Ethnic Identity as a Moderator for Perceived Access to Healthcare Among LMSM

by

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ABSTRACT

The Centers for Disease Control and Prevention (2017) note that gay, bisexual, and other men who have sex with men (collectively referred to as MSM) face more barriers to accessing health care compared to other men. Such barriers include, lack of cultural- and sexual identity-appropriate medical and support services, concerns about confidentiality, and fear of discussing sexual practices or orientation in a medical setting. In comparison to other MSM populations, Latino MSM (LMSM) report having the least amount of access to health care (McKirnan et al., 2012). The purpose of the present study is to elucidate how individual- (i.e., age, education level, and income level), community- (i.e., social support and neighborhood collective efficacy), and sociocultural-level factors (i.e., immigration status, heterosexual self-presentation, sexual identity commitment, sexual identity exploration, and ethnic identity affirmation and belonging) may relate with perceived access to healthcare. It is hypothesized that ethnic identity affirmation and belonging will moderate relations between the aforementioned predictors and perceived access to health care based on increasing evidence that ethnic identity, or one's sense of affirmation and belonging to one's ethnic group, may be a health protective factor. Among a sample of 469 LMSM, this study found that there were several predictors across all three levels (i.e., individual, community, and sociocultural) of perceived access to healthcare. Additionally, data supported evidence that ethnic identity affirmation and belonging (Phinney, 2003) acts as a moderator of other predictors of perceived access to healthcare in this sample. These findings can inform outreach interventions of researchers and healthcare providers about psychosocial and cultural barriers and facilitators of access to healthcare.

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CHAPTER 1

INTRODUCTION

Gay, bisexual, and other men who have sex with men (collectively referred to as MSM) face more barriers to accessing healthcare compared to other men. Such barriers include (a) systemic homophobia, stigma, discrimination, (b) a lack of cultural- and sexual identity-appropriate medical and support services, (c) concerns about confidentiality, (d) fear of losing employment over disclosed sexual identity, and (e) discomfort over discussing sexual practices or orientation in a medical setting (Centers for Disease Control and Prevention [CDC], 2017). This disparity in healthcare access is particularly concerning given that MSM have a greater need for medical services than non-MSM due to disproportionately high engagement in adverse health risk behaviors, including illicit drug use (Trocki, Drabble, Midanik, & Trocki, 2009; Zaller et al., 2017), smoking (McKirnan et al., 2006), and alcohol use (Drabble, Midanik, & Trocki, 2005). MSM are also more likely than heterosexual men to report body dissatisfaction and anorexic and bulimic symptoms (Russell & Keel, 2002). MSM also more frequently suffer from panic attacks, depression, and other mental health disorders that could be treated if they are able to access adequate health care (Cochran, Sullivan, & Mays, 2003; Herek & Garnets, 2007). Finally, MSM are more likely than non-MSM to report recent suicidal ideation and attempts (Cochran & Mays, 2000; Cochran et al., 2007).

In addition to the aforementioned health conditions, low healthcare access has particular implications for treatment and transmission of HIV and other sexually transmitted infections (STIs) and the prevention and treatment of substance abuse and mental illness. HIV and other STIs are health disparities particularly affecting Latino men

who have sex with other men (LMSM) more than the general population of MSM. HIV/AIDS is the seventh leading cause of death among all Latino men in the U.S. ages 20-34 (CDC, 2016). This statistic is driven by how the HIV epidemic specifically continues to disproportionately affect LMSM. 90% of all new HIV infections in 2016 were accounted for by Latino men – of those, 88% were among Latino gay and bisexual men (CDC, 2016). HIV diagnoses among LMSM increased 13% between 2011 and 2015 (CDC, 2016). LMSM also accounted for the second-highest number of HIV diagnoses (7,689; 29%) among all MSM in 2016, after African American MSM (10,226; 38%). Overall, LMSM comprise a disproportionate 24% of all MSM with HIV. LMSM who lack healthcare access are likely to be unaware of their infection status, which increases the likelihood of transmitting HIV to others. The number of LMSM who are unaware of their HIV-positive status could help explain the persistently high and continually rising prevalence of HIV among LMSM (CDC, 2016; Lechuga, Owczarzak, & Petroll, 2013). Additionally, research on the HIV care continuum has found that LMSM who are aware of their HIV-positive status are less likely than white/non-Latino to receive healthcare within 1 month of HIV diagnosis, and only 58.4% of LMSM with HIV are retained in HIV treatment for 3 months or longer (CDC, 2017).

What compounds the aforementioned health disparities among LMSM in particular is that Latino men who have sex with men have reported having the least amount of access to healthcare in comparison to all other ethnic/racial groups of MSM – including White/non-Latino, Asian American, and African American MSM (McKirnan et al., 2012). Thus, the purpose of the present study is to elucidate potential determinants of perceived access to health healthcare among LMSM. To achieve this, the present study

will examine how hypothesized individual- (i.e., age, education level, and income level), community- (i.e., social support and neighborhood collective efficacy), and sociocultural-level factors (i.e., ethnic identity affirmation and belonging, heterosexual self-presentation, sexual identity development status, and immigration status) may relate with perceived access to healthcare. I hypothesize that ethnic identity affirmation and belonging would moderate relations between the aforementioned individual, community, and sociocultural factors and perceived access to healthcare based on increasing evidence that ethnic identity (one's sense of belonging and commitment to one's ethnic group; Phinney, 2003) may be a health protective factor (Umaña-Taylor & Updegraff, 2007; Santos & VanDaalen, 2016). Findings are expected to inform outreach interventions of researchers and healthcare providers about psychosocial and cultural barriers and facilitators of access to healthcare in LMSM populations.

Potential Determinants of Perceived Access to Healthcare Among LMSM

Healthcare access is defined as the degree to which people are able to obtain appropriate care from the healthcare system in a timely manner (World Health Organization, 2013). Perceived access to healthcare is the level to which individuals believe they are able to utilize healthcare services without encountering too many problems or barriers (Cunningham et al., 1999). The current study derives the designation of potential determinants of perceived access to healthcare to three categories (individual, community and sociocultural-level determinants) by utilizing the sixth revision of the behavioral health conceptual framework theorized by Andersen, Davidsen and Baumeister (2013). This framework focuses on developing access to care by improving

the contextual and individual determinants affecting an individual's ability to utilize health services and gain access to care. Andersen et al. defines contextual factors as being measured at aggregate levels ranging from units as small as the family to the surrounding environment and community and can include health organization and provider-related factors as well as community characteristics (2013). However, the current study separates the category of "contextual determinants" into community and sociocultural determinants given previous studies that advocate for in-depth analyses of the different cultural and structural aspects of Latino culture that could regulate health outcomes for this population (Gallo et al., 2009).

Exploring the predictors of perceived healthcare access among LMSM could potentially help psychologists and health care understand the care-seeking behavior of this specific demographic, for consideration when designing interventions to promote access (Andersen et al., 2013). Previous studies have shown that in order to do this, the focus has to include both individual characteristics (i.e. demographic characteristics), structural factors, and sociocultural determinants of health-related behaviors and attitudes (Pieterse, Carter, & Smith 2008; Tanner et al., 2014). Thus, the current study will examine the effects of individual-level (i.e., *age*, *education level*, and *income* level), community-level (i.e., *social support* and *neighborhood collective efficacy*) and sociocultural-level (i.e., *ethnic identity affirmation and belonging, heterosexual self-presentation*, *sexual identity development status*, and *immigration status*) determinants of perceived access to healthcare among LMSM.

Individual Determinants

Studies involving mostly Latino adults, Black men who have sex with men (BMSM) and LMSM have respectively indicated that individual determinants of access to healthcare include: older **age** (De Jesus & Xiao, 2014); higher **education level** (McKirnan et al., 2012; Vargas Bustamente, Fang, Rizzo, & Ortega, 2009); and higher **income** (Documėt et al., 2004; Flores & Tomany-Korman, 2008; Nandi et al., 2008; McKirnan et al., 2013). Indeed, previous research has found that when compared to non-Latino Whites, differences in Latinos' healthcare access are explained by observable individual measures that include income, education, and health status (Vargas Bustamente et al., 2009). These findings suggest that if Latinos matched non-Latino Whites in these areas, differences in healthcare access perceptions would narrow significantly (Lillie-Blanton & Hoffman, 2005). In the present study, these individual-level factors are accounted for when examining correlates of perceived access to healthcare.

Community Determinants

Social support. Literature suggests that social support in the form of social capital improves positive bonds between social network members. Such positive bonds and social support are related to overall improved healthcare access given strong relationships and shared beliefs in the importance of accessing healthcare within that network (Pitkin, Derose, & Varda, 2009). However, Latino immigrant men with low social support report low healthcare access in addition to poor health (Documėt et al., 2019). In addition, among Black men who have sex with men, non-supportive

relationships experienced among members of the same social networks impeded BMSM from accessing healthcare services (Levy et al., 2014). Hence, social support could potentially predict whether LMSM in this study's sample perceive more or less healthcare depending on the level of support indicated within participants' social networks, as well as the strengths of those bonds.

Neighborhood collective efficacy. Based on Sampson's theory of collective neighborhood efficacy, support in the form of neighborhood social capital (in which individuals living in neighborhoods strongly agree their neighbors are more willing to help each other) is positively linked with individuals' healthcare access (Prentice, 2006; Sampson, 2003). Prentice (2006) found that neighborhood collective efficacy had this effect on healthcare access in a predominantly Latino sample in Los Angeles. Studies have also found that Latinos living in segregated neighborhoods, or ethnic enclaves that have poor neighborhood support, are stressful social environments that limit access to healthcare in Latino populations (Chan, Gaskin, Dinwiddie, & McCleary, 2012; Gaskin et al., 2012; Hall, 2013; Kershaw et al., 2013). This is significant considering that individuals will often seek community-level support from neighbors before utilizing healthcare services, indicating that strong neighborhood networks have the potential for encouraging and facilitating individuals to access healthcare (Mulvaney-Day, Alegria, & Sribney, 2007). Whether LMSM feel they are positively supported in their neighborhood therefore could positively predict their perceptions of healthcare access.

Sociocultural Determinants

Heterosexual self-presentation. Because we live in a heterosexist society, disclosure of sexual orientation status is often a circumstance unique to gay and bisexual-identifying individuals (as well as others on the LGBTQIA spectrum). Healthcare providers' knowledge of a person's sexual identity has been suggested to be critical to determining relevant healthcare access (Neville & Henrickson, 2005). Despite this, Klitzman and Greenberg (2002) posit that gay and lesbian people perceive self-disclosure as a risk, resulting in either: hiding their sexual orientation to ensure they receive unbiased healthcare; or not accessing primary healthcare services at all. MSM may elect to not disclose their sexual orientation due to fear of discrimination and homophobia, in favor of appearing heterosexual. In fact, sexual minorities often report perceiving less access to healthcare due to fear and sigma of the healthcare system (Buchmueller & Carpenter, 2010).

Exploring heterosexual self-presentation (i.e., the desire to be perceived by others as heterosexual; Parent & Moradi, 2009) as a determinant of perceived healthcare access could reveal the saliency of this behavior in health outcomes for LMSM. Particularly for Latino men, certain social and cultural dynamics could encourage them to project a masculine front that is not noticeably gay or effeminate, and furthermore to keep their sexual identity private (Sánchez, Blas-Lopez, Martínez-Patiño, & Vilain, 2016; Zellner et al., 2009). For LMSM, the fear of openly identifying with their gay/bisexual identity may inhibit perceived access to healthcare due to the avoidance of wanting to disclose in a clinical setting. Heterosexual self-presentation is therefore predicted to be related

inversely with perceived access to healthcare as noted in previous studies (Alcalá et al., 2016; McKirnan et al., 2012).

Sexual identity development status. The degree to which a person identifies with an LGB community identity label (such as the term "gay") has been found to cause some to avoid accessing healthcare outright because it would require disclosing one's sexual minority identity (Hendricks et al., 2012; Meyer, 2003). In the case of the present study of LMSM, this level of sexual identity identification will be measured as the degree in which participants are (a) **committed** to their sexual identity and (b) open to **exploring** their sexual identity (Worthington et al., 2008). Higher levels of identification with an LGB identity label positively relates with a person's health outcomes and access to healthcare – with those identifying less with their LGB identity having worse health outcomes and less access to appropriate medical attention and advice (Meyer, 2003). How positively LMSM feel towards their sexual identity, therefore, could have a paralleled positive impact on whether they perceive healthcare access. On the other hand, some gay, bisexual, and/or questioning men may not place a high emphasis on their sexual identity and as a result may perceive they have more access to healthcare services than their more committed counterparts, as well as those who are more open to exploring their sexual identity (Macapagal, Bhatia, & Greene, 2016).

Immigration status. In 2017, the Latino population constituted 18.1% of the nation's total population at 58.9 million (U.S. Census, 2018). Although the Latino population has been growing at a steady rate since 1970, analyses of health inequity and outcomes according to ethnic and national origins (especially among recent immigrants) are relatively rare (Singh & Lin, 2013). However, previous studies have found that

immigration status was a predictor of both access and utilization of healthcare services – foreign-born participants had lower levels of access than U.S.-born counterparts which is attributed to differing health insurance rates (Alcalá et al., 2016). Considering 3.7% of the study's sample of LMSM identifies as being an immigrant to the U.S., and the remainder indicating U.S. citizenship status or naturalized status, immigration status was included in the present study to account for this possibly confounding variable, and assess the strength of this identification in participants' levels of perceived access to healthcare. Immigrant Latinos report fearing discovery and deportation as a deterrent to utilizing healthcare services, which may lead to lower levels of perceived access to healthcare overall (Rhodes & Hergenrather, 2007). Indeed, studies have found that holding a U.S.-citizenship status considerably lowers barriers to healthcare that are often encountered by immigrant and undocumented Latinos (Ortega et al., 2015).

Ethnic identity affirmation and belonging. Racial and ethnic disparities in healthcare access have been extensively documented (Mayberry, Fili, & Ofili, 2000). However, most studies on minority disparities in healthcare access tend to focus on the technical aspects of access (i.e., the receipt of certain tests, therapies, and procedures; Johnson, Saha, Arbelaez, Beach, & Cooper, 2004). Less is known about the influential sociocultural-based aspects that ethnic identity has on accessing both health services and medical care that may contribute to these observed differences in minority access to healthcare services. Specifically, the ways in which societal and cultural ideas of race and ethnicity might influence: (a) an individual's own level of self-identification with their racial or ethnic group that impacts their health-seeking behavior and (b) interpersonal interactions in the healthcare field that may affect and determine how individuals

perceive their level of access to healthcare in the U.S. There is emerging evidence that ethnic and racial identity, in particular an individual's sense of group membership and attitudes toward their group (i.e., the strength to which ethnicity and race is a part of one's self-identification), might influence minority individuals' perceptions of the medical system and therefore their utilization of healthcare services (Vargas Bustamente et al., 2009). Thus, special attention should be paid to these particular unobserved sociocultural aspects of identity in relation to healthcare access for racial and ethnic minorities.

The current study examines ethnic identity affirmation and belonging and its role as both a predictor of perceived access to healthcare as well as a moderator of other predictors among LMSM. Ethnic identity affirmation and belonging is based on Phinney's (2003) concept of one's affiliation toward their ethnic identity, which is characterized by the degree to which individuals embrace the various aspects and attitudes toward their own ethnic group. This includes self-identification with, feelings of belongingness and commitment to, and a sense of shared values with that group. We focus on the individual's affirmation and belonging aspects of ethnic identity, examining how study participants view their own ethnic culture and how strongly they choose to identify with the ethnic label of their community (e.g., "*I am happy that I am a member of the group I belong to.*"; "*I have a strong sense of belonging to my own ethnic group.*", etc.). Although this idea of an individual's level of self-identification with their culture is more individual-based and varies from person to person, one's level of ethnic identity affirmation and belonging still has implications for the way in which an individual interacts with others on interpersonal, community and societal levels.

As stated, ethnic identity affirmation and belonging is the focus of the current study because prior research has shown that racial and ethnic identities influence minority individuals' perceptions of healthcare and their resulting health seeking behaviors. Lillie-Blanton, Brodie, Rowland, Altman and McIntosh (2000) found that more than half (56%) of Latinos believe they will receive lower quality care than Whites do. Moreover, Latinos reported having little confidence that the healthcare system they have come to know will be different in the future, with 58% reporting that they are concerned they may be treated unfairly when seeking medical care in the future, compared to only 22% of Whites (Lillie-Blanton et al., 2000). When asked specifically about whether they believe the healthcare system treats people differently based on an individual's race or ethnicity, a majority (51%) of Latinos believed it did, and 54% believe that race or ethnic background affects whether a person can get needed routine medical care. Other researchers have confirmed that bias and stereotyping exist among healthcare providers in particular have caused Latinos to avoid seeking out healthcare services (Schulman et al., 1999; Van Ryne & Burke, 2000). As a result, and among other reasons, Latinos consistently report accessing healthcare at lower rates than other racial and ethnic groups (Ortega, Rodriguez, & Bustamente, 2015), due to observable and unobservable factors that often intersect with ethnic/racial identity, including: language barriers (Perez, Fang, Inkelas, Kuo, & Ortega, 2009); legal status (Ortega et al., 2007); residential segregation and ethnic enclaving (Gaskin, Dinwiddie, Chan, & McCleary, 2012); and varying levels of acculturation (Carter-Pokras et al., 2008).

Ethnic identity in the current study is complicated by the fact that "Latino men who have sex with men" constitutes a dual minority identity – an intersectionality of

sexual minority status as well as an ethnic/racial minority identity. Most studies on individuals with a dual sexual and racial/ethnic minority identity focus on the sexual minority label and the degree of self-identification that individuals feel toward their sexual identity rather than their ethnic identity. Thus, I propose to more meaningfully explore the influence that ethnic identity may have on predicting perceived access to healthcare among LMSM, as opposed to just examining sexual minority status. Furthermore, I propose to explore the possibility of ethnic identity affirmation and belonging as a moderator of other predictors of perceived access to healthcare given the powerful influence that ethnic identity has been found to have as a moderator in prior studies (Brittain et al., 2013; Neblett, Shelton, & Sellers, 2004; Sellers, Caldwell, Schmeelk-Cone, & Zimmerman, 2003; Stein, Supple, Kiang, & Gonzalez, 2014).

Below I explore how ethnic identity affirmation and belonging, and the extent of one's ethnicity and race in an individual's self-identification, may act as both a predictor of perceived access to healthcare among LMSM as well as a moderator of other predictors of perceived access to healthcare. Despite the above discussion and review of findings that tend to emphasize the deleterious rather than facilitative aspects of ethnic identity affirmation and belonging toward health-seeking behaviors of ethnic and racial minorities, I give reason to explore how ethnic identity affirmation and belonging may instead act as a potential protective factor for Latino MSM and their perceived access to healthcare.

Potential Moderating Effects of Ethnic Identity Affirmation and Belonging

Rather than exploring the deleterious nature of ethnic identity affirmation and belonging in predicting and moderating perceived access to healthcare, I propose that this sociocultural variable might instead be facilitative toward healthcare access among LMSM. Specifically, I believe ethnic identity may act as a protective factor that buffers relations between individual, community, and sociocultural-level predictors of perceived access to healthcare in this population. Although research on ethnic identity in relation to health outcomes has focused on its ability to predict alcohol, drug and other substance use behaviors (Marsiglia, Kulis, Hecht, & Sills, 2001), sexual risk behaviors (Shehadeh & McCoy, 2014), and mental health resilience (Wong, Eccles, & Sameroff, 2003) – there are some findings that indicate the potential for ethnic identity to also act in the capacity of both a protective factor and moderator. Specifically, previous research has found that ethnic identity can act as a moderator of outcomes related to: drug use and other risk factors by acting as a buffer against psychobehavioral risks or by enhancing psychobehavioral protective factors (Brook & Pahl, 2005); mental health (including buffering against depressive and anxious symptoms; Brittain et al., 2013); psychosocial adjustment and stressors (Shelton et al., 2005); and life satisfaction, school adjustment, and discrimination (Tran & Sangalang, 2016; Stein, Kiang, Supple, & Gonzalez, 2014).

Although it is important to recognize these findings on the protective nature of ethnic identity are mixed, the potential effects of ethnic identity have been relatively understudied in relation to health outcomes, and unexplored in the LMSM population in particular. Furthermore, more studies have indicated the deleterious effects of ethnic identity on healthcare access than they have focused on its ability to buffer other

determinants of healthcare access. These findings have shown that individuals who simultaneously identify as a sexual minority man or transgender individual, in addition to being a racial or ethnic minority, experience another layer of discrimination that affects whether they feel they can access healthcare services when they need them (Rhodes et al., 2008). Indeed, research suggests that those who identify as both an ethnic/racial and sexual minority are distrustful of medical and mental health professionals, perceiving the health care system to be disinterested in minority health needs (Dowd, 1994; Klonoff & Landrine, 1997; Siegel & Raveis, 1997). However, ethnic identity may serve as a protective factor and moderator that may buffer against distrust and negative perceptions of the U.S. healthcare system given findings that posit ethnic identity promotes a sense of social connectedness, a positive sense of self, and a sense of purpose that may in turn endorse a feeling of confidence in utilizing healthcare services (Phinney, 2003; Stein et al., 2014). This phenomenon might be better understood in an examination of both racial identity theory and minority stress theory in relation to LMSM.

There is a tension in the role that ethnic/racial identity and sexual minority identity may play in influencing perceptions of healthcare for individuals who identify as both given the interplay and interactions between racial identity theory (Sellers & Shelton, 2003) and minority stress theory (Meyer, 1995) – the latter being based on sexual minority identity. Sellers and Shelton (2003) examined racial identity as a buffer against perceived racial discrimination and its impact on the psychological well-being of African Americans. They found that a strongly endorsed racial ideology (i.e., the meaning that individuals ascribe to their racial identity) associated with one's racial group provided evidence for its ability to protect these individuals from the negative

mental health consequences of perceived discrimination (Sellers & Shelton, 2003). In other words, findings supported the notion that African Americans who endorsed a nationalist ideology acknowledged that their ethnic/racial group experiences discrimination, which allowed for them to be better prepared to face racial discrimination and cope with the effects of stigma when it occurred (Sellers et al., 1998; Sellers & Shelton 2003). These findings provide empirical support for other work that displays how individual differences in one's sense of affirmation and belonging toward their ethnic/racial identity may protect them as ethnic minorities from the deleterious effects of racism (Noh, Beiser, Kaspar, Hou, & Rummens, 1999; Sellers et al., 2003). I propose that LMSM participants who indicate stronger levels of ethnic identity affirmation and belonging may be more comfortable accessing healthcare services as a buffer to perceived discrimination and bias in the U.S. healthcare system and healthcare providers. This, however, may be complicated by the findings implicated by Meyer's seminal works (1995; 2003) in his studies on sexual minority individuals (specifically gay men) and what he eventually developed into his landmark minority stress theory.

Minority stress, or the psychosocial stress derived from minority status, is based on the premise that gay people are exposed to stress related to stigma (Brooks, 1981; Meyer, 1995). Meyer (1995) found that expectations of rejection and discrimination (stigma) against sexual minority identity predicted higher levels of psychological distress in gay men. In a later study, Meyer (2003) found empirical evidence that clearly demonstrated that LGB populations have higher prevalences of psychiatric disorders than their heterosexual counterparts due to the social stressors that accompany sexual minority status and identity. While these findings may demonstrate evidence against the notion

that ethnic identity may promote a sense of protection against discrimination and stigma in the healthcare system in LMSM because of their dual minority status, the latter study also makes a distinction of different types of stress experiences within Meyer's conceptualization of minority stress. Specifically, Meyer (2003) posits that minority stress occurs along a continuum ranging from the objective (prejudiced events) to the subjective (internalized homophobia). Based on this concept, the subjective view defines minority stress as an experience that depends on the individual and their view of the environment – meaning the level of stress is based on specific individuals and their own appraisal of their environment (Meyer, 2003).

This distinction of the subjective and objective experiences posited by minority stress theory acknowledges the power that an individual's internal perception has on the overall appraisal, or the weight and meaning that individuals attribute to their social settings as well as on their own self-identification. Therefore, this aspect of minority stress theory does provide support for the possibility for ethnic identity to buffer LMSM from feeling that the environment of U.S. medical care is inaccessible due to discrimination and bias. Specifically, LMSM who endorse higher ethnic identity affirmation and belonging may already expect to experience stigma, prejudice or discrimination from the U.S. healthcare system, which may bolster their dispositional and mental resiliency to better prepare them to utilize medical services. In other words, an individual with a dual minority identity with a more assured sense of affirmation and belonging toward their racial and ethnic identity may perceive they have more access to healthcare because they also understand how others (e.g., doctors, nurses, therapists, etc.) may view and treat individuals from their ethnic group. Therefore, despite a majority of

Latinos acknowledging that experiences of discrimination or stigma from the health system and health professionals and service providers are commonplace (Lillie-Blanton et al., 2000), those with a better sense affirmation and belonging to their ethnic group may be better prepared to deal with these negative experiences. Additionally, a strong affirmation of ethnic identity and sense of belonging to one's ethnic group may help individuals feel more self-confident or reassured in accessing health services when accounting for other factors that may typically determine their perception of access.

I therefore focus on ethnic identity in LMSM as a moderator because of its proposed ability to act as a buffer against negative discriminatory experiences, as well as its hypothesized ability to moderate relations between other individual, community and sociocultural-level measures that may predict lower levels of perceived access to healthcare in this population. This finding would be consistent with previous research on ethnic identity that has provided evidence for ethnic identity's role in boosting mental resilience against discrimination and bias among minority populations (Sellers & Shelton, 2003; Wong et al., 2003).

The Present Study

The first goal of the present study was to examine the aforementioned individual-, community-, and sociocultural-level predictors of perceived access to healthcare among LMSM. Based on previously described literature, I expected that of the **individual-level determinants**, that older, more educated, and participants with higher incomes will indicate higher perceived access to healthcare than peers. I hypothesized of the **community-level determinants** that participants who indicate high social support and

high neighborhood collective efficacy report higher perceived access to healthcare than counterparts. Finally, I predicted of **sociocultural-level determinants** that reports of high ethnic identity affirmation and belonging, low sexual identity development exploration and commitment, and high heterosexual self-presentation, and participants with U.S. citizenship, will all indicate higher levels of perceived access to healthcare than peers in this sample of LMSM individuals.

The second goal was to determine whether ethnic identity affirmation and belonging is indeed facilitative toward perceived access to healthcare among LMSM participants when moderating individual (e.g., age, education, and income), community (e.g., social support and neighborhood collective efficacy) and sociocultural-level predictors (e.g., ethnic identity affirmation and belonging, heterosexual self-presentation, sexual identity development status, and immigration status). That is, I proposed that ethnic identity will strengthen any positive associations between study predictors of perceived access to healthcare and weaken or buffer any negative associations between study predictors of perceived access to healthcare in this particular population of LMSM/dual minority individuals. This hypothesis is based on previous findings demonstrating how ethnic identity may act as a protective factor, and increase the mental resilience in LMSM individuals that may bolster their perceived access to healthcare despite an acknowledgement that U.S. medical healthcare may be discriminatory or that healthcare providers may be prejudiced or stigmatizing against racially and/or ethnically diverse individuals.

CHAPTER 2

METHOD

Procedure

The present study is a secondary data analysis project using data collected as part of longitudinal study of determinants of health behaviors (e.g., HIV testing) among LMSM (Dillon et al., 2019). Targeted Internet-based recruitment venues were used, including e-mail listservs and forums on social media sites (e.g., Facebook groups) designed to invite traffic from LMSM and community-based agencies serving LMSM in upstate New York and New York City and four urban centers where HIV prevalence among Latino men is highest in the United States: Miami, Los Angeles, Chicago, and Houston (Wejnert et al., 2016). Other recruitment methods included announcing the study via community centers, health care organizations, and bars/nightclubs that attract Latino and sexual minority populations. Approximately 94.7% of participants indicated learning about the study via an Internet-based platform, whereas 2.4% learned about the study from a community agency, and 2.2% indicated they learned about the study through other means (e.g., a friend, colleague, or other referral).

Eligible individuals who wished to access the survey were directed to a website that immediately linked to an informed consent page in both English and Spanish. Consenting participants were then directed to study measures. Measures were presented simultaneously in Spanish and English. Study measures that were selected have been either validated in Spanish in previous research, or translated by primary study researchers (Dillon et al., 2019) of various Latino ethnicities through a process of translation/back translation and checked for conceptual equivalence to ensure accurate

translation (Behling & Law, 2000). Participants who submitted a valid survey received an incentive in the form of a $15 Amazon.com e-gift certificate, which was sent to the e-mail address voluntarily provided by the participant. Upon completion of the survey, participants were asked to forward the survey to eligible peers. The debriefing statement included a link to a website maintained by the CDC (https://gettested.cdc.gov/Reasons/) that allows users to search for local HIV testing venues using their zip code.

Participants

Inclusion criteria for the present study consisted of (a) identifying as a Latino man, (b) participating in sex (oral or anal) with at least one male-identified person during the 12 months prior to assessment, and (c) being aged 18 years or older. Participants are 469 Latino MSM (*M* age = 30.82 years, *SD* = 6.30) who identified as Mexican (50%), Cuban (17.4%), Colombian (10.3%), Puerto Rican (7.9%), and 13 other Latino ethnicities (14.4%). The sample had a median reported education level of a bachelor's degree (38.1%) and median reported income level of $75,000 to $99,999 (16.4%). Men were recruited nationally via social networking sites and community agencies. The modal descriptor of participants' sexual orientation was *4 = Mostly Homosexual* on The Kinsey Scale ranging from *1 = Exclusively Heterosexual* to *5 = Exclusively Homosexual*.

Measures

Criterion Variable

Perceived access to healthcare. The criterion variable, perceived access to healthcare, was measured using a six-item Access to Healthcare measure derived from

the HIV Cost and Services Utilization Study (Cunningham et al., 1999; Kinsler et al., 2009). The scale assessed the affordability of healthcare, its availability, convenience, and specialist accessibility during the past 12 months. Participants were asked to rate items assessing their perceived access to medical healthcare (e.g., "*If I need hospital healthcare, I can get admitted without any trouble*") on a Likert-type scale from 0 (*strongly disagree*) to 4 (*strongly agree*), with higher scores indicating greater perceived access to medical health healthcare (Appendix A). The measure demonstrated evidence of reliability and validity in previous studies of clinical samples (Cunningham et al., 1999; Kinsler et al., 2009). Cronbach's α for the current study was .76.

Individual Measures

Age. Age was measured using an open-ended item from the study's survey reporting demographic information (e.g., "*What is your age [in years]?")*.

Education. Education level was measured using an item from the study's survey reporting demographic information (e.g., "*What is the highest education level you have completed?*") with the following selection criteria: "*Some high school or less; High School diploma or GED; Some college; Associate's (2 year) degree; Bachelor's (4 year) degree; Some graduate school; Master's, doctorate, or other graduate/professional degree; Refuse to answer.*"

Income. Income was *measured* using an item from the study's survey reporting demographic information (e.g., "*What is your estimated yearly income, in U.S. Dollars?*"), with the following selection criteria: "*Less than 10,000; 10,000 – 14,999;*

15,000 – 24,999; 25,000 – 34,999; 35,000 – 49,999; 50,000 – 74,999; 75,000 – 99,999; 100,000 – 149,999; 150,000 – 199,999; 200,000 or more; Refuse to answer."

Community Measures

Social support. Tangible Support and Belonging Support subscales of the Interpersonal Support Evaluation List measured social support (Cohen, Mermelstein, Kamarck, & Hoberman, 1985). This 12-item measure asked participants to rate the perceived availability of various types of social support (e.g. "*I feel that there is no one I can share my most private worries and fears with*") on a 4-point Likert type scale from 0 (definitely false) to 3 (definitely true), with greater scores indicating greater perceived social support (Appendix B). Evidence of total score reliability and validity have been indicated in large, population-based Latino sample (Merz et al., 2014). Cronbach's α for the current study was .78.

Neighborhood collective efficacy. Neighborhood collective efficacy was measured using the 10-item Collective Efficacy Scale (Sampson et al., 1997), which assesses perceived social cohesion among participants' neighbors (Appendix C). Items include "*People in this neighborhood can be trusted*" and "*People around here are willing to help their neighbors.*" All items are coded with a 5-point Likert-type sale ranging from 1 (*very unlikely*) to 5 (*very likely*). Higher scores indicate more perceived neighborhood collective efficacy. Adequate interrater reliability and validity estimates have been reported in a large, diverse community-based past sample (Sampson et al., 1997). Cronbach's α for the current study was .76.

Sociocultural Measures

Heterosexual self-presentation. Heterosexual self-presentation was measured using the Heterosexual Self-Presentation subscale of the Conformity to Masculine Norms Inventory-46 (Parent & Moradi, 2009). This six-item subscale (Appendix D) assesses the importance a man places on being perceived by others as heterosexual (e.g., "*I try to avoid being thought of as gay or bisexual*") using a 4-point Likert-type scale from 0 (*strongly disagree*) to 3 (*strongly agree*). The subscale yielded strong reliability coefficients across previous samples (Parent & Moradi, 2009; Parent, Moradi, Rummell, & Tokar, 2011; Parent et al., 2012). Cronbach's α for the current study was .74 after the deletion of one item to improve overall scale reliability ("*Being thought of as gay or bisexual is not a bad thing / Ser pensado como homosexual o bisexual no es algo malo*").

Sexual identity development status. The Exploration and Commitment subscales of the Measure of Sexual Identity (Worthington et al., 2008) were administered to measure conceptually distinct statuses of participants' sexual identity development (Appendix E). The eight items of the exploration subscale (e.g., "*I am actively trying new ways to express myself sexually*") evaluated participants' openness to learning about their sexuality. The six items of the commitment subscale (e.g., "*I have a firm sense of what my sexual needs are*") measured participants' certainty in their sexual identity (Worthington et al., 2008). Both subscales use a 6-point Likert-type scale from 1 (*very uncharacteristic of me*) to 6 (*very characteristic of me*). Worthington et al. (2008) reported evidence for the convergent validity of both subscales in a diverse sample of adults. Appropriate test–retest reliability and internal consistency estimates also were reported (Worthington et al., 2008; Worthington & Reynolds, 2009). Cronbach's α for

the current study sample was .73 for the commitment subscale after the deletion of two items to improve overall scale reliability ("*I have a firm sense of what my sexual needs are. / Tengo un sentido claro de mis necesidades sexuales."* and *"I know what my preferences are for expressing myself sexually. / Yo sé cuáles son mis preferencias para expresarme sexualmente*."). Cronbach's α was .90 for the exploration subscale.

Immigration status. Immigration status was measured using an item from the study's survey reporting demographic information (e.g., "*What is your immigration status?*"), with the following selection criteria: "*other; U.S. Citizen; naturalized U.S. Citizen; Documented immigrant; Undocumented immigrant; Refuse to answer*."

Sociocultural Measure and Moderator

Ethnic identity affirmation and belonging. Latino ethnic identity affirmation and belonging was measured with the Multigroup Ethnic Identity Measure (Phinney, 1992), using 7 items (Appendix F). Participants rate their feelings regarding their self-identified ethnic group (e.g. "*I understand pretty well what my ethnic group membership means to me*") on a 5-point Likert-type scale (*1 = strongly agree, 5 = strongly disagree*). Total scores were utilized in the analyses, with lower scores indicating greater ethnic identity commitment. The 7-item affirmation and belonging scale of the Multigroup Ethnic Identity Measure score has yielded evidence of reliability and validity in prior research samples of young adolescents (Roberts et al., 1999), and a similar version (i.e., 14-items) has demonstrated evidence of reliability and validity in the prior samples of U.S. born adolescents (Phinney, Cantu, & Kurtz, 1997). Cronbach's α for the 7-item affirmation and belonging subscale in the current study was .93.

The Ethnic Identity Affirmation and Belonging 7-item subscale from the Multigroup Ethnic Identity Measure was specifically utilized for the present study based on previous studies that demonstrate that ethnic identity measurement is multifaceted, and that affirmation and belonging constitutes its own, separate factor (Phinney & Ong, 2007). That is, it is distinct from the 5-item Exploration subscale. Indeed, studies have found that the affirmation and belonging scale could be used as an indicator of strength of identification and that it could be utilized separately from the exploration subscale (Roberts et al., 1999). The present study is a meaningful exploration of the role that ethnic identity affirmation and belonging has on perceptions of healthcare access among Latino men who have sex with men. Thus, the strength to which study participants identify with their ethnic identity label and their level of belongingness with their particular ethnic group is of consequence to our questions and hypotheses, as opposed to the measurement of how strongly study participants feel comfortable exploring their ethnic identity. Previous studies have also found the measure to be suitable for adult populations (Brown et al., 2014). This notion is also supported by the Cronbach's α level for the current study, which indicates that it is a reliable estimate for this sample.

Analytic Plan

Preliminary analyses. First, I ensured the sample size of this secondary data analysis project was sufficient via a power analysis. Given our analytic plan, our sample size of 494 participants will allow us to detect a medium effect size ($f^2 = .15$; $p < .05$) with an adequate level of power (.99).

Second, I will assess for violations to the assumption of univariate normality for all continuous variables in the proposed study. If a variable yields a skewness index ≥ 3.00 and/or, kurtosis index of ≥ 10 they will be considered non-normally distributed. Data transformations will be conducted on any non-normally distributed variables (Kline, 2010).

Third, a bivariate correlation matrix will be calculated with all study variables. Additional descriptive statistics for each variable will be conducted including means, medians and standard deviations (if applicable) for all study variables. I will also assess bivariate relations between predictors to detect possible multicollinearity (e.g., correlations between predictors should be <.70; Tabachnick & Fidell, 2012).

Fourth, I computed internal consistency reliability estimates for all continuous scale scores. If any scale scores indicated a Cronbach's alpha level less than .70, I attempted to adapt (i.e., remove problematic items) the scale to arrive at a value greater than or equal to .70.

Main analyses. To test proposed study hypotheses, I will conduct one hierarchical regression analysis examining the hypothesized predictors (e.g., age, education, income, social support, neighborhood collective efficacy, ethnic identity affirmation and belonging, heterosexual self-presentation, sexual identity development status, and immigration status) of perceived access to healthcare, as well as ethnic identity affirmation and belonging as a moderator of the direct association between predictors and perceived access to healthcare. All predictor variables will be entered into the regression model so that each predictor contributes to the explained variance of perceived access to healthcare after controlling for the variance explained by all of the

entered predictors (Petrocelli, 2003). Predictor variables will be grouped into the following three broad domains: (a) individual measures; (b) community measures; and (c) sociocultural measures.

The individual-level predictors (e.g., age, education, and income) will be entered in step one of the regression analyses. The community-level predictors (e.g., social support and neighborhood collective efficacy) will be entered in the second step of the regression to test conditional effects of the hypothesized predictors. The sociocultural-level predictors (e.g., ethnic identity affirmation and belonging, heterosexual self-presentation, sexual identity development status, and immigration status) will be entered in the third step.

Moderation analyses. Next, interaction terms will be entered in Step 4 for all significant conditional direct effects. I will standardize all predictors before calculating interaction terms to improve interpretation and reduce multicollinearity (Aiken, West, & Reno, 1991; Frazier, Tix, & Barron, 2004). A test of significance for the interaction will establish that the effect of individual, community, and sociocultural-level predictors on perceived access to healthcare depending on ethnic identity affirmation and belonging (Frazier, Tix, & Barron, 2004; Hayes, 2017). Should an interaction term be found to significantly relate with perceived access to healthcare, I will interpret the moderation effects via graphic analysis.

CHAPTER 3

RESULTS

Statistical Analyses

Preliminary analyses. Statistical analyses were carried out using SPSS 25. Descriptive statistics and bivariate correlations are all shown in Appendix G. Absolute skewness (range = -1.15 – 1.06) and kurtosis (range = -1.21 – 2.26) among all variables did not violate normality assumptions, based on suggested cut-off of skewness < 2, kurtosis < 7 (Hair, Black, Babin, Anderson, & Tatham, 1998). Preliminary analyses showed that most variables in this study were significantly correlated with perceived access to healthcare with the exception of age, social support, and immigration status, providing initial support for Hypothesis 1. Ethnic identity affirmation and belonging was significantly correlated to perceived access to healthcare ($p < .001$) as well as with all other predictors except for education level, providing initial support for Hypothesis 2. Bivariate correlations matrices indicated that multicollinearity was low (< .7) and non-significant between all study variables.

Main analyses. To test Hypothesis 1, a hierarchical multiple regression was conducted where individual-level predictors (e.g., age, education, and income) were entered in Step 1, community-level predictors (e.g., social support and neighborhood collective efficacy) in Step 2, and sociocultural-level predictors (e.g., ethnic identity affirmation and belonging, heterosexual self-presentation, sexual identity development status, and immigration status) in Step 3 with perceived access to healthcare as the criterion variable. Table 2 indicated that education (B =.22, SE = .03, $p < .001$), neighborhood collective efficacy (B = .15, SE = .06, $p < .01$), heterosexual self-

presentation (B = .13, SE = .05, p < .05), and ethnic identity affirmation and belonging (B = .154, SE = .03, p < .01) are all significant predictors of perceived access to healthcare (PATHC) in this population. The model explained 14% of the variance (R^2 = .136, F = 5.61, p < .001) in perceived access to healthcare.

Moderation analyses. To test Hypothesis 2, interaction calculations were entered in Step 4 for all conditional effects. Table 2 indicated that ethnic identity affirmation and belonging (EIAB) was a moderator of the interaction between education and PATHC (B = .15, SE = .04, p < .05), neighborhood collective efficacy and PATHC (B = .10, SE = .03, p < .05), heterosexual self-presentation and PATHC (B = -.16, SE = .03, p < .01), sexual identity exploration and PATHC (B = -.16, SE = .03, p < .01) and between sexual identity commitment and PATHC (B = -.15, SE = .04, p < .05). The model explained 22% of the variance (R^2 = .216, F = 5.10, p < .001) in perceived access to healthcare.

Table 2

Hierarchical Multiple Regression Analyses with EIAB Moderation Interactions Predicting Perceived Access to Healthcare

Predictors	Participant n = 469		
	SE	**β**	
Step 1			
(Intercept)	.17		***
Age	.01	.02	
Education level	.03	.23	***
Income level	.02	−.04	
Step 2			
(Intercept)	.26		***
Age	.01	−.04	
Education level	.03	.25	***
Income level	.02	−.07	
Social support	.07	−.00	
Neighborhood collective efficacy	.05	.21	***
Step 3			
(Intercept)	.36		***
Age	.01	−.03	
Education level	.03	.22	***
Income level	.02	−.09	
Social support	.09	.10	
Neighborhood collective efficacy	.06	.15	**
Immigration status	.07	−.01	
Heterosexual self-presentation	.05	.13	*
Sexual identity exploration	.03	.08	
Sexual identity commitment	.03	−.10	
Ethnic identity affirmation and belonging (EIAB)	.03	.15	**

Step 4			
(Intercept)	.37		***
Age	.01	−.05	
Education level	.03	.20	***
Income level	.02	−.01	
Social support	.09	.07	
Neighborhood collective efficacy	.06	.21	***
Immigration status	.08	−.01	
Heterosexual self-presentation	.05	.11	
Sexual identity exploration	.03	.02	
Sexual identity commitment	.04	−.09	
Ethnic identity affirmation and belonging (EIAB)	.03	.16	**
Age × EIAB	.03	.09	
Education level × EIAB	.04	.15	*
Income level × EIAB	.04	−.01	
Social support × EIAB	.04	−.08	
Neighborhood collective efficacy × EIAB	.03	.10	*
Immigration status × EIAB	.03	.03	
Heterosexual self-presentation × EIAB	.03	−.16	**
Sexual identity exploration × EIAB	.03	−.16	**
Sexual identity commitment × EIAB	.04	−.15	**
Model Summary	**R^2**	**FΔ**	
Step 1	.05	7.28	***
Step 2	.07	9.67	***
Step 3	.14	5.61	***
Step 4	.22	5.10	***

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$

Based on Figure 1 below, LMSM who reported higher education levels and more EIAB reported more PATHC than peers. According to Figure 2, participants who indicated higher neighborhood collective efficacy as well as more EIAB also demonstrated higher PATHC than their peers. Finally, Figures 3, 4, and 5 show that LMSM who indicated lower heterosexual self-presentation, lower sexual identity exploration, and lower sexual identity commitment, in addition to higher EIAB, all respectively reported higher PATHC than their counterparts. Based on the graphical

interpretations, EIAB was a protective factor among individuals with low heterosexual self-presentation, low sexual identity exploration, and low sexual identity commitment. Additionally, EIAB strengthened relations between individuals with higher education levels and PATHC, as well as between individuals who endorsed higher neighborhood collective efficacy and PATHC. These results provide evidence in support of Hypothesis 2, where significant positive associations between study predictors and PATHC were strengthened when moderated by high levels of ethnic identity affirmation and belonging, and negative associations between predictors and PATHC were weakened when moderated by high levels of ethnic identity affirmation and belonging among study participants.

Figure 1

Moderation Plot of the Interaction Between Education × EIAB Predicting Perceived Access to Healthcare

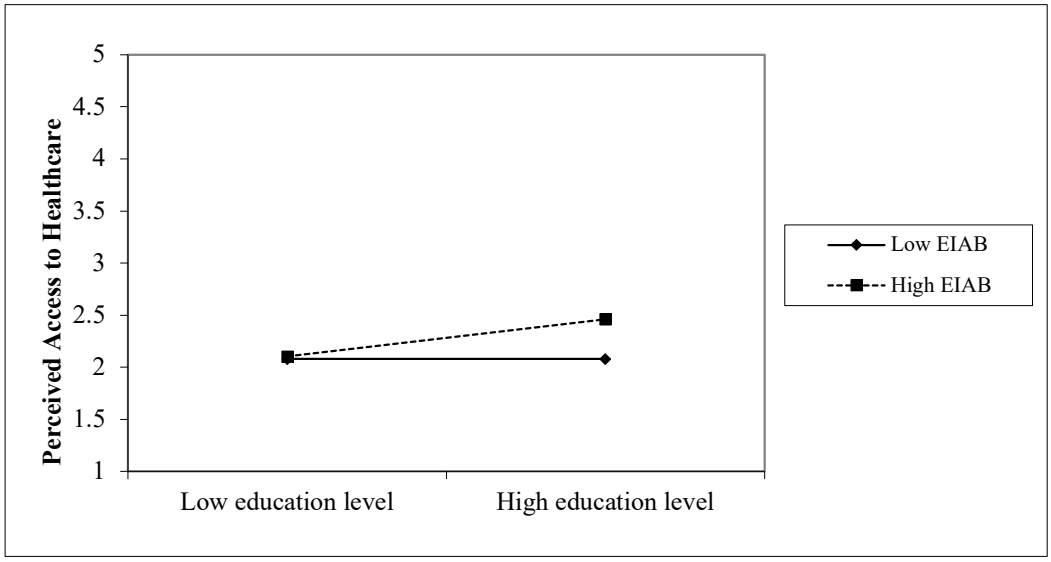


Figure 2

Moderation Plot of the Interaction Between Neighborhood Collective Efficacy × EIAB Predicting Perceived Access to Healthcare

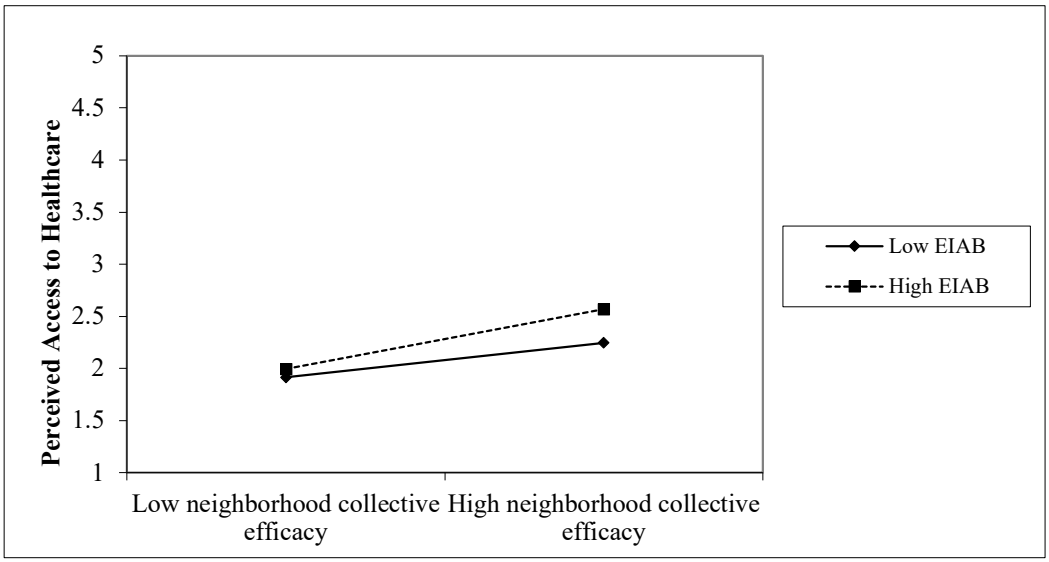


Figure 3

Moderation Plot of the Interaction Between Heterosexual Self-Presentation × EIAB Predicting Perceived Access to Healthcare

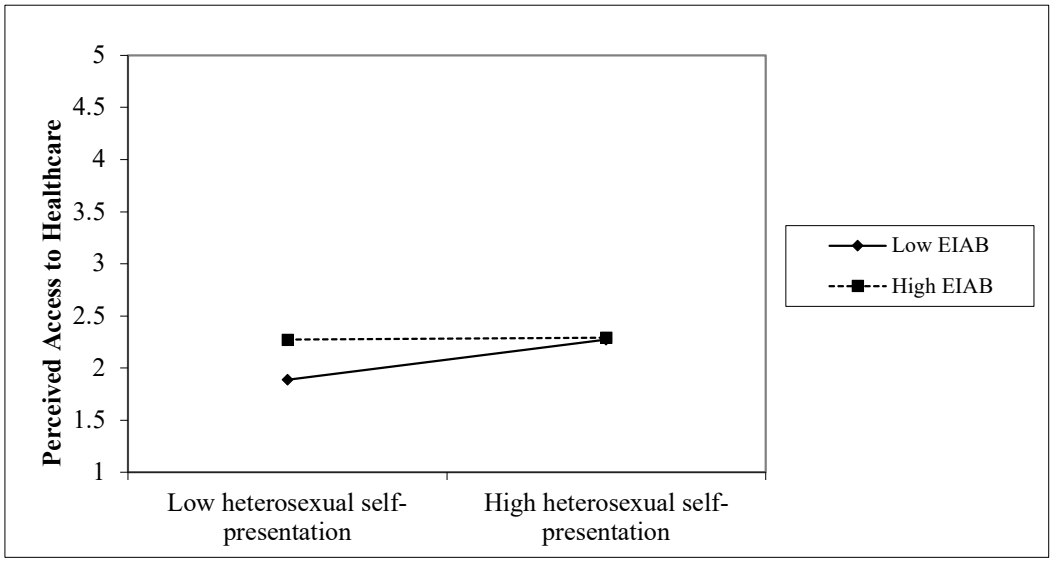


Figure 4

Moderation Plot of the Interaction Between Sexual Identity Exploration × EIAB Predicting Perceived Access to Healthcare

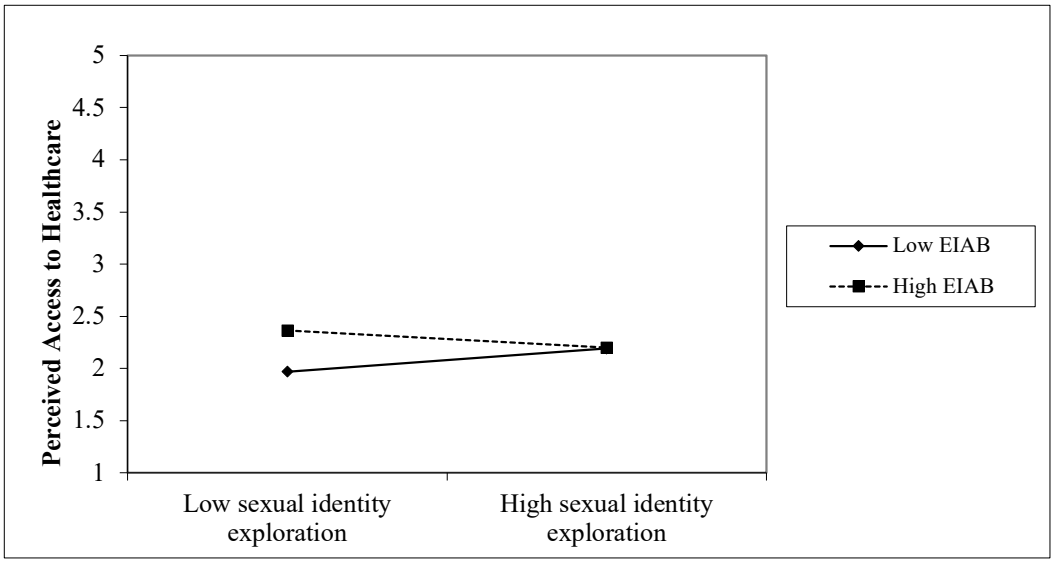
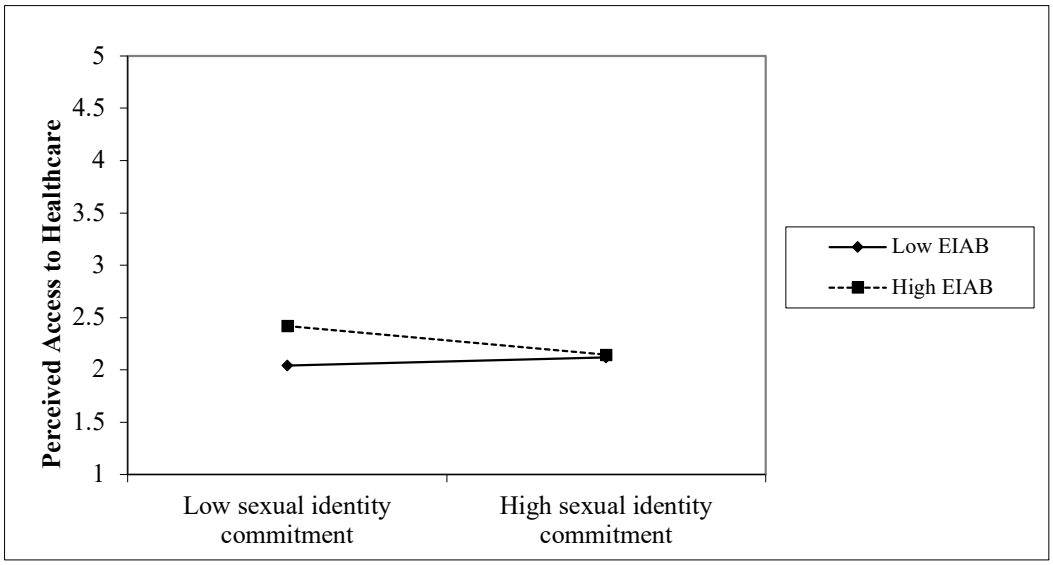


Figure 5

Moderation Plot of the Interaction Between Sexual Identity Commitment × EIAB Predicting Perceived Access to Healthcare



CHAPTER 4

DISCUSSION

Dual ethnic/racial and sexual minority individuals access healthcare services at lower rates than their white counterparts due to several barriers and inhibiting factors related to identity. For example, sexual minority individuals who choose to hide their sexual identity or orientation will often underutilize medical services related to their sexual identity – or may avoid healthcare services altogether for fear of being discriminated against (Meyer, 2003). On the other hand, ethnic and racial minorities may also choose to avoid medical services altogether due to perceived medical professional biases, discrimination in quality of services, and structural racism in the healthcare system (Armstrong et al., 2013). Thus, the purpose of this study was to not only explore determinants across three levels (e.g., individual, community, and sociocultural) of perceived access to healthcare among LMSM, but to also determine whether ethnic identity affirmation and belonging acts as a facilitative rather than deleterious moderator of the proposed determinants of PATHC in this particular population of dual minority individuals. The hypothesized ability for ethnic identity affirmation and belonging to act as a facilitative moderator of other predictors of perceived access to healthcare among LMSM is based on empirical support from previous studies that posit individual differences in one's sense of affirmation and belonging toward their ethnic/racial identity may protect them as ethnically diverse minorities from the detrimental effects of racism and bias in the healthcare system (Noh et al., 1999; Sellers et al., 2003).

Based on bivariate correlations, ethnic identity affirmation and belonging was significantly correlated with the criterion variable and all study predictors except

education level. Consistent with theory and previous studies, after being entered into the regression model so that all study variables would account for the shared variance in the criterion variable, several individual-level (i.e., education), community-level (i.e., neighborhood collective efficacy), and sociocultural-level predictors (i.e., heterosexual self-presentation and ethnic identity affirmation and belonging) proved to be significant determinants of PATHC. Specifically, study participants who indicated higher levels of education, higher levels of neighborhood collective efficacy, higher levels of heterosexual self-presentation, and finally, higher levels of ethnic identity affirmation and belonging all indicated higher levels of perceived access to healthcare in this sample.

These findings provide support for our first hypothesis, and are congruent with previous studies that indicate higher education levels (McKirnan et al., 2012; Vargas Bustamente et al., 2009), higher levels of neighborhood collective efficacy (i.e., community-level social support in the form of a strong neighborhood network; Prentice, 2006), and higher levels of heterosexual self-presentation (Macapagal et al., 2016) are all related to higher levels of perceived access to healthcare among sexual and ethnic/racial minority populations. Individuals with higher education levels may be more informed about the benefits of accessing health services than their peers. LMSM who have a strong and supportive neighborhood network may be provided with social support that encourages them to utilize healthcare. Individuals who prefer to present themselves as more heterosexual or project a masculinity that is not noticeably gay or effeminate, may feel more comfortable with accessing health services due to their reluctance to disclose an LGB sexual orientation, to engage in behaviors that may "out" them, and/or may feel that their sexual identity is not an important factor for accessing health services because

of their ability to pass as heterosexual. Furthermore, these findings also provide initial evidence for our second hypothesis, given that higher levels of ethnic identity affirmation and belonging was a significant predictor of PATHC in this sample of dual minority individuals. Regression analyses provide quantitative evidence that ethnic identity affirmation and belonging is not only a significant predictor of PATHC in this sample, but bivariate correlations also show that EIAB is significantly related to predictors of PATHC across all three levels (i.e., individual, community, and societal) of determinants. Based on these initial findings, our understanding of EIAB can be extended to be an influential factor in health determinants research. Its role as a facilitative moderating variable, however, can best be understood in an examination of its interaction with other predictors of PATHC in this sample where we see several noteworthy findings.

Ethnic identity affirmation and belonging acted as a protective factor among individuals with low heterosexual self-presentation, low sexual identity exploration, and low sexual identity commitment, and also reinforced relations between participants who endorsed higher levels of education and PATHC and those who reported high levels of neighborhood collective efficacy and PATHC. These findings provide empirical evidence for our second hypothesis and are particularly important given EIAB's efficacy in moderating sexual identity variables in LMSM study participants given their dual minority identity. Specifically, among LMSM individuals who endorsed lower levels of heterosexual self-presentation, sexual identity exploration and commitment, individuals who simultaneously reported higher levels of ethnic identity affirmation and belonging indicated higher levels of perceived access to healthcare compared to their peers who indicated lower levels of EIAB. This finding provides evidence that among LMSM

individuals who may be less likely to: present themselves as heterosexual, explore their sexual identity, or be as committed to their sexual identity; that high levels of EIAB acts as a protective buffer even when accounting for the complex interaction between sexual minority identity and ethnic/racial minority identity in this population. Furthermore, EIAB boosted relations between individuals with higher education levels and higher levels of neighborhood collective efficacy and their perceived access to healthcare, which suggests that EIAB can also bolster positive associations between determinants and PATHC among Latino MSM. According to these results, EIAB also has the potential to moderate predictors across all levels of influence included in the study (e.g., individual [education], community [neighborhood collective efficacy], and sociocultural [heterosexual self-presentation and sexual identity exploration and commitment]).

Positive endorsements of ethnic identity have been found to be linked to increased levels of mental resiliency and mental wellbeing that act as a buffer against discrimination and prejudice (Sellers & Shelton, 2003; Wong et al., 2003). The present study's findings show support for the hypothesis that a strong affirmation and sense of belonging to one's ethnic identity in LMSM individuals may buffer against perceptions of low access to healthcare due to belief systems that may discern medical care in the U.S. as being prejudiced against sexual and/or racial and ethnic minority individuals. The present study also contributes to a growing body of literature that advocates for a closer examination of ethnic identity as well as related cultural values that may not only be protective in nature but possibly promote health-seeking behaviors in minority individuals overall. Though casual claims cannot be made, health service professionals can utilize these findings to consider how a patient's ethnic identity may influence their

perception of access and ultimately their ease or comfort of using healthcare services. This is especially important among minority patients who may experience high levels of discrimination due to their outward appearance (e.g., individuals who may experience racism or a lower level of care due to a biased provider because of their darker skin tone; Klonoff & Landrine, 2000), gender expression (e.g., MSM who may experience discrimination due to homophobia in the medical system if they outwardly display effeminate behaviorisms, mannerisms, speech patterns clothing, posture, etc.; Meyer, 2003; Veltman & Chaimowitz, 2014), and other observable markers of identity that may trigger instances of discrimination for dual minority individuals who utilize medical services in the U.S.

Regular training of how both LGB and ethnic/racial minority identity in healthcare settings may increase providers' awareness of when sexual or ethnic minority identity issues may play a role in a patient's comfort in accessing and utilizing health services. Although variables in the primary dataset did not report rates of health service utilization or of perceived negative or discriminatory experiences in healthcare settings, providing respectful care for both LGB and ethnic/racial minority persons remains imperative given that our sample may not represent the experiences of all LGB and/or ethnic and racial minority communities. This is especially true concerning individuals who hold a dual minority identity and their own experiences and discomfort of accessing health services that may not be catered to their unique healthcare needs. Based on the findings of this study, interventions may be needed at community engagement levels where healthcare professionals can advocate for the benefits of health service utilization among LMSM populations. The cities with the highest levels of engagement with the

primary study's survey, in no particular order, were Houston, Miami, New York, Chicago, and Los Angeles. Outreach to LMSM populations in these and other metropolitan areas with a large and therefore serviceable population of LMSM may be ideal targets for medical outreach teams and public healthcare initiatives. Health education and policy can positively endorse LMSM identity and emphasize the unique needs of this population in order to boost levels of comfort with accessing health services, as well as address negative perceptions of the U.S. medical system and healthcare provider biases.

Although the findings of this study support the theory that LMSM as dual minority individuals may display a higher level of mental health resiliency (Meyer, 2003), healthcare interventions should focus on making health system both more accessible and prepared to adequately service sexual minority, ethnic/racial minority, and dual minority populations. This could include training medical professionals on the prevalent health issues faced by LMSM individuals; policy, education, and community initiatives aimed at mobilizing and increasing health access in high density metropolitan areas of LMSM populations; and updating medical resources and other relevant sources for health information to reflect research that supports the need for pertinent medical services with LMSM and other dual minority individuals and communities.

Limitations and Conclusions

Data collection for the current study was based on the use of Internet-based recruitment and convenience sampling, which introduces the potential for sampling bias. Although the participant data was rigorously validated by identifying and filtering out

suspicions cases via validity check items, checks for duplication submission, logically inconsistent responses, and appropriate time taken to complete the study survey, online surveying methods are still vulnerable to fraudulent responses. This is exacerbated by studies that offer participant incentives as in the present study. Because the present study is both retrospective and a secondary data analysis, causal inferences about the variables assessed cannot be made. Longitudinal analyses establishing temporal relations are needed to examine whether the hypothesized correlates are truly determinants and moderators of access to healthcare. Finally, although the present study LMSM sample was recruited nationally, study results do not generalize to groups of LMSM outside the U.S. and those who do not use or have access to the Internet.

Data concerning health insurance coverage and health service utilization was not collected for the primary study, and was therefore not utilized in the current study given it is a secondary analysis of the pre-existing dat. Future studies should therefore consider collecting and analyzing data on health insurance coverage rates as well health service utilization rates among LMSM to compare determinants across further levels of access: perceived access, insurance coverage, and realized access of health services (Andersen et al., 2013). Additionally, future studies should further examine the multidimensional and intersectional nature of sexual minority identity and ethnic/racial minority identity in dual minority populations through structural equation modeling. It should be noted that the present study sample indicated particularly high levels of education and income, which may not be representative or reflective of the average LMSM population in the U.S. Finally, because the present study did not measure for perceptions of discrimination in either daily life or in the U.S. healthcare system specifically, future studies should

account for experiences of discrimination or bias as a confounding variable when examining ethnic identity's ability to moderate perceptions of healthcare access and health service/provider bias.

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APPENDIX A

ACCESS TO HEALTHCARE MEASURE

(Cunningham et al., 1999; Kinsler et al., 2009)

Thinking about the past 12 months, please indicate your level of agreement with the following statements: / *Pensando en los últimos 12 meses, indique su grado de acuerdo con las siguientes declaraciones:*

Response Options:

a. Strongly Disagree / *Muy en desacuerdo*
b. Disagree / *En desacuerdo*
c. Unsure / *No estoy seguro*
d. Agree / *De acuerdo*
e. Strongly Agree / *Muy de acuerdo*
f. Refuse to answer / *Se negó a contestar*

1. If I need hospital care, I can get admitted without any trouble / *Si necesito atención hospitalaria, puedo ser admitido sin ningún problema*
2. It is easy for me to get medical care in an emergency / *Es fácil para mi obtener atención médica en caso de emergencia*
3. I have never gone without medical care I needed because it is too expensive / *Nunca he estado sin atención médica porque es muy cara*
4. I have easy access to the medical specialists that I need / *Tengo acceso a médicos especialistas que necesito*
5. Places where I can get medical care are very conveniently located / *Lugares donde puedo obtener cuidado médico están muy bien situados*
6. I am able to get medical care whenever I need it / *Puedo obtener cuidado médico cuando lo necesite*

APPENDIX B

TANGIBLE SUPPORT AND BELONGING SUPPORT MEASURE

(Interpersonal Support Evaluation List; Cohen, Mermelstein, Kamarck, & Hoberman, 1985)

This scale is made up of a list of statements each of which may or may not be true about you. For each statement select the statement that best describes how you feel today. / *Esta escala se compone de una lista de declaraciones en cuales pueden o no ser verdad acerca de usted. Para cada declaración seleccione la que major describe cómo se siente hoy.*

Response Options:

a. Definitely false / *Definitivamente falso*
b. Probably false / *Probablemente falso*
c. Probably true / *Probablemente cierto*
d. Definitely true / *Definitivamente verdadero*
e. Refuse to answer / *Se negó a contestar*

1. If I wanted to go on a trip for a day (for example, to the country or mountains), I would have a hard time finding someone to go with me. / *Si quisiera viajar por un día (por ejemplo, para ir a el campo o a las montañas), tendría dificultad para encontrar a alguien que vaya conmigo.*
2. I feel that there is no one I can share my most private worries and fears with. / *Creo que no hay nadie con quien pueda compartir mis preocupaciones y temores más privadas*.
3. If I were sick, I could easily find someone to help me with my daily chores. / *Si estuviera enfermo, yo podría encontrar a alguien fácilmente para ayudarme con mis tareas diarias.*
4. There is someone I can turn to for advice about handling problems with my family. / *Hay alguien a quien puedo acudir en busca de consejos sobre los problemas de mi familia.*
5. If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me. / *Si decido alguna tarde que me gustaría ir al cine esa noche, podría encontrar a alguien fácilmente que me acompañe.*
6. When I need suggestions on how to deal with a personal problem, I know someone I can turn to. / *Cuando necesito sugerencias sobre cómo enfrentar un problema personal, conozco a alguien a quien puedo recurrir.*
7. I don't often get invited to do things with others. / *No me invitan a menudo hacer cosas con los demás.*
8. If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.) / *Si tuviera que salir de la ciudad por un par de semanas, sería difícil encontrar a alguien que me cuidara la casa o apartamento (las plantas, los animales, el jardín, etc.)*
9. If I wanted to have lunch with someone, I could easily find someone to join me. / *Si yo quisiera almorzar con alguien, podría encontrar a alguien fácilmente para que me acompañe.*

10. If I was stranded 10 miles from home, there is someone I could call who could come and get me. / *Si yo estuviera botado a 10 millas de la casa, habría alguien que podría llamar que pudiera venir a buscarme.*
11. If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it. / *Si surgiera una crisis familiar, sería difícil encontrar a alguien que me pueda dar un buen consejo sobre cómo manejar la situación.*
12. If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me. / *Si necesitara un poco de ayuda con la mudanza a una nueva casa o apartamento, fuera difícil encontrar a alguien que me ayude.*

APPENDIX C

NEIGHBORHOOD COLLECTIVE EFFICACY MEASURE

(Sampson et al., 1997)

Response Options:

a. Very unlikely / *Muy improbable*
b. Unlikely / *Improbable*
c. Neither likely nor unlikely / *Ni probable, ni improbable*
d. Likely / *Probable*
e. Very Likely / *Muy probable*
f. Refuse to answer / *Se negó a contestar*

1. If a group of neighborhood children were skipping school and hanging out on a street corner, how likely is it that your neighbors would do something about it? / *Si un grupo de niños del vecindario seestuviera escapando del colegio y se la pasara en la esquina de la calle, ¿qué tan probable es que sus vecinos hicieran algo acerca de eso?*
2. If some children were spray-painting graffiti on a local building, how likely is it that your neighbors would do something about it? / *Si un grupo de niños estuviera pintando graffiti en un edificio local, ¿qué tan probable es que sus vecinos hicieran algo acerca de eso?*
3. If a child was showing disrespect to an adult, how likely is it that people in your neighborhood would scold that child? / *Si un niño estuviese faltándole el respeto a un adulto, ¿qué tan probable es que la gente de su vecindario regañara a ese niño?*
4. If there was a fight in front of your house and someone was being beaten or threatened, how likely is it that your neighbors would break it up? / *Si hubiera una pelea enfrente de su casa y alguien fuera golpeado o amenazado, ¿qué tan probable es que los vecinos interrumpieran la pelea?*
5. Suppose that because of budget cuts the fire station closest to your home was going to be closed down by the city. How likely is it that neighborhood residents would organize to try to do something to keep the fire station open? / *Suponga que debido a recortes en el presupuesto, la estación de bomberos más cercana de su hogar fuera a ser cerrada por la ciudad. ¿Qué tan probable sería que los residentes del vecindario organizaran algo para tratar de mantener la estación de bomberos abierta?*
6. People around here are willing to help their neighbors. / *La gente que vive por aquí está dispuesta a ayudar sus vecinos.*
7. This is a close-knit neighborhood. / *Este es un vecindario unido.*
8. People in this neighborhood can be trusted. / *Se puede confiar en la gente de este vecindario.*
9. People in this neighborhood generally don't get along with each other. / *En general, la gente en este vecindario no se lleva bien.*
10. People in this neighborhood do not share the same values. / *La gente en este vecindario no comparte los mismos valores.*

APPENDIX D

HETEROSEXUAL SELF-PRESENTATION SUBSCALE

(Conformity to Masculine Norms Inventory-46; Parent & Moradi, 2009)

Thinking about your own actions, feelings and beliefs today, please indicate how much you personally agree or disagree with each statement. There are no right or wrong responses to the statements. You should give the responses that most accurately describe your personal actions, feelings and beliefs. It is best if you respond with your first impression when answering. Your responses will remain confidential so please answer as honestly as possible. / *Pensando en sus propias acciones, sentimientos y creencias, por favor indique qué tan de acuerdo o en desacuerdo está usted con cada declaración. No hay respuestas correctas o incorrectas sobre las declaraciones. Usted debe dar las respuestas que major describen sus acciones, sentimientos y creencias. Sería mejor si usted respondiera con su primera impresión al contestar. Sus respuestas serán confidenciales así que por favor conteste con honestidad.*

Response Options:

a. Strongly disagree / *Muy en desacuerdo*
b. Disagree / *En desacuerdo*
c. Agree / *De acuerdo*
d. Strongly Agree / *Muy de acuerdo*
e. Refuse to answer / *Se negó a contestar*

1. Being thought of as gay or bisexual is not a bad thing / *Ser pensado como homosexual o bisexual no es algo malo*
2. I would be furious if someone thought I was gay or bisexual / *Estaría furioso si alguien piensa que yo soy gay o bisexual*
3. It would not bother me at all if someone thought I was gay or bisexual / *No me molesta en absoluto si alguien piensa que soy gay o bisexual*
4. It would be awful if people thought I was gay or bisexual / *Sería terrible que la gente piense que soy gay or bisexual*
5. I would feel uncomfortable if someone thought I was gay or bisexual / *Me sentiría incómodo si alguien piensa que yo soy gay o bisexual*
6. I try to avoid being perceived as gay or bisexual / *Trato de evitar ser percibido como gay o bisexual*

APPENDIX E

MEASURE OF SEXUAL IDENTITY COMMITMENT AND EXPLORATION SUBSCALES

(Worthington et al., 2008)

Please rate how much you personally agree or disagree with these statements today. / *Por favor califique que tan personalmente está de acuerdo o en desacuerdo con estas declaraciones hoy.*

Response Options:

a. Very Uncharacteristic of Me / *No muy característico de mi*
b. Uncharacteristic of Me / *No característico de mi*
c. Somewhat Uncharacteristic of Me / *Algo no característico de mi*
d. Somewhat Characteristic of Me / *Algo característico de mi*
e. Characteristic of Me / *Característico de mi*
f. Very Characteristic of Me / *Muy característico de mi*
g. Refuse to Answer / *Prefiero no contestar*

COMMITMENT SUBSCALE

1. I have a firm sense of what my sexual needs are. / *Tengo un sentido claro de mis necesidades sexuales.*
2. I know what my preferences are for expressing myself sexually. / *Yo sé cuáles son mis preferencias para expresarme sexualmente.*
3. I have never clearly identified what my sexual needs are. / *Yo nunca he identificado mis necesidades sexuales claramente.*
4. I have a clear sense of the types of sexual activities I prefer. / *Tengo una idea clara de los tipos de actividades sexuales que prefiero.*
5. I do not know how to express myself sexually. / *No sé cómo expresarme sexualmente.*
6. I have never clearly identified what my sexual values are. / *Nunca he identificado claramente cuáles son mis valores sexuales.*

EXPLORATION SUBSCALE

7. I am actively trying new ways to express myself sexually. / *Estoy activamente tratando nuevas formas de expresarme sexualmente.*
8. I can see myself trying new ways of expressing myself sexually in the future. / *Puedo verme tratando nuevas formas de expresarme sexualmente en el futuro.*
9. I am open to experiment with new types of sexual activities in the future. / *Estoy abierto a experimentar con nuevas formas de actividades sexuales en el futuro.*
10. I am actively experimenting with sexual activities that are new to me. / *Estoy experimentando activamente con actividades sexuales que son nuevas para mí.*
11. I am actively trying to learn more about own sexual needs. / *Estoy activamente tratando de aprender más acerca de mis necesidades sexuales.*
12. My sexual values will always be open to exploration. / *Mis valores sexuales siempre estarán abiertas a la exploración.*
13. I went through a period of my life when I was trying different forms of sexual expression. / *Pase por un periodo de mi vida cuando trataba diferentes formas de expresión sexual.*

APPENDIX F

ETHNIC IDENTITY AFFIRMATION AND BELONGING SUBSCALE

(Multigroup Ethnic Identity Measure; Phinney, 1992)

In this country, people come from many different countries and cultures, and there are many different words to describe backgrounds or ethnic groups that people come from. Some examples of ethnic groups are Latino, African American, Mexican, Asian American, Chinese, and many others. These questions are about your ethnicity or your ethnic group and how you feel about it or react to it. / *En este país, la gente viene de muchos países y culturas diferentes, y hay muchas palabras diferentes para describir las culturas o los grupos étnicos de las personas. Algunos ejemplos de los grupos étnicos son latinos, afroamericanos, mexicanos, asiáticos americanos, chinos, y muchos otros. Estas preguntas son acerca de su origen étnico o su grupo étnico y cómo te sientes al respecto o reaccionar ante ella.*

Response Options:

a. Strongly Agree / *Muy de acuerdo*
b. Agree / *De acuerdo*
c. Neutral / *Neutral*
d. Disagree / *En desacuerdo*
e. Strongly Disagree / *Muy en desacuerdo*
f. Refuse to Answer / *Se negó a contestar*

1. I have a clear sense of my ethnic background and what it means for me. / *Tengo un sentido claro de mi grupo étnico y lo que significa para mí.*
2. I am happy that I am a member of the group I belong to. / *Soy feliz por ser miembro del grupo que pertenezco.*
3. I have a strong sense of belonging to my own ethnic group. / *Tengo un fuerte sentido de que significa para mí pertenecer a un grupo étnico.*
4. I understand pretty well what my ethnic group membership means to me. / *Entiendo bien lo que significa que mi pertenencia a un grupo étnico a mí.*
5. I have a lot of pride in my ethnic group. / *Tengo mucho orgullo de mi grupo étnico.*
6. I feel a strong attachment towards my own ethnic group. / *Siento un fuerte apego hacia mi grupo étnico.*
7. I feel good about my cultural or ethnic background. / *Me siento bien acerca de mi origen cultural o étnico.*

APPENDIX G

DESCRIPTIVE STATISTICS AND CORRELATIONS

	Range	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11
1. Perceived access to healthcare	1-6	3.99	.63											
2. Age	-	4.62	6.31	.03										
3. Education level	1-7	4.62	1.39	.21***	.01**									
4. Income level	1-10	6.65	1.91	.11**	.25***	.63***								
5. Social support	1-4	2.87	.46	.01	.20***	−.29***	−.22***							
6. Neighborhood collective efficacy	1-5	3.61	.59	.19***	.29***	.03	.15**	.37***						
7. Immigration status	1-4	1.11	.43	−.01	.10*	−.04	.06	.33***	.07					
8. Heterosexual self-presentation	1-4	2.51	.69	.17**	−.16***	.23***	.17***	−.56***	−.23***	−.17***				
9. Sexual identity exploration	1-6	4.62	.88	.19***	.17***	.18***	.17***	.01	.26***	−.01	.07			
10. Sexual identity commitment	1-6	3.82	1.21	−.16**	.28***	−.32***	−.22***	.66***	.23***	.26***	−.59***	−.02		
11. Ethnic identity affirmation and belonging	1-5	3.46	1.00	.19***	.24***	−.02	.11*	.26***	.36***	.17***	−.17***	.23***	.15**	

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$