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Talking About Sex: The Relationship Between Cultural Constructs and Sexual Behaviors Among Latina Emerging Adults

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Recommended Citation

TALKING ABOUT SEX: THE RELATIONSHIP BETWEEN CULTURAL CONSTRUCTS

AND SEXUAL BEHAVIORS AMONG LATINA EMERGING ADULTS

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Dedication

To my husband, Brandon Borges, and my children, Adella and Moises. Thank you for

encouraging me and lending me your strength and love in my pursuit of education. To my

parents, siblings, and other support systems. Thank you for your continuous belief in me, I hope I

have made you proud of my successes. Lastly, I dedicate this to all women of color who have

paved the way for me to achieve my dreams. I am forever grateful and will continue to do the

same for the women who come after me.

TALKING ABOUT SEX: THE RELATIONSHIP BETWEEN CULTURAL CONSTRUCTS

AND SEXUAL BEHAVIORS AMONG LATINA EMERGING ADULTS

by

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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 2024

Acknowledgments

First, I would like to express my most profound gratitude to my mentor, Dr. Theodore V. Cooper, for his guidance, encouragement, and support. Not only did he help me expand my research capabilities, but he was also there for me through personal hardships and helped point out my strengths when I could not see them myself. I could not have asked for a more understanding and caring mentor. I would also like to thank my committee members, Drs. Lechuga, Eno Louden, and Francis, for their invaluable recommendations and insight which have strengthened my thesis. Furthermore, I would also like to thank Dr. Janee Both Gragg, who inspired me to take up space and pursue a doctorate degree in hopes that my research may one day make a greater impact.

Next, I would like to thank the friends I have made in graduate school, Mickey Garcia, Ashely Lindquist, Andrea Rodriquez-Crespo, Erin Portillo, and Mariany Garcia Perez. I thank them for emotionally supporting me when I came across hurdles and for all the memories and laughs we have shared. They truly are my village.

Lastly, I would like to thank my husband and children. The apparent ennui and monotony of parenting in my already full life required the additional challenges of graduate school. They have shown me to overcome the trials and tribulations with patience, self-compassion, and hope. It was their love and support that allowed me to get this far.

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Abstract

Emerging adults account for a significant portion of yearly STI cases with Latinxs living in border regions often being disproportionally affected. Moreover, Latinas may hold much of the responsibility for sexual health when compared to their male counterparts; however, culture may serve as both a protective and risk factor for deleterious sexual behaviors. These disparities highlight the importance of assessing Latina sexual risk and to a further extent, perceptions of sexual and reproductive health services. The present study assessed how cultural constructs were associated with sexual risk and STI testing views among Latinas and how these associations may be moderated by parental sex messages. It was hypothesized that cultural constructs would be positively associated with sexual risk and negatively associated with STI testing perceptions; however, familial communication would moderate these relationships relative to the type of messages employed. Latina college students (*N*=444) were recruited from a Hispanic Serving Institution and completed the following measures: sociodemographics; the Attitudinal Familism Scale, the Marianismo Belief Scale, the Intragroup Marginalization Inventory, the Child and Adolescent Sexual Messages Scale, the Sexual Risk Survey, and the Adapted STI Testing Beliefs measure. Multiple hierarchical negative binomial and hierarchical regressions were conducted to test these associations. Five of the six hypotheses were partially supported highlighting nuances in these associations. These present findings indicate that cultural constructs may serve as both protective and risk factors for sexual behaviors, and familial messages about sex moderate these relationships. Latinas and their families may benefit from interventions focused on individualized sex communication to frame culture as a strength.

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Chapter 1: Introduction

Prevalence

Currently, the United States has higher prevalence rates of sexual risk behaviors than most other industrialized countries (World Population Review, 2022). Sexual risk behaviors are those that contribute to adverse health outcomes for one or more persons (Senn, 2013) and can be biologically, psychologically, or socially detrimental (Alonso-Martinez et al., 2021). These include behaviors such as having multiple sexual partners, engaging in condomless sex, and having sex while using drugs. At particular risk are ethnic minorities such as Latinx individuals who may encounter additional barriers to sexual and reproductive health information that white individuals may not (Phillips et al., 2020). Lack of sexual health information may leave Latinxs prone to disparate rates of HIV, STIs, cervical cancers, increased number of partners, and sex without contraceptives among other adverse outcomes (Buhi et al., 2014; Centers of Disease Control [CDC], 2014; CDC, 2020; McQuillan et al., 2017; Metusela et al., 2017; Santa Maria et al., 2014). Furthermore, those from U.S./Mexico border regions such as El Paso may encounter a higher prevalence rate of STIs such as chlamydia and syphilis (Border Report Section 5, 2018). Although sexual risk consequences impact both sexes, women are held to different standards within Latinx communities and are influenced by cultural constructs differently than men (Casique, 2019; Ertl et al., 2018; Guillermo-Ramos, 2009; Manago et al., 2014). It seems pertinent to determine how women are specifically influenced by certain cultural constructs with regard to their sexual behaviors.

Increased rates of sexual risk behaviors elucidate the importance of access to Sexual and Reproductive Healthcare (SRH) services for Latinas. SRH includes services such as prenatal care, contraception, and abortion which have been associated with reduced maternal mortality

rates (Guerra-Reyes et al., 2021). Aside from affecting their reproductive health, access to these services benefits their overall healthcare as well (Kingsberg et al., 2019). Other preventative measures such as mammograms, pap smears, and STI testing are also vital for women's health yet are often overlooked when discussing SRH (Price, 2010). Currently, much of the literature assesses health seeking behaviors in a qualitative manner (Decker et al., 2021). This exposes a gap in the literature regarding measuring the Latina perspective in seeking sexual and reproductive services utilizing a quantitative approach.

Sexual Risk, Sexual and Reproductive Healthcare Seeking, and College Students

In addition to Latinas being at increased risk for adverse sexual outcomes, emerging adults are especially susceptible to increased sexual risk behaviors (Arnett, 2000). Every year, those aged 15-24 years account for a quarter of those who are sexually active yet comprise 50% of new STI cases (CDC, 2022; Garcia-Reid et al., 2018). For those who are both Latinas and emerging adults, this may create overlapping disadvantaged identities. For example, condom use for college-going Latinas is relatively low (Ertl et al., 2021) which may contribute to an increase in risk for pregnancy and STIs. Health outcomes associated with risky sexual practices such as pregnancy may result in a discontinuity of college enrollment (Garcia-Reid et al., 2018). Overall, young/emerging adulthood confers high rates of health risks (Ertl et al., 2021), suggesting it is important to determine what constructs specifically impact Latina sexual risk behaviors during college.

With regard to SRH seeking perceptions, Latina emerging adults may not seek services for a variety of reasons such as receiving inadequate care, misinformation, or fear (Caal et al., 2013; Galloway, 2017). For example, Latinx adolescents aged 12-19 are more likely to receive inadequate care compared to white individuals (Galloway, 2017) which may leave them

vulnerable to misinformation and sexual health risk. In addition, fear of disclosure to their families and lack of confidentiality from the provider may contribute to Latina emerging adults seeking services less frequently (Caal et al., 2013). Despite fearing that their family members may become aware of their SRH access, Latinas demonstrate a desire for accurate SRH information from their families and report the dissemination of SRH information as vital to their health (Cashman et al., 2011). Moreover, college students are less likely to exhibit sexual risk behaviors if more services are made explicitly available to them (Eisenberg et al., 2013). As the probability of becoming sexually active increases with age, assessing sexual and reproductive health seeking perceptions in this population is paramount.

To adequately address SRH seeking perceptions, barriers regarding treatment-seeking must be identified. Identification of salient barriers may allow researchers to narrow the scope as to which constructs may be most pressing in border communities. Much of the literature highlights that accessibility and culture are often two types of barriers encountered by Latinxs when seeking sexual and reproductive healthcare.

Healthcare Seeking Barriers

Accessibility Barriers

SRH services are important for the overall wellbeing of women, making it imperative to assess sexual heath-seeking behaviors (Kingsberg et al., 2019; National Academies of Sciences, Engineering, and Medicine, 2021) and potential barriers. Overall, those between 15 to 24 years of age are most affected by sexual health issues such as contracting STIs, with women of color being disproportionately affected (Cipres et al., 2017). Latinas in particular exhibit fewer sexual health-seeking behaviors, such as receiving preventative care, due to a variety of structural barriers. First, they are more likely to be marginalized by healthcare systems when quality

services are made inaccessible through a lack of funding for clinics most frequented by women of color (Azmitia-Martinez, 2018). This may perpetuate a distrust of medical professionals in that their experiences of seeking care may be invalidated. Other barriers include decreased access to healthcare compared to other U.S. populations (Price, 2010; Planned Parenthood, 2015) to include inadequate coverage. These gaps in medical coverage may result from working low-paying and dangerous jobs in emergent Latinx communities (Guerra-Reyes et al., 2021). Moreover, Latinxs may also be undocumented further restricting available government resources to access SRH. Additionally, studies have identified how language may serve as a barrier for seeking SRH care in emergent Latinx communities (Desai & Samari, 2020; Guerra-Reyes et al., 2021). Overall, these forms of structural barriers, although important and remain present, may not be as salient in border communities that have an established infrastructure for Latinxs (Jacquez et al., 2016). It may be pertinent to assess how other barriers such as cultural constructs may relate to SRH seeking perceptions in these border communities.

Cultural Barriers

Culture plays a central role in the Latinx community, and may contribute to barriers in seeking sexual and reproductive healthcare by way of social stigma, parental views, and generational differences. The stigma of being labeled "dirty" for seeking out sexual health services (Galloway et al., 2017) may be maintained by cultural beliefs such as marianismo. Latinas may be tentative about seeking SRH services in efforts to avoid being stigmatized since SRH seeking may go against these beliefs (Bernstein & Cruse, 2021). Furthermore, parental beliefs may also play a role in Latina's health seeking behaviors (Caal et al., 2013). Negative parental beliefs towards SRH have been associated with a decrease in SRH seeking and an increase in hiding services received such as STI testing (Caal et al., 2013; Morales-Aleman et al.,

2020). In some cases, parents may go as far as interfering with the receipt of services by discarding informational pamphlets or contraceptives (Caal et al., 2013). Additionally, generational differences such as being a first-generation Latina versus second or third generation, may contribute to views on access to SRH (Caal et al., 2013). Specifically, those who are first-generation may have stricter views about SRH than those in subsequent generations. According to Morales-Aleman and Scarinci (2016), generational differences in sexual health exist, but these differences may not be as substantial in communities that straddle both the U.S. and Mexico. These border communities are distinctive compared to emergent Latinx communities where travel to Latin America may be more sparse (Jacquez et al., 2016). It is important to further study college going Latinas on the border and how culture plays a role in sexual health as they have one of the fastest growing college enrollment rates in the U.S. (Mora, 2022) and are disproportionately impacted by adverse sexual health outcomes (Sanchez et al., 2016).

Sociocultural Constructs

Cultural values that have been identified to either deter or promote sexual health in Latinas include familismo, marianismo, and interconnectedness. Familismo (familism) and marianismo take a central role in those who grow up within the Latinx community (Ertl et al., 2018). Familism is the notion that one should suppress individual needs for the needs of the family (Manago et al., 2014). In regard to SRH, if the family is disapproving of obtaining these services, the individual may be less likely to seek them out or may experience cognitive dissonance when obtaining them (Caal et al., 2013). Marianismo is the concept that women need to remain pure until marriage and subjugate themselves to the needs of others (i.e., men; Castillo et al., 2010). This positions women below men in the familial hierarchy and may deter women from engaging in intercourse at an early age, but it may also discourage them from bringing up

concerns about sexual health with their male partners (Becker et al., 2014; Ertl et al., 2018). Moreover, the Latinx community values interconnectedness of family and social support which have been viewed as protective factors for sexual risk behaviors (Garcia Saiz et al., 2021). Those who hold interconnectedness in high regard may view group exclusion by way of intragroup marginalization as detrimental (Castillo et al., 2007; Llamas et al., 2018). Although these cultural constructs share similarities, they have their own distinct characteristics. Disentangling these sociocultural constructs further may help identify which subcomponents of certain cultural constructs contribute to the risk and protection of sexual behaviors.

Familism

A review of the literature has highlighted that the relationship between familism and sexual risk is nuanced. Some suggest familism to be a risk factor for certain unhealthy behaviors, while others have suggested it is a protective factor (Velazquez et al., 2017). For sexual health seeking perceptions, much of the literature has identified negative associations between familism and SRH seeking (Cuffe et al., 2016), although one study has found a positive association (Roman, 2020). The subsequent sections will further address discrepancies found in the literature on how familism is associated with both sexual risk and SRH seeking perceptions and whether associations are risky or protective in nature.

Familism and Sexual Risk

The sexual health literature posits that Latinas may exhibit disparate rates of sexual risk for a plethora of reasons tied to familism, two of the most predominant include viewing sex as a cultural taboo (Cashman et al., 2011; Matsuda et al., 2022; Shaw, 2009) and problems communicating about sexual and reproductive health (Cashman et al., 2011; Galloway et al., 2016). Individuals with high levels of familism endorse acting in ways that benefit the family

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(Ayon & Aisenberg, 2010) and adhering to family values or mores. In many Latinx households, sex is seen as a taboo topic and discussing it may go against these values. Reasoning behind the stigma in discussing sexual health may emanate from the belief that such conversations may prompt Latinas to engage in sexual activity (Hyde et al., 2013; Peterson-Burch et al., 2018). By limiting discussions about sex, parents may believe that their children are less likely to engage in sexual acts. This may not be true; rather adherence to familism values may predispose them to lower condom utilization intentions (Velazquez et al., 2017). Moreover, one study found that familism did not affect sexual activity among those who have already had sex (Killoren et al., 2011). The silence surrounding sexual topics may contribute to vague discussions concerning safe sex practices (Hyde et al., 2013; Matsuda et al., 2022). When sex is discussed with women within the home, conversations often focus on purity and abstinence until marriage (Manago et al., 2014). These topics suggest that abstinence is the extent to which sex should be discussed which may leave young Latinas vulnerable due to a lack of sexual knowledge and information. Although well meaning, promoting familistic values may limit communication about sex and leave Latinas vulnerable to negative health outcomes.

Alternatively, familism may serve as a protective factor in the form of familial support and interconnectedness. Familism has been viewed as a protective factor for other health related issues by encouraging adherence to medication, increased communication, and social support (Corona et al., 2017; Gallegos & Segrin, 2021; Guillermo-Ramos, 2009; Li et al., 2016). Moreover, familism may encourage close relationships and enable Latinas to model healthy behaviors exhibited by others in the familial system (e.g. positive sexual health communication; Streit et al., 2017). For example, those with greater familistic values tend to have more positive attitudes toward condom use (Velazquez et al., 2017). In addition, the presence of family values

among teenagers who self-identify as virgins has been associated with reduced intentions to have sex (Killoren et al., 2011), being less likely to engage in oral sex (Espinoza-Hernandez et al., 2016), and less acculturated Latinas are less likely to engage in sexual risk behaviors (Ertl et al., 2018). Overall, literature on familism and sexual risk highlights gaps of precision on what aspects of familism are associated with sexual risk behaviors.

Familism and Sexual Reproductive Health Services

Aside from sexual risk, familism has been negatively associated with sexual health service utilization for reasons associated with parental views, familial honor, and subjugation of self (Barral et al., 2019; Caal et al., 2013). Negative maternal views of pap smears may deter young Latinas from seeking regular SRH services (Caal et al., 2013; Perez & Cruess, 2011). Forgoing necessary annual health exams related to sexual health may leave Latinas vulnerable to health issues such as HPV and cervical cancers. In relation to STI testing, adolescents and young adults have reported a decrease in STI testing while on their parent's insurance (Cuffe et al., 2016). This may indicate that Latinas are hesitant to bring awareness of their sexual status to their parents (Cuffe et al., 2016). In addition to negative parental views on testing affecting the utilization of services, the conflict between SRH needs and adherence to familial values has been associated with detrimental effects on Latinas such as increased stress (Caal et al., 2013). For example, there may be a potential to dishonor the family through contracting an STI leading to the stress of deciding whether or not to seek treatment or testing because their parents may find out (Gillmore et al., 2011). Moreover, fear of family disapproval and familism have also permeated into other marginalized group's diminished motivation to obtain STI testing (Collazos et al., 2019). This focus on family indicates that despite Latinas becoming adults, parents may still influence how daughters seek sexual and reproductive healthcare (Caal et al., 2013). These

factors may also contribute to shame at broaching topics of sexual and reproductive health in fear of disrespecting parents or to avoid burdening the family with health problems (Caal et al., 2013). Overall, the above studies suggest that it may be important to study Latina sexuality while taking family and cultural values into consideration.

Conversely, familism has been associated with other forms of SRH treatment seeking in which recommendations from family members may persuade one to receive HPV cancer screenings (Roman, 2020), although studies assessing a similar association with STI testing have not been identified. A dearth of literature on the positive association between familism and STI treatment perceptions indicates a need for further research. In summary, the discrepancies between aspects of familism being risk or protective factors for sexual risk and STI testing perceptions suggest a need to further examine these relationships with more scrutiny.

Marianismo

Marianismo and Sexual Risk

In addition to familism, Latinas are expected to follow marianismo scripts which contribute to sexual risk behaviors by way of sexual passivity, attitudes towards condoms, and sex communication (Villar-Loubet et al., 2011). These scripts contain expectations that women should remain pure until marriage and be submissive to men (Ertl et al., 2018; Caranza, 2013). Marianismo beliefs may enable Latinas to remain passive in regard to sexual behaviors (Ertl et al., 2018) and place others' needs or wants before their own. By deferring their needs, they may be less likely to enforce condom use if their partner refuses to use protection (Ertl et al., 2018). Furthermore, recently immigrated Latinas who display greater sexual risk hold more marianismo beliefs about being pillars to the family (Ertl et al., 2018). This indicates that Latinas who view their role as a source of strength for their families may not prioritize their needs or wants

regarding sexual health and instead focus on areas that may be more important to the family unit. Marianismo family pillar beliefs have also been negatively associated with sexual precursor behaviors for adolescents, but these have the opposite effects in older Latinas (Sanchez et al., 2016). These age effects emphasize a need to study emerging adults separately from both adolescents and older adults. Traditional gender roles of marianismo have also been associated with decreased condom use and increased negative attitudes towards utilizing condoms (Velazquez et al., 2017). While women hold much responsibility surrounding family planning, they are in submissive roles that interfere with their abilities to bring up topics of a sexual nature (Castillo & Caver, 2009; Ertl et al., 2018; Lescano et al., 2009; Villar-Loubet et al., 2011). Furthermore, Latinas who display increased subordination or silencing marianismo beliefs may feel unable to negotiate condom use with partners (Castillo & Caver, 2009; Castillo et al., 2010; Lescano et al., 2009; Moreno et al., 2011). This may contribute to increased adverse sexual health outcomes even within monogamous relationships. According to Guarini et al. (2011), as Latinas acculturate to living in countries that hold more liberal views concerning sex (e.g., U.S.) they may exhibit more sexual risk behaviors. This phenomenon is known as the immigrant paradox in which protective factors are lost through acculturation (Guarini et al., 2011). In border cities that have an eclectic culture, acculturation may not play such a predominant role as it does in other parts of the country. This highlights a need to assess how marianismo may be associated with sexual risk in these communities.

Despite marianismo contributing to sexual risk through sexual silence and an inability to communicate about sexual health, marianismo may also contain positive aspects. For example, marianismo may delay sexual onset and encourage a smaller number of partners (Becker et al., 2014). In addition, marianismo beliefs of remaining pure have been associated with fewer sexual

risk behaviors (Ertl et al., 2018). Guilt and shame surrounding sex may work to mitigate some risks, but it may not be true in all instances. The associations between sexual risk and marianismo beliefs should be further scrutinized to determine whether certain components of marianismo are either protective or risk factors for detrimental sexual behaviors in emerging adults.

Marianismo and Sexual Reproductive Health Seeking

As marianismo may influence sexual risk behaviors, it may also impact sexual and reproductive health, namely STI testing perceptions. Latinas may already avoid discussions with partners about sexual health for fear of being seen as promiscuous or any other repercussions that may be associated with communication (Levinson et al., 2018); however, this fear and avoidance have not yet been attributed to marianismo beliefs. As Latinas have more disparate rates of sexual risk associated with marianismo beliefs, it is important to assess whether these beliefs are also associated with STI testing perceptions in order to promote Latina sexual wellbeing.

Marginalization

Marginalization and Sexual Risk

Given that the U.S./Mexico border region is predominantly Latinx (87%; Texas Population Projections, 2018) general discrimination may be encountered less often by Latinas (Krogstad & López, 2020). A more nuanced assessment of discrimination such as intragroup marginalization may better capture instances in which Latinas encounter marginalization from their own ethnic group rather than from those outside their ethnic group.

Discrimination in general has been linked to many adverse outcomes in the Latinx community such as psychological distress (Sanchez et al., 2016), sexual risk (Ertl et al., 2022; Sanchez et al., 2016), and increased pregnancy-related stress (Rosenthatl & Lobel, 2018),

although literature on intragroup marginalization and sexual risk is sparse. Intragroup marginalization is the concept in which individuals may be marginalized by others within their family, friend, or ethnic groups (Castillo et al., 2007). Latinas may experience intragroup marginalization while attending college due to possible incongruencies between cultural values and the expectations of college culture through acculturative stress (Castillo et al., 2008; Thornhill et al., 2021; Rischall & Meyer, 2019). These experiences with intragroup marginalization may contribute to sexual risk behaviors such is the case with general discrimination. In prior literature, intragroup marginalization has significantly predicted other adverse health outcomes such as increased rates of depression and anxiety symptoms in Latinas (Mata-Greve & Torres, 2019). These forms of psychological distress as a byproduct of general discrimination have also been related to increased sexual risk behaviors (Sanchez et al., 2016). Further research is required to determine whether intragroup marginalization may also be directly related to sexual risk behaviors.

Alternatively, a lack of intragroup marginalization in the form of a positive affiliation with one's family, friends, and ethnic group may be protective. Garcia-Reid et al. (2018) identified that Latinx adolescents with strong ethnic group identification displayed lower levels of sexual risk behaviors; however, this association has not been established within emerging adults. Greater sexual well-being has been associated with positive affiliation to a person's own ethnic group and stronger commitment to their ethnic identity (Garcia-Reid et al., 2018). Family support and orientation have also been linked to healthier sexual practices such as fewer sexual partners for adolescents (Caal et al., 2013). This commitment to ethnic identity and family may serve as a protective factor for risk-taking. Intragroup marginalization must be explored more closely to determine the impact of marginalization on Latina sexual behaviors.

Marginalization and Sexual Reproductive Health Services

Less is known about associations between intragroup marginalization and STI testing perceptions. Previous literature has suggested that marginalization by others enacted through stigma or gossip may dissuade women from utilizing SRH services (Hall et al., 2018). The focus on interconnectedness and support systems in Latinx communities may either discourage or encourage Latinas to seek out services contingent upon group views. The paucity of literature on how intragroup marginalization may be associated with STI testing perceptions indicates a need for further research.

Parental `Communication

Communication and Sexual Risk

Sociocultural factors also contribute to communication between parents and emerging adult Latinas in which conversations about sex may be gendered and heteronormative, disregarding pertinent information for safety (Ertl et al., 2022). This could take many different forms such as focusing on abstinence and placing the responsibility of sexual safety on women. Information provided may also fail to address the reasoning behind what is asked of Latinas, such as being asked to dress more conservatively when men are around (Espinoza-Hernandez et al., 2016). Sexual messages such as these may contribute to verguenza (shame) about one's body and to a further extent, sex (Espinoza-Hernandez et al., 2016). These messages may not prepare Latinas when having sexual encounters, thus leaving them at risk for a variety of negative health outcomes such as STIs.

Despite these pitfalls, sexual standards that promote shame in young women in Latinx communities may be protective in that they discourage young girls from having sex (Espinoza-Hernandez et al., 2016). In essence, parental-adolescent sexual communication has been

identified as one of the best predictors of risky sexual behavior (Gaioso et al., 2015; Lantos et al., 2019; Padilla-Walker, 2018). This communication with parents has also been related to delayed sexual onset although it may be less effective at stopping sexual behaviors in teens who have already begun to have sex (Grossman et al., 2019; Killoren et al., 2017). Parental involvement in the form of monitoring a child's whereabouts has also been associated with decreased sexual risk in adolescent girls (Ethier et al., 2016) but the same association has not been observed in emerging adults. These inconsistencies about the relationship between communication and Latina sexual risk indicate a need to further assess how families communicate about sex and how this may impact emerging adults' sexual behavior.

Communication and Sexual Reproductive Health Services

Moreover, communication about sex may encourage positive STI testing perceptions. Sexual communication has been associated with intentions to utilize condoms in future sexual interactions (Eversole et al., 2016; Malcom et al., 2013), and this may potentially extend to STI testing views. In addition, communicating with extended family members may be beneficial as Latinas may be more open to discussing contraception and safe sex (Grossman et al., 2019). This ability to communicate about safe sex with family may engender Latinas with more positive views of STI testing and sexual wellbeing. The type of communication and the association with STI testing perceptions, however, have not been previously assessed. The discrepancy between communicating about sex and the influence that it may have as a protective or risk factor for both sexual risk behaviors and STI testing views suggests that communication may have a more nuanced effect in which the content of parental messages plays a critical role.

Theory

Nuances in Latina sexual health outcomes call for a closer assessment of cultural constructs and sexual behaviors and how these relationships may be impacted by familial conversations about sex. This interplay may be best observed through an intersectionality lens. The intersectionality lens, which is credited to Crenshaw (1991), may be used as both a framework and theory. Intersectionality suggests that social identities are interdependent and a person may have different levels of oppression and privilege based on those differing identities. Many other studies have suggested that the intersectionality perspective is important when assessing the sexual and reproductive health of minority women (Clonan-Roy, 2019; Ertl et al., 2022; Houk, 2021; Rosenthal & Lobel, 2020).

This framework accounts for the multiple marginalized identities a person may have and how these overlapping identities may provide both advantages and disadvantages (Ertl et al., 2022; Warner et al., 2018). Identities are interwoven and to study one identity, researchers must take into consideration other identities that bring into context individual experiences while accounting for sociostructural positions (Warner et al., 2018). Latina values such as familism and marianismo hold strict positional expectations that influence them in ways that are different from men within the same ethnic group and different from other ethnic minority women. These identities do not work in isolation and should be investigated in a non-additive way as is evidenced by nuanced findings in prior literature. This study postulates that the different identities of Latinas as women, Latinx, daughters, and how they view those roles in terms of familism, gender, and community may be associated with sexual health behaviors; how they communicate with their families about sex may moderate these relationships.

The Present Study - Study Aims and Hypotheses

The present study aimed to fill gaps within the literature in which cultural constructs such as familism, marianismo, and intragroup marginalization may play dual roles as protective and risk factors for deleterious sexual behaviors and STI testing perceptions. This was done within the framework of intersectionality theory to better capture how these factors are uniquely moderated by different types of familial communication. Hypotheses are the following: 1) Higher levels of familism will be associated with increased sexual risk behaviors; however, parental communication about sex will moderate this relationship relative to the types of messages employed (Figure 1); 2) Higher levels of marianismo will be associated with increased sexual risk; however, greater communication about sex will moderate this relationship relative to the types of messages employed (Figure 2); 3) Higher levels of intragroup marginalization will be associated with increased sexual risk behaviors; however, greater communication about sex will moderate this relationship relative to the types of messages employed (Figure 3); 4) Higher levels of familism will be associated with more negative STI testing views; however, greater levels of communication about sex will moderate this relationship relative to the types of messages employed (Figure 4); 5) Higher levels of marianismo will be associated with more negative STI testing views; however, greater levels of communication about sex will moderate this relationship relative to the types of messages employed (Figure 5); and 6) Higher levels of intragroup marginalization will be associated with more negative STI testing views, and this relationship will not be moderated by familial communication (Figure 6).
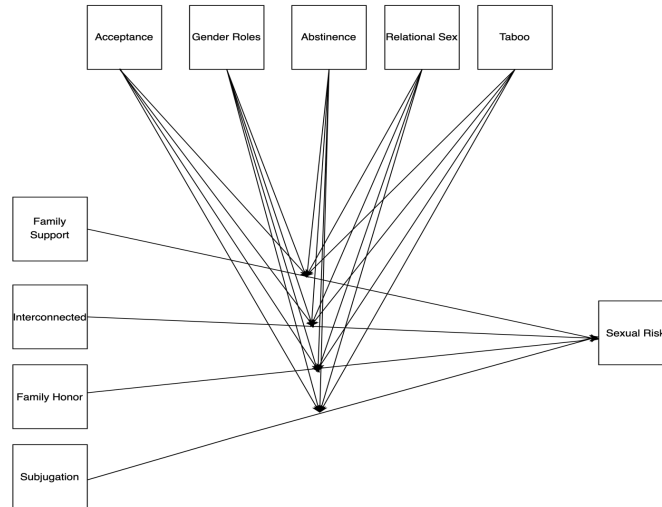
Figure 1. Moderation of the Association between Familism and Sexual Risk Behaviors
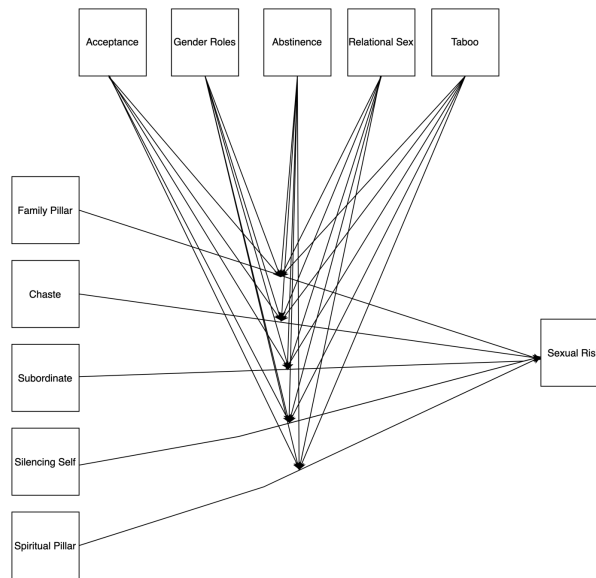
Figure 2: Moderation of the Association between Marianismo and Sexual Risk Behaviors
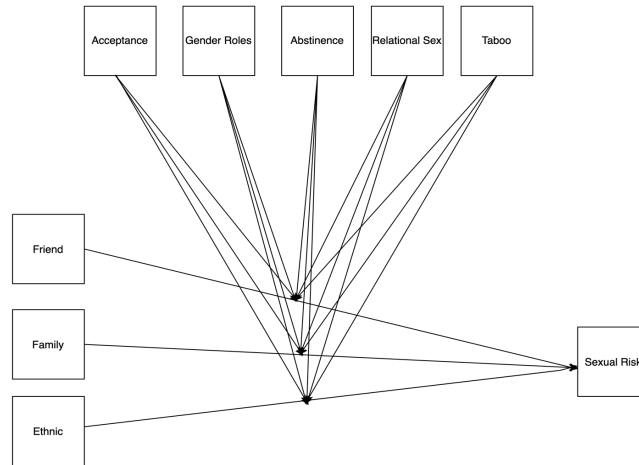
Figure 3: Moderation of the Association between Intragroup Marginalization and Sexual Risk Behaviors
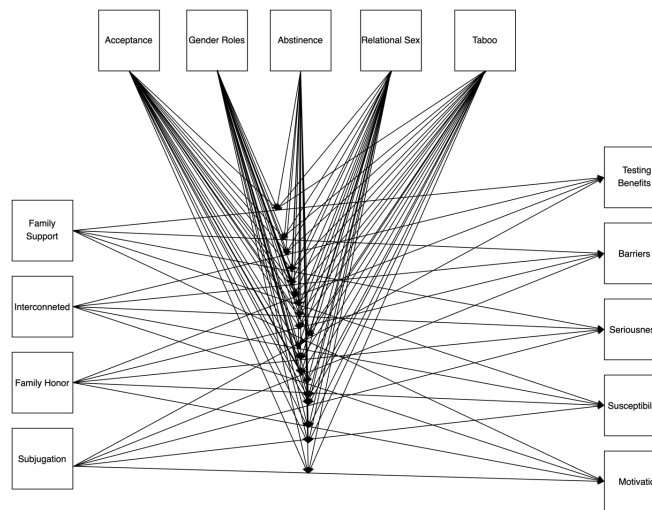
Figure 4: Moderation of the Association between Familism and STI Testing Views
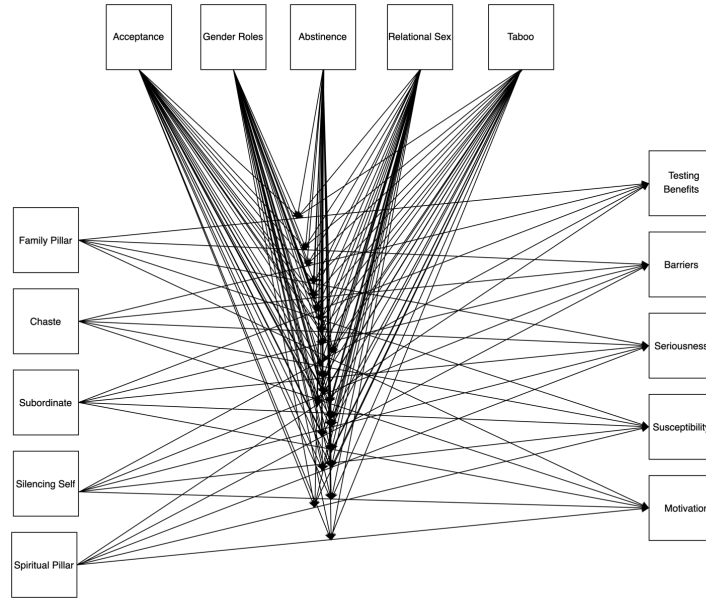
Figure 5: Moderation of the Association between Marianismo and STI Testing Views
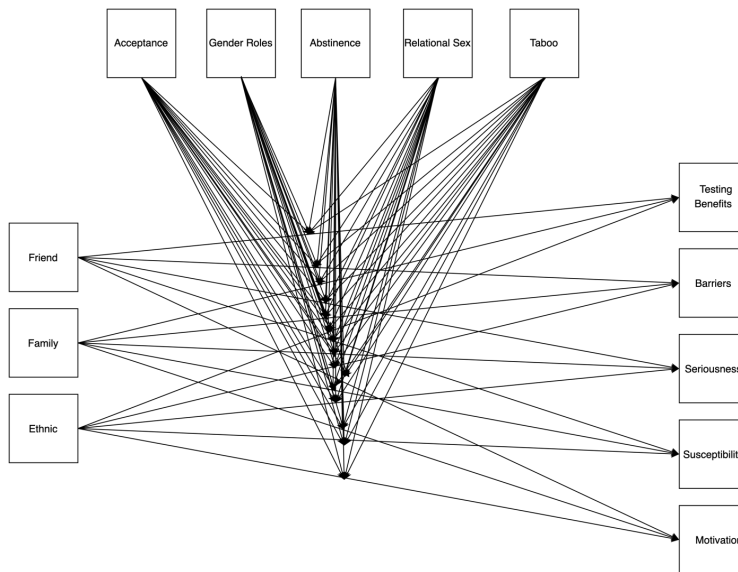
Figure 6: Moderation of the Association between Intragroup Marginalization and Sexual Health Seeking

Chapter 2: Methods

Participants

An a priori power analysis using G*Power, a statistical analysis tool, determined 453 participants would be required for adequate power. The test family was set to F tests and the statistical test was set to linear multiple regression: Fixed model, R^2 deviation from zero. Power was set to .80, α =.05, and effect size was set to f^2=.046. Effect size was determined from a correlation between marianismo and sexual risk behaviors (e.g., number of sexual partners, condom use) that was derived from a study investigating the relationships between cultural beliefs and sexual risk among Latinx emerging adults (r = -0.21; Ertl et al., 2018). Moreover, a second correlation between marianismo beliefs (e.g., importance of female virginity) and sexual risk behaviors (r = 0.26, Deardorff et al., 2013) was obtained. Another correlation between attitudinal familism and parental adolescent communication (r =.34; Barber, 2011) was also identified. However, because the latter two correlations were larger, the former correlation was used for the power analysis to detect the smallest possible effect size. The number of predictors was set to 18 to account for all the subscales of the variables including the moderator.

Five hundred and two participants were ultimately recruited for the present study. However, 48 were excluded for not meeting the inclusion criteria. Inclusion criteria for the present study consisted of participants being female, college students, between the ages of 18-25, and self-identifying as Hispanic/Latina. An additional 10 participants were excluded for not passing at least three of the four attention checks. This resulted in a final sample size of 444 Latina college student responses (M_{age} = 20.01, SD = 2.13) retained for analyses.

Measures

Independent Variables

Sociodemographic. A 32-item demographic questionnaire assessed participants' age, ethnicity, education level, parental education level, and parental income (Appendix A). Furthermore, sexual orientation and current relationship status were also assessed.

Attitudinal Familism Scale. The Attitudinal Familism Scale (AFS; Steidel & Contreras, 2003; Appendix B) measured beliefs and attitudes about a person's family. This 18-item scale contained four subscales: familial support, family interconnectedness, familial honor, and subjugation of self for the family. Questions were answered on a 10-point Likert scale from (1) strongly disagree to (10) strongly agree. Scores were then summed to obtain a total familism score that ranged from 18-180. Internal consistency of this scale was adequate (α =.83) and similar to that of past studies (α =.83; Steidel & Contreras, 2003).

Marianismo Beliefs Scale. The Marianismo Beliefs Scale (MBS; Castillo et al., 2010; Appendix C) is a 24-item questionnaire consisting of 5 subscales that assessed family pillar beliefs (whether a woman is the source of strength for her family), virtuous and chaste beliefs (remaining virginal and pure until marriage), subordinate beliefs (respecting men's opinions and subjugating themselves to other's needs), silencing self to maintain harmony beliefs (which includes not discussing topics pertaining to sex and personal feelings), and lastly spiritual pillar beliefs (responsibility of the family's spiritual growth). Items were answered on a 4-point Likert scale ranging from (1) strongly disagree to (4) strongly agree and then calculated as mean scores within each subscale and a grand mean for an overall score. Internal consistency for the present study was excellent for all subscales (α = .76 - .90).

Intragroup Marginalization Inventory. The Intragroup Marginalization Inventory (IMI; Castillo et al. 2007; Appendix D) is a 42-item questionnaire consisting of 3 subscales assessing marginalization from family, friends, and others of the same ethnic group. Items were

answered on a 7-point Likert scale from (1) Never/Does Not apply to (7) Extremely Often. Scores from each item were summed to calculate a total score for each of the subscales. Example items included, "My family has a hard time accepting my new values" and, "People of my ethnic group say that I have changed". This measure demonstrated acceptable reliability for all subscales in the present study (α = .81 - .85).

Moderator Variable

Family Sex Communication Quotient. The Family Sex Communication Quotient (FSCQ; Warren & Neer, 1986; Appendix E) is an 18-item questionnaire which measures the quality of family communication about sex. The three subscales include comfort, quantity of information, and value ascribed to sexual information. Questions were answered on a 5-point Likert scale from (SA) strongly agree to (SD) strongly disagree on participant perceptions regardless of whether or not they had talked about sex to their parents. The total scores were obtained by adding up item responses. An example item included "I feel better informed about sex if I talk to my parents." This scale demonstrated high reliability in prior studies (α = .92; Warren & Neer, 1986); however, in the present study reliability varied from poor to excellent. The value subscale in particular demonstrated the lowest reliability (α = .24) followed by the information subscale (α = .79) and the comfort subscale (α = .92). Since one of these subscales demonstrated poor reliability, the Childhood and Adolescent Sexual Messages Scale was utilized for analyses instead.

Childhood and Adolescent Sexual Messages Scale. The Childhood and Adolescent Sexual Messages Scale (CASMS; Kim & Ward, 2007; Appendix F) is a 36-item questionnaire that measures the frequency of different types of sexual themes adolescents felt were reinforced by parents. Questions were answered on a 4-point Likert scale from (0) none to (4) a lot in which

higher values indicated greater amounts of parental communication on specific themes. These subscales include acceptance (sex is a normal aspect of life; $\alpha = .81$), gendered sex roles (men initiate sex while women are passive and limiting; $\alpha = .92$), abstinence (sex should only occur within a marital relationship; $\alpha = .89$), relational (sex should occur only in a loving relationship; $\alpha = .88$), and taboo (sex should not be discussed; $\alpha = .85$). This scale demonstrated adequate reliability for the taboo subscale ($\alpha = .74$) and excellent reliability for all other subscales ($\alpha = .84$ - .92) in the present study.

Dependent Variables

Sexual Risk Survey. The Sexual Risk Survey (SRS; Turchik & Garske, 2009; Appendix G) is a 23-item survey in which sexual risk behaviors were described and participants indicated how often they had engaged in those behaviors over the past 6 months. Raw scores required recoding to account for the negative skew. Frequencies from each item were recoded so that frequencies of 0 were coded as "0." The remainder of the frequencies were recoded in the following manner: the first 40% of the frequencies were coded as 1, the next 30% of frequencies were coded as 2, the following 20% of frequencies were coded as 3, and the final 10% of frequencies were coded as 4. Recoded scores were then summed to obtain a total score. Subscale scores were also totaled once recoded. The five subscales included: sexual risk-taking with uncommitted partners, risky sex acts, impulsive sexual behaviors, intent to engage in risky sexual behaviors, and risky anal sex acts. The internal consistency of the measure in the present study was adequate for the uncommitted ($\alpha = .88$), risky sex acts ($\alpha = .84$), impulsive sexual behaviors ($\alpha = .70$), and risky anal sex acts ($\alpha = .81$) subscales, but poor for the intent to engage in risky sexual behaviors subscale ($\alpha = .48$).

Adapted Health Belief Model Scale for STI Testing. The Adapted Health Belief Model Scale for STI testing (HBM; Appendix H) is a 36-item survey that was adapted to measure views on testing for STIs. Items were answered on a 5-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. This survey was comprised of five subscales used to measure the benefits of getting tested for STIs, barriers to getting tested, seriousness of STIs, susceptibility to STIs, and health motivators. Example items included: "Health professionals doing STI tests are rude to women" and "I would be ashamed to lie on a gynaecologic examination table and show my private parts to have an STI test." The validity of this adapted measure was assessed through a laboratory pilot test. Afterwards, minimal modifications were made to keep the integrity of the original measure. The survey demonstrated adequate reliability ($\alpha = .65-.86$) which is similar to the original survey assessing cervical cancer and pap smear testing views ($\alpha = .86$; Guevenc et al., 2010).

Procedure

University Institutional Review Board approval was obtained prior to data collection. Data were collected from June 7th, 2023 to October 20th, 2023. Measures were counterbalanced and entered into Qualtrics, an online survey platform, to mitigate order effects (Allen, 2017). Participants were recruited via SONA, a secure web-based recruiting system, and asked to sign a separate online consent form on Qualtrics to protect confidentiality. Once consent was obtained, voluntary participants were directed to complete a series of questionnaires. Subsequently, participants received course credit for completing the survey, were debriefed regarding the study, and were provided with university and community resources (i.e., Counseling and Psychological Services, Planned Parenthood) to encourage safer sex practices.

Approach to Analyses

Descriptive analyses were used to generate participant characteristics on familism, *marianismo*, intragroup marginalization, family communication, sexual risk behaviors, and STI testing views among Latina college students on the U.S./Mexico border. Predictors were mean-centered to reduce nonessential multicollinearity between the interaction terms and main effects and to improve interpretability. Given that sexual risk was calculated using count data, an overdispersion of zero values was to be expected in which either a Poisson or Negative Binomial regression would be appropriate (Green et al., 2021). A Poisson regression was conducted to test the main effects of the independent variables on sexual risk. The resulting model had a χ^2 to

degrees of freedom ratio greater than 1.2 indicating an overdispersion of data in which a Negative Binomial model would be a more appropriate approach (Osborne et al., 2017; Payne, 2017). Furthermore, the Poisson and Negative Binomial models were compared using Akaike's Information Criterion (AIC; see Table 1). The Negative Binomial regression model with estimated parameters had a lower AIC value (2421.54) than the Poisson model (3423.93) indicating that the former was a better fitting model. Analyses were conducted using a hierarchical negative binomial regression approach to reduce the probability of type 1 error caused by an overly restrictive variance assumption (Omari-sasu et al., 2016). In addition, a Bonferroni correction was utilized to account for type 1 error due to the amount of pairwise comparisons conducted. Corrected alpha levels were obtained by dividing .05 by the number of subscales tested for each hypothesis. The Bonferroni adjusted alpha now indicated significance for the main effects of familism constructs at $p<.0125$ (.05/4), for *marianismo* constructs at $p<.01$ (.05/4), and for intragroup marginalization constructs at $p<.016$ (.05/3).

A series of hierarchical negative binomial regression models were used to test for main and interactive effects and to determine if the moderator (i.e., family communication(Z_1)) affected the relationship between the cultural constructs (e.g., familism (X_1), *marianismo*(X_2), intragroup marginalization (X_3)) and sexual risk-taking (Y_1). Furthermore, hierarchical regressions were also used to test for the main and interactive effects on STI testing views (Y_2). Hierarchical analyses were conducted in the following order: 1) Regression of Y on X. 2) Regression of Y on X and Z. Statistical changes in R^2 during step two implied a predictive effect of the moderator on Y. 3) Regression of Y on X,Z and the cross product term X*Z. A statistical change in R^2 during step three suggested a significant moderation effect of Z on the relationship between Y and X. SPSS Process 4.2 (Hayes, 2022) was used for further interpretation and visualization of statistically significant moderation effects.

Table 1: Model Information Criteria for Predicting Sexual Risk

Criterion	Poisson			Negative-Binomial		
	Value	df	Value/df	Value	df	Value/df
Pearson Chi-square	1959.30	379	5.17	297.05	378	.786
Log likelihood	-1696.97			-1194.77		
AIC	3423.93			2421.54		
BIC	3483.58			2485.16		

Note. AIC: Aikaike's Information Criterion; BIC: Bayesian Information Criterion.

A missing data pattern on SPSS (2020) was used to determine the missing data mechanisms. The missing data percentage displayed was set to 0.01 to identify the lowest amount of missing data from the variables of interest. The resulting pattern highlighted minimal amounts of multivariate data missing completely at random. Specifically, only the sexual risk

total and anal sex variables had missing data over 5% (8.3% and 6.5% respectively; Figure 7). Since the sexual risk total and anal sex variables violated the 5% threshold, the next step was to proceed with multiple imputations (Kontopantelis et al., 2017). Two imputations were required for sexual risk total and anal sex according to von Hippel's (2020) two-stage calculation using a quadratic rule (Figure 8). After multiple imputations in SPSS (2020), skewness and kurtosis were used to assess whether the data were normally distributed. Using cut-off scores of $|Sk|<2$ and $|Ku|<7$ as guidelines (Kim, 2013), all of the variables were normally distributed except for risky anal sex ($|Sk| = 6.060$, $|Ku| = 63.774$) and intent to engage in risky sex ($|Sk| = 2.827$, $|Ku| = 10.306$). Since sexual behaviors can be considered count data, in which non-normality is to be expected due to the overdispersion of zeros (Green et al., 2021), these scales were not modified as a negative binomial analytical approach was more appropriate (Green et al., 2021).
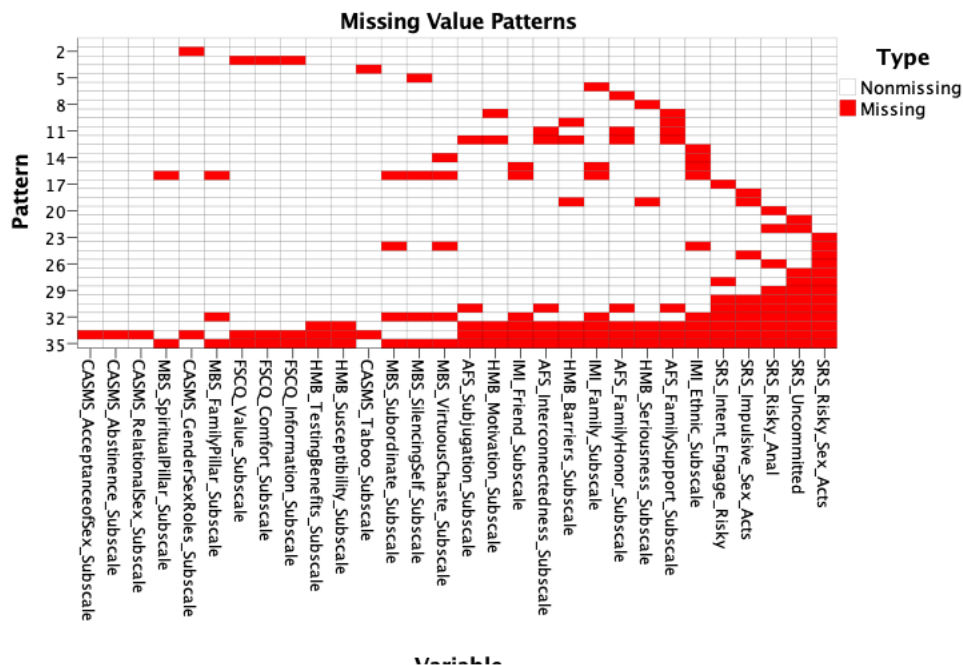
Figure 7: Missing Data Patterns of Model Variables to Determine the Missing Data Mechanisms

Note. Depicts missing data patterns for all model variables to determine the pattern of missing data mechanism and is consistent with MCAR.

$$M = 1 + \frac{1}{2}\left(\frac{FMI}{CV(SE)}\right)^2$$

Figure 8: von Hippel's Multiple Imputation Formula
Note. Formula utilized to determine the number of imputations required for missing data.

Chapter 3: Results

Descriptive Analyses

Participants in the study were 100% female with a mean age of 20.01 (*SD* = 2.13; see Table 2) and 89.2% of participants reported still living at home with their parents. Furthermore, 78.7% of participants identified as heterosexual, 11.8% as bisexual, 2.2% as lesbian, 1.8% as asexual, and 5.4% as pansexual. About 43% of participants were single, 18.7% were dating, 34.2% were in a committed relationship, 1.1% were engaged, 1.1% were married, 0.7% were in an open relationship, and 0.9% indicated being in some other type of relationship. With respect to generational status, 15.1% of participants indicated that they were first generation, 52.3% indicated that they were second generation, 18.7% indicated being third generation, 9.7% indicated being fourth generation, and 4.3% indicated being fifth generation. Overall, about half of the participants (51.4%) indicated that they were currently in a sexual relationship.

Table 2: Participant Characteristics and Descriptive Statistics

Participants (*n* = 444)		
Variable/Characteristic	Frequency (*n*)/Mean (*SD*)	Range
Women	100% (422)	
Age	20.01 (2.13)	18 – 25
AFS		
Support	5.75 (1.50)	1.17 – 9.67
Interconnectedness	7.08 (1.49)	1.80 – 10.00
Honor	3.74 (1.40)	1.00 – 8.00
Subjugation	5.25 (1.95)	1.00 – 10.00

MBS		
Family	2.77 (0.59)	1 – 4
Chaste	2.20 (0.66)	1 –4
Subordinate	1.42 (0.46)	1.60 - 4
Silence	1.28 (0.42)	2 – 4
Spirit	1.85 (0.76)	1 – 4
IMI		
Friend	33.51 (13.55)	17 - 87
Family	30.30 (12.02)	12 – 80
Ethnic	30.68 (12.00)	13 – 86
CASMS		
Acceptance of Sex	1.30 (0.94)	0 – 3
Gender Roles	1.50 (0.76)	0 – 3
Abstinence	1.00 (0.93)	0 – 3
Relational Sex	2.04 (0.82)	0 – 3
Taboo	1.15 (0.75)	0 – 3
SRS		
Uncommitted	2.38 (2.89)	0 – 16
Risky Sex Acts	2.52 (2.47)	0 – 20
Impulsive Sex Acts	2.09 (1.83)	0 – 9
Intent to Engage	0.35 (0.75)	0 – 5
Risky Anal	0.33 (0.91)	0 – 12
HBM		
Testing Benefits	14.48 (2.80)	4 – 20
Barriers	38.79 (8.81)	14 – 60
Seriousness	23.92 (5.90)	7 – 35
Susceptibility	4.89 (2.39)	3 – 13
Motivation	27.16 (4.49)	7 - 35

Note. AFS: Attitudinal Familism Scale- higher scores indicate greater familistic values; MBS: Marianismo Beliefs Scale- higher scores indicate greater marianismo values; IMI: Intragroup Marginalization Inventory- higher scores indicate greater perceived marginalization; CASMS: Child and Adolescent Sexual Messages Scale- higher scores indicate greater frequency of sexual messages; SRS: Sexual Risk Survey- higher scores indicate greater participation in risk behaviors; HBM: Health Belief Model- higher scores indicate greater perceptions associated with STIs.

Sexual Risk

Bivariate Analyses

Table 3 displays the bivariate correlations between the predictor variables and sexual

risk. Familism and *marianismo* subscales were not correlated with sexual risk, with the exception

of MBS chaste which was negatively correlated with sexual risk ($r = -.127$). Additionally, all intragroup marginalization subscales were positively correlated with sexual risk including friend ($r = .164$), family ($r = .104$), and ethnic marginalization ($r = .114$).

Table 3: Correlation Matrix of Study Variables and Sexual Risk

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9	10.	11.	12.	13.
1. SRS	1												
2. AFS Support	-.01	1											
3. AFS Interconnectedness	-.05	**.67**	1										
4. AFS Honor	-.03	**.57**	**.35**	1									
5. AFS Subjugation	-.01	**.62**	**.63**	**.61**	1								
6. MBS Family	.07	**.37**	**.34**	**.38**	**.41**	1							
7. MBS Chaste	**-.13**	**.34**	**.37**	**.41**	**.42**	**.36**	1						
8. MBS Subordinate	-.02	**.16**	**.12**	**.33**	**.23**	**.18**	**.45**	1					
9. MBS Silence	-.06	**.16**	**.12**	**.34**	**.21**	**.15**	**.46**	**.76**	1				
10. MBS Spirit	.01	**.34**	**.33**	**.35**	**.36**	**.46**	**.54**	**.39**	**.43**	1			
11. IMI Friend	**.16**	**-.12**	**-.20**	.02	**-.13**	**-.09**	-.02	**.19**	**.22**	-.03	1		
12. IMI Family	**.10**	**-.19**	**-.25**	**-.14**	**-.25**	**-.14**	**-.13**	.03	.02	**-.11**	**.53**	1	
13. IMI Ethnic	**.11**	**-.20**	**-.28**	-.07	**-.16**	-.07	-.08	**.15**	**.14**	**-.11**	**.71**	**.68**	1

Note. **Bold indicates significance at *p*<.05**; SRS: Sexual Risk Survey; AFS: Attitudinal Familism Scale; MBS: Marianismo Beliefs Scale; IMI: Intragroup Marginalization.

Multivariate Analyses

The relationships between all cultural construct subscales (i.e., familism, *marianismo*, intragroup marginalization) and sexual risk were assessed in 12 negative binomial regression models to test for the main effects of the predictor variables. Of those twelve analyses, only 2 of the main predictors were associated with sexual risk (i.e., MBS chaste, IMI friend; Table 4). Subsequently, 10 additional hierarchical negative binomial regression models were conducted to test for moderation effects, given the five subscales addressing family communication. This resulted in a total of 22 analyses assessing the moderation of the relationship between cultural constructs and sexual risk by familial sexual messages. Two models displayed statistically significant interactions between the predictor variable and moderator variable on sexual risk: MBS Chaste X CASMS Acceptance (Model 1) and MBS Chaste X CASMS Abstinence (Model 2).

Table 4: Main Effects of MBS Chaste and IMI Friend on Sexual Risk

Predictors	B	SE	IRR	Wald X^2	p
MBS Chaste	**-1.61**	**.59**	**0.20[0.06, 0.64]**	**7.46**	**.006**
IMI Friend	**0.07**	**.03**	**1.07[1.01, 1.14]**	**5.35**	**.021**

Note. **Bold indicates significance at *p*<.05**; MBS: Marianismo Beliefs Scale; IMI: Intragroup Marginalizatio

In step 1 of Model 1, the hierarchical negative binomial regression model assessing the relationship between MBS chaste and sexual risk was statistically significant (see Table 5; log likelihood ratio X^2 (1, $N = 444$) = 6.49, $p = .011$). When the moderator, CASMS acceptance, was added in step 2, the model continued to be statistically significant (X^2 (2, $N = 444$) = 11.79, $p = .003$) with CASMS acceptance being a statistically significant predictor of sexual risk (Wald X^2 (1 df) = 5.17, $p = 0.023$). In step 3, the model was once again statistically significant (X^2 (3, $N = 444$) = 17.47, $p < .001$), and the interaction term was a statistically significant predictor of sexual risk (Wald X^2 (1 df) = 6.17, $p = 0.013$). SPSS Process 4.2 (Hayes, 2022) was used to further visualize and interpret this interaction (see Figure 9). Simple effects coefficients were computed for three levels of CASMS Acceptance at ±1 SD from the mean and at the mean. One standard deviation increase in chastity beliefs was associated with 40% fewer sexual risk behaviors when controlling for parental messages regarding the acceptance of sex as normal (OR = 0.60, CI: 0.17 – 2.19). Furthermore, one standard deviation increase in perceptions of sex being normalized by parents was associated with 125% increase in sexual risk behaviors when controlling for chastity beliefs (OR = 2.25, CI: 0.99 – 5.09). Lastly, a one standard deviation increase in perceived sex acceptance messages was associated with a 338% change in the effect between chastity beliefs and sexual risk (OR = 4.38, CI: 1.37, 14.04). Overall, the significant interaction suggests that the association between chastity beliefs and sexual risk is negative when there are lower levels of acceptance messages; however, this relationship becomes positive when there are higher levels of acceptance messages which indicates a buffering interaction.

Table 5: Hierarchical Negative Binomial Regression of MBS Chaste and CASMS Acceptance on Sexual Risk

Predictors	B	SE	IRR	Wald X^2	p
Step 1					
MBS Chaste	**-1.61**	**.59**	**0.20[0.06, 0.64]**	**7.46**	**.006**
Step 2					
MBS Chaste	**-1.42**	**.54**	**0.24[0.08, 0.70]**	**6.83**	**.009**
CASMS Acceptance	**0.92**	**.40**	**2.50[1.14, 5.52]**	**5.17**	**.023**
Step 3					
MBS Chaste	-0.51	.66	0.60[0.17, 2.19]	0.59	.442
CASMS Acceptance	0.81	.42	2.25[0.99, 5.09]	3.78	.052
Cha*Acc (Interaction)	**1.48**	**.60**	**4.37[1.37, 14.04]**	**6.17**	**.013**

Note. **Bold indicates significance at *p*<.05**; MBS: Marianismo Beliefs Scale; CASMS: Childhood and Adolescent Sexual Messages Scale.

Figure 9: Model 1 Interaction Between MBS Chaste and CASMS Acceptance on Sexual Risk

Note. Interaction was statistically significant when probed through SPSS Process 4.2.

Table 6 displays the hierarchical negative binomial regression model assessing the relationship between MBS chaste and sexual risk (Model 2). In step 1, the model was statistically significant (log likelihood ratio X^2 (1, N = 444) = 6.49, p = .011). When the moderator, CASMS abstinence, was added in step 2, the model continued to be statistically significant (X^2 (2, N = 444) = 8.25, p = .016). In step 3, the model was once again statistically significant (X^2 (3, N = 444) = 14.69, p = .002) and the interaction term was a statistically significant predictor of sexual risk (Wald X^2 (1 df) = 7.28, p = 0.007). SPSS Process 4.2 (Hayes, 2022) was used to further visualize and interpret this interaction (see Figure 10). Simple effects coefficients were computed at three levels of CASMS Abstinence (±1 SD from the mean and at the mean). One standard deviation increase in chastity beliefs was associated with 53% fewer sexual risk behaviors when controlling for parental messages regarding abstinence (OR = 0.47, CI: 0.13 – 1.69). Furthermore, one standard deviation increase in abstinence messages was associated with 24%

decrease in sexual risk behaviors when controlling for chastity beliefs (OR = 0.76, CI: 0.30 –
1.95). Lastly, a one standard deviation increase in perceived abstinence messages resulted in a
78% change in the relationship between chastity beliefs and sexual risk (OR = 0.22, CI: 0.08,
0.66). Overall, the significant interaction suggests that there is a slight negative association
between chastity beliefs and sexual risk when there are fewer levels of abstinence messages.
Additionally, when there are higher levels of abstinence messages this relationship is enhanced,
indicating a synergistic interaction.

Table 6: Hierarchical Negative Binomial Regression of MBS Chaste and CASMS Abstinence on Sexual Risk

Predictors	B	SE	IRR	Wald X^2	p
Step 1					
MBS Chaste	**-1.61**	**.59**	**0.20[0.06, 0.64]**	**7.46**	**.006**
Step 2					
MBS Chaste	**-1.36**	**.61**	**0.26[0.08, 0.84]**	**5.05**	**.025**
CASMS Abstinence	-0.57	.42	2.50[1.14, 1.28]	1.87	.172
Step 3					
MBS Chaste	-0.76	.66	0.47[0.13, 1.69]	1.35	.245
CASMS Abstinence	-0.27	.48	0.76[0.30, 1.95]	0.33	.569
Cha*Acc (Interaction)	**-1.50**	**.56**	**0.22[0.08, 0.66]**	**7.28**	**.007**

Note. **Bold indicates significance at *p*<.05**; MBS: Marianismo Beliefs Scale; CASMS: Childhood and Adolescent Sexual Messages
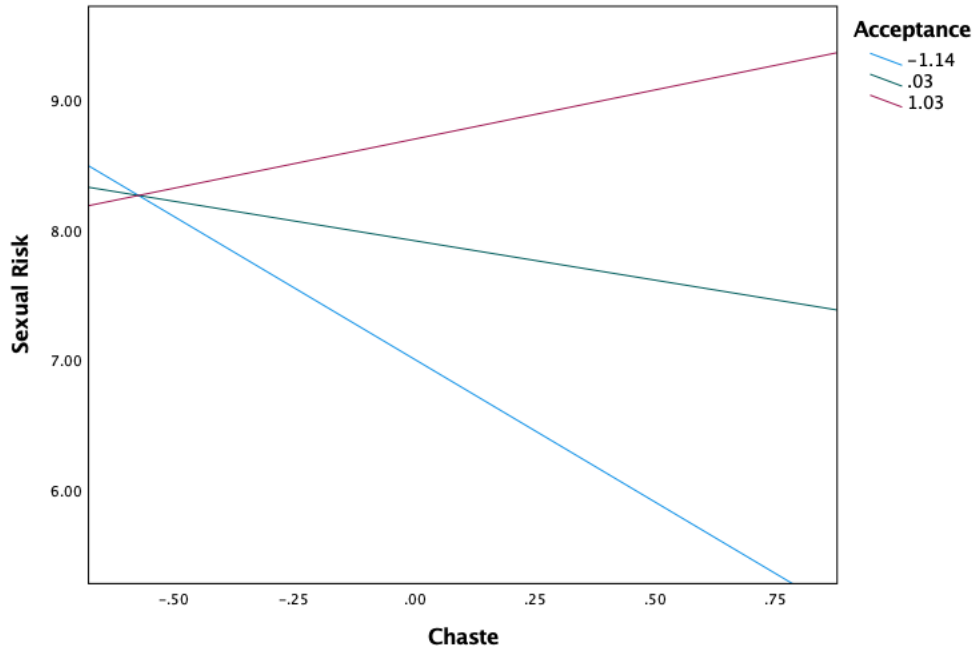
Scale.
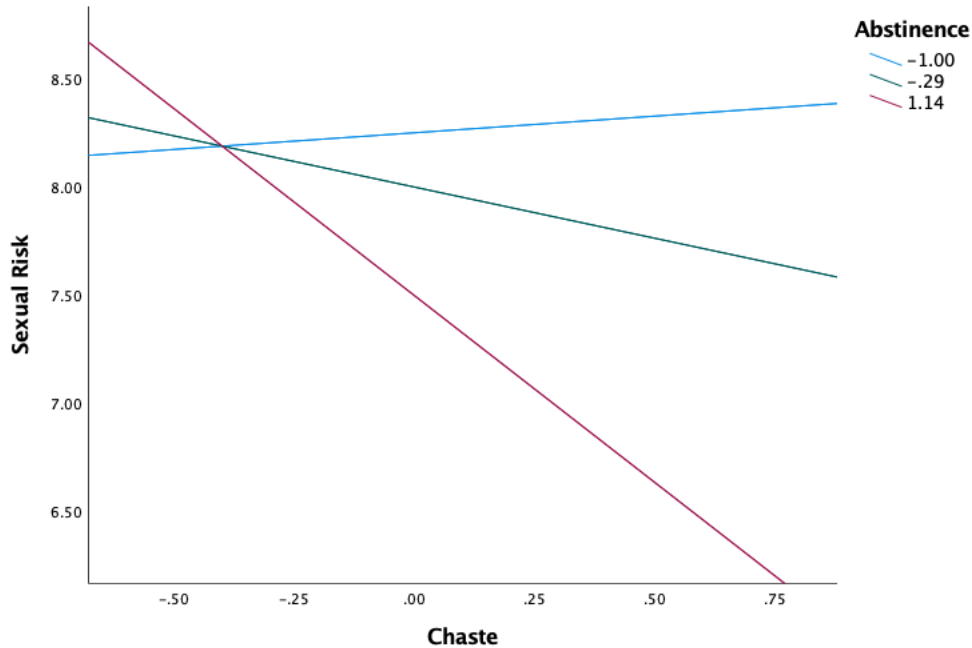
Figure 10: Model 2 Interaction Between MBS Chaste and CASMS Abstinence on Sexual Risk

Note. Interaction was statistically significant when probed through SPSS Process 4.2.

Sexual Health

Bivariate Analyses

Table 7 displays the bivariate correlations between familism subscales and STI testing views. AFS interconnectedness and AFS honor were negatively correlated with perceived testing benefits ($r = -.10$ and $r = -.12$, respectively). None of the AFS subscales were correlated with perceived barriers or seriousness. AFS familial support, AFS interconnectedness, and AFS subjugation were negatively correlated with perceived susceptibility ($r = -.13$, $r = -.14$, $r = -.12$, respectively). AFS interconnectedness and AFS subjugations were positively correlated with health motivation ($r = .10$ and $r = .14$, respectively).

Table 7: Correlation Matrix of Familism and STI Testing Views

Variable	1.	2.	3.	4.	5.	6.	7	8.	9.
1. AFS Familial Support	1								
2. AFS Interconnectedness	**.67**	1							
3. AFS Honor	**.57**	**.35**	1						
4. AFS Subjugation	**.62**	**.63**	**.61**	1					
5. HBM Testing Benefits	-.01	**-.10**	**-.12**	-.07	1				
6. HBM Barriers	-.03	-.06	.06	.01	.04	1			
7. HBM Seriousness	-.02	.00	.02	.53	**.17**	**.28**	1		
8. HBM Susceptibility	**-.13**	**-.14**	**-.14**	-.12	.07	.06	.08	1	
9. HBM Motivation	.08	**.10**	**.10**	**.14**	**.22**	**-.22**	.04	-.06	1

Note. **Bold indicates significance at *p<*.05**; AFS: Attitudinal Familism; HBM: Health Belief Model for STI Testing Views.

Table 8 displays the bivariate correlations between *marianismo* subscales and STI testing views. MBS chaste, MBS subordinate, MBS silence, and MBS spiritual pillar were negatively correlated with perceived testing benefits ($r = -.19$, $r = -.19$, $r = -.22$, $r = -.17$, respectively). None of the MBS subscales were associated with perceived barriers. MBS silence was negatively correlated with the perceived seriousness of STIs ($r = -.11$). MBS family pillar, MBS chaste, and MBS spiritual pillar were negatively correlated with perceived susceptibility to STIs ($r = -.13$, $r = -.18$, $r = -.13$, respectively). MBS subordinate and MBS silence were negatively correlated with health motivation ($r = -.11$ and $r = -.15$, respectively).

Table 8: Correlation Matrix of Marianismo and STI Testing Views

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
1. MBS Family Pillar	1									
2. MBS Chaste	**.36**	1								
3. MBS Subordinate	**.18**	**.45**	1							
4. MBS Silence	**.15**	**.46**	**.76**	1						
5. MBS Spiritual	**.46**	**.54**	.39	**.43**	1					
6. HBM Testing Benefits	-.03	**-.19**	**-.19**	**-.28**	**-.17**	1				
7. HBM Barriers	-.01	.06	.02	.09	.04	.04	1			
8. HBM Seriousness	.02	-.01	-.07	**-.11**	.02	**.17**	**.28**	1		
9. HBM Susceptibility	**-.13**	**-.18**	.00	.01	**-.13**	.07	.06	.08	1	
10. HBM Motivation	.08	-.04	**-.11**	**-.14**	-.01	**.21**	**-.22**	.04	-.06	1

Note. **Bold indicates significance at *p*<.05**; AFS: Attitudinal Familism; HBM: Health Belief Model for STI Testing Views.

Table 9 displays the bivariate correlations between intragroup marginalization subscales and STI testing views. IMI family was positively correlated with perceived testing benefits (*r* = .16). IMI friend, IMI family, and IMI ethnic were positively correlated with perceived barriers to obtaining STI tests (*r* = .12, *r* = .21, and *r* = .14 respectively). IMI friend, IMI family, and IMI ethnic were positively correlated with perceived seriousness of STIs (*r* = .10, *r* = .18, and *r* = .11). IMI friend, IMI family, and IMI ethnic were positively correlated with perceived susceptibility to STIs (*r* = .13, *r* = .11, *r* = .11). IMI friend and IMI family were negatively correlated with health motivation (*r* = -.10 and *r* = -.11).

Table 9: Correlation Matrix of Intragroup Marginalization and STI Testing Views

Variable	1.	2.	3.	4.	5.	6.	7	8.
1. IMI Friend	1							
2. IMI Family	**.53**	1						
3. IMI Ethnic	**.71**	**.68**	1					
4. HBM Testing Benefits	-.06	**.16**	.02	1				
5. HBM Barriers	**.12**	**.21**	**.14**	.04	1			
6. HBM Seriousness	**.10**	**.18**	**.11**	**.17**	**.28**	1		
7. HBM Susceptibility	**.13**	**.11**	**.11**	.07	.06	.08	1	
8. HBM Motivation	**-.10**	**-.11**	-.06	**.22**	**-.22**	.04	-.06	1

Note. **Bold indicates significance at *p*<.05**; IMI: Intragroup Marginalization Inventory; HBM: Health Belief Model for STI Testing Views.

Multivariate Analyses

Main effects between cultural construct subscales (e.g., familism, *marianismo*, and intragroup marginalization) and STI views were assessed through 60 linear regressions. Of those 60 linear regressions, 29 resulted in statistically significant main effects (see Tables 10 -12) for which hierarchical regressions were conducted to test for moderation effects of familial communication messages. A total of 145 hierarchical regressions were further conducted to determine whether the relationships between cultural constructs and STI views were moderated by familial communication messages. This resulted in 12 statistically significant moderation models of the cultural constructs (familism, *marianismo*, and intragroup marginalization) and STI views.

Table 10: Main effects of Familism on STI Testing Views

Variable	Testing Benefits			Barriers			Seriousness			Susceptibility			Motivation		
	B	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
AFS Fam	-.01	.09	-.01	-.16	.28	-.03	-.07	.19	-.02	**-.21**	**.08**	**-.13**	.23	.14	.06
AFS Inter	**-.19**	**.09**	**-.10**	-.36	.28	-.06	.01	.19	.00	**-.23**	**.08**	**-.14**	**.29**	**.14**	**.10**
AFS Honor	**-.24**	**.10**	**-.12**	.38	.30	.06	.07	.21	.02	-.08	.08	-.05	.10	.16	.03
AFS Sub	-.10	.07	-.07	.03	.22	.01	.09	.15	.03	**-.15**	**.06**	**-.12**	**.32**	**.11**	**.14**

Note. **Bold indicates significance at *p*<.05**; AFS Fam: Attitudinal Familism Scale - Family Support; AFS Inter: Attitudinal Familism Scale – Interconnectedness; AFS Sub: Attitudinal Familism Scale - Subjugation.

Table 11: Main effects of Marianismo on STI Testing Views

Variable	Testing Benefits			Barriers			Seriousness			Susceptibility			Motivation		
	B	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
MBS Fam	-.14	.23	.03	-.12	.71	-.01	.21	.48	.02	**-.52**	**.19**	**-.13**	.58	.36	.08
MBS Chaste	**-.80**	**.20**	**-.19**	.82	.64	.06	-.07	.43	-.01	**-.65**	**.17**	**-.18**	-.30	.32	-.04
MBS Sub	**-1.13**	**.29**	**-.19**	.29	.93	.02	-.87	.62	-.07	-.02	.25	.00	**-1.05**	**.46**	**-.11**
MBS Silence	**-1.45**	**.31**	**-.22**	1.88	1.02	.09	**-1.60**	**.67**	**-.11**	.06	.27	.01	**-1.58**	**.50**	**-.15**
MBS Spirit	**-.61**	**.17**	**-.17**	.40	.56	.04	.17	.37	.02	**-.40**	**.15**	**-.13**	-.08	.28	-.01

Note. **Bold indicates significance at *p*<.05**; MBS Fam: Marianismo Belief Scale Family Pillar; MBS Sub: Marianismo Belief Scale Subordinate.

Table 12: Main effects of Intragroup Marginalization on STI Testing Views

Variable	Testing Benefits			Barriers			Seriousness			Susceptibility			Motivation		
	B	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*	*B*	*SE*	*β*
IMI Friend	-.01	.01	-.06	**.08**	**.03**	**.12**	.04	.02	.10	.02	.01	.13	-.03	.02	-.10
IMI Family	**.04**	**.01**	**.16**	**.16**	**.04**	**.21**	.09	.02	.18	.02	.01	.11	-.04	.02	-.11
IMI Ethnic	.01	.01	.02	**.11**	**.04**	**.14**	**.05**	**.02**	**.11**	.02	.01	.11	-.02	.02	-.06

Note. **Bold indicates significance at *p*<.05**

Familism. There were 3 statistically significant moderations between familism constructs and STI views. Specifically, gendered sex roles and relational messages moderated the relationships between the family support, interconnectedness, and subjugation subscales on perceived susceptibility and health motivation.

Model 3 assessed the relationship between family support and perceived susceptibility. In step 1, the overall model was statistically significant (F (1, 443) = 8.19, p = .004, R^2 = .019) such that family support was negatively associated with perceived susceptibility to STIs (β = -.136, p = .004). In step 2, the moderator, gendered sex role messages, was introduced and the model continued to be statistically significant (F (2, 442) = 4.374, p =.013, R^2 =.020); however, there was no statistical change in R^2 (ΔR^2 =.001, p = .452). In step 3, when the interaction (Family Support X Gendered Sex Roles) was entered, the model was statistically significant (F (3, 441) = 4.476, p = .004, ΔR^2 =.010, p < .032) and the interaction was positively associated with perceived susceptibility to STIs (β = .104, p =.032). SPSS Process 4.2 (Hayes, 2022) was used to further visualize and interpret this interaction (see Figure 11). Overall, high levels of family support were associated with less perceived susceptibility to STIs; however, this association depended on the level of gendered sex role messages. At greater levels of gendered sex role messages, high family support was associated with greater perceived susceptibility to STIs. Furthermore, the Johnsen-Neyman technique highlighted that the relationship between family support and perceived susceptibility to STIs was significant when there were low to moderate gendered sex role messages (below 1.96) but not at higher levels.
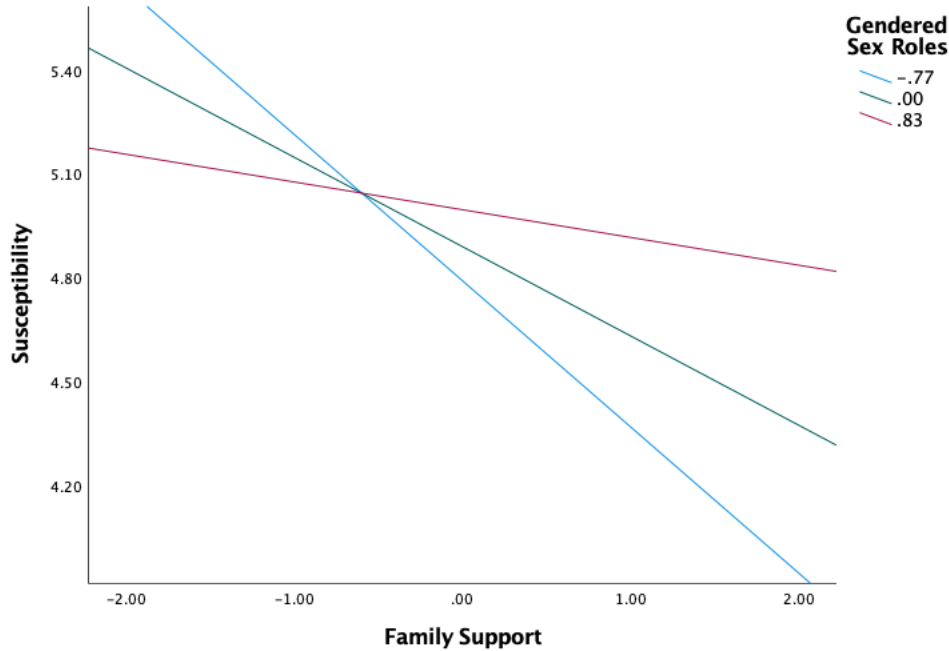
Figure 11: Model 3

Note. Statistically significant interaction between AFS Family Support and CASMS Gendered Sex Roles on Susceptibility probed through SPSS Process 4.2.

Model 4 assessed the relationship between interconnectedness and perceived susceptibility to STIs. In step 1, the overall model was statistically significant (F (1, 435) = 9.323, p = .002, R^2 = .021) such that interconnectedness was negatively associated with perceived susceptibility (β = -.145, p = .002). In step 2, the moderator, gendered sex roles, was introduced and the model continued to be statistically significant (F (2, 434) = 4.931, p = .008, R^2 = .022); however, there was no statistical change in R^2 (ΔR^2 =.001, p = .459). In step 3, when the interaction (Interconnectedness X Gendered Sex Roles) was entered, the model was statistically significant (F (3, 433) = 4.840, p = .003, ΔR^2 =.010, p = .033) and the interaction was positively associated with perceived susceptibility (β = .103, p = .033). SPSS Process 4.2 (Hayes, 2022) was used to further visualize and interpret this interaction (see Figure 12). Overall, high levels of interconnectedness were associated with less perceived susceptibility; however,

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this association depended on the level of gendered sex role messages. At greater levels of gendered sex role messages, high interconnectedness was associated with greater perceived susceptibility to STIs. Furthermore, this relationship was significant at low to moderate levels of gendered sex role messages (below 1.96).
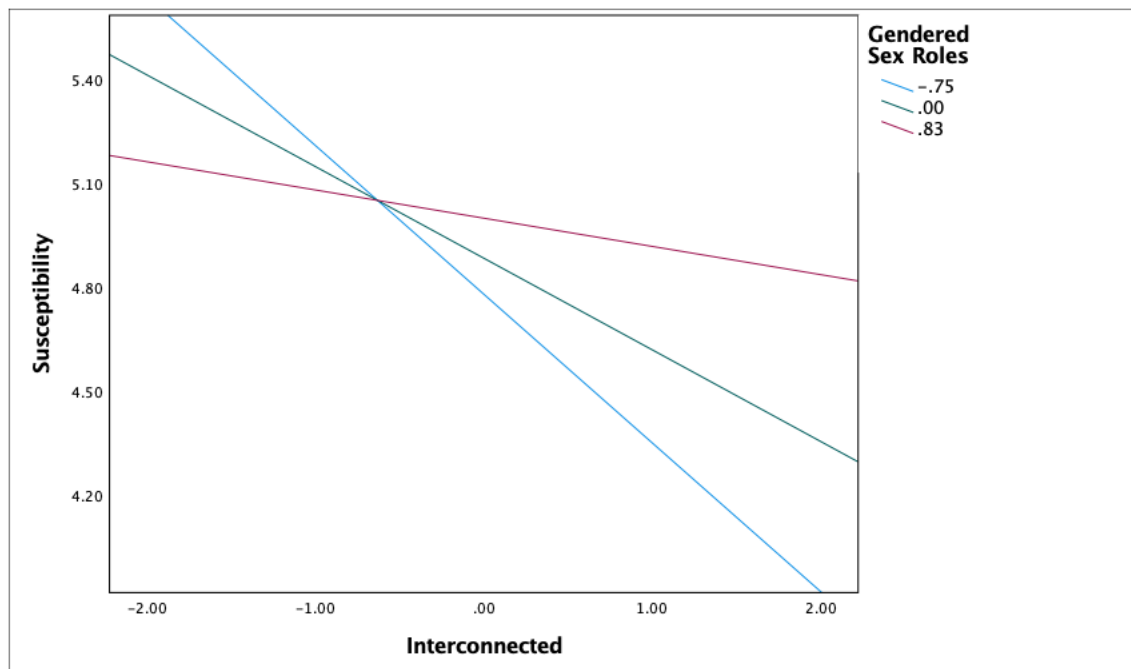
Figure 12: Model 4

Note. Statistically significant interaction between AFS Interconnectedness and CASMS Gendered Sex Roles on Susceptibility probed through SPSS Process 4.2.

Model 5 assessed the relationship between subjugation and health motivation. In step 1, the overall model was statistically significant ($F (1, 436) = 8.488, p < .004, R^2 = .019$) such that subjugation was positively associated with health motivation ($\beta = .138, p < .004$). In step 2, the moderator, relational messages, was introduced and the model continued to be statistically significant ($F (2, 435) = 10.797, p < .001, R^2 = .047$); however, there was no statistical change in R^2 ($\Delta R^2 = .028, p < .001$) such that relational messages were positively associated with health motivation. In step 3, when the interaction (Subjugation X Relational) was entered, the model

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was statistically significant (F (3, 434) = 8.564, $p <$ .001, $\Delta R^2 =$.009, $p <$ .047) and the interaction was positively associated with health motivation ($\beta =$ .095, $p =$ .047). High levels of subjugation were associated with greater health motivation; however, this association depended on the level of relational messages such that when participants perceived fewer relational messages, greater subjugation was associated with less health motivation (see Figure 13). Furthermore, this relationship was significant at higher levels of relational messages (above 2.13).
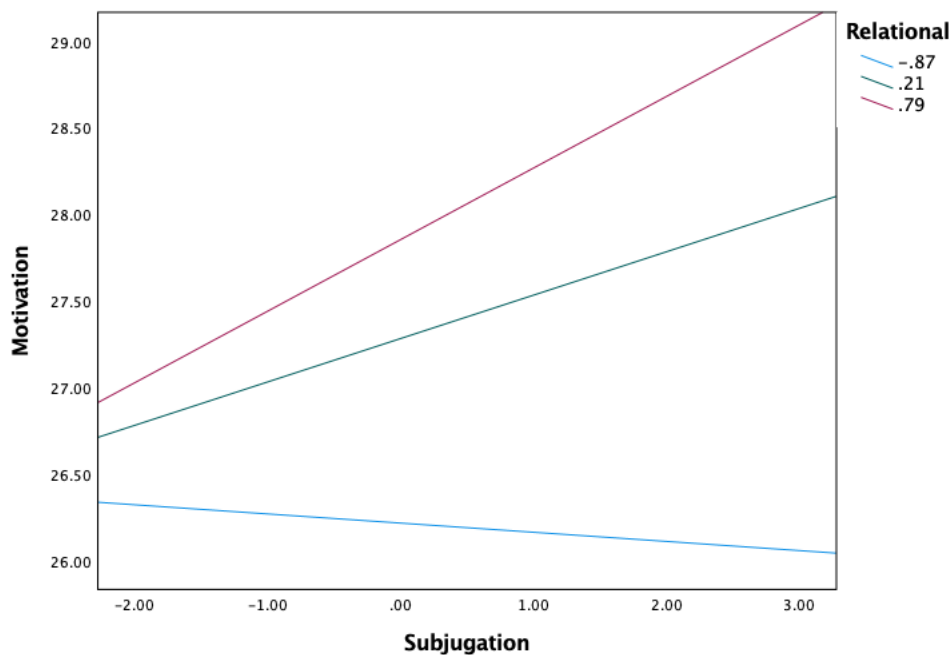
Figure 13: Model 5

Note. Statistically significant interaction between AFS Subjugation and CASMS Relational on Motivation probed through SPSS Process 4.2.

Marianismo. There were 2 statistically significant moderations between *marianismo* constructs and STI views. Specifically, relational and taboo messages moderated the relationships between the spiritual pillar and silence subscales on perceived testing benefits and health motivation.

Model 6 assessed the relationship between spiritual pillar beliefs and perceived testing benefits. In step 1, the overall model was statistically significant (F (1, 436) = 12.548, $p < .001$, $R^2 = .028$) such that spiritual pillar beliefs were negatively associated with perceived testing benefits ($\beta = -.167$, $p < .001$). In step 2, the moderator, taboo messages, was introduced and the model continued to be statistically significant (F (2, 435) = 7.072, $p < .001$, $R^2 =.031$); however, there was no statistical change in R^2 ($\Delta R^2 =.004$, $p = .210$). In step 3, when the interaction (Spiritual Pillar X Taboo) was entered, the model was statistically significant (F (3, 434) = 6.727, $p < .001$, $\Delta R^2 =.010$, $p = .016$) and the interaction was negatively associated with perceived testing benefits ($\beta = -.115$, $p < .016$). Overall, high levels of spiritual pillar beliefs were associated with fewer perceived testing benefits; however, this association depended on the level of taboo messages such that increases in taboo messages was associated with a more negative relationship (see Figure 14). This relationship was significant when there were moderate to high levels of taboo messages (above 1.15).
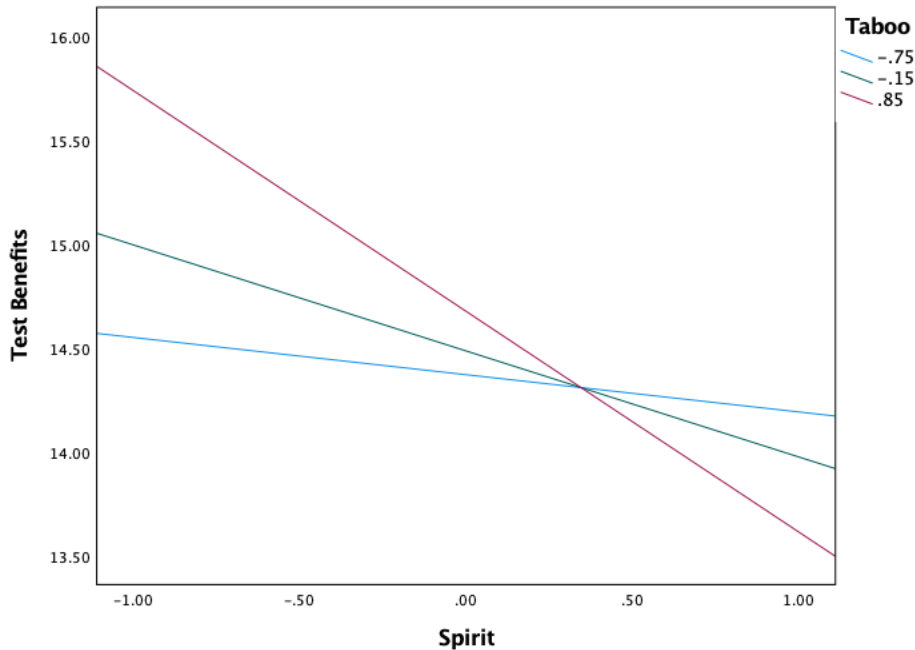

Figure 14: Model 6

Model 7 assessed the relationship between silence beliefs and health motivation. In step 1, the overall model was statistically significant (F (1, 434) = 9.831, p = .002, R^2 = .022) such that silence was negatively associated with health motivation (β = -.145, p = .002). In step 2, the moderator, relational, was introduced and the model continued to be statistically significant (F (2, 433) = 12.286, p < .001, R^2 =.054) and there was a statistical change in R^2 (ΔR^2 =.032, p < .001) such that relational was positively associated with health motivation (β = .178, p < .001). In step 3, when the interaction (Silence X Relational) was entered, the model was statistically significant (F (3, 432) = 9.829, p < .001, ΔR^2 =.010, p < .031) and the interaction was positively associated with health motivation (β = .104, p < .031). Overall, greater levels of silence beliefs were associated with less health motivation; however, this association depended on the level of relational messages. Greater relational messages buffered the negative relationship between silence and health motivation (see Figure 15). However, this relationship was significant at low to moderate levels of relational messages (below 2.19).
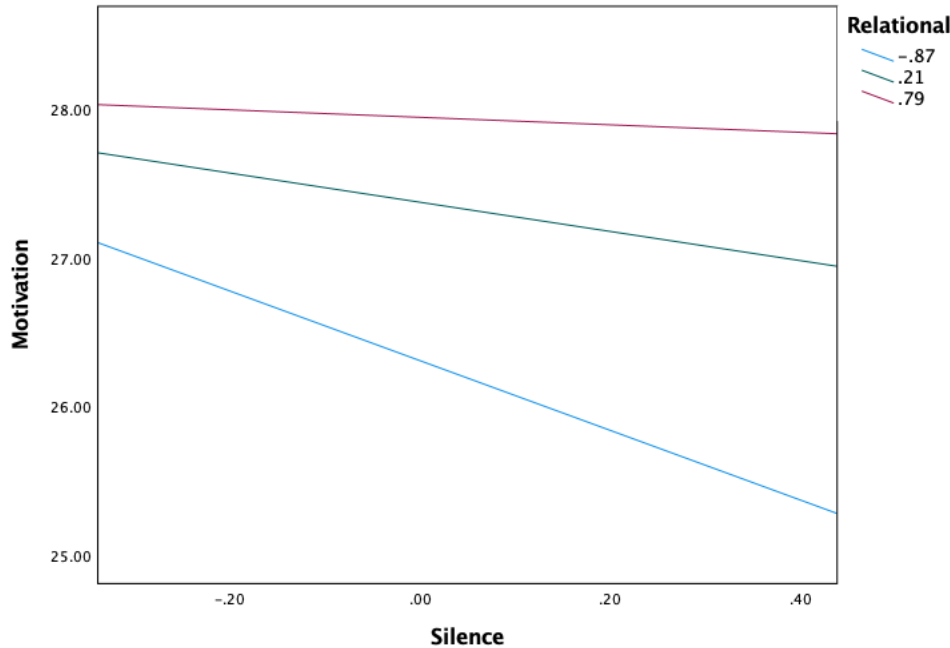
Figure 15: Model 7

Note. Statistically significant interaction between MBS Silence and CASMS Relational on Motivation through SPSS Process 4.2.

Intragroup Marginalization. There were 5 statistically significant moderations between familism constructs and STI views. Specifically, acceptance, gender sex roles, relational, and taboo messages moderated the relationships between the friend, family, and ethnic subscales on perceived testing benefits, barriers, and motivation.

Model 8 assessed the relationship between family marginalization and perceived testing benefits. In step 1, the overall model was statistically significant (F (1, 435) = 10.754, $p < .001$, $R^2 = .024$) such that family marginalization was positively associated with perceived testing benefits ($\beta = .155$, $p < .001$). In step 2, the moderator, acceptance, was introduced and the model continued to be statistically significant (F (2, 434) = 11.407, $p < .001$, $R^2 = .050$) and there was a statistical change in R^2 ($\Delta R^2 = .026$, $p < .001$) such that acceptance was positively associated with perceived testing benefits ($\beta = .161$, $p < .001$). In step 3, when the interaction (Family X

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Acceptance) was entered, the model was statistically significant (F (3, 433) = 8.979, $p < .001$,

$\Delta R^2 = .009$, $p = .047$) and the interaction was negatively associated with perceived testing benefits

($\beta = -.093$, $p = .047$). Overall, high levels of family marginalization were associated with greater

perceived testing benefits; however, this association was enhanced at higher levels of acceptance

messages (see Figure 16). This relationship was significant at low to moderate levels of

acceptance messages (below 1.83).
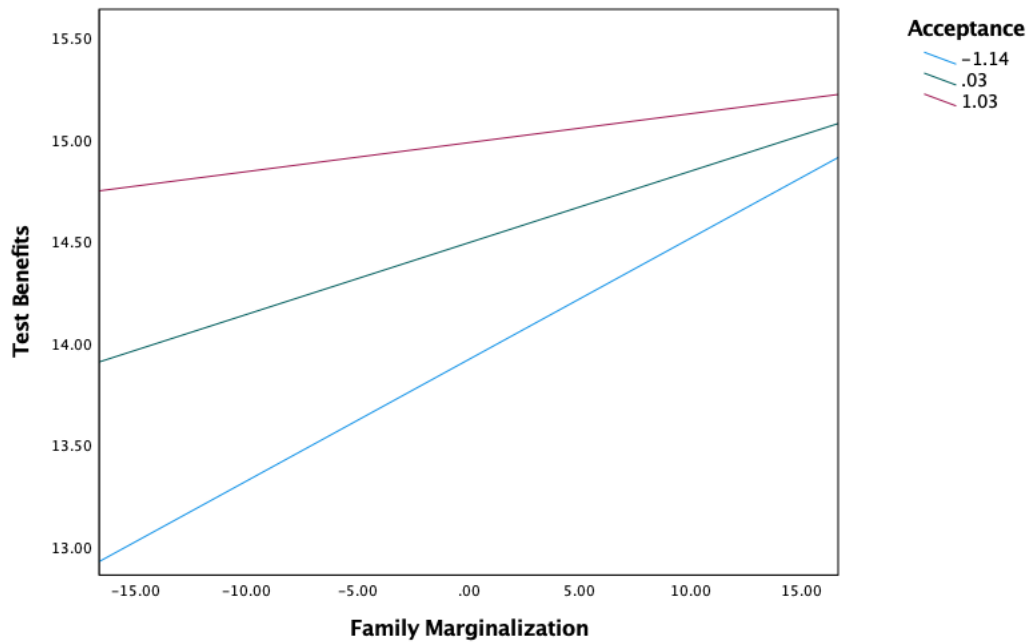
Figure 16: Model 8
Note. Statistically significant interaction between IMI Family and CASMS Acceptance on Test
Benefits through SPSS Process 4.2.

Model 9 assessed the relationship between friend marginalization and perceived barriers.

In step 1, the overall model was statistically significant (F (1, 432) = 5.998, $p = .015$, $R^2 = .014$)

such that friend marginalization was positively associated with perceived barriers ($\beta = .117$, $p =$

.015). In step 2, the moderator, gendered sex roles, was introduced and the model continued to be

statistically significant (F (2, 431) = 3.108, $p = .046$, $R^2 = .014$) but there was no statistical change

in R^2 (ΔR^2 =.001, p = .633). In step 3, when the interaction (Friend X Gendered Sex Roles) was

entered, the model was statistically significant (F (3, 430) = 3.620, p = .013, ΔR^2 =.010, p =.033)

and the interaction was positively associated with perceived barriers (β = .105, p = .033).

Overall, high levels of friend marginalization were associated with greater perceived barriers;

however, this association depended on the level of gendered sex role messages. At greater levels

of gendered sex role messages, this relationship was enhanced (see Figure 17). This association

was significant at moderate to high levels of gendered sex role messages (above 1.55).

Figure 17: Model 9

Note. Statistically significant interaction between IMI Friend and CASMS Gendered Sex Roles
on Barriers through SPSS Process 4.2.

Model 10 assessed the relationship between friend marginalization and perceived

barriers. In step 1, the overall model was statistically significant (F (1, 433) = 6.272, p = .013, R^2

= .014) such that friend marginalization was positively associated with perceived barriers (β =

.119, p = .013). In step 2, the moderator, relational, was introduced and the model continued to

be statistically significant (F (2, 432) = 3.591, p = .028, R^2 =.016) but there was no statistical

change in R^2 (ΔR^2 =.002, p = .340). In step 3, when the interaction (Friend X Relational) was

entered, the model was statistically significant (F (3, 431) = 4.278, p = .005, ΔR^2 =.013, p = .019)

and the interaction was positively associated with perceived barriers (β = .113, p = .019).

Overall, high levels of friend marginalization were associated with greater perceived barriers;

however, at lower levels of relational messages this effect was suppressed (see Figure 18).

Specifically, this relationship was significant at moderate to high levels of relational messages

(above 1.82).

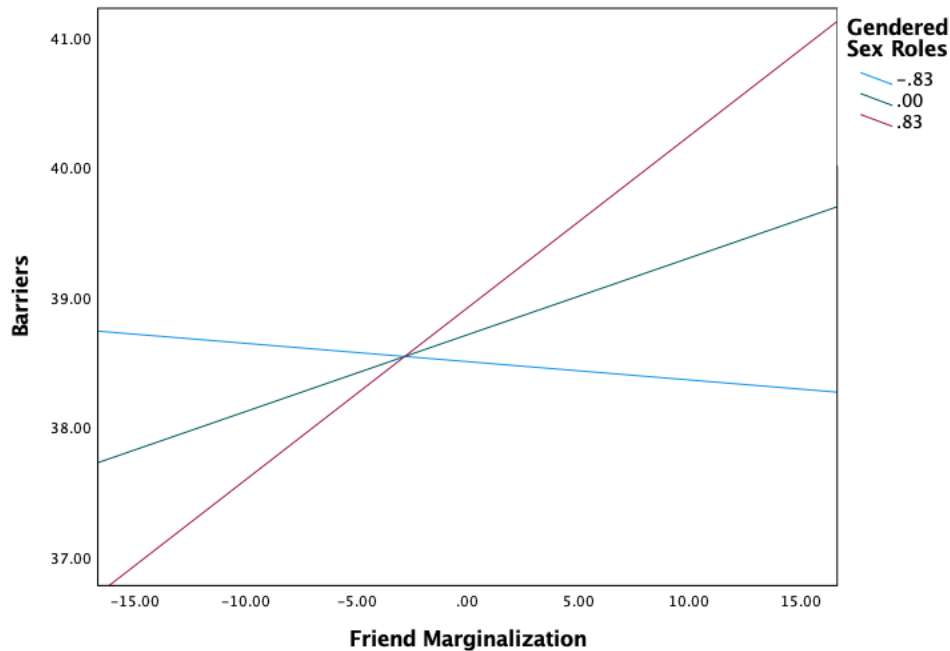**Figure 18: Model 10**

Note. Statistically significant interaction between IMI Friend and CASMS Relational on Barriers
through SPSS Process 4.2.

Model 11 assessed the relationship between ethnic marginalization and perceived

barriers. In step 1, the overall model was statistically significant (F (1, 429) = 8.933, p = .003, R^2

= .020) such that ethnic marginalization was positively associated with perceived barriers (β =

.143, $p = .003$). In step 2, the moderator, acceptance, was introduced and the model continued to be statistically significant ($F(2, 428) = 6.921$, $p = .001$, $R^2 = .031$) and there was a statistical change in R^2 ($\Delta R^2 = .011$, $p = .029$) such that acceptance was negatively associated with perceived barriers ($\beta = -.105$, $p = .029$). In step 3, when the interaction (Ethnic X Acceptance) was entered, the model was statistically significant ($F(3, 427) = 6.129$, $p < .001$, $\Delta R^2 = .010$, $p = .036$) and the interaction was positively associated with perceived barriers ($\beta = .100$, $p = .036$). Overall, high levels of ethnic marginalization were associated with greater perceived barriers; however, this association depended on the level of CASMS Acceptance (see Figure 19). At lower levels of acceptance messages, high ethnic was associated with greater perceived barriers, but at lower levels this relationship was buffered. This relationship was significant at moderate to high levels of acceptance messages (above 0.89).
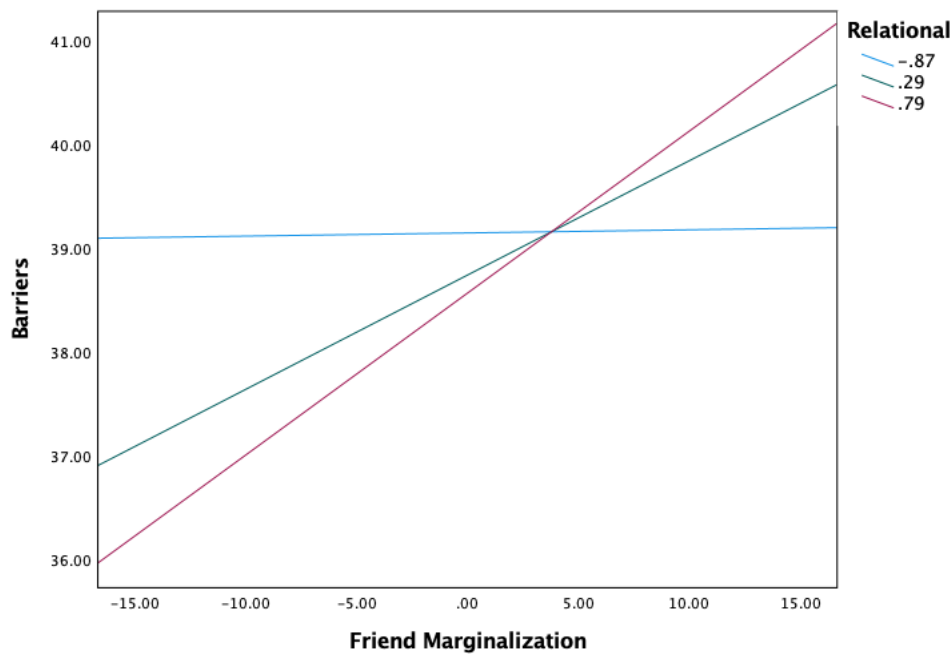

Figure 19: Model 11

Note. Statistically significant interaction between IMI Ethnic and CASMS Acceptance on Barriers through SPSS Process 4.2.

Model 12 assessed the relationship between ethnic marginalization and perceived barriers. In step 1, the overall model was statistically significant (F (1, 429) = 8.933, p = .003, R^2 = .020) such that ethnic marginalization was positively associated with perceived barriers (β = .143, p = .003). In step 2, the moderator, relational, was introduced and the model continued to be statistically significant (F (2, 428) = 4.875, p = .008, R^2 =.022) but no statistical change in R^2 was observed (ΔR^2 =.002, p = .366). In step 3, when the interaction (Ethnic X Relational) was entered, the model was statistically significant (F (3, 427) = 6.902, p < .001, ΔR^2 =.024, p < .001) and the interaction was positively associated with perceived barriers (β = .155, p < .001). Overall, high levels of ethnic marginalization were associated with greater perceived barriers; however, this association was buffered at lower levels of relational messages (see Figure 20). This relationship was significant at moderate to high levels of relational messages (below 0.01 or above 2.26).
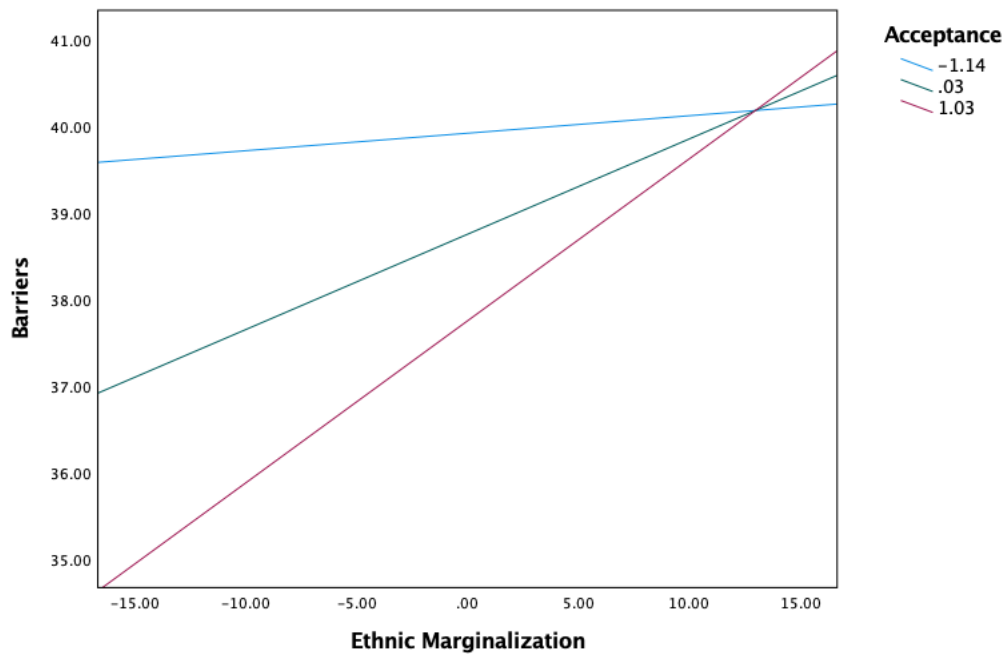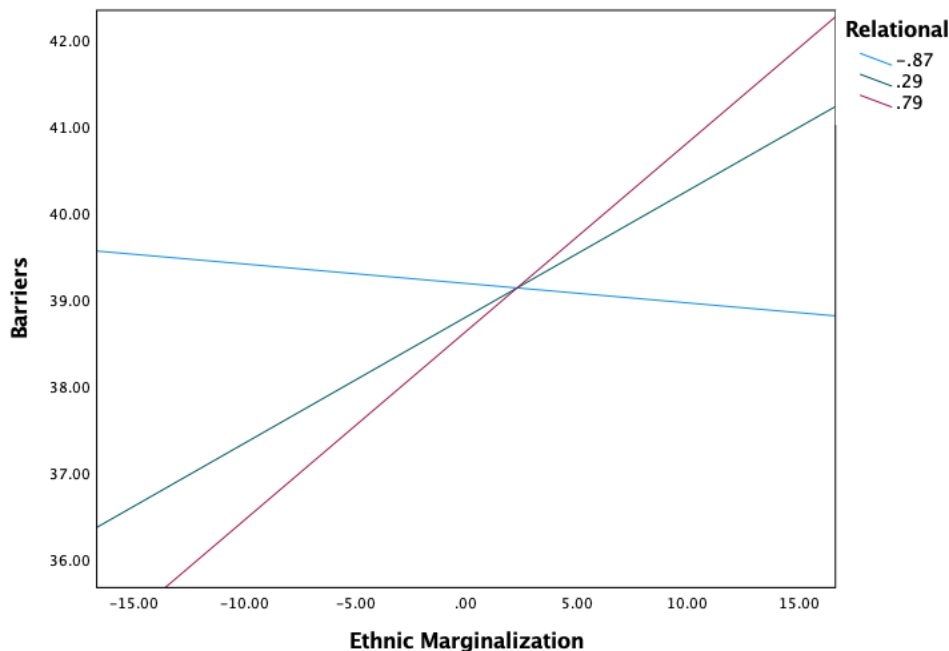

Figure 20: Model 12
Note. Statistically significant interaction between IMI Ethnic and CASMS Relational on Barriers through SPSS Process 4.2.

Chapter 4: Discussion

The present study aimed to utilize an intersectionality framework to assess nuances in the relationships between cultural constructs such as familism, *marianismo*, and intragroup marginalization and the sexual behaviors of Latinas (e.g. sexual risk, STI testing perceptions). Furthermore, the study also aimed to identify how these relationships may be moderated by family messages about sex. Table 13 displays the study hypotheses and describes whether they were supported or not supported. Hypothesis 1 was not supported in that familism was not associated with sexual risk behaviors. Hypothesis 2 was partially supported in that the *marianismo* chastity subscale was associated with sexual risk and was moderated by familial messages about sex; however, this association was negative rather than positive. Hypothesis 3 was partially supported in that marginalization from friends was associated with increased sexual risk behaviors; however, this relationship was not moderated by familial messages. Hypothesis 4 was partially supported in that high levels of familism were associated with both positive and negative perceptions about STI testing, and several of these relationships were moderated by familial messages. Hypothesis 5 was supported in that *marianismo* beliefs were negatively associated with perceptions about STI testing, and these relationships were moderated by familial messages. Lastly, Hypothesis 6 was partially supported in that intragroup marginalization was associated with both negative and positive perceptions about STI testing, and these relationships were moderated by familial messages.

Table 13: Hypotheses and Support

Hypotheses	Statistical Conclusion	Comments
H1: Familism will be associated with increased sexual risk behaviors and sex communication will moderate this relationship	**Not Supported**: No direct association with subscales and no moderation.	
H2: *Marianismo* will be associated with increased sexual risk and sex communication will moderate this relationship	**Partially Supported**: *Marianismo* associated with sexual risk and was moderated by familial messages about sex	Chastity moderated by both acceptance and abstinence messages
H3: Intragroup marginalization will be associated with increased sexual risk and sex communication will moderate this relationship	**Partially Supported**: Marginalization from friends associated with increased sexual risk behaviors; no moderation	
H4: Familism will be associated with more negative STI testing views and sex communication will moderate this relationship	**Partially Supported**: Familism associated with positive and negative STI testing perceptions and moderated by familial messages.	Family support moderated by gendered sex roles. Interconnectedness moderated by gendered sex role, relational, and taboo messages. Subjugation moderated by relational messages.
H5: *Marianismo* will be associated with more negative STI testing views and sex communication will moderate this relationship	**Supported**: *Marianismo* beliefs negatively associated with STI testing perceptions and moderated by familial messages	Spiritual pillar beliefs moderated by taboo messages. Silence beliefs moderated by taboo and relational messages. Subordinate beliefs moderated by relational messages.
H6: Intragroup marginalization will be associated with more negative STI testing views and sex communication will not moderate this relationship	**Partially Supported**: Intragroup marginalization associated with negative and positive STI testing perceptions and moderated by familial messages	Family marginalization moderated by acceptance and taboo messages. Friend marginalization moderated by gendered sex role and relational messages. Ethnic marginalization moderated by acceptance and relational messages.

Sexual Risk

Familism

That familism constructs were not associated with sexual risk behaviors contradicts prior studies conducted with adolescent Latinas (Guilamo- Ramos et al., 2009; Ma et al., 2014), yet is consistent with one prior study by Killoren and colleagues (2011). Two interpretations seem noteworthy: familism may be associated with specific sexual risk behaviors, rather than general sexual risk as has been noted in other studies (Guilamo- Ramos et al., 2009; Ma et al., 2014). Alternatively, familism may be a mediating factor rather than a focal predictor of sexual risk. A meta-analysis conducted by Cabral and colleagues (2023) investigated the relationship between cultural constructs and sexual risk. Half of the studies they included familism indicated that familism mediated the relationship between acculturation and sexual risk. Given these conflicting findings, prospective studies should continue to address discrepancies in the literature regarding the associations between familism and sexual risk.

Marianismo

That *marianismo* chastity beliefs were associated with sexual risk is partially congruent with prior literature in that Latinas who endorse chastity beliefs are less likely to exhibit sexual risk behaviors (Ertl et al., 2018). However, contrary to prior findings (Ertl et al., 2018; Sanchez et al., 2016), other *marianismo* components such as family pillar, subordinate, silence, and spiritual pillar beliefs were not associated with sexual risk behaviors. The discrepancies with these findings may indicate that some of the effects of *marianismo* on sexual risk may be lost through acculturative processes. Prior studies have noted that certain protective benefits are lost through acculturation in what is known as the "immigrant paradox" (Guarini et al., 2011). In border communities, the acculturative experience of Latinas may have unique implications

(Nagayama et al., 2020), which may contribute to the retention of more salient cultural influences, in this case, chastity beliefs. Future studies should continue to investigate the role of acculturation as a possible mediator of the relationship between *marianismo* and sexual risk.

Furthermore, Latinas who endorsed greater chastity beliefs were more likely to engage in sexual risk behaviors when they perceived parental messages normalizing sexual intercourse (acceptance messages), but less likely to engage in those risk behaviors when messages were centered around abstinence (abstinence messages). These associations may indicate that chastity values contribute to insufficient sexual safety information such as condom usage and condom negotiation, while acceptance messages are construed as sexual permissiveness by Latinas. Similarly, Deardorff and colleagues (2013) have found that greater virginity values were negatively associated with condom negotiation in Latinxs. Prior studies have also revealed associations between parental communication and engagement in risk behaviors (Deardorff et al., 2013; Deutsch & Crockett, 2015; Parkes et al., 2011). Perhaps ambiguous messages may contribute to interpretations of acceptance as permissiveness (Leyser-Whalen & Jenkins, 2021). Abstinence messages may be protective in that they may delay sexual intercourse for Latinas who may not have the necessary information to practice safe sex. Moreover, a parsimonious explanation for both types of messages could be that Latinas who endorse chastity beliefs are more likely to heed parental messages. These Latinas may value obedience to elders as an important component of Latinidad. One such study identified that obedience to parents was an essential value among Latina Mother-Daughter dyads who immigrated (Carranza, 2013). Prospective studies should assess whether these associations may be due to the ambiguity of messages and insufficient information about safe sex, or if these may be due to value placed on obedience.

Intragroup Marginalization

That intragroup marginalization from friends was positively associated with sexual risk behaviors is consistent with prior literature (Pahl et al., 2023; Sanchez et al., 2016). Friend support may be more influential in mitigating sexual risk than family, as is the case with depression (Kugbey et al., 2015) and addictive behaviors according to a systemic review (Bassuk et al., 2016). Possible interpretations may indicate that social rejection contributes to sexual risk (Woerner et al., 2016) in efforts to establish social relationships, or as a maladaptive coping strategy. With regard to social relationships, Latinas may impulsively seek out ways to establish intimacy due to rejection from friends; this intimacy may come in the form of impulsive sexual acts and hookups. One study found that peer rejection in childhood predicted sexual risk throughout adulthood (Lansford et al., 2014); however, Latinas were not included in this sample. Regarding maladaptive coping, socially marginalized Latinas may be more amenable to risky sexual behaviors to avoid future rejection from a romantic partner. That familial messages did not moderate this relationship may indicate that perceived marginalization may overshadow any protective aspects of familial sex messages. Prospective studies may want to address whether engagement in risk behaviors from Latinas who are marginalized by friends may be due to consciously seeking sexual intimacy or being less likely to enforce sexual boundaries as a way to avoid future rejection.

Sexual Health

Familism

Greater familistic values were associated with both positive and negative perceptions about STI testing. Specifically, familial honor was negatively associated with perceived testing benefits; family support, interconnectedness, and subjugation were negatively associated with

perceived susceptibility to STIs; and subjugation was positively associated with health motivation. Furthermore, associations with susceptibility and health motivation were moderated by familial communication about sex. These findings further highlight nuances associated with the role of familism and sexual health-seeking perceptions in Latinas.

Testing Benefits. Latinas who endorsed greater familial honor values also perceived fewer benefits associated with STI testing. Familial honor may contribute to the perception that the behaviors of an individual reflect on the family. Latinas may view fewer benefits to STI testing for fear this will reflect poorly on their family or indicate engagement in sexual promiscuity. One study found that Latinas believed their parents would view service utilization as shameful and promote future sexual engagement (Caal et al., 2013). Furthermore, Caal and colleagues (2013) also observed that Latinas may forego service-seeking to please their parents, which may reflect the absence of a moderative effect by familial messages in the present study. Assumptions of parental responses and intrinsic beliefs about the reflection of behaviors on the family may outweigh familial sex messages. Given the scarcity of literature, prospective studies should continue to assess the alignment of parental messages and intrinsic assumptions Latinas may have about parents' values regarding sexual health-seeking.

Susceptibility. Latinas who endorsed greater family support and interconnectedness values reported less susceptibility to STIs which may indicate a reliance on family support in lieu of pursuing STI testing or a false sense of safety due to relationship status. Low levels of perceived susceptibility may contribute to decreased testing (Cianelli et al., 2019; Collazos et al., 2019) which can have negative health consequences. Findings here are reflected in past studies associated with HIV in which familism was negatively associated with testing in Latinos (Ma & Malcolm, 2015; Ramirez-Ortiz et al., 2020). Latinas may rely on family support rather than

engaging in negatively perceived behaviors such as STI testing (Lamson et al., 2020). This may be especially true in border populations as there may be a strong impact of community and culture on health behaviors (Ingram et al., 2024). Alternatively, given that a significant portion of sexually active Latinas were in a monogamous relationship, they may view monogamy as protective to STI susceptibility. Latinas in monogamous relationships may not perceive themselves to be susceptible to STIs (Hickey & Cleland, 2012; Lamson et al., 2020) as they may not be engaging in "typical" risky behaviors such as having multiple sexual partners (Mclellan-Lemal et al., 2013).

Furthermore, family support and interconnectedness were moderated by familial messages regarding gendered sex roles such that Latinas perceived themselves to be more susceptible to STIs. These familism constructs may result in collectivistic values and engender a sense of social support without interfering with autonomy as may be the case with subjugation. Gendered sex-role messages may contribute to the perception that men are inherently sexually motivated and not always faithful (Mclellan-Lemal et al., 2013; Teitelman et al., 2013). Therefore, Latinas may perceive themselves to be more susceptible to STIs due to their partner's perceived promiscuity, although another qualitative study found that Latinas did not perceive themselves as susceptible to STIs (Mclellan-Lemal et al., 2013). These inconsistencies may be explained by the reliance on family support and interconnectedness while maintaining autonomy when Latinas are exposed to these messages. Carvajal et al. (2017) have assessed perceptions of adolescent and emerging adult Latinas and found family social support and autonomy to be important factors when accessing contraceptives; the same may be true here. Prospective studies should continue to assess this relationship and determine whether autonomy plays a role in perceived susceptibility to STIs.

Motivation. Latinas who endorsed greater subjugation values reported greater health motivation. Subjugation values may highlight the importance of the role one plays within the family structure. Latinas who endorse these positional beliefs may be more health motivated due to the perceived importance of their role within their familial structure. This is consistent with one prior study which observed that Latinas may be motivated to take care of their reproductive health so that they stay healthy and continue to care for their children (Mann et al., 2016). Emerging adult Latinas in college may have similar experiences in which their role within the family structure is important (Covarrubias et al., 2018), and maintaining their health may be a way to continually support family. Future studies should further assess whether the roles a Latina may have in a family may impact health motivation and whether this may extend to SRH service utilization.

Furthermore, relational messages moderated the relationship between subjugation and health motivation, such that Latinas who endorsed subjugation values and experienced greater relational messages also reported greater health motivation. Parents who communicate about the relational components of sex may also be more prone to focus on other precursors to sex such as safety. This is congruent with another study in which African American students who received more relational messages from family also demonstrated greater sexual assertiveness and condom self-efficacy (Fletcher et al., 2014). Given the similarities of Latina and African American intersectional identities (Small et al., 2023) Fletcher and colleagues' (2014) findings may also be applicable here. However, one must be cautious with overgeneralizing results as women of color may use different strategies to mitigate STIs (Cipres et al., 2017). Latinas who already benefit from subjugation values may further benefit from relational messages in that there may be an increased focus on maintaining one's health. Prospective studies should further

assess whether parents who promote relational messages also provide Latinas with safe sex information.

Marianismo

Greater *marianismo* beliefs were negatively associated with STI testing views. Specifically, endorsing chaste, subordinate, silence, and spiritual beliefs were associated with fewer perceived testing benefits. Endorsing family pillar, chastity, and spiritual pillar beliefs were associated with less perceived susceptibility. Lastly, endorsing silence beliefs were associated with decreased health motivation. Four of these relationships were moderated by familial communication.

Testing Benefits. That *marianismo* beliefs were negatively associated with testing benefits may be reflective of a lack of education on STI testing and greater perceived stigma due to the possible threat to *marianismo* ideals. This is congruent with other studies in which *marianismo* beliefs were associated with lack of knowledge about HIV (Cianelli et al., 2015), and lack of knowledge contributed to greater perceived stigma (Cianelli et al., 2015; Champion et al., 2013). Similar associations have also been found with respect to Latinas' STI knowledge and their associated risk (Cashman et al., 2011; Champion et al., 2013; Lee et al., 2015). Moreover, one prior study found that Latinas believed stigma associated with STIs may outweigh the potential benefits to testing (Balfe et al., 2010). Prospective studies should further assess whether these perceptions of testing benefits are driven by knowledge about STIs and whether this association impacts service utilization.

Furthermore, spiritual pillar beliefs were moderated by parental taboo messages in which higher levels of taboo messages were associated with fewer perceived testing benefits. Latinas who endorse spiritual pillar beliefs may lack important knowledge about STIs, and taboo

messages may intensify their inability to seek information about sexual health. This is supported by prior literature in which a lack of knowledge and communication may impact sexual health prioritization (Cashman et al., 2011). Latinas may also be hesitant to ask about sex due to implications made about their sexual activity by parents (Friedman & Bloodgood, 2010) in which parents assume Latinas are sexually active when they ask questions about sex. Prospective studies should continue to assess whether this relationship may be contingent on STI testing knowledge and an inability to acquire accurate sexual health information.

   Susceptibility. Endorsing family pillar, chaste, and spiritual pillar beliefs were all associated with decreased perceived susceptibility to STIs. These beliefs are similar in that they may set internal standards for what Latinas should strive for, while subordinate and silence beliefs are more focused on Latinas in relation to others. That these Latinas perceived less susceptibility to STIs indicates three possible interpretations regarding sexual behaviors and self-perceptions. First, Latinas endorsing these *marianismo* beliefs may not be engaging in behaviors that may put them at risk for STIs, which is partially consistent with previous literature. A recent study identified that Latinas endorsing chaste beliefs were more likely to practice abstinence; however, when they did engage in intercourse, these beliefs were a risk factor for decreased STI testing (Ertl & Fresquez, 2023). In this study spiritual pillar beliefs were not protective for sexual risk or STI testing which lends itself to the second possible interpretation. Latinas endorsing these beliefs may perceive a false sense of safety due to nonengagement in "typical" risk behaviors. Prior literature has investigated perceptions of risk for STIs/HIV, and women may exclude themselves from those at high risk (Balfe et al., 2010; Mclellan-Lemal et al., 2013), as high-risk behaviors may be perceived to include having multiple partners or engaging in promiscuity rather than intercourse in monogamous relationships (Balfe et al., 2010; Gravningen

et al., 2015; Wong et al., 2012). Although, according to a literature review, monogamy may not be as preventative to STIs as once thought (Conley et al., 2015). Lastly, Latinas endorsing these *marianismo* beliefs may also view STI testing as a behavior only engaged in by women who do not follow these ideals. STI testing may have detrimental effects as these behaviors may threaten the self-perception of being "good" women (Balfe et al 2010; Wong et al., 2012), and to a further extent *marianismo* beliefs of how Latinas should portray themselves. Prospective studies should assess whether lower perceptions of STI susceptibility may be due to a perceived lack of sexual risk-taking which would require testing or if STI susceptibility may be associated with negative self-perceptions.

Motivation. That silence beliefs were associated with decreased health motivation further supports the interpretation that Latinas endorsing silence beliefs may take a more passive approach to health. Baeza and colleagues (2022) have stipulated that silence associated with *marianismo* may stem from a place of selflessness. Furthermore, relational messages moderated this association such that there was an increase in health motivation. Latinas who receive relational messages may also be more likely to receive other precursory information about safe sex which may engender ways to take care of their partner. One study found that women may view getting tested as a way to ensure that their partner is clear of STIs, specifically when women were unable to ask their partners to get tested or a partner was unwilling to test for STIs (Oliffe et al.,2013). Prospective studies should continue to assess whether relational messages may restructure *marianismo* beliefs to serve as a protective factor for health motivation by addressing their partner's sexual health status in a covert manner.

Intragroup Marginalization

Greater perceived intragroup marginalization was associated with both negative and positive perceptions about STI testing. Specifically, family marginalization was positively associated with test benefits; generally, intragroup marginalization was positively associated with barriers. Friend marginalization was positively associated with susceptibility, and family marginalization was positively associated with seriousness. Furthermore, family communication moderated associations with test benefits, barriers, and health motivation. These findings further highlight nuances in how marginalization may serve as both protective and risk factors to STI testing perceptions.

Testing Benefits. Latinas who perceived greater marginalization from family also perceived greater benefits to STI testing. This lends itself to the possible interpretation that Latinas who are marginalized by family may be more autonomous and therefore more likely to rely on their own self-efficacy in obtaining information for health-related concerns. One such study found that emerging adults from marginalized populations may obtain health information to combat perceptions of being "at-risk" and challenge cultural negativity and/or discrimination (Schmitz et al., 2018). Similarly, Latinas may have to navigate gendered racism due to the intersection of their identities (Barcelos, 2017; Rosenthal & Lobel, 2018) in which assumptions may be made about their sexual activities (Lightfoot et al., 2017). Latinas may be viewed as overly sexual and promiscuous when attempting to navigate sexual healthcare systems. Experiences of family marginalization may instill a sense of resilience in which, despite these challenges, they view advocating for their sexual wellness as beneficial.

Furthermore, when Latinas expressed greater marginalization from family and greater messages normalizing sex (acceptance messages), they reported more STI testing benefits. This further supports the notion that Latinas may rely on their own self-efficacy in the absence of

familial cohesion. This normalization of sex may contribute to decreased stigma associated with engaging in sexual health behaviors. Moreover, there may be greater perceived testing benefits when sex is less stigmatized, as a prior study found stigma to affect STI testing intentions through self-efficacy (Thomas et al., 2020). Prospective studies should assess whether acceptance messages may contribute to a decreased sense of perceived stigma and whether this association may contribute to increased service utilization.

Barriers. Friend and ethnic marginalization were associated with greater perceived barriers to STI testing. Marginalization from these more distal relations may result in perceived judgment from others (Hall et al., 2018). This fear of judgment may extend to anticipated judgment from healthcare professionals as an additional barrier to testing.

Furthermore, gendered sex roles and relational messages contributed to greater perceived barriers to STI testing when Latinas felt marginalized by friends and their ethnic groups. These messages may portray women as less sex driven and only sexually active within serious relationships (Oliffe et al., 2013). Obtaining STI testing may contradict these perceptions in which case Latinas may be viewed as overly sex driven and further stigmatized. Moreover, those who test positive for an STI may also perceive judgment from others about their sexual health behaviors (Oliffe et al., 2013). However, Latinas who are marginalized but experience more acceptance messages perceived fewer barriers to STI testing. Normalizing sexual messages may mitigate perceived judgment by others such that STI testing is viewed as a positive health behavior that others may engage in (Balfe et al., 2010; Hogan et al., 2010).

Seriousness. Intragroup marginalization from family was associated with a greater perceived seriousness of contracting an STI which could indicate that infection may have greater perceived negative consequences. Contracting an STI may be viewed as engaging in socially

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undesirable activities and contributing to further marginalization (Levinson et al., 2017; Siddiqui et al., 2016). Although intragroup marginalization may stem from perceived incongruencies between cultural values and the expectations of college (Castillo et al., 2008), Latinas may still value parental perceptions of sexual health (Caal et al., 2013). There may be a fear of further marginalization and the impact an STI diagnosis may have on family interconnectedness. The literature has demonstrated that social connections are important to Latinas (Castillo et al., 2007; Llamas et al., 2018) and sexual health problems may jeopardize those already fragile relationships. Another possibility is that when marginalized by family, Latinas may be more prone to relying on their own self-efficacy to prevent STIs. This inability to rely on family may contribute to the perception that the responsibility of a negative outcome is to be dealt with independently and hence, be a more serious issue.

Susceptibility. Intragroup marginalization from friends was associated with greater perceived susceptibility to STIs. This may further indicate that Latinas may be engaging in sexual risk behaviors to establish social connections (Woerner et al., 2016) and support, in which case there may be a real and present risk of contracting an STI. Alternatively, as marginalization from friends may be attributed to negative perceptions of assimilation to college culture, college-going Latinas may perceive greater marginalization from friends as they become more educated. Moreover, given the high rates of STI contraction in the border region (Border Report Section 5, 2018), educated Latinas in college may have greater awareness regarding one's susceptibility to infection. Further in-depth studies should continue to assess this association to determine whether perceived susceptibility to STIs may stem from engagement in sexual risk behaviors or from being more informed as a college student.

Limitations and Strengths

The present study contains four notable limitations. First, the current study utilized cross-sectional data which limits causal inferences about Latina sexual behaviors indicating that future longitudinal studies are required to assess temporality among constructs. Secondly, the present study utilized an adapted STI testing perception measure which has not been previously validated and did not assess sexual health service utilization. This indicates that results should be interpreted with caution. Thirdly, the motivation subscale assessed general health motivation rather than STI testing motivation, again suggesting caution in interpreting the results. Lastly, although the measurements used were chosen for their emphasis on the Latina experience, intersectionality could have been better captured by the inclusion of other factors such as generational status and the role one plays within the family.

Despite these limitations, this study has three noteworthy strengths. First, an intersectionality framework allowed for the contextualization of cultural values and familial messages to enrich understanding of Latina sexual behaviors. Secondly, the current study contributes to the limited numbers of quantitative studies focused on sexual health seeking and perceptions. Lastly, this study contributes significantly to literature on intragroup marginalization which is a relatively novel form of discrimination and has yet to be assessed with sexual health perceptions.

Clinical Implications and Future Directions

The findings of this study regarding the relationships between cultural constructs and sexual behaviors of Latinas are nuanced. That cultural constructs may be both protective and risk factors for Latinas' engagement in sexual risk behaviors and contribute to negative STI testing views warrants prevention and intervention efforts geared at ameliorating deleterious sexual

behaviors. Latinas have been noted to exhibit greater sexual risk behaviors compared to their white counterparts (Cipres et al., 2017; Galloway, 2017) and report lower SRH service utilization (Makrides et al., 2023). Cognitive behavioral therapy targeting sexual self-consciousness may help foster healthy boundary skills and assertiveness to mitigate sexual risk behaviors in Latinas. Additionally, Latinas may also benefit from continuous sexual education and promotion of self-efficacy skills for SRH treatment seeking. One study has found an association between comprehensive sexual education and self-efficacy regarding condom use and partner communication in Mexican adolescents (de Castro et al., 2018) which bolsters confidence in using similar interventions on the U.S./Mexico border. Lastly, given that familial sex messages may serve as both risk and protective factors, Latinx families may benefit from personalized and culturally sensitive family communication training to promote safe sex practices and utilize their cultural values as strengths.

Prospective studies are warranted to assess the temporality of the observed associations, as familial messages may change contingent upon perceived Latina sexual activity by parents. Moreover, given the present findings on sexual risk, future studies may want to further assess the moderation of chastity beliefs by familial messages. Furthermore, prospective studies are warranted to assess the effects of these constructs on SRH service utilization and health-seeking behaviors in Latinas given the scarcity of literature regarding these topics. Investigation of these topics in border communities is essential given the uniqueness of how salient cultural constructs may be in these culturally rich communities compared to more acculturated locations. As more contributions are made to the literature concerning SRH utilization among Latinas, future studies may concentrate on interventions that promote service utilization for this underserved population.

Conclusions

The present study assessed how family communication about sex may moderate the relationships between cultural constructs (e.g., familism, *marianismo*, intragroup marginalization) and sex-related behaviors (e.g., risk, health-seeking perceptions) in Latinas attending college within a border community. This study utilized an intersectionality framework in which the Latina experience was captured with the inclusion of variables addressing the importance of family, roles of women, and experiences of social marginalization due to education attainment. Multiple hierarchical negative binomial regressions and hierarchical regressions were conducted to test these associations and identified nuanced relationships between family communication and cultural constructs on the sexual behaviors of Latinas. Specifically, *marianismo* chastity beliefs were generally protective, but friend marginalization was a risk factor for deleterious sexual behaviors. That familism was not associated with sexual risk is incongruent with prior literature which may indicate that these relationships may operate differently in culturally diverse environments. Furthermore, familism, *marianismo*, and intragroup marginalization were associated with more negative perceptions of STI testing; although, marginalization was also associated with positive perceptions. Many of these relationships were moderated by different familial sex messages which engender future empirical research. Prospective studies should further investigate these relationships and assess temporality as well as the possible association these constructs may have with service utilization. Clinically, Latinas may benefit from fostering healthy boundary skills and self-efficacy to mitigate sexual risk and promote STI treatment seeking. Furthermore, families may benefit from communication training contingent on cultural values to promote overall sexual health.

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Appendix

Appendix A: Sociodemographic Survey
1. What is your biological sex?
   - o Male
   - o Female
   - o Intersex

2. What is your gender?
   - o Man
   - o Woman

   - o Gender Fluid
   - o Non-Binary
   - o Other (please specify):

3. Are you transgender?
   - o Yes
   - o No
   - o Prefer not to say

4. What is your age? ___

5. What is your race?
   - o Asian or Pacific Islander
   - o White
   - o Black/African American
   - o American Indian/Native American or Alaska Native
   - o Native Hawaiian
   - o Other (please specify):

6. What is your ethnicity?

   - o Hispanic or Latino
   - o Not Hispanic or Latino

7. What is your household income?
   - o Less than $10,000
   - o $10,000 - $19,999
   - o $20,000 - $29,999
   - o $30,000 - $39,999
   - o $40,000 - $49,999
   - o $50,000 - $59,999
   - o $60,000 - $69,999
   - o $70,000 - $79,999

- $80,000 - $89,999
- $90,000 - $99,999
- $100,000 - $149,999
- More than $150,000

8. How many people live in your current household (including yourself)? ___

9. My household consists of (Select all that apply):
- Great grandparents
- Grandparents
- Mother and/or father
- Siblings
- Mother and/or father in-law
- Brother and/or sister in-laws
- Daughter and/or son
- Cousins
- Niece and/or nephew
- Grandchildren
- God children
- Uncles or aunts
- Son and/or daughter in-laws
- Guardian
- Step-parents
- Step Siblings

10. Do you speak more than one language?
- Yes
- No

11. What was the first language you spoke?
- English
- Spanish
- Other (Please specify)

12. Do you still live at home or with your parent(s) or legal guardian(s)?
- Yes
- No

13. What is the highest level of education obtained by your father?
- Less than high school
- High School Diploma
- Some College
- 2 Year College
- 4 Year College
- Graduate School

14. What is the highest level of education obtained by your mother?
o   Less than high school
o   High School
o   Some College
o   2 Year College
o   4 Year College
o   Graduate School

15. What is the primary language spoken at home?
o   English
o   Spanish
o   Other, please specify

16. What is your sexual orientation?
o   Heterosexual
o   Bisexual
o   Gay
o   Lesbian
o   Asexual
o   Pansexual

17. What describes your current romantic relationship?
o   Single
o   Dating
o   In a Committed relationship
o   Engaged
o   Married
o   Open-Relationship
o   Other, please specify:

18. How long have you been in this relationship for? (In Months) ___

19. Have you ever received Mental Health Services?
o   Yes
o   No

19b. If yes, what conditions were you treated for?
o   Substance Abuse
o   Depression
o   Anxiety
o   Post-Traumatic Stress Disorder
o   Schizophrenia
o   Other, please specify:

20. Are you currently employed?

- o Employed full time
- o Employed part time
- o Unemployed looking for work
- o Unemployed not looking for work

21. What is your current GPA (on a 4.0 scale) ___

22. What country do you live in?
- o United States
- o Mexico

23. Where were you born?

o United States	o Guatemala
o Argentina	o Honduras
o Bolivia	o Mexico
o Brazil	o Nicaragua
o Chile	o Panama
o Colombia	o Paraguay
o Costa Rica	o Peru
o Cuba	o Puerto Rico
o Dominican Republic	o Uruguay
o Ecuador	o Venezuela
o El Salvador	o Other (specify) _____

24. What country/place/nationality do you identify with the most? (Check all that apply)

o United States	o Guatemala
o Argentina	o Honduras
o Bolivia	o Mexico
o Brazil	o Nicaragua
o Chile	o Panama
o Colombia	o Paraguay
o Costa Rica	o Peru
o Cuba	o Puerto Rico
o Dominican Republic	o Uruguay
o Ecuador	o Venezuela
o El Salvador	o Other (specify) _____

25. Which generation applies to you?
- o 1st generation = you were born in another country (Specify)
- o 2nd generation = you were born in the USA either parent was born in another country
- o 3rd generation = You were born in the USA, both parents were born in the USA, and all grandparents were born in another country
- o 4th generation = you and your parents were born in the USA and at least one grandparent born in another country with the remaining born in the USA

- 5th generation = you and your parents born in the USA and all grandparents born in the USA

26. Please recall whether there was ever a time that you did any of the following (select all that apply):

- Kissing
- Fondling over clothes or dry humping
- Fingering or genital rubbing
- Oral sex
- Vaginal penetrative sex,
- Anal penetrative sex
- None of the above

27. In the past year, how many partners have you had intercourse with?

- Drop down option 1-49
- 50 or more

28. Are you currently in a sexual relationship?

- Yes
- No

29. Over the past 6 months, how many times have you had vaginal penetrative sex?

30. Over the past 6 months, how many times have you had anal penetrative sex?

31. Over the past 6 months, how many times have you had oral sex?

32. Over the past 6 months, how many times have you been intimate with another person without having penetrative sex?

Appendix B: Attitudinal Familism Scale

Answer each of the following on a Likert Scale**:**
·   Strongly disagree (1) to Strongly agree (10)

1. Children should always help their parents with the support of younger brothers and sisters, for example, help them with homework, help the parents take care of the children, and so forth.

2. The family should control the behavior of children younger than 18.

3. A person should cherish the time spent with his or her relatives.

4. A person should live near his or her parents and spend time with them on a regular basis.

5. A person should always support members of the extended family, for example, aunts, uncles, and in-laws, if they are in need even if it is a big sacrifice.

6. A person should rely on his or her family if the need arises.

7. A person should feel ashamed if something he or she does dishonors the family name.

8. Children should help out around the house without expecting an allowance.

9. Parents and grandparents should be treated with great respect regardless of their differences in views.

10. A person should often do activities with his or her immediate and extended families, for example, eat meals, play games, or go somewhere together.

11. Aging parents should live with their relatives.

12. A person should always be expected to defend his/her family's honor no matter what the cost.

13. Children younger than 18 should give almost all their earnings to their parents.

14. Children should live with their parents until they get married.

15. Children should obey their parents without question even if they believe they are wrong.

16. A person should help his or her elderly parents in times of need, for example, helping financially or sharing a house.

17. A person should be a good person for the sake of his or her family.

18. A person should respect his or her older brothers and sisters regardless of their differences in views.

Appendix C: Marianismo Beliefs Scale

Answer the following questions on a 4-point Likert scale ranging from (1) strongly disagree to (4) strongly agree.

Family pillar

1. A source of strength for her family
2. Considered the main source of strength of her family
3. Keep the family unified.
4. Teach their children to be loyal to the family
5. Do things that make my family happy.

Virtuous and chaste

6. Remain(ed) a virgin until marriage.
7. Wait until after marriage to have children.
8. Be pure.
9. Adopt the values taught by her religion.
10. Be faithful to her partner

Subordinate to others

11. Satisfy her partner's sexual needs without argument.
12. Not to speak out against men.
13. Respect men's opinions even when she does not agree.
14. Avoid saying no to people
15. Do anything a male in the family asks her to do.

Silencing self to maintain harmony

16. Not discuss birth control.
17. Not express her needs to her partner.
18. Feel guilty about telling people what she needs.
19. Not talk about sex.
20. Be forgiving in all aspects.
21. Always be agreeable to men's decisions.

Spiritual pillar

22. The spiritual leader of the family.
23. Responsible for taking family to religious services.
24. Responsible for the spiritual growth of the family.

Appendix D: Intragroup Marginalization Inventory

Family Scale

For each of the following, indicate the extent to which you experience the situation with members of your family.

Use the Following Rating:

Never/ Does not Apply Extremely Often 1 2 3 4 5 6 7

1. My family has a hard time accepting my new values.

2. My family wants me to act the way I used to act.

3. My family has a hard time understanding why I do not take part in some of my ethnic group's cultural practices.

4. My family has the same hopes and dreams about my future as me.

5. My family is accepting of my work/career goals.

6. My success in work/school has made my family closer to me.

7. Family members tease me because I don't know how to speak my ethnic group's language.

8. Family members tell me that I "act White."

9. Family members tell me that I have too many White friends.

10. Family members criticize me because I don't speak my ethnic group's language well.

11. Family members tell me that I am "brown on the outside but white on the inside."

12. Family members laugh at me when I try to speak my ethnic group's language.

Friends Scale

For each of the following items, indicate the extent to which you experience the situation with friends of your ethnic group.

Use the Following Rating:

Never/ Does not Apply Extremely Often 1 2 3 4 5 6 7

1. Friends of my ethnic group have a hard time accepting my new values.

2. Friends of my ethnic group want me to act the way I used to act.

3. Friends of my ethnic group have a hard time understanding the pressures of my work/school.

4. Friends of my ethnic group have the same hopes and dreams as me.

5. Friends of my ethnic group are accepting of my work/career goals.

6. My success in work/school has made friends of my ethnic group closer to me.

7. Friends of my ethnic group tease me because I don't know how to speak my ethnic group's language.

8. Friends of my ethnic group tell me that I put work/school ahead of family.

9. Friends of my ethnic group tell me that I am a "sellout."

10. Friends of my ethnic group tell me that I have too many White friends.

11. Friends of my ethnic group have a hard time accepting why I don't act the way I used to.

12. Friends of my ethnic group laugh at me when I try to speak my ethnic group's language.

13. Friends of my ethnic group tell me that my skin is too white to be a member of my ethnic group.

14. Friends of my ethnic group tell me that I am "brown on the outside but white on the inside."

15. Friends of my ethnic group tell me that I am not really a member of my ethnic group because I don't act like my ethnic group.

16. Friends of my ethnic group tell me that I am not really a member of my ethnic group because I don't look like my ethnic group.

17. Friends of my ethnic group criticize me because I don't speak my ethnic group's language well.

Ethnic Group Scale

For each of the following items, indicate the extent to which you experience the situations with people of your ethnic group other than friends or family members.

Use the Following Rating:

Never/ Does not Apply Extremely Often 1 2 3 4 5 6 7

1. People of my ethnic group criticize me because I don't speak my ethnic group's language well.

2. People of my ethnic group have the same hopes and dreams as me.

3. People of my ethnic group are accepting of my work/career goals.

4. My success in work/school has made people of my ethnic group closer to me.

5. People of my ethnic group say that I have changed.

6. People of my ethnic group are not as close to me as they used to be because of my work/school achievements.

7. People of my ethnic group tease me because I don't know how to speak my ethnic group's language.

8. People of my ethnic group tell me that I need to act more like them.

9. People of my ethnic group tell me that I am a "sellout."

10. People of my ethnic group tell me that I have too many White friends.

11. People of my ethnic group laugh at me when I try to speak my ethnic group's language.

12. People of my ethnic group tell me that I am not really a member of my ethnic group because I don't act like my ethnic group.

13. People of my ethnic group want me to act the way I used to act.

Appendix E: Family Sex Communication Quotient

The following statements represent personal feelings about family discussions of sex. Please select one of the five response categories that best describes your opinion: SA = Strongly Agree, A = Agree, N = Neutral (or Don't Know), D = Disagree, SD = Strongly Disagree. Also, please answer these questions regardless of whether you have ever talked about sex with your parents. Don't spend much time on any one question; make a choice and move to the next. Don't ask others how they are answering their questions, or how they think you should answer yours.

1. Sex should be one of the most important topics for parents and children to discuss.

2. I can talk to my parents about almost anything related to sex.

3. My parents know what I think about sex.

4. It is not necessary to talk to my parents about sex.

5. I can talk openly and honestly with my parents about sex.

6. I know what my parents think about sex.

7. The home should be a primary place for learning about sex.

8. I feel comfortable discussing sex with my parents.

9. My parents have given me very little information about sex.

10. Sex is too personal a topic to discuss with my parents.

11. My parents feel comfortable discussing sex with me.

12. Much of what I know about sex has come from family discussions.

13. Sex should not be discussed in the family unless there is a problem to resolve.

14. Sex is too hard a topic to discuss with my parents.

15. I feel better informed about sex if I talk to my parents.

16. The least important thing to discuss with my parents is sex.

17. I feel free to ask my parents questions about sex.

18. When I want to know something about sex, I generally ask my parents.

Appendix F: Child and Adolescent Sexual Messages Scale

Indicate how frequently parents conveyed each message on a 4-point scale ranging from 0 (never) to 3 (a lot).

1. Men want sex all the time.
2. It's difficult for men to resist their sexual urges.
3. Men want as much as they can get on the first date.
4. To catch a man, a woman should play "hard to get."
5. Men want sex; women want relationships.
6. Men are most interested in women as potential sex partners.
7. It is up to women to limit the sexual advances of men and to keep men from going "too far."
8. In dating, the goal for men is "to score" with as many women as they can.
9. It is better for a woman to use her "feminine charm" to indicate her interest.
10. It is worse for a woman to sleep around than it is for a man.
11. Men lose respect for women who sleep with them too early in a relationship.
12. Men should be the initiators of romantic relationships.
13. Sex outside of marriage is a sin.
14. Sex belongs in married relationships only.
15. A woman should not live with a man outside of marriage.
16. People who have premarital sexual relations bring shame to the family name.
17. The primary goal of sexual intercourse is to have children.
18. People who have sex before marriage typically regret it later.
19. You should abstain from sex until marriage to avoid getting or getting someone pregnant.
20. Sex should be a deep and beautiful expression of love between two people.
21. Making love is different from having sex.
22. Partners should be emotionally intimate before they are physically intimate.
23. Having sex is serious and should not be taken lightly. It comes with a lot of responsibilities.
24. Sex is best when the partners are in a loving and committed relationship.
25. Being sexual is a natural part of being human.
26. When it comes to sex, people should follow the "don't ask/don't tell" policy.
27. Sex is a private matter and should not be discussed in public.
28. Sex is a taboo topic and should not be talked about with others.
29. It is not appropriate for women to be too interested in sex or to plan for sex.
30. Physical affection between two people should not be displayed in public.
31. Having sex should be viewed as a normal part of dating relationships.
32. Women have just as many sexual desires as men.
33. Premarital sex is perfectly fine as long as "protection" is used to prevent STDs and pregnancy.
34. No sexual act is immoral as long as both parties are consenting adults.
35. College is a time for sexual exploration.
36. It is better for men and women to have diverse sexual experiences before they are married.

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Appendix G: Sexual Risk Survey

Instructions: Please read the following statements and record the number that is true for you over the past 6 months for each question on the blank. If you do not know for sure how many times a behavior took place, try to estimate the number as close as you can. Thinking about the average number of times the behavior happened per week or per month might make it easier to estimate an accurate number, especially if the behavior happened fairly regularly. If you've had multiple partners, try to think about how long you were with each partner, the number of sexual encounters you had with each, and try to get an accurate estimate of the total number of each behavior. If the question does not apply to you or you have never engaged in the behavior in the question, put a ''0'' on the blank. Please do not leave items blank. Remember that in the following questions ''sex'' includes oral, anal, and vaginal sex and that ''sexual behavior'' includes passionate kissing, making out, fondling, petting, oral-to-anal stimulation, and hand-to-genital stimulation. Refer to the Glossary for any words you are not sure about. Please consider only the last 6 months when answering and please be honest.

In the past six months:

1. How many partners have you engaged in sexual behavior with but not had sex with?

2. How many times have you left a social event with someone you just met?

3. How many times have you ''hooked up'' but not had sex with someone you didn't know or didn't know well?

4. How many times have you gone out to bars/parties/social events with the intent of ''hooking up'' and engaging in sexual behavior but not having sex with someone?

5. How many times have you gone out to bars/parties/ social events with the intent of ''hooking up'' and having sex with someone?

6. How many times have you had an unexpected and unanticipated sexual experience?

7. How many times have you had a sexual encounter you engaged in willingly but later regretted?

For the next set of questions, follow the same direction as before. However, for questions 8–23, if you have never had sex (oral, anal or vaginal), please put a ''0'' on each blank.

8. How many partners have you had sex with?

9. How many times have you had vaginal intercourse without a latex or polyurethane condom? Note: Include times when you have used a lambskin or membrane condom.

10. How many times have you had vaginal intercourse without protection against pregnancy?

11. How many times have you given or received fellatio (oral sex on a man) without a condom?

12. How many times have you given or received cunnilingus (oral sex on a woman) without a dental dam or ''adequate protection'' (please see definition of dental dam for what is considered adequate protection)?

13. How many times have you had anal sex without a condom?

14. How many times have you or your partner engaged in anal penetration by a hand (''fisting'') or other object without a latex glove or condom followed by unprotected anal sex?

15. How many times have you given or received analingus (oral stimulation of the anal region, ''rimming'') without a dental dam or ''adequate protection''(please see definition of dental dam for what is considered adequate protection)?

16. How many people have you had sex with that you know but are not involved in any sort of relationship with (i.e., ''friends with benefits'', ''fuck buddies'')?

17. How many times have you had sex with someone you don't know well or just met?

18. How many times have you or your partner used alcohol or drugs before or during sex?

19. How many times have you had sex with a new partner before discussing sexual history, IV drug use, disease status and other current sexual partners?

20. How many times (that you know of) have you had sex with someone who has had many sexual partners?

21. How many partners (that you know of) have you had sex with who had been sexually active before you were with them but had not been tested for STIs/HIV?

22. How many partners have you had sex with that you didn't trust?

23. How many times (that you know of) have you had sex with someone who was also engaging in sex with others during the same time period?

Appendix H: Health Belief Model on STI Testing
Likert-type response choices: strongly disagree (scores 1 point), disagree (scores 2 point), neutral (scores 3 point), agree (scores 4 point) and strongly agree (scores 5 points). Higher scores indicate stronger feelings about that construct

1. It is likely that I will get an STI in the future
2. My chances of getting STIs in the next few years are high
3. I feel I will get an STI some time during my life
4. The thought of STIs scares me
5. When I think about STIs, my heart beats faster
6. I am afraid to think about STIs
7. Problems I would experience with STIs would last a long time
8. STIs would threaten a relationship with my boyfriend, husband, or partner
9. If I had STIs my whole life would change
10. If I developed an STI, I would have to take medication for a long time*
11. I want to discover health problems early
12. Maintaining good health is extremely important to me
13. I look for new information to improve my health
14. I feel it is important to carry out activities which will improve my health
15. I eat well balanced meals for my health
16. I exercise at least 3 times a week for my health
17. I have regular health check-ups even when I am not sick
18. If I have a sexually transmitted infection (STI) test regularly and the result is good, I don't need to worry too much about infections
19. Having regular STI Tests will help to find changes to the cervix, before they get worse
20. If an STI was found at a routine STI Test its treatment would not be so bad
21. I think that having a regular STI Test is the best way for STIs to be diagnosed early
22. Having regular STI Tests will decrease my chances of getting an STI (e.g., HPV, HIV, chlamydia)*
23. I am afraid to have an STI Test for fear of a bad result
24. I am afraid to have an STI Test because I don't know what will happen what will happen
25. I don't know where to go for an STI Test
26. I would be ashamed to lie on a gynaecologic examination table and show my private parts to have an STI Test
27. Having an STI Test takes too much time
28. Having an STI Test is too painful
29. Health professionals doing STI Test are rude to women
30. I neglect or cannot remember to have a STI Test regularly
31. I have other problems more important than having a STI Test in my life
32. I don't have sex enough to get an STI Test regularly *
33. There is no health center close to my house to have a STI Test
34. If developing an STI is in my destiny, having an STI Test cannot prevent it
35. I prefer a female doctor to conduct an STI Test
36. I will never have an STI Test if I have to pay for it

Vita

Ariana Cervantes-Borges was born and raised in southern California by her parents and grandmother. She is the eldest of four siblings, Noemi, Felin, Jasmine, and Joseph. She married her husband Brandon before enlisting in the U.S. Army. While in the Army she received Achievement Awards and recognition for her service. Ariana then graduated from Riverside City College and cum laude from the University of California, Riverside with an Associate's degree in Social Sciences and Behavioral Studies and a Bachelor's degree in Psycholog. Subsequently, Ariana went on to obtain a Master's degree in School Counseling from the University of Redlands where she worked under the mentorship of professors Dr. Tamara Tribbit and Dr. Janee Both Gragg. Here she learned the importance of service and social justice which encouraged her to pursue a doctorate degree. Shortly after having her second child, Ariana enrolled at the University of Texas at El Paso in 2021 where she currently works under the mentorship of Dr. Theodore V. Cooper in the Prevention and Treatment in Clinical Health Laboratory. Ariana's research focuses on sexual risk and health behaviors within the Latina community. She currently has multiple manuscripts in preparation, including a scale that she hopes to publish. After graduating with her Ph.D., Ariana hopes to pursue a teaching position at a small liberal arts college where she can focus on teaching and conducting research for a non-profit to promote sexual health in underserved Latino communities.

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This thesis was typed out by Ariana Cervantes-Borges