the directions were as hypothesized, the effects were small and statistically insignificant. The Mann-Whitney test indicated that illicit drug use in the past 30 days was not predictive of condom use consistency ($z = -.54$, $p = .59$), frequency of sexual risk ($z = -.64$, $p = .52$), and number of sexual partners ($z = -.77$, $p = .44$). That is, participants who had engaged in illicit drug use in the past 30-days and participants with no reported drug use did not differ substantially on any of the sexual risk measures. These results suggest that past 30-day drug use does not have an effect on sexual risk behavior in the past 6 months (see Table 6).
Table 5
Sexual Risk, Perceptions of Attractiveness and Sexual Control, and Substance Use Correlations (N = 106)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Attractiveness</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Sexual Control</td>
<td></td>
<td>.54**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. AUDIT</td>
<td></td>
<td>-.06b</td>
<td>.18b</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Past 30-Day Drug Use</td>
<td></td>
<td>-.17b</td>
<td>-.14b</td>
<td>.24b</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Condom Use Consistency</td>
<td></td>
<td>-.04b</td>
<td>-.01b</td>
<td>-.10b</td>
<td>-.05b</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Frequency of Sexual Risk</td>
<td></td>
<td>-.14b</td>
<td>-.02b</td>
<td>.02b</td>
<td>.06b</td>
<td>-.47**b</td>
<td></td>
</tr>
<tr>
<td>7. Number of Sexual Partners</td>
<td></td>
<td>.08b</td>
<td>.08b</td>
<td>.29**b</td>
<td>-.08b</td>
<td>-.45**b</td>
<td>.36**b</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01

aPearson correlation coefficient
bSpearman correlation coefficient

Table 6
Association between Any Illicit Drug Use in the Past 30 Days and Measures of Sexual Risk

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean Rank</th>
<th>Sum of Ranks</th>
<th>Z</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condom Use Consistency*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illicit Drug Use, Past 30 Days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>31</td>
<td>48.9</td>
<td>1516</td>
<td>-.54</td>
<td>.59</td>
</tr>
<tr>
<td>No</td>
<td>69</td>
<td>51.2</td>
<td>3534</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Sexual Risk*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illicit Drug Use, Past 30 Days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>69</td>
<td>52.1</td>
<td>1615.5</td>
<td>-.64</td>
<td>.52</td>
</tr>
<tr>
<td>No</td>
<td>31</td>
<td>49.78</td>
<td>3434.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of Sexual Partners\b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illicit Drug Use, Past 30 Days</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>32</td>
<td>49.6</td>
<td>1588.5</td>
<td>-.77</td>
<td>.44</td>
</tr>
<tr>
<td>No</td>
<td>73</td>
<td>54.5</td>
<td>3976.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. z scores are test statistics for the Mann-Whitney test.
\*n = 100, \b n = 105
3.7 Hypothesis 3

**H3:** Self perceptions of attractiveness will be directly related to sexual risk-taking such that individuals dissatisfied with their appearance will report higher levels of risky sexual behavior.

To test the association between perceived physical attractiveness and the three outcome measures of sexual risk (i.e., condom use consistency, frequency of sexual risk or absolute counts, and number of sexual partners), Spearman’s Rank-Order correlation analyses were used. All correlation analyses used a $p$ value of $< .05$ to determine significance. Perceptions of physical attractiveness did not significantly correlate with any of the three outcome measures of sexual risk (See Table 4). Similarly, a nonsignificant trend was observed between attractiveness and past 30-day drug use, where those lower in perceived attractiveness reported more drug use ($r_s = -0.17, n = 99, p = .08$).

3.8 Hypothesis 4

**H4:** Sexual control will also be directly related to sexual risk-taking, such that individuals reporting more difficulty in controlling their sexual thoughts, feelings, and behavior will also report more sexual risk.

To test association between sexual control and the three outcome measures of sexual risk, Spearman’s Rank-Order correlation were used, each analysis used a $p$ value of $< .05$ to determine significance. Sexual control did not significantly correlate with any of the measures of sexual risk or other predictor variables (see Table 5).

3.9 Hypothesis 5

**H5:** Among those with low perceived attractiveness, there will be a greater association between substance use and sexual risk compared to those with high perceived attractiveness.
We hypothesized that perceptions of physical attractiveness would moderate the impact of substance use on sexual risk. To test this hypothesis, hierarchical multiple regression analyses were conducted. Three separate analyses tested each sexual risk outcome, including condom use consistency, frequency of sexual risk encounters, and number of sexual partners. Each analysis also included three control variables in the first step of the analysis (i.e., age, partner type, and length of time in a relationship). Since perceived physical attractiveness did not significantly correlate with any of the other predictors or outcome sexual risk variables, we did not expect the moderation to be significant; however, we proceeded with the analysis of Hypothesis 5.

The first analysis of Hypothesis 5 tested whether perceived physical attractiveness would moderate the relationship between substance use (i.e., AUDIT and past 30-day drug use) and condom use consistency. However, this hypothesis was not supported. None of the main effects of alcohol ($\beta = -0.01, p = .23$), illicit drug use ($\beta = -0.01, p = .92$), or perceived physical attractiveness ($\beta = 0.001, p = .79$) accounted for a significant unique amount of variability in condom use consistency. Furthermore, the interaction terms of attractiveness by AUDIT ($\beta = 0.001, p = .30$) and attractiveness by illicit drug use ($\beta = -0.01, p = .33$) did not account for significant residual variance in condom use consistency. Thus, there was no observed moderation effect.

Furthermore, our results do not support our hypothesis that perceived physical attractiveness moderated the relationship between substance use and frequency of sexual risk encounters. As with condom use consistency, none of the simple effects accounted for significant unique variability in frequency of risky sexual behavior. The interaction terms (i.e., attractiveness by AUDIT) were also not significant predictors of frequency of risky sexual
encounters ($\beta = 0.001, p = .96$). Similarly, attractiveness by past 30-day drug use did not explain significant residual variance in frequency of risky sexual behavior ($\beta = -0.03, p = .56$).

The third analysis of Hypothesis 5 tested whether perceived attractiveness would moderate the relationship between substance use and number of sexual partners. The second step (Model 2) which predicted number of sexual partners from alcohol use (i.e., AUDIT scores) and drug use in the past 30 days was marginally significant, $R^2 = 0.10, F(2, 84) = 2.9, p = .06$. Specifically, participants who engaged in more alcohol use also reported having more sexual partners ($\beta = 0.56, p = .02$; See Table 7).

The Johnson-Neyman technique was not employed, as perceived physical attractiveness did not serve as a moderator for any of the outcome measures. Thus, no regions of statistical significance were expected.
Table 7
Hierarchical Linear Regression Explaining Number of Sexual Partners (N = 89)

<table>
<thead>
<tr>
<th>Outcome = Number of Sexual Partners</th>
<th>β</th>
<th>t</th>
<th>p</th>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Multiple R = .10, F (2, 81) = .09, p = .91</td>
</tr>
</tbody>
</table>

### Step 1

1. Age

2. Partner Type

3. Length of Time in a Relationship

### Step 2

1. Age

2. Partner Type

3. Length of Time in a Relationship

4. AUDIT

5. Past 30-Day Drug Use

### Step 3

1. Age

2. Partner Type

3. Length of Time in a Relationship

4. AUDIT

5. Past 30-Day Drug Use

6. Physical Attractiveness

### Step 4

1. Age

2. Partner Type

3. Length of Time in a Relationship

4. AUDIT

5. Past 30-Day Drug Use

6. Physical Attractiveness

7. Physical Attractiveness X AUDIT

8. Physical Attractiveness X Past 30-Day Drug Use

Bolded font signifies statistically significant effect.
3.10 Hypothesis

H6: Among those with low sexual control, there will be a greater association between substance use and sexual risk compared to those with high sexual control.

We also hypothesized a moderating effect of sexual control on the relationship between substance use and sexual risk. Similar to Hypothesis 5, we did not expect the moderation to be significant following an examination of bivariate correlations, as sexual control did not significantly correlate with any of the other predictors or outcome variables; however, we proceeded with the analysis of Hypothesis 6. This hypothesis was not supported for any of the outcome measures of sexual risk. The interaction term (i.e., sexual control by AUDIT) predicting condom use consistency ($\beta = 0.001, p = .07$), indicated a trend towards significance. However, the interaction term of sexual control by alcohol use predicting frequency of risky sexual encounters did not approach statistical significance ($\beta = -0.003, p = .69$). Similarly, sexual control by past 30-day drug use did not explain significant residual variance in condom use consistency ($\beta = -0.002, p = .74$) nor frequency of risky sexual behavior ($\beta = 0.02, p = .82$).

The final analysis tested the moderating effect of sexual control on substance use and number of sexual partners. We did not find support for the moderating effect of sexual control ($\beta = -0.01, p = .71$ for interaction with alcohol; $\beta = 0.01, p = .96$ for the interaction with drug use). However, the main effect of alcohol use scores was statistically significant in predicting number of sexual partners ($\beta = 0.54, p = .02$; See Table 8).
Table 8  
*Hierarchical Linear Regression Explaining Number of Sexual Partners (N = 93)*

<table>
<thead>
<tr>
<th>Outcome = Number of Sexual Partners</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$p$</th>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Multiple $R = .11$, $F (2, 85) = .07$, $p = .93$</td>
</tr>
</tbody>
</table>

**Step 1**
1. Age                      | -.11  | -1.6 | .29  | Adjusted $R^2 = .02$ |
2. Partner Type              | -2.9  | -5.4 | .59  | $F (3, 90) = 1.1, p = .38$ |
3. Length of Time in a Relationship | -.09  | -1.07| .94  |

**Step 2**
1. Age                      | -.04  | -1.0 | .34  | Adjusted $R^2 = .04$ |
2. Partner Type              | -4.5  | -8.7 | .39  | $R^2\Delta = .06$ |
3. Length of Time in a Relationship | .27   | 2.1  | .83  | $F (2, 88) = 2.9, p = .06$ |
4. AUDIT                     | .54   | 2.3  | .02  |
5. Past 30-Day Drug Use      | .76   | .34  | .74  |

**Step 3**
1. Age                      | -.04  | -1.5 | .25  | Adjusted $R^2 = .04$ |
2. Partner Type              | -4.9  | -9.3 | .36  | $R^2\Delta = .01$ |
3. Length of Time in a Relationship | .30   | .24  | .81  | $F (1, 87) = .91, p = .34$ |
4. AUDIT                     | .59   | 2.5  | .02  |
5. Past 30-Day Drug Use      | 1.6   | .47  | .64  |
6. Sexual Control            | -.08  | -1.96| .34  |

**Step 4**
1. Age                      | -.03  | -1.34 | .73  | Adjusted $R^2 = .02$ |
2. Partner Type              | -4.9  | -9.3 | .36  | $R^2\Delta = .002$ |
3. Length of Time in a Relationship | .32   | .25  | .80  | $F (2, 85) = .07, p = .93$ |
4. AUDIT                     | .97   | .93  | .36  |
5. Past 30-Day Drug Use      | .48   | .05  | .96  |
6. Sexual Control            | -.05  | -1.34| .74  |
7. Sexual Control X AUDIT    | -.01  | -1.37| .71  |
8. Sexual Control X Past 30- Day Drug Use | .01   | .06  | .96  |
Chapter 4: Discussion

4.1 Implications

The present study represents the first known investigation to test the interactive effect of sexual self-esteem (focusing on perceived physical attractiveness and perceived sexual control) and substance use in predicting sexual risk in Latino MSM living with HIV. Findings indicated that Latino MSM in our sample had moderate to high perceptions of physical attractiveness with high sexual control. In addition, results indicated that perceptions of physical unattractiveness were associated with lower levels of sexual control; however, neither of these measures were association with sexual risk behavior. Sexual risk reports were minimal in our sample with most individuals engaging in protected sexual activity. Out of the entire sample, approximately 13% reported engaging in sexual activity without a condom with an HIV-negative partner or status unknown partner. Finally, even though almost one-third of the sample reported illicit drug use, alcohol use was the only consisted predictor of sexual risk.

In the present sample, individuals reported moderate to high levels of sexual self-esteem. Compared to other samples of MSM, men obtained comparable sexual self-esteem scores. For example, Træen et al. (2014) investigated the interactive effect of sexual self-esteem and condom use self-efficacy with sexually explicit media in predicting condom use in a sample of 1,391 MSM (30% of whom were Latinos and 9% were HIV-positive). Although the scores in the present sample were slightly more elevated, Træen found moderate levels of sexual self-esteem. Furthermore, sexual self-esteem scores in this sample differed from those found in college samples. For example, in our study scores on the attractiveness scale were slightly higher than have been observed in heterosexual women and lower than those reported by heterosexual men (Squires, 1998). This pattern of scores largely reflects those of other investigations comparing
body image dissatisfaction and overall perception of physical attractiveness as a function of sexual orientation (Sieve, 1994; Yelland & Tiggemann, 2003).

Sexual control reported in this study was high, and it paralleled scores reported by other investigations using older MSM living with HIV (Exner, Meyer-Bahlburg, & Ehrhardt, 1992). Furthermore, men in this sample reported having significantly higher sexual control scores than college-age heterosexual women and men. Higher sexual control scores in Latino MSM is an encouraging finding. Previous research has noted that loss of sexual control was a common reason given by Latino MSM to explain sexual risk behavior. For example, in a study with 1,026 Latino MSM, Miner et al. (2007) found that those high in sexual compulsivity had more sexual partners and engaged in more UAI in the past three months. Perceptions of high sexual control found in our sample could be due to an increase in knowledge about HIV transmission and to a desire to protect sexual partners as men among our sample became HIV positive.

More than three-fourths of MSM living with HIV in this study were sexually active, with most reporting that they used protection, however, more than 1 in 10 reported engaging in risky behavior in the last six months. Although perceptions of physical attractiveness were significantly positively correlated with sexual control, neither of these variables was associated with any of the three measures of sexual risk. Limited data exist on the relationship between perceived physical attractiveness and sexual control in MSM. Existing research has instead concentrated on global self-esteem as it relates to sexual control in MSM. Semple et al. (2006) used a measure of self-esteem that tapped into multiple areas of self-evaluation including physical attractiveness and found a moderately significant negative relationship with sexual compulsivity in an ethnically diverse sample of MSM living with HIV.
Furthermore, despite past research finding significant associations between appearance-related distress (Blashill, Wilson, Baker, Mayer, & Safren, 2014) and lack of sexual control (Miner, Peterson, Welles, Jacoby, & Rosser, 2009) with sexual risk in MSM living with HIV, our result were not consistent with these findings. Similar to the present investigation, Træen et al. (2014) found no association between sexual self-esteem and sexual risk in their sample of 1,391 ethnically diverse MSM. Similarly, Squires (1998) reported that perceived attractiveness had no influence on number of casual or steady partners in a lifetime or condom use with the most recent sexual partner in a sample of college males and females. In reference to sexual control, Squires found that those who report fewer steady partners in a lifetime report less control, and control had no association with using a condom with the most recent casual partner.

Our sample consisted of Latino MSM of Mexican descent who were living with HIV and who had been retained in HIV care. Among our unique sample, we observed overall higher levels of sexual self-esteem and higher levels of sexual control in conjunction with low sexual risk. This pattern of results can be explained by Latino male cultural values and by characteristics common among individuals who have remained in HIV care. Studies of Latino MSM and heterosexual men have found high levels of self-esteem. De Santis and Vasquez (2011) found that gay Latino MSM had higher levels of self-esteem compared to African American and White MSM. Thus, high sexual self-esteem could also be a value characteristic of Latino men in our sample, as sexual self-esteem is a sub-component of self-esteem. Even though low sexual control is another Latino male value (Wilson, Diaz, Yoshikawa, & Shrout, 2009), this may pertain to a specific sub-group of Latino men like MSM who are not living with HIV or MSM living with HIV who are not in care. MSM in our sample had been living with HIV for 11 years on average and had been retained in care. Over the course of treatment, these men had
been exposed to considerable knowledge about HIV transmission. Ambivalence about what an individual wants sexually and/or lack of knowledge of disease transmission can impact sexual control (Worth, 1989). Knowledge about HIV transmission and an interest in protecting a sexual partner could help resolve some ambivalence and could have strengthened sexual control in our sample (Worth, 1989). In addition, the variation in these findings from past research that has found an inverse association between sexual self-esteem and sexual risk can be due to our small sample or to our use of a relatively safe sample, and thus, one without a lot of variation in sexual risk. Low levels of sexual risk could also be explained by collectivist values found in the Latino culture. Individuals who identify with a collectivist culture place a higher value on interdependence of group members (e.g., family, the community), and needs of the family and community are placed before individual needs (Tann, 2005). It could be that collectivism was characteristic of this particular sub-group of Latino men living with HIV, and men engaged in safer sexual activity because of a correspondingly heightened interest in protecting a sexual partner.

Hazardous drinking was reported by almost one fourth of the sample, and it was higher in our sample compared other Latino MSM. For instance, De Santis et al. (2012) reported that 18% of their sample of 100 self-identified gay Latino men reported alcohol abuse. Furthermore, alcohol intake was the only consistent predictor of sexual risk throughout the analysis. Although evidence is not consistent (Leigh & Stall, 1993; Stall & Purell, 2000), a number of studies have reported a significant association between global alcohol and drug use and sexual risk behavior. Not only did we substantiate a positive association between global alcohol use and sexual risk, the strength of the relationship in our sample was slightly stronger compared that found in other samples of Latino MSM (De Santis et al., 2012). The positive association between alcohol
consumption and sexual risk can be explained in several ways. First, based on our results, drinking may be associated with an increase in the number of sexual partners which, in turn, increases a person’s total amount of sexual activity (i.e., more opportunities to engage in sexual risk). Second, alcohol may reduce psychological distress like appearance-related distress (Blashill, Wilson, Baker, Mayer, & Safren, 2014), anxiety, and depression that is common in people living with HIV (Critchlow, 1986). Previous research has reported that MSM may have a tendency to engage in substance use coping in efforts to avoid or reduce negative emotions as well as to enhance positive emotions (Martin, Pryce, & Leeper, 2005). This is significant as men who engaged in UAI tended to endorse drinking more alcohol in an effort to reduce tension compared to men who did not report UAI (Martin, Pryce, & Leeper, 2005). Third, alcohol may reduce inhibitions, even when individuals are committed to safer sex practices and are well educated about HIV transmission. Thus, alcohol may reduce guilt or fear about transmission of the virus. Finally, alcohol use may be an indicator of a personality trait, a so-called “third variable” in the equation. For instance, Donovan and Jessor (1991) found that alcohol use and sexual risk behavior in people living with HIV may be an expression of the personality construct of sensation seeking. Personality characteristics such as sensation seeking may serve to explain the co-occurrence of clusters of high-risk behaviors, such as substance use and sexual risk.

Almost one third of the sample reported illicit drug use in the past 30 days, and most reported marijuana use and use of tranquilizers without a doctor’s prescription. Latino MSM in our sample had higher overall use of illicit drug use in the past 30 days, in addition to higher marijuana use, nonmedical use of psychotherapeutics (especially tranquilizers), and cocaine use in the past 30 days compared to national samples of Non-Hispanic Whites, African Americans, and other Latinos (SAMHSA, 2013). Contrary to past findings of drug use in Latino MSM
living with HIV, we did not see much methamphetamine use in our sample (Halkitis, Fischgrund, & Parsons, 2005; Kurtz, 2005; Semple, Patterson, & Grant, 2002). Thus, for this specific population, the main focus of intervention should be alcohol when dealing with substance use.

Despite the fact that past-30 day illicit drug use was prevalent in this sample, sexual risk was not associated significantly with drug use. These findings largely concur with those of Stein et al. (2005). In their ethnically diverse sample of older HIV-positive individuals, Stein found that sexual risk was not associated with drug use (e.g., cocaine and heroin), rather the likelihood of engaging in sex risk was associated with alcohol use only. Similarly, Wilson, Diaz, Yoshikawa and Shrout (2008) investigated the relationships among drug use, interpersonal attraction, and communication in predicting episodes of unprotected anal intercourse in a sample of Latino MSM, most of whom were of Mexican descent. Authors found that participant drug use was not associated with unprotected anal intercourse; rather unprotected anal intercourse was associated with drug use by the partner only. Perhaps future research on the relationship between drug use and risky sexual behavior among Latino MSM should examine drug use separately for each sexual partner in a sexual encounter. This can help clarify the number of mixed and contradicting results available in the HIV-transmission literature, and it can help explain how a partner’s drug use prior to or during an episode can impact sexual behavior and safe sex practices in Latinos MSM during a sexual encounter.

4.2 Strengths and Limitations

Our study has both strengths and limitations. A strength of our study pertains to our ability to recruit a sample of Latinos of Mexican descent, which is an understudied population.
Additionally, this study represents the first known investigation to test the interactive effect of sexual self-esteem and substance use in predicting sexual risk in Latino MSM living with HIV.

There are several limitations that should be noted. First, because a cross sectional, correlational research design was used for the present study, causality cannot be established.

A second limitation includes the use of self-report measures to assess sensitive topics like sexual activities and illicit drug use. These data are personal and run the risk of generating inaccurate survey responses due to social desirability bias. That is, to avoid receiving negative evaluations, participants have a tendency to under-report socially undesirable behaviors and over-report socially desirable ones (Krumpal, 2013).

A third limitation includes the use of global assessment measures to assess overall patterns of substance and high-risk sexual practices and correlating them to detect an association instead of using a more targeted approach like event-level assessment measures which link sexual risk to sexual activity for specific encounters. An advantage of using event-level assessment measures is that they ensure that substance use and sexual risk occurred on the same occasion, thus strengthening (yet not guaranteeing) causal implications (Leigh, 2002). Similar to previous investigations also using global assessment measures, the present study found a moderate to large positive association between alcohol use and sexual risk. In employing event-level assessment such an effect may not have been observed. Previous investigations using event-level data have often found no association between alcohol consumption and sexual risk (e.g., Desiderato & Crawford, 1995; Senf & Price, 1994). However, unlike the present study, those investigations did not account for partner type. Other event-level studies that have accounted for partner type have observed a positive association primarily in the context when there is a casual partner involved (Brown & Vanable, 2007). We did not account for other
variables like venue types where risk behavior may occur. Venue type could help explain the association between higher levels of alcohol use and high-risk sexual practices in our sample.

This study is also limited in that additional variables such as BMI were not included. Given that there are significant relationships between BMI and perceptions of physical attractiveness and between BMI and sexual risk in MSM living with HIV (Blashill, O’ Cleirigh, Mayer, Goshe, & Safren, 2012), more research should incorporate BMI, appearance-related distress, and other psychological variables like sexual self-esteem in research investigating substance use and sexual risk in MSM living with HIV. Also, the nature of the sample may limit the generalizability of the results. The sample was composed solely of Latino MSM living with HIV on the U.S.-Mexico border and who have remained in treatment for HIV. This border population allowed us to sample a wide range of MSM of Mexican descent, including Mexican Americans and Mexican Nationals (immigration status was not assessed). Residence in this area can be associated with a relatively strong retention of Mexican culture and values as many individuals maintain close ties to Mexico, often with family members residing in Mexico (Negy & Wood, 1992). Thus, results from this study may not generalize to other Latinos who live in other areas of the U.S. and are not subject to the strong cultural values and traits found in border cities (Negy & Woods, 1992). Additionally, results should not be translated to women, non-Hispanic White men, persons not living with HIV, or persons not receiving treatment. As previously mentioned, all of the participants were receiving treatment at a community clinic that offers comprehensive HIV/AIDS treatment. Thus, the study relied on a convenience sample rather than a true probability sample. Replication studies are needed to determine the reliability of the results and the generalizability to Latino men who are living with HIV but are not receiving treatment.
Other limitations relate to assessing a subcomponent of self-esteem (i.e., sexual self-esteem) in Latino men. Studies looking at self-esteem in Latino men have reported high levels of self-esteem in conjunction with high levels of depression (De Santis et al., 2008; Vasquez et al., 2011). This is an unanticipated finding as one would expected that as men are more depressed they will also have lower self-esteem. Authors hypothesize that high levels of self-esteem in conjunction with high levels of depression could be due to the fact that self-esteem is not being accurately assessed and thus not captured or that high levels of self-esteem are reported because high levels of self-esteem are a value endorsed by Latino men. Thus, participants may be over-reporting positive responses on measures of self-esteem (Vasquez et al., 2011).

Because sexual self-esteem is a construct that has been largely understudied in Latino men, it is unclear whether Latino men have a tendency to over-report sexual self-esteem as has been observed with general self-esteem.

Another potential limitation concerns the use of the SSEI to measure the sexual self-esteem of Latino MSM. Although the SSEI is a well-validated instrument and has been used with men in past studies, it was not originally designed to assess sexual self-esteem in men. Future research may wish to focus on measurement issues related to sexual self-esteem in Latino MSM and people living with HIV, perhaps even adapting or developing a specific instrument in these populations. For instance, in noting that there are limited options in the valid assessment of appearance-related distress in MSM living with HIV despite its high prevalence in this population, Blashill and colleagues (2014) assessed the validity of the Body Change and Distress Questionnaire-Short Form (ABCD-SF) in a sample of MSM living with HIV and found it to be a valid means to assess a number of aspects of body image disturbance in this population.
4.3 Conclusions and Future Directions

Results from this sample have the potential to inform clinical interventions. Given that perceived unattractiveness was associated with a loss of sexual control, incorporating the treatment of psychological distress (e.g., appearance-related distress, body dissatisfaction) into traditional behavioral HIV prevention efforts may improve the effectiveness of these interventions. Although to date no known interventions exist that have addressed factors that contribute to appearance-related distress like body dissatisfaction among people living with HIV, a recent investigation suggests that integrative HIV prevention interventions that also target mental health concerns may be particularly beneficial to MSM living with HIV (Safren, O’Cleirigh, Skeer, Elsesser, & Mayer, 2013). Given that a significant percentage of the sample displayed hazardous alcohol use, and a positive association between alcohol use and one measure of sexual risk was observed, this population may benefit from interventions that target problematic alcohol use. Furthermore, appearance-related distress, lack of sexual control, and illicit drug use are relatively common among individuals living with HIV and their lack of association with sexual risk in the present sample leave many questions unanswered. Such null findings highlight the importance of looking into other mediating or moderating factors that have been observed as important determinants of risk behavior in Latino MSM, like depression (Blashill, O’Cleirigh, Mayer, Goshe, & Safren, 2012), and their interaction with factors like appearance-related distress and sexual control. It is vital from a public health perspective to address all possible motivators of drug use and sexual risk in vulnerable populations like Latino MSM living with HIV.
References


Desiderato, L. L., & Crawford, H. J. (1995). Risky sexual behavior in college students: Relationships between number of sexual partners, disclosure of previous risky behavior,

doi:10.1007/BF01537560


a collaborative project on early detection of persons with harmful alcohol consumption-II.

*Addiction, 88*(6), 791-804.


doi:10.1006/pmed.2001.0869


methamphetamine use among HIV-positive gay and bisexual men: A pilot study.

*Substance Use & Misuse, 46*(14), 1745-1749. doi:10.3109/10826084.2011.618998


Appendix A

Demographic Survey in English and Spanish
1. What is your date of birth?  ______ / ______ / ______  ______  ______  ______
   (Month)                  (Day)                                 (Year)

3. Where do you currently live?
   □ A house, apartment, condo or room you rent
   □ A house, apartment, or condo you own
   □ A family member’s house, apartment, or condo
   □ Someone else’s house, apartment, or condo (that is not family)
   □ Shelter /group home
   □ Other: ______________________________ [write in your response]

4. In your current living situation, with whom do you live? [Check all that apply]
   □ Spouse or Partner
   □ Children
   □ Parents
   □ Other family
   □ Friends
   □ Roommates
   □ Alone (by myself)

5. How many other people, not including yourself, do you live with? ______

6. In the past 12 months, have you lived in Mexico for any part of the time?
   Yes □   No □

7. What is your highest level of education: __________________________________________

8. Please check the box that best describes your employment status.
   □ Working at a full-time job
   □ Working at a part time job
   □ Working odd jobs
   □ Not currently working

9. What kind of work do you do, or if you are unemployed, what kind of work have you done in the past?
   ___________________________________________________________________________________
10. Altogether, what is your annual household income from all sources?  
(Including welfare, wages, food stamps, child support, and legal/illegal activities)  
$_____________

11. How do you think of yourself?  

[ ] Heterosexual only  [ ] Heterosexual mostly  [ ] Heterosexual somewhat more  [ ] Hetero/gay equally  [ ] Gay somewhat more  [ ] Gay mostly  [ ] Gay only

12. Are you currently in a committed relationship with a primary partner?  

[ ] No…………………  → (go to question 13)  
[ ] Yes

12a. Is your current primary partner…?  

[ ] A man  
[ ] A woman

12b. How long have you been involved with your primary partner?  

[ ] Less than 6 months  
[ ] 6 months to 1 year  
[ ] 1 to 5 years  
[ ] 6 to 10 years  
[ ] More than 10 years

12c. Are you currently living with your primary partner?  

[ ] Yes  
[ ] No

12d. Are you currently legally married to this primary partner?  

[ ] Yes  
[ ] No

12e. Are you currently legally married to someone who is not your primary partner?  

[ ] Yes  
[ ] No

12f. What is your partner’s highest level of education? ________________________________

12g. What is your partner’s occupation? ________________________________

13. Have you ever been divorced?  

[ ] Yes  
[ ] No

14. What is your religious preference?  

[ ] I do not identify with any religion  
[ ] Catholic  
[ ] Other Christian  
[ ] Other______________________________

15. Date of HIV diagnosis: (MM/DD/YY)_____/_____/_______  
(Use 15th day of month if exact day is unknown)
1. ¿Cuál es su fecha de nacimiento? ___ ___ / ___ ___ / ___ ___ ___ ___
   (Mes)       (Día)       (Año)

3. ¿Dónde vive usted actualmente?
   - Casa, departamento, condominio o cuarto que usted renta
   - Casa, departamento o condominio de su propiedad
   - Casa, departamento o condominio de un familiar
   - Casa, departamento o condominio de alguna otra persona (que no sea familiar)
   - Casa de Albergue/Hogar de Grupo
   - Otro: __________________________________________ [anote su respuesta]

4. En el sitio, donde usted vive actualmente, ¿con quién vive? [Marque todas las que correspondan]
   - Cónyuge o Pareja
   - Hijos
   - Padres
   - Otros familiares
   - Amigos
   - Compañeros de Cuarto
   - Solo (por mi cuenta)

5. Sin incluirse usted, ¿Con cuántas otras personas vive? _______

6. Durante los últimos doce meses, ¿ha vivido en México por algún tiempo?
   - Sí ☐   - No ☐

7. ¿Cuál es su nivel más alto de educación?____________________________________________________________

8. Por favor marque el cuadro que mejor describa su situación laboral.
   - Trabajo de tiempo completo
   - Trabajo de tiempo parcial
   - Trabajo esporádico
   - No trabajo actualmente

9. ¿Qué tipo de trabajo hace, o si es desempleado, que tipo de trabajo ha hecho en el pasado?

   ________________________________________________________________________________________________
10. En total, ¿cuál es el ingreso familiar anual de su hogar incluyendo todas las fuentes de ingreso?  
(Incluyendo asistencia social (welfare), salario, food stamps, child support, actividades legales o ilegales)  
$__________________  

11. ¿Cómo piensa usted de sí mismo?  
☐ Heterosexual  ☐ Mayormente  ☐ Un poco más  ☐ Hetero/  ☐ Mayormente  ☐ Homosexual  
Únicamente  heterosexual  homosexual  homosexual  homosexual  homosexual  homosexual  por igual  

12. ¿Se encuentra usted actualmente en una relación de compromiso con una pareja principal?  
☐ No…………………➔ (pase a la pregunta 13)  
☐ Sí  

12a. ¿Su pareja actual es…?  
☐ Hombre  ☐ Mujer  

12b. ¿Por cuánto tiempo ha estado involucrado con su pareja principal?  
☐ Menos de 6 meses  
☐ 6 meses a 1 año  
☐ 1 a 5 años  
☐ 6 a 10 años  
☐ Más de 10 años  

12c. ¿Está viviendo actualmente con su pareja principal?  
☐ Sí ☐ No  

12d. ¿Está legalmente casado con esta pareja principal?  
☐ Sí ☐ No  

12e. ¿Está legalmente casado con alguien que no es su pareja principal?  
☐ Sí ☐ No  

12f. ¿Cuál es el grado de educación más alto de su pareja?______________________________  

12g. ¿Cuál es la ocupación de su pareja?_____________________________________________  

13. ¿Se ha divorciado alguna vez?  
☐ Sí ☐ No  

14. ¿Cuál es su preferencia religiosa?  
☐ No me identifico con ninguna religión  
☐ Católico  
☐ Otra que es Cristiana  
☐ Otra religión:__________________________________________  

15. Fecha del diagnóstico del HIV (VIH): (MM/DD/YYYY) _____/_____/_______  
(Use el 15 del mes si no sabe el día exacto)
Appendix B
Sexual Self-Esteem Inventory in English and Spanish

Attractiveness Subscale
Items = 1, 3, 5, 7, 9, 11, 12, 14, 16, 18, 19, 21, 23, 26, 28, 30, 32
Reverse score items: 3, 7, 9, 11, 12, 14, 16, 21, 23, 32

Sexual Control Subscale
Items = 2, 4, 6, 8, 10, 13, 15, 17, 20, 22, 24, 25, 27, 29, 31, 33
Reverse score items: 4, 6, 10, 13, 15, 17, 20, 22, 24, 29, 31, 33
**SSEI**

Instructions: You are asked to rate your feelings about several aspects of sexuality. You are not asked to describe your actual experiences, but instead to rate your reactions and feelings about your experiences, whatever they may be. In this questionnaire "sex" and “sexual activity” refer to the variety of sexual behaviors, including kissing, hugging, caressing, and petting, as well as sexual intercourse. Current sexual activity is not necessary in order to answer the questions. There are no right or wrong answers; reactions to and feelings about sexuality are normally quite varied. What is important are your reactions to your own personal experiences, thoughts, and feelings.

Please answer each question as honestly as possible. Circle a number next to each statement to indicate the extent to which you agree or disagree with that statement.

<table>
<thead>
<tr>
<th></th>
<th>1. I am pleased with my physical appearance.</th>
<th>2. I feel sure of what I want sexually.</th>
<th>3. I wish I were sexier.</th>
<th>4. I feel emotionally vulnerable in a sexual encounter.</th>
<th>5. I like my body.</th>
<th>6. I am afraid of losing control sexually.</th>
<th>7. If I could, I would change some parts of my body.</th>
<th>8. I feel I can usually judge how my partner will regard my wishes about how far to go sexually.</th>
<th>9. I am surprised when someone finds me attractive.</th>
<th>10. At times I have been afraid of what I might do sexually.</th>
<th>11. I hate my body.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Moderately Disagree</td>
<td>Mildly Disagree</td>
<td>Agree</td>
<td>Moderately Agree</td>
<td>Strongly Agree</td>
<td>Strongly Disagree</td>
<td>Moderately Disagree</td>
<td>Mildly Disagree</td>
<td>Agree</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td></td>
<td>12. There are parts of my body I feel embarrassed about.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------</td>
<td>---</td>
<td>--------------------</td>
<td>---</td>
<td>--------------------</td>
<td>---</td>
<td>----------------</td>
<td>---</td>
<td>--------------</td>
<td>---</td>
<td>----------------</td>
</tr>
<tr>
<td></td>
<td>13. I feel I could easily be talked into sexual activities I don’t want.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td></td>
<td>14. I am much less attractive than I would like to be.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td></td>
<td>15. When I am in a sexual situation, I feel confused about what I want.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td></td>
<td>16. I am happy with the way I look.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td></td>
<td>17. I feel physically vulnerable in a sexual encounter.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td></td>
<td>18. I am pleased with the way my body has developed.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td></td>
<td>19. I would like to trade bodies with someone.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td></td>
<td>20. In a sexual situation, I know what I want but don’t know how to get it.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td></td>
<td>21. I worry that some parts of my body would be disgusting to a sexual partner.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
</tr>
<tr>
<td>Number</td>
<td>Statement</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>---------------------------------------------------------------------------</td>
<td>----------------------</td>
<td>------------------------</td>
<td>-------------------</td>
<td>-----------------</td>
<td>---------------------</td>
<td>------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>I am uncomfortable in letting my partner know what I want sexually.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>I would be happier if I looked better.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>I worry that I won’t be able to stop something that I don’t want to do in a sexual situation.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>I feel okay about telling my partner what I want in a sexual situation.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>I am proud of my body.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>I am able to get what I want sexually when I want it.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>When I get dressed up, I feel good about the way I look.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>I worry that things will get out of hand because I can’t always tell what my partner wants in a sexual situation.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>I am attractive enough.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>My partner seems to get the wrong message about what I want sexually.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>I would like to look a lot better.</td>
<td>1: Strongly Disagree</td>
<td>2: Moderately Disagree</td>
<td>3: Mildly Disagree</td>
<td>4: Mildly Agree</td>
<td>5: Moderately Agree</td>
<td>6: Strongly Agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. I worry that I will be taken advantage of sexually.</td>
<td>1</td>
<td>Strongly Disagree</td>
<td>2</td>
<td>Moderately Disagree</td>
<td>3</td>
<td>Mildly Disagree</td>
<td>4</td>
<td>Mildly Agree</td>
<td>5</td>
<td>Moderately Agree</td>
<td>6</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>

**SSEI**

Instrucciones: Se le pide que califique su forma de sentir sobre varios aspectos de la sexualidad. No se le pide que describa sus experiencias reales, sino que califique sus reacciones y forma de sentir sobre sus experiencias, sean las que fueren. En este cuestionario "sexo" y "actividad sexual" se refieren a una serie de conductas sexuales que incluye besos, abrazos, y todo tipo de caricias, así como las relaciones sexuales. No se requiere estar en una relación sexual para responder a las preguntas. No hay respuestas correctas o incorrectas; las reacciones y formas de sentir sobre la sexualidad normalmente son muy variadas. Lo que importa son sus reacciones a sus propias experiencias personales, forma de pensar y de sentir.

Por favor responda a cada una de las preguntas de la forma más honesta posible. Encierre en un círculo el número enseguida de cada enunciado que indique hasta qué grado está o no está usted de acuerdo con el mismo.

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Estoy contento con mi apariencia física.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>2</td>
<td>Me siento seguro de lo que quiero sexualmente.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>3</td>
<td>Desearía ser más sexy.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>4</td>
<td>Me siento emocionalmente vulnerable en un encuentro sexual.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>5</td>
<td>Me gusta mi cuerpo.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>6</td>
<td>Temo perder el control sexual.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>7</td>
<td>Si pudiera, cambiaría algunas partes de mi cuerpo.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>8</td>
<td>Creo que regularmente puedo calcular la forma en que mi pareja considerará mis deseos en cuanto hasta dónde quiero llegar sexualmente.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>9</td>
<td>Me sorprende cuando alguien me encuentra atractivo.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>10.</td>
<td>En ocasiones he sentido miedo de lo que pudiera hacer sexualmente.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>11.</td>
<td>Odio mi cuerpo.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>12.</td>
<td>Hay partes de mi cuerpo de las que me avergüenzo.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>13.</td>
<td>Siento que se me podría persuadir fácilmente para realizar actividades sexuales que no quiero.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>14.</td>
<td>Soy mucho menos atractivo de lo que me gustaría ser.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>15.</td>
<td>Cuando estoy en una situación sexual, me siento confundido acerca de lo que quiero.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>16.</td>
<td>Estoy contento con la forma en la que me veo.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>17.</td>
<td>Me siento físicamente vulnerable en un encuentro sexual.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>18.</td>
<td>Estoy contento con la forma en que mi cuerpo se ha desarrollado.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>------------------------</td>
<td>------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>19</td>
<td>Me gustaría cambiar mi cuerpo por el de otra persona</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td>20</td>
<td>En una situación sexual, sé lo que quiero, pero no sé cómo conseguirlo.</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td>21</td>
<td>Me preocupa que algunas partes de mi cuerpo le causen repulsión a una pareja sexual.</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td>22</td>
<td>No me siento cómodo dándole a entender a mi pareja lo que quiero sexualmente.</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td>23</td>
<td>Yo sería más feliz si me vieras mejor.</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td>24</td>
<td>Me preocupa que en una situación sexual, no sea capaz de detener algo que yo no quiera hacer.</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td>25</td>
<td>Me siento cómodo diciéndole a mi pareja lo que quiero en una situación sexual.</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td>26</td>
<td>Estoy orgulloso de mi cuerpo.</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td>27</td>
<td>Soy capaz de obtener lo que quiero sexualmente cuando lo quiero.</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td>28</td>
<td>Al arreglarme me gusta la forma en que me veo.</td>
<td>1 Completamente en desacuerdo</td>
<td>2 Moderadamente en desacuerdo</td>
<td>3 Ligeramente en desacuerdo</td>
<td>4 Ligeramente de acuerdo</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>29. Me preocupa que las cosas se salgan de control porque no siempre puedo adivinar lo que mi pareja quiere en una situación sexual.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
<td>3</td>
</tr>
<tr>
<td>30. Soy lo suficientemente atractivo.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
<td>3</td>
</tr>
<tr>
<td>31. Pareciera que mi pareja capta el mensaje equivocado de lo que quiero sexualmente.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
<td>3</td>
</tr>
<tr>
<td>32. Me gustaría verme mucho mejor.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
<td>3</td>
</tr>
<tr>
<td>33. Me preocupa que se vayan a aprovechar de mí sexualmente.</td>
<td>1</td>
<td>Completamente en desacuerdo</td>
<td>2</td>
<td>Moderadamente en desacuerdo</td>
<td>3</td>
</tr>
</tbody>
</table>
Appendix C

Alcohol Use Disorder Identification Test in English and Spanish
AUDIT -- Mark the box that best describes your answer to each question.

1. How often do you have a drink containing alcohol?
   □ Never □ Monthly or less □ 2 to 4 times a month □ 2 to 3 times a week □ 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?
   □ 1 or 2 □ 3 or 4 □ 5 or 6 □ 7 to 9 □ 10 or more

3. How often do you have six or more drinks on one occasion?
   □ Never □ Less than monthly □ Monthly □ Weekly □ Daily or almost daily

4. How often during the last year have you found that you were not able to stop drinking once you had started?
   □ Never □ Less than monthly □ Monthly □ Weekly □ Daily or almost daily

5. How often during the last year have you failed to do what was normally expected of you because of drinking?
   □ Never □ Less than monthly □ Monthly □ Weekly □ Daily or almost daily

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
   □ Never □ Less than monthly □ Monthly □ Weekly □ Daily or almost daily

7. How often during the last year have you had a feeling of guilt or remorse after drinking?
   □ Never □ Less than monthly □ Monthly □ Weekly □ Daily or almost daily

8. How often during the last year have you been unable to remember what happened the night before because of your drinking?
   □ Never □ Less than monthly □ Monthly □ Weekly □ Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?
   □ No □ Yes, but not in the last year □ Yes, during the last year

10. Has a relative, friend, doctor or other health care worker been concerned about your drinking or suggested you cut down?
    □ No □ Yes, but not in the last year □ Yes, during the last year
**AUDIT -- Marque su mejor respuesta a cada pregunta.**

1. ¿Con que frecuencia consume alguna bebida alcohólica?
   - Nunca
   - Una o menos veces al mes
   - De 2 a 4 veces al mes
   - De 2 a 3 veces a la semana
   - 4 o más veces a la semana

2. ¿Cuántas consumiciones de bebidas alcohólicas suele realizar en un día de consumo normal?
   - 1 o 2
   - 3 o 4
   - 5 o 6
   - 7 a 9
   - 10 o más

3. ¿Con que frecuencia toma 6 o más bebidas alcohólicas en una sola ocasión?
   - Nunca
   - Menos de una vez al mes
   - Mensualmente
   - Semanalmente
   - A diario o casi a diario

4. ¿Con que frecuencia en el curso del último año ha sido incapaz de parar de beber una vez que había empezado?
   - Nunca
   - Menos de una vez al mes
   - Mensualmente
   - Semanalmente
   - A diario o casi a diario

5. ¿Con que frecuencia en el curso del último año no pudo hacer lo que se esperaba de usted porque había bebido?
   - Nunca
   - Menos de una vez al mes
   - Mensualmente
   - Semanalmente
   - A diario o casi a diario

6. ¿Con que frecuencia en el curso del último año ha necesitado beber en ayunas para empezar su día después de haber bebido mucho el día anterior?
   - Nunca
   - Menos de una vez al mes
   - Mensualmente
   - Semanalmente
   - A diario o casi a diario

7. ¿Con que frecuencia en el curso del último año ha tenido remordimientos o sentimientos de culpa después de haber bebido?
   - Nunca
   - Menos de una vez al mes
   - Mensualmente
   - Semanalmente
   - A diario o casi a diario

8. ¿Con que frecuencia en el curso del último año no ha podido recordar lo que sucedió la noche anterior porque había estado bebiendo?
   - Nunca
   - Menos de una vez al mes
   - Mensualmente
   - Semanalmente
   - A diario o casi a diario

9. ¿Usted o alguna otra persona ha resultado herido porque usted había bebido?
   - No
   - Sí, pero no en el curso en el último año
   - Sí, durante el último año
10. ¿Algún familiar, amigo, médico, u otro profesional de la salud ha mostrado preocupación por un consumo de bebidas alcohólicas o le ha sugerido que deje de beber?

- [ ] No
- [ ] Si, pero no en el curso en el último año
- [ ] Si, durante el último año
Appendix D

Drug-Related Items in English and Spanish
Drug-Related Items

These questions ask about the use of substances other than alcohol or tobacco: that is, illicit drugs. Please answer these accurately. Remember that your answers will be kept strictly confidential; they will never be connected with your name. *Here, the word “occasion,” refers to a distinct “time”- once or more per day, when you used a substance.* Please circle the range that corresponds.

1- On how many occasions (times) (if any) have you used marijuana (weed, pot) or hashish (hash, hash oil)...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>During your entire life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the last 12 months?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
<tr>
<td>During the last 30 day</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
</tbody>
</table>

2- On how many occasions (if any) have you used cocaine in any form...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>During your entire life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the last 12 months?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
<tr>
<td>During the last 30 day</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
</tbody>
</table>

3- Amphetamines (stimulants) have been prescribed by doctors to lose weight, or to give people more energy. They are sometimes called uppers, ups, speed, bennies, daxies, pep pills, and diet pills. Drug stores are not supposed to sell them without a prescription from a doctor. Methamphetamine is also a stimulant. Please circle the range that correspond

On how many occasions (if any) have you taken amphetamines, including methamphetamine, on your own- that is, without a doctor telling you to take them...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>During your entire life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the last 12 months?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
<tr>
<td>During the last 30 day</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
</tbody>
</table>
4- **Sedatives**, including barbiturates, are sometimes prescribed by doctors to help people relax or get to sleep. They are sometimes called downs or downers, and include Phenobarbital, Tuinal, Nembutal, and Seconal. **Please circle the range that corresponds.**

On how many occasions (if any) have you taken sedatives on your own- that is, *without a doctor telling you to take them*...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>During your entire life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the last 12 months?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
<tr>
<td>During the last 30 day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5- **Tranquilizers** are sometimes prescribed by doctors to calm people down, quiet their nerves, or relax their muscles. Librium, Valium, and Xanax are all tranquilizers. **Please circle the range that corresponds.**

On how many occasions (if any) have you taken tranquilizers on your own- that is, *without a doctor telling you to take them*...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>During your entire life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the last 12 months?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
<tr>
<td>During the last 30 day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6- On how many occasions (if any) have your used tranquilizers *because a doctor told you to use them*...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>During your entire life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the last 12 months?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
<tr>
<td>During the last 30 day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7- There are a number of **narcotics** such as heroin, methadone, opium, morphine, codeine, Demerol, Vicodin, OxyContin, and Percoset. Some of these are sometimes prescribed by doctors. **Please circle the range that corresponds.**

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>During your entire life?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the last 12 months?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
</tbody>
</table>
On how many occasions (if any) have you taken narcotics on your own— that is, without a doctor telling you to take them...

<table>
<thead>
<tr>
<th>During the last 30 days</th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
</table>

During the last 30 days 0 1-2 3-5 6-9 10-19 20-39 40-99 100+
Elementos relacionados con el uso de las drogas

Estas preguntas se refieren al uso de otras sustancias además del alcohol o del tabaco: es decir, las drogas ilícitas. Por favor sea preciso al contestar. Recuerde que sus respuestas se mantendrán estrictamente confidenciales y nunca se relacionarán con su nombre. La palabra “ocasión” se refiere aquí a una o más (veces) diferente(s) durante el día, en que usted haya utilizado una sustancia. Marque con un círculo la serie con la respuesta que sea más adecuada para usted.

1- ¿En cuántas ocasiones (veces) (si las hubo) ha utilizado la marihuana (yerba, mota) o hachís (hash, aceite de hachís)...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durante toda su vida?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 12 meses?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 30 días?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2- ¿En cuántas ocasiones (si las hubo), ha utilizado la cocaína de cualquier manera...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durante toda su vida?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 12 meses?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 30 días?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3- Las **anfetaminas** (estimulantes) han sido recetadas por los médicos para perder peso o para darle más energía a las personas. Se les llama anfeta, speed, benxedrinas (bennies), pastillas estimulantes y pastillas para bajar de peso. Las farmacias no deben venderlas sin una receta médica. La **metanfetamina** también es un estimulante. **Marque con un círculo la serie con la respuesta que sea más adecuada para usted.**

¿En cuántas ocasiones (si las hubo) ha tomado **anfetaminas**, incluyendo la **metanfetamina**, por su cuenta, es decir *sin que un doctor le indique que las tome*...

<table>
<thead>
<tr>
<th>Durante toda su vida?</th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durante los últimos 12 meses?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
<tr>
<td>Durante los últimos 30 días?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
</tbody>
</table>

4- En ocasiones los **sedantes** incluyendo los barbitúricos, son recetados por los médicos para ayudar a que las personas se relajen o concilien el sueño. En ocasiones, se les llama tranquilizantes e incluyen el fenobarbital, Tuinal, Nembutal y Secobarbital (Seconal). **Marque con un círculo la serie con la respuesta que sea más adecuada para usted.**

¿En cuántas ocasiones (si las hubo) ha tomado **sedantes** por su cuenta, es decir *sin que un doctor le indique que los tome*...

<table>
<thead>
<tr>
<th>Durante toda su vida?</th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durante los últimos 12 meses?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
<tr>
<td>Durante los últimos 30 días?</td>
<td>0</td>
<td>1-2</td>
<td>3-5</td>
<td>6-9</td>
<td>10-19</td>
<td>20-39</td>
<td>40-99</td>
<td>100+</td>
</tr>
</tbody>
</table>
5- En ocasiones los **tranquilizantes** son recetados por los médicos para calmar a las personas, tranquilizar sus nervios o relajar sus músculos. Los medicamentos Librium, Valium y Xanax son tranquilizantes. **Marque con un círculo la serie con la respuesta que sea más adecuada para usted.**

¿En cuántas ocasiones (si las hubo) ha tomado tranquilizantes por su cuenta, es decir, **sin que un médico le indique que los tome**...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durante toda su vida?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 12 meses?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 30 días?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6- ¿En cuántas ocasiones (si las hubo) ha utilizado tranquilizantes porque su médico le indicó que los tomará...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durante toda su vida?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 12 meses?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 30 días?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7- Existe una cantidad de **narcóticos** como la heroína, metadona, opio, morfina, codeína, Demerol, Vicodin, OxyContin y Percocet. Algunos de estos son recetados por los médicos. **Marque con un círculo la serie con la respuesta que sea más adecuada para usted.**

¿En cuántas ocasiones (si las hubo) ha tomado narcóticos por su cuenta, es decir, **sin que un médico se lo indicara**...

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1-2</th>
<th>3-5</th>
<th>6-9</th>
<th>10-19</th>
<th>20-39</th>
<th>40-99</th>
<th>100+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durante toda su vida?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 12 meses?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durante los últimos 30 días?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E

Simoni Sexual Behavioral Questions in English and Spanish
**SSBQ***

The next questions are about your sexual behavior. By sex we mean vaginal (penis in vagina) or anal (penis in butt) sex, but NOT oral sex. When we talk about condoms, we mean male or female condoms.

<table>
<thead>
<tr>
<th>Please check one response.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In your life have you had sex with:</td>
</tr>
<tr>
<td>☐ Only men</td>
</tr>
<tr>
<td>☐ Mostly men</td>
</tr>
<tr>
<td>☐ Men and women equally</td>
</tr>
<tr>
<td>☐ Mostly women</td>
</tr>
<tr>
<td>☐ Only women</td>
</tr>
<tr>
<td>☐ No one</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. In the past 6 months:</th>
</tr>
</thead>
<tbody>
<tr>
<td>With how many men have you had sex? ________________</td>
</tr>
<tr>
<td>With how many women have you had sex? ________________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Do you have a partner who you consider your main, steady, or primary partner?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes</td>
</tr>
<tr>
<td>☐ No</td>
</tr>
</tbody>
</table>

If yes ,

<table>
<thead>
<tr>
<th>3a. What is your main, steady, or primary partner’s HIV status?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ HIV-Positive</td>
</tr>
<tr>
<td>☐ HIV-Negative</td>
</tr>
<tr>
<td>☐ I don’t know</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3b. How many times in the past six months have you had sex with your main partner:</th>
</tr>
</thead>
<tbody>
<tr>
<td>with condoms? __________</td>
</tr>
<tr>
<td>without condoms? __________</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. During the last six months with how many casual partners (men or women who you do not consider your main, steady, or primary partner) have you had sex? ________________ (If answer is zero, continue to next measure)</th>
</tr>
</thead>
</table>

| 4a. How many of your casual partners were HIV-Positive? ________________ |

**Among these HIV-Positive casual partners:**

<table>
<thead>
<tr>
<th>4ai. How many times in the past six months did you have anal/vaginal sexual intercourse:</th>
</tr>
</thead>
<tbody>
<tr>
<td>with condoms? _________</td>
</tr>
<tr>
<td>without condoms? _________</td>
</tr>
</tbody>
</table>

| 4b. Over the past six months, how many of your casual partners were HIV-Negative? ________________ |

**Among these HIV-Negative casual partners:**

<table>
<thead>
<tr>
<th>4bi. How many times in the past six months did you have anal/vaginal sexual intercourse:</th>
</tr>
</thead>
<tbody>
<tr>
<td>with condoms? _________</td>
</tr>
<tr>
<td>without condoms? _________</td>
</tr>
</tbody>
</table>
4c. Still thinking about the last six months, how many casual partners have you had whose HIV status you did not know?

Among these HIV-Unknown casual partners:
4ci. How many times in the past six months did you have anal or vaginal sexual intercourse:
   with condoms? ________
   without condoms? ________
SSBQ*

Las siguientes preguntas son sobre su comportamiento sexual. Por la palabra “sexo” nos referimos a sexo vaginal (pene en la vagina) o anal (pene en el trasero) pero NO al sexo oral. Cuando hablamos sobre condones, nos referimos a los condones tanto del hombre como de la mujer.

Por favor marque una respuesta.
1. Durante su vida, usted ha tenido sexo con:
   - [ ] Hombres únicamente
   - [ ] Hombres en su mayoría
   - [ ] Hombres y mujeres por igual
   - [ ] Mujeres en su mayoría
   - [ ] Solo mujeres
   - [ ] Nadie

2. En los últimos seis meses:
   - ¿Con cuántos hombres ha tenido relaciones sexuales? ________________
   - ¿Con cuántas mujeres ha tenido relaciones sexuales? ________________

3. Tiene una pareja a quien usted considera su pareja principal, regular o primaria?
   - [ ] Sí
   - [ ] No

Si contestó sí:
3a. ¿Cuál es el estatus de VIH de su pareja principal, regular o primaria?
   - [ ] VIH-Positivo
   - [ ] VIH-Negativo
   - [ ] Estatus desconocido

3b. ¿Cuántas veces en los últimos seis meses ha tenido relaciones sexuales con su pareja principal:
   - ¿Con condones? ____________
   - ¿Sin condones? ____________

4. Durante los últimos seis meses, ¿con cuántas parejas casuales (hombres o mujeres que no considera como principal, regular o primaria) ha tenido sexo? ________________ (Si la respuesta es 0, continúe con el próximo cuestionario)
   - 4a. ¿Cuántas parejas casuales eran VIH-Positivo? ________________

   **Entre estas parejas casuales VIH-Positivo:**
   - 4ai. ¿Cuántas veces en los últimos seis meses ha tenido sexo anal/vaginal:
     - ¿Con condones? ____________
     - ¿Sin condones? ____________

   - 4b. ¿En los últimos seis meses cuántas parejas casuales eran VIH-Negativo? ________________

   **Entre estas parejas casuales VIH-Negativo:**
   - 4bi. ¿Cuántas veces en los últimos seis meses ha tenido sexo anal/vaginal:
     - ¿Con condones? ____________
     - ¿Sin condones? ____________
4c. ¿Todavía pensando en los últimos seis meses, con cuántas parejas casuales has tenido sexo con
cual su estatus de
VIH usted desconocía? __________

Entre estas parejas casuales VIH-desconocido:
4ci. ¿Cuántas veces en los últimos seis meses, usted ha tenido sexo anal/vaginal:
¿Con condones? __________
¿Sin condones? __________
Vita

Miriam Pando was born on December 8, 1986 in El Paso, Texas. She is the youngest of four children, and the first to pursue a graduate degree. In 2011, Miriam earned a Bachelor’s degree in psychology from the University of Texas at El Paso (UTEP). She then entered the Clinical Psychology Master’s Program at UTEP in 2012. While pursuing her Master’s degree in clinical psychology, Miriam was able to present her research at several conferences, such as the Society of Behavioral Medicine (SBM) and the Society for Research on Nicotine and Tobacco (SRNT). Miriam worked as a research assistant for the study entitled “Substance Use and Sexual Risk among HIV+ Hispanic MSM, a subproject of UTEP DIDARP: Vulnerability Issues in Drug Abuse (VIDA).” She also worked at the Prevention and Treatment in Clinical Health (PATCH) laboratory at UTEP where her primary duties were to provide individual and group smoking cessation interventions to light and intermittent smokers. Currently, she is working at the Latino Alcohol Health Disparities Research (LAHDR) Laboratory at UTEP where she investigates the development and efficacy of brief motivational interventions in the medical setting to promote health behavior change, like alcohol use patterns, among underserved populations. Miriam will continue working for LAHDR, and she will continue working towards becoming a Licensed Professional Counselor (LPC).

Permanent address: 1116 Amber Morgan Dr.
El Paso, Texas 79936

This thesis was typed by Miriam Pando.