Intersectional Discrimination, Psychological Distress, and Physical Health Symptoms

Among Latinx Sexual Minority Adults

by

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ABSTRACT

Latinx sexual minority adults experience diverse types of discrimination, including heterosexism and ethnic/racial discrimination, which may contribute to worse physical health. Yet little research has examined how intersectional forms of discrimination, for example, discrimination within another marginalized community contribute to physical health. Greater experiences of discrimination can lead to greater psychological distress which may then exacerbate physical symptoms. It was hypothesized that the association between intersecting forms of discrimination and physical symptom severity would be mediated by psychological distress. Participants (N = 369) identified as Latinx/Hispanic/Latino and as a sexual or gender minority. Data were collected via a self-report web-based survey. Using structural equation modeling, this study tested two theory-informed structure equation models (SEM) proposing pathways between perceived general and within-group discrimination (i.e., Model 1 = racism and racism within LGBTQ+ community; Model 2 = heterosexism and heterosexism within ethnic/racial community), psychological distress (i.e., anxiety and depression), and physical symptom severity. Both structural models demonstrated good fit to the data. As hypothesized, heterosexist discrimination (β = .184, p = .007) and racist discrimination (β = .284, p = .001) significantly predicted higher physical symptom severity in their respective models. Depression symptoms significantly mediated the association between ethnic/racial discrimination and physical symptom severity (β = .189, p = .003). Similarly, greater frequency of heterosexism within one's ethnic/racial community was indirectly related with worse physical symptoms severity via depression (β = .200, p = .002). No other indirect effects were significant. Findings from this study support that

Latinx sexual minority adults may be at risk for discrimination from outside and within their own minority groups which has detrimental effects on health. Noteworthy, depressive symptoms appeared to mediate the effects of heterosexism in one's ethnic/racial group on physical symptoms. These results highlight how overlapping forms of stigma have differential effects on health via psychological distress. These findings have important clinical and scientific implications in understanding how overlapping forms of discrimination affect health among Latinx sexual minority adults.

A special dedication to my parents, Beto and Lupita, who decided to immigrate to this country to provide their children the opportunities they did not have. Without your love, support, and sacrifice none of this would have been possible.

To my Tío José who was willing to provide an immense helping hand at a pivotal point. The role you played in my life has been invaluable and irreplaceable. You will always be remembered.

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CHAPTER 1

INTRODUCTION

Latinx sexual minority populations are at an increased risk of experiencing

discrimination, stigma, and rejection. Despite improvements in attitudes towards LGBTQ

communities (Pew Research Center, 2020) and the legalization of same-sex marriage in

the past few decades, sexual and gender minority (SGM) communities continue to be

subjected to institutional, legal, and interpersonal discrimination (Hatzenbuehler, 2017;

Solazzo et al., 2018). Similarly, despite the growth in the Latinx population living in the

U.S. over the past few decades (Noe-Bustamante et al., 2019), this community continues

to experience unique cultural, linguistic, and socioeconomic barriers (Cabral & Cuevas,

2020; Molina et al., 2019). These systemic inequalities and discrimination have been

linked with worse health outcomes among sexual minority and Latinx populations. In

fact, research in the past few decades has revealed a range of mental and physical health

disparities among Latinx sexual minorities (Cochran & Mays, 2007; Martinez et al.,

2017; Talley et al., 2014; Trinh et al., 2017). Minority stress theory (MST; Meyer, 2013)

proposes that experiences of stigma, discrimination, and marginalization (i.e., racism and

heterosexism) present within a hostile environment are believed to be the causal links of

illness and health disparities among minority groups.

From an intersectional framework (Cole, 2009; Crenshaw, 1989), scholars have

proposed methods to measure how interlocking forms of discrimination affect the well-

being of SGM People of Color (POC). Much research has documented the detrimental

effects of discrimination on psychological health (Choi et al., 2013; Velez et al., 2015)

and physical health (Bogart et al., 2013) among SGM POC. Many of these studies

examine the additive effects of heterosexist and racist discrimination (Anhalt et al., 2020; Velez et al., 2015). Yet, Latinx sexual minority individuals may also be subjected to stigma within another community; for example, they may experience racism within the LGBTQ+ community while also experiencing heterosexism within their own racial/ethnic community (Eaton & Rios, 2017; Noyola et al., 2020). Less empirical evidence has examined the effects of within-group stigma among this community. This lack of empirical attention to how intersecting minority stressors underly physical health precludes the development of culturally-responsive interventions geared towards mitigating health disparities.

Theoretical extensions to the MST (e.g., the psychological mediation framework [PMF]; Hatzenbuehler, 2009; Lick et al., 2013) have proposed pathways linking discrimination, psychological distress, and physical health. These minority stress models posit that experiences of discrimination increase the likelihood of psychological distress (e.g., depression and anxiety) which in turn leads to negative physical health outcomes (e.g., physical symptom severity). Lick et al. (2013) provided a review of theory and empirical evidence drawing from PMF (Hatzenbuehler, 2009) and stress neurobiology theories (McEwen, 2007; Miller & Chen, 2010) to propose that interpersonal experiences of stigma, rejection, and discrimination may lead to an accumulation of stress that may have detrimental effects on physical health. Among sexual minority adults, greater experiences of interpersonal heterosexism have been shown to be associated with worse physical health (Denton et al., 2014; Meyer et al., 2015; Walch et al., 2016). Similarly, greater reports of racism among communities of color have been associated with worse physical health (Brondolo et al., 2011; Cariello et al., 2019). Many of these studies have

also found support for psychological distress as a mediator between stigma and physical health. The current study sought to test how perceived interpersonal discrimination accounts for physical symptom severity via psychological distress among a sample of Latinx sexual minority adults.

In sum, the purpose of this study was to examine the relations between minority stressors, psychological distress, and physical symptom severity among Latinx sexual minority adults. Drawing from intersectional framework, this study broadened the measurement of minority stressors to include outer- and within-group discrimination (racist discrimination and racism within the LGBTQ+ and heterosexist discrimination and heterosexism within one's ethnic/racial community). Findings from this study may inform the development of culturally-responsive interventions aimed at addressing stigma-related stress and physical health issues among Latinx sexual minority individuals.

CHAPTER 2

LITERATURE REVIEW

Minority Stress & Health

Minority stress theory (Meyer, 2013) has enjoyed significant popularity and empirical support in the recent decades. Proposed primarily to understand health disparities among sexual minority populations, it is based on social stress theories that argue that psychological illness present among sexual minorities are primarily due to experiences of discrimination, rejection, and prejudice. MST states that prejudice and stigma result in hostile and stressful social environments that cause heightened stress (labeled "minority stress") and that this accumulation of stress over time results in increased psychopathology and worse health outcomes. MST has been applied and gained empirical support across studies examining the association between minority stress and various outcomes such as depression, anxiety, suicide, substance use, and psychological well-being among sexual and gender minority populations (Bruce et al., 2015). MST has even garnered empirical evidence to support its causal claims via the use of longitudinal methods (Dyar et al., 2019; Dyar & London, 2018; English et al., 2018). In fact, the MST framework been similarly applied to investigate the link between racial/ethnic discrimination and health (Cerezo, 2016; Velez et al., 2015).

While burgeoning empirical evidence on LGBTQ+ populations has focused on mental health disparities, there has been a recent rise in applying MST to understand physical health disparities. Emerging research has documented that stigma related to a sexual minority identity is associated with physical health problems (Frost et al., 2015), including heart disease (Blosnich et al., 2016), overall health status (Walch et al., 2016)

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and substance use (Parent et al., 2019). Racial/ethnic prejudice has been similarly linked with perceived physical health (Brondolo et al., 2011; Cariello et al., 2019). Yet there remains a gap examining intersectional stigma and health among Latinx sexual minority communities. This gap results in little understanding of how stigma and discrimination contribute to physical health issues, disability, and impairment among Latinx sexual minority communities, let alone how to inform interventions to address these health disparities. To advance the literature on Latinx sexual minority health, this study was informed by extensions of MST that propose links between minority stress, psychological distress (Hatzenbuehler, 2009), and physical health (Lick et al., 2013).

Intersectional Discrimination: General & Within-group Discrimination

Emerging research focused on sexual minority people of color has often drawn from intersectionality theory to understand the effects of intersecting and overlapping forms of discrimination. Diverse approaches have been implemented to measure intersecting forms of discrimination and assess its effects on health and well-being. A frequent practice has been to measure specific types of identity-specific prejudice experiences (e.g., heterosexist and racist discrimination) and utilize quantitative methods to analyze the additive and/or multiplicative effects on health (Torres et al., 2018; Velez et al., 2015). However, these methodologies have been critiqued for their assumption that social identities and experiences of stigma can be separated and measured as mutually exclusive (Bauer, 2014; Bowleg, 2008). Instead, other researchers have proposed have proposed scales to measures stigma specific to a "sexual minority of color identity" (Ouch & Moradi, 2019).

Each of these approaches have elucidated how overlapping forms of discrimination affect health and well-being among sexual minority people of color. Another emerging measurement method is to assess within-group discrimination. That is, measuring minority stress within another minority group. For Latinx sexual minority communities, this would mean assessing the experiences of racism they may experience within the LGBTQ+ community and the heterosexism they may face within the Latinx community or another racial/ethnic minority group. Some scholars have sought to measure such experiences of intersecting discrimination (Balsam et al., 2011). For example, using qualitative interviews with a sample of Latinx sexual minority adults, Noyola et al. (2020) noted how participants reported experiences of rejection within their families in addition to feeling marginalized within the LGBTQ+ community.

Evidence shows that Latinx sexual minority adults are at risk of experiencing discrimination from members outside of their minority groups (e.g., White heterosexual individuals) in addition to discrimination from within their minority communities. Ibañez et al. (2009) recruited a sample of Latino gay men and measured experiences with general racism and racism within gay contexts, noting the complexity of experiences with racism. Similarly, among a sample of sexual minority Latina women, experience of discrimination related to an ethnic and sexual minority identity were associated with worse mental health symptoms (Cerezo, 2016). Yet less is known about the effects of both outer- and within-group discrimination on psychological and physical health. In particular, there is a gap in our understanding of how outer- and within-group discrimination account for physical symptoms. Latinx sexual minority health research has documented the detrimental effects of outer group discrimination (Bogart et al., 2013).

However, it is unclear to what extent within-group discrimination accounts for those effects. Thus, this study sought to address this gap by measuring both outer-group and within-group discrimination and testing both as predictors of physical and physical health outcomes.

Psychological Distress as a Mediator

Hatzenbuehler (2009) proposed the psychological mediation framework (PMF) conceptualizing how psychological processes mediate the links between stigma experiences (e.g., discrimination and rejection) and psychopathology (e.g., depression, anxiety, etc.). PMF postulates that the accumulation of stigma-related stress (rejection and discrimination based on sexual minority identity) creates elevations in stress exposure which results in impaired emotion regulation, depletion of stress coping capacities, and cognitive processes that increase the risk of psychopathology. Lick et al. (2013) contributed theoretical links between stigma experiences, psychological health, and physical health. Systemically reviewing the literature on physical health disparities among sexual minorities, Lick et al. (2013) emphasized the lack of theoretical frameworks linking pathways between minority stress and physical health disparities. One major finding was the role of psychological distress in physical health. For example, research on psychological distress and health outcomes have found positive associations between psychological symptoms and dysregulated immune functioning (Miller & Chen, 2010), poor antibody response following the use of a vaccine (Segerstrom & Miller, 2004), and susceptibility to issues to as the common cold, headache, etc. (Cohen et al., 1991). In fact, emerging empirical research has corroborated the detrimental effects of

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heterosexist discrimination (Denton et al., 2014; Frost et al., 2015) and racist discrimination (Paradies et al., 2015) on physical health.

In summary, theory and extant evidence suggest pathways between discrimination, psychological distress, and physical health. Previous research has also shown psychological symptoms as mediators between racial-ethnic discrimination and physical health (Brondolo et al., 2011; Cariello et al., 2019; Lewis et al., 2015). Yet, these pathways have not been tested among Latinx sexual minority individuals. This study proposes to address this paucity in the data by testing a theory-informed pathway perceived discrimination, psychological distress (i.e., depression and anxiety), and physical symptom severity (see Figures 1 and 2).

The Current Study

The present study sought to test a theory-informed structural equation model linking perceived discrimination, psychological distress, and physical symptom severity in a sample of Latinx SGM adults. Additionally, this study proposes an innovative approach to testing intersectional discrimination by measuring both the unique effects of outer-group discrimination and within-group discrimination on health outcomes. Two structural models were estimated, where the Perceived Racism Model (see Figure 1) included perceived racist discrimination variables (i.e., general ethnic/racist discrimination and experience of racism within the LGBTQ+ community) as predictors of mental and physical health. The Perceived Heterosexism Model (see Figure 2) included perceived heterosexist discrimination variables (i.e., general heterosexist discrimination and experiences of heterosexism within one's ethnic/racial community) as predictors of mental and physical health. Informed by the model, psychological distress

variables (i.e., depression and anxiety) were tested as mediators between perceived

discrimination and physical symptom severity in each model. Given the correlation

design of the current study, an alternative nested model was parametrized to test whether

psychological distress fully mediated the link between perceived discrimination and

physical symptom severity.

Study Hypotheses

Hypothesis 1 (H1): To meet the study objective of testing theory-informed structural

equation model, first confirmatory factor analysis (CFA) was used to assess the

measurement models.

      a.   In the Perceived Racism Model, it is hypothesized scale items will load

           into their respective latent variables.

      b.   In the Perceived Heterosexism Model, it is hypothesized scale items will

           load into their respective latent variables.

Hypothesis 2 (H2): After assessing the measurement models, the structural pathways

      will be estimated.

      a.   In the Perceived Racism Model, it is hypothesized perceived racism

           variables will be directly and indirectly associated with physical

           symptom severity.

      b.   In the Perceived Heterosexism Model, it is hypothesized perceived

           heterosexism variables will be directly and indirectly associated with

           physical symptom severity.

Hypothesis 3 (H3): An alternative model will test for full or partial mediation.

a.   In the Perceived Racism Model, it is hypothesized that a partial mediation model will have better fit to the data than a full mediation model. That is, it is expected that psychological distress (i.e., anxiety and depression) will partially mediate the association between perceived discrimination and physical symptoms.

b.   In the Perceived Heterosexism Model, it is hypothesized that a partial mediation model will have better fit to the data than a full mediation model. That is, it is expected that psychological distress (i.e., anxiety and depression) will partially mediate the association between perceived discrimination and physical symptoms.

Given the gap in literature examining discrimination within another minority group, no specific hypotheses were proposed on significance patterns across discrimination variables.

CHAPTER 3

METHOD

Procedures

To meet study objectives a national U.S. sample of Latinx sexual minority adults was recruited. To participate in this study, individuals had to meet the following criteria: a) at least 18 years old, b) identify as Latinx/Latino/Hispanic or of Latin American descent, c) identify as a sexual minority (i.e., gay, lesbian, bisexual, pansexual, asexual, or non-heterosexual), and d) currently reside in the United States. Participants of any gender identity were allowed to take part on this study. Study participants were recruited using various strategies including the use of social media posts and advertisements (i.e., Facebook). Previous research has supported benefits of using online recruitment over in-person sampling (e.g., at LGBT Pride events; bars/nightclubs) as in-person recruitment at these events may be biased in including mostly individuals who are more comfortable being "out" in public and who are highly involved in sexual minority communities (Moradi et al., 2009). Research supports that internet studies can provide findings that are consistent with those obtained from traditional interviewing methods (Kosinski et al., 2015). Recruitment flyers were shared on Facebook groups and Facebook pages that demonstrated relevant themes to the Latinx and/or LGBTQ+ community. Additionally, community centers, organizations, and other institutions that serve Latinx and/or LGBTQ+ communities were contacted and asked if they could share recruitment materials in their communities via social media or email.

Due to a recent increase in automated accounts ("bots") spamming online surveys, recommended survey approaches were incorporated to prevent bots decreasing the

quality of data collected (Bybee et al., 2021). Additional recommendations (Simone, 2019) included tracking timestamps, using CAPTCHA tools embedded in Qualtrics, including attention/logic checks, and adding three open-ended questions at the beginning, middle, and end of the study that inquired about participants' subjective experiences.

In total, 1207 participants clicked on the survey yet 227 were removed as they failed to meet the eligibility criteria. An additional 20 were removed since they did not fully complete the demographic questionnaire and 127 participants were also removed as they had no responses past the demographics section. Then 435 participants were removed based on characteristics that strongly supported those were bot responses (e.g., non-sense responses on open-ended questions). Finally, an additional 29 were missing data on the main study variables and thus were removed. Among the final sample, item-level missingness across surveys ranged from 14% to 12%.

To reduce over-sampling individuals with high academic attainment, socioeconomic status, and/or high affiliation to cultural identities, recruitment materials were not shared in professional academic listservs. After confirming the eligibility criteria and signing the informed consent, participants completed a 30-35-minute Qualtrics online survey. Participants had the option to complete the Spanish version of the survey; Spanish-version validated scales were used where available or were translation into Spanish using a recommended back-translation method (Bracken & Barona, 1991). Participants were given the option to enter a drawing to win a $25 gift card.

To address potential order effects, the order in which survey measures appeared were randomized for each participant. Given that several measures inquired about

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potentially sensitive information (e.g., experiences of discrimination, depression, etc.), information for mental health, legal, and community resources were provided for all participants at the end of the survey.

Sample

The final sample included $N = 369$ participants who ranged in age from 18 to 70, 30.7% identified as cisgender men, 29.2% cisgender women, 3.8% as transgender men, 2.8% transgender women, and 32.3% as nonbinary or gender-nonconforming. Participants identified as gay/lesbian (43.8%), bisexual (22.9%), pansexual (7.8%), queer (19.9%), questioning (2.0%), and additional identities (3.5%). Among the full sample, (11.1%) identified as asexual. Regarding racial/ethnic identity, 6.6% identified as Afro-Latinx or Black Latinx, 49.6% as White Latinx, 11.5% as Native American or Indígena, 13.5% wrote in additional identities, and about 27.5% did not respond to the racial identity question. While it was an unexpected large proportion of participants who refused to indicate a racial/ethnic identity, this finding seemed to be congruent with other Latinx/Hispanic population surveys about racial identification (Noe-Bustamante et al., 2021). Participants also reported level of educational attainment, with 2.5% indicating less than high school, 28.5% had high school or equivalent, 12.1% had completed some college, 32.2% had a bachelor's degree, and 23.4% had a graduate or professional degree.

Measures

Heterosexist Discrimination

The Heterosexist Harassment, Rejection, & Discrimination Scale (HHRDS; Szymanski, 2006) is a 14-item scale used to measure the frequency of perceived heterosexist discrimination, harassment, and rejection in the past year. Because the

original HHRDS scale was constructed for a lesbian population, items were adapted in the current study to apply to the larger sexual minority population. Examples of adapted items included, "How many times have you been verbally insulted because you are a sexual minority?" and "How many times have you been rejected by friends because you are a sexual minority?". Participants responded using a 6-point Likert scale ranging from 1 (*This event has never happened to you*) to 6 (*This event happened almost all of the time*). A mean score was calculated for each participant, with higher scores indicating a higher frequency of heterosexist discrimination, harassment, and rejection for being a sexual minority. In a sample of sexual minority Latinx individuals, HHRDS items had a Cronbach's α of .90 (Velez et al., 2015). The Cronbach's α in the current sample was .94.

Ethnic Discrimination

The Perceived Ethnic Discrimination Questionnaire- Community Version Brief (PEDQ-CVB; Brondolo et al., 2005) was used to measure experiences of discrimination due to one's racial/ethnic identity. This 17-item scale measures frequency of perceived ethnic discrimination across various settings. Participants are provided the statement "Because of your race/ethnicity…" and asked to rate each item on a 5-point Likert scale ranging from 1 (*Never happened*) to 5 (*happened very often*). Sample items include, "People have been nice to my face but said bad things behind my back" and "People have hinted you must be lazy". A mean score for each participant was calculated. Higher scores on the PEDQ-CVB indicate higher frequency of racist experiences related to identifying as Latinx. This scale has shown acceptable internal consistency (Cronbach's α

= .90) in a sample of Latino men who have sex with men (Bogart et al., 2013). In the current sample, the Cronbach's α was .93.

LGBTQ+ POC Microaggressions

The LGBTQ POC Microaggressions Scale (Balsam et al., 2011) includes items to measure experiences of intersectional discrimination based on one's racial/ethnic background and one's LGBT identity. Items from two subscales, "racism in LGBTQ+ community" and "heterosexism within ethnic/racial community", were included in this study. Sample items included "Difficulty findings friends who are LGBT and from your racial/ethnic background", "Not being accepted by other people of your race/ethnicity because you are LGBT", and "White LGBTQ people saying things that are racist". Participants were asked to respond to these questions using a 6-point Likert scale ranging from "*Did not happen/not applicable to me*" to "*It happened, and it bothered me extremely.*" A mean score was calculated for each participant to capture distress related to intersectional discrimination, where higher mean scores indicate higher intersectional discrimination distress. Both the racism and heterosexism subscales demonstrated adequate internal consistency across both subscales in the current sample, Cronbach's α = .82 and Cronbach's α = .86, respectively.

Anxiety

The Generalized Anxiety Disorder-7 (GAD-7) is a 7-item scale that measures anxiety based on generalized anxiety disorder criteria (Spitzer et al., 2006). To assess the presence and severity of anxiety symptoms, participants were asked to rate the level of bothered they have experienced across each symptom over the past two weeks. Sample items included "Feeling nervous, anxious, or on edge" and "Trouble relaxing". The

response scale is a 4-point Likert scale ranging from 0 (*Not at all*) to 3 (*Nearly every day*). A mean score was calculated for each participant, where a higher valued indicated higher anxiety symptoms. Prior studies utilizing the GAD-7 in a sample of Latinx immigrants have found excellent internal consistency with a Cronbach's α of .92 (Cariello et al., 2019), similar to the current sample (Cronbach's α = .93).

Depression

The Patient Health Questionnaire-9 (PHQ-9; Kroenke et al., 2010) is a 9-item criteria-based screening tool used to assess depressive symptoms severity. Participants were asked to rate each item based on their experience during the previous two weeks. Sample items include "Feeling down, depressed, or hopeless" and "Little interest or pleasure in doing things". The response scale is a 4-point Likert scale ranging from 0 ("Not at all") to 3 ("Nearly every day"). Item 9 ("Thoughts that you would be better off dead, or of hurting yourself") was excluded given that in cases where participants endorsed this item, the anonymous online survey method precluded ensuring the safety of the specific participant without breaking confidentiality. A mean score was calculated for each participant, where a higher mean indicated higher depression. This measure has been previously utilized with Latino populations and demonstrated consistency in factor structure (Huang et al., 2006). In the current sample, internal consistency was acceptable (Cronbach's α = .91).

Perceived Symptom Severity

The Cohen-Hoberman Inventory of Physical Symptoms (CHIPS; Cohen & Hoberman, 1983) is a 33-item scale the measures the perceived burden or severity related to a common physical symptom. Sample items include "Back pain", "Headache", "Stuffy

head or nose" among many others. Participants were asked to rate how much each problem has bothered them during the past two weeks, rated on 5-point Likert scale ranging from 0 ("Not at all") to 4 ("Extremely"). A mean score was calculated for each participant, where a higher score indicated higher symptom severity. Previous research with an LGB sample has demonstrated adequate Cronbach's alpha (.93; Denton et al., 2014), comparable to this sample (Cronbach's α = .94).

Data Analysis Plan

Preliminary Analyses

Preliminary analyses were carried to estimate means, standard deviations, skewness, kurtosis, internal consistencies (Cronbach's alpha), and bivariate correlations and multicollinearity between the relevant variables. Normality assumptions were assessed based on suggested cut-off of skewness < 3, kurtosis <10 (Weston & Gore, 2006).

Main Analyses

Analyses were conducted using Mplus Version 8.2 (Muthén & Muthén, 2012). Recommendations by Anderson & Gerbing (1988) were followed, which argued for a two-step approach to assessing equation models. First, the measurement model was estimated using confirmatory factor analysis to evaluate the fit of the indicators to their hypothesized latent factors. Next, the fit for the full structural equation model was evaluated with the hypothesized pathways. Model fit was assessed using various fit indices: chi-squared (χ^2), the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), and the standardized root-mean-square residual (SRMR). Based on previous research, indicators of adequate model fit range from more liberal

cutoffs of CFI of $\geq .90$, SRMR $\leq .10$, and RMSEA $\leq .10$ to more conservative cutoffs of CFI of $\geq .95$, SRMR $\leq .08$, and RMSEA $\leq .06$ (Hu & Bentler, 1999; Kline, 2011).

The baseline structural equation model estimated both the indirect and direct effects between the predictors and the main outcome to assess for partial mediation effects. Nested model comparison was used to compare the full mediation models (i.e., a model where all direct effects between predictors and the main outcome were constrained to zero) to the partial mediation models. Changes in chi-square (χ^2) were examined to determine which model had better fit, where higher value indicates worse fit. In cases that chi-square is significantly different between to models, it may be appropriate to estimate additional parameters (Schermelleh-Engel et al., 2003). However, in the case of non-significant chi-square differences, the more parsimonious model is preferred. Since analysis utilized full-maximum likelihood estimation, chi-square difference test was calculated using the Satorra & Bentler (2001) recommended approach to ensure accurate comparisons. In calculating the Satorra-Bentler (*SB*) Scaled Chi-Square test, the model with higher degrees of freedom was used as the comparison model to avoid calculating a negative chi-square. Thus, the *SB* χ^2 difference was calculated using the full mediation model as the comparison and the partial mediation as the nested model. Finally, acknowledging that chi-square is also sensitive to large sample samples (West et al., 2012), previously mentioned indices will also be used to compare the nested model (i.e., CFI, SRMR, RMSEA). Full-information maximum-likelihood estimation was used to address missingness in the data (Schlomer et al., 2010).

CHAPTER 4

RESULTS

Preliminary Results

Outlier and normality testing

Prior to running the main analyses, normality was assessed. The data met the normality criteria for skewness (<3) and kurtosis (<10; Weston & Gore, 2006). Means, standard deviations, and bivariate correlations are presented in Table 1 and 2. Bivariate correlations showed that all perceived discrimination variables were positively correlated with anxiety, depression, and physical symptom severity.

Endogenous and exogenous variables

Exploratory factor analyses (EFA) were run for each of the main study variables (i.e., ethnic/racist discrimination, heterosexist discrimination, racism in the LGBTQ+ community, heterosexism in one's ethnic/racial community, anxiety, depression, and physical symptoms severity) to test their psychometric validity and unidimensionality. Assessing for unidimensionality of scale items is also a recommended step in item parceling methods (Little et al., 2013). Items from the HHRDS and PEDQ-CVB were used as indicators for heterosexist discrimination and ethnic/racial discrimination, respectively. The subscale items from the LGBTQ+ POC Microaggressions Scale (i.e., "racism in the LGBTQ+ community" and "heterosexism in one's ethnic/racial community") were used as indicators for their respective latent variables. Similarly, items from the PHQ-9 and GAD-7 were used as indicators for latent depression and anxiety. All measures demonstrated adequate unidimensionality except for the CHIPS. Given that this study aimed to assess the association between anxiety and depression with physical

symptom severity, items from the CHIPS that overlapped with the PHQ-9 and GAD-7 were excluded to reduce multicollinearity (i.e., sleep problems, constant fatigue, feeling low energy). The EFA for the CHIPS was estimated with the remaining 29 items, where 7 items had factor loadings below .30 and so were excluded based on recommendations to include items with factor loadings of > .40 (Howard, 2016). The items included the symptoms weight change, back pain, constipation, diarrhea, acne, bruises, and nosebleeds (see Table 3 for factor loadings).

In constructing latent variables, recommendations indicate that 3 or 4 indicators per latent variable are ideal (Bollen & Bauldry, 2011). The scales for perceived heterosexist discrimination, perceived ethnic/racial discrimination, and for physical symptom severity were all comprised of more than 10 items (14, 17, and 26 items, respectively). Item parceling was used to construct the latent variables for these three measures. Item parceling has been recommended by scholars as an efficient method to model latent variables, given its advantages in improving model fit, decreasing bias in estimates, and higher precision in parameter estimates (Bandalos, 2002; Little et al., 2002). Based on previously established recommendations (Little et al., 2013; Russell et al., 1998), parcels were created by (a) specifying a single-factor solution exploratory factor analysis with all the scale items, (b) rank the scale items based on factor loadings from greatest to lowest, and then (c) distribute items into three parcels, pairing the items such that the item with highest factor loading is paired with the lowest (and vice versa). This final step is continued until all items have been placed into a parcel. The parcel means were then used as indicators for their respective latent variables, thus perceived heterosexist discrimination, perceived ethnic/racial discrimination, and physical symptom

severity each were estimated on three parcel indicators. After item parceling, the full model produced 5 latent variables and 36 indicators.

Model Estimation

Measurement model

As aforementioned in Hypothesis 1, two confirmatory factor analyses (CFAs) were estimated. The perceived racism CFA included perceived ethnic/racial discrimination, perceived racism in the LGBTQ+ community, anxiety, depression, and physical symptom severity specified as latent variables. The perceived heterosexism CFA included perceived heterosexist discrimination and perceived heterosexism in one's ethnic/racial community, anxiety, depression, and physical symptom severity specified as latent variables. As hypothesized by H1a and H1b, both the racist discrimination model, χ^2 (314) = 628.7, $p < .001$, CFI = .94, SRMR = .048, RMSEA = .052, 90% CI [.046, .058], AIC = 20648.58, and heterosexist discrimination model, χ^2 (314) = 671.35, $p < .001$, CFI = .937, SRMR = .056, RMSEA = .052, 90% CI [.050, .061], AIC = 20773.33, demonstrated acceptable model fit (see Table 4 and 5 for review). All standardized factor loadings were statistically significant ($p < .001$) across both measurement models, with factor loadings ranging from .47 to .97.

Structural model

After confirming acceptable fit in the measurement models, pathways between the variables were estimated. The first model (see Figure 3) treated perceived racism variables (i.e., perceived ethnic/racial discrimination and perceived racism in the LGBTQ+ community) as predictors of psychological distress variables (i.e., anxiety and depression) and physical symptom severity. The perceived racism model demonstrated

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acceptable fit χ^2 (314) = 628.7, $p < .001$, CFI = .94, SRMR = .048, RMSEA = .052, 90%

CI [.046, .058], AIC = 20648.58. In the second model (see Figure 4), perceived

heterosexism variables (i.e., perceived heterosexist discrimination and perceived

heterosexism in one's ethnic/racial community) were parametrized as the predictors of

psychological distress variables (i.e., anxiety and depression) and physical symptom

severity. Similarly, the perceived heterosexist discrimination model also demonstrated

acceptable fit, χ^2 (314) = 671.35, $p < .001$, CFI = .937, SRMR = .056, RMSEA = .052,

90% CI [.050, .061], AIC = 20773.33. The R^2 was significant across all latent outcome

variables. In the ethnic/racial discrimination model, the model explained 22.4% of the

variance for depression, 21.9% for anxiety, and 47.2% for physical symptom severity. In

the heterosexist discrimination model, the model explained 21.7% of the variance for

depression, 20.7% for anxiety, and 45.4% for physical symptom severity.

As predicted in hypothesis H2a, in the Perceived Racism model higher frequency

of perceived racist discrimination ($\beta = .284$, 95% CI [.116, .452], $p = .001$) was

associated with worse physical symptom severity. Unexpectedly, perceived racism in

LGBTQ+ community was not significantly associated with physical symptom severity (β

= .048, 95% CI [-.127, .223], $p = .590$). Reports of higher frequency of racist

discrimination was significantly associated with both greater anxiety ($\beta = .336$, 95% CI

[.177, .494], $p < .001$) and greater depression ($\beta = .399$, 95% CI [.237, .562], $p < .001$).

Higher perceived racism in the LGBTQ+ community significantly predicted greater

anxiety ($\beta = .179$, 95% CI [.012, .345], $p = .035$) but was not significantly associated with

depression ($\beta = .108$, 95% CI [-.054, .270], $p = .192$).

As predicted by hypothesis H2b, in the Perceived Heterosexism Model reports of higher frequency of perceived heterosexist discrimination (β = .184, 95% CI [.051, .316], p = .007) was associated with worse physical symptom severity. Perception of heterosexism in ethnic/racial community was not significantly associated with physical symptom severity (β = .113, 95% CI [-.047, .274], p = .167). Also unexpected, perceived heterosexist discrimination did not significantly predict either anxiety (β = -.001, 95% CI [-.168, .166], p = .991) nor depression (β = .070, 95% CI [-.092, .231], p = .396). Greater perception of heterosexism in one's ethnic/racial community was significantly associated with both greater anxiety (β = .455, 95% CI [.292, .619], $p < .001$) and greater depression (β = .420, 95% CI [.260, .581], $p < .001$).

Mediation effects

To test Hypothesis 3, indirect effects were estimated using the "Model Indirect" command in MPLUS to assess presence of mediation. Table 6 shows the indirect and direct effects for all pathways. Providing support for H3a, the indirect effect of ethnic/racial discrimination on physical symptom severity via depression was statistically significant (β = .189, 95% CI, p = .003). Likewise, as hypothesized by H3b, heterosexism in one's ethnic/racial community also demonstrated significant indirect effects via depression (β = .200, 95% CI p = .002). There were no other significant indirect effects.

Full mediation model testing

Nested models were estimated to assess whether full mediation models fit the data better than partial mediation model. This was done by comparing the value of chi-squared and the fit indices (CFI, SRMR, RMSEA, and AIC) of the full mediation model with the partially-mediated model to assess which demonstrated better fit. To estimate full

mediation models, Mplus syntax was used to constrain the parameter estimates between the main predictors (i.e., perceived discrimination variables) and the outcome (i.e., physical symptom severity). In the Perceived Racism Model, the full mediation model, χ^2 (316) = 655.24, $p < .001$, CFI = .935, SRMR = .058, RMSEA = .054, 90% CI [.048, .060], AIC = 20675.12 demonstrated worse fit compared to the partial mediation model (see Table 4). The Satorra-Bentler $\Delta\chi2$ ($df = 2$) = 25.95, $p > .001$ was statistically significant, supporting the partial mediation model as having better fit. For the Perceived Heterosexist Model, the full mediation model, χ^2 (316) = 694.14, $p < .001$, CFI = .933, SRMR = .066, RMSEA = .057, 90% CI [.051, .063], AIC = 20794.17 similarly demonstrated relatively worse fit (see Table 5). The Satorra-Bentler $\Delta\chi2$ ($df = 2$) = 24.84, $p > .001$ was also statistically significant, supporting the partial mediation model as having better fit.

CHAPTER 5

DISCUSSION

Minority stress theories (Hatzenbuehler, 2009; Lick et al., 2013) suggest that

exposure to discrimination experiences lead to worse mental health and physical health

outcomes among Latinx sexual minority individuals. Yet little research has examined the

associations between intersectional forms of discrimination, psychological and physical

health among this group. A primary aim of this study was to test theory-informed models

on the pathways between discrimination and health among Latinx sexual minority adults.

Findings demonstrated that each structural equation model accounted for a significant

portion of the total variance in physical symptom severity; 47.2% in the ethnic/racial

discrimination model and 45.4% in the heterosexist discrimination model.

Another aim of this study was to examine the link between experiences of

discrimination with another minority group with psychological and physical health.

Bivariate correlations showed that all discrimination variables were significantly

positively associated with greater anxiety, greater depression, and worse physical

symptom severity. In the full structural models, higher frequency of both racist and

heterosexist discrimination was associated with worse physical symptom severity in the

current sample. Furthermore, Latinx sexual minority individuals who reported greater

heterosexist discrimination within their ethnic/racial community were also likely to report

worse physical symptoms severity. In contrast, reports of racism within the LGBTQ+

community were not significantly associated to physical symptom severity.

This study also tested the indirect effects of intersecting forms of discrimination

with physical symptoms severity via measures of psychological distress (i.e., anxiety and

depression). Findings supported depressive symptoms as a significant mediator between ethnic/racial discrimination and physical symptom severity. Similarly, depressive symptoms mediated the link between reports of heterosexism in one's ethnic/racial community and physical symptom severity. Contrary to expectations, anxiety was not found to be a significant mediator. In the full structural equation model, however, experiences of racism within the LGBTQ+ community were neither directly nor indirectly related with physical symptom severity. Instead, reported ethnic/racial discrimination were directly related to physical symptom severity, and indirectly related via depressive symptoms. The direct effect of heterosexism within one's ethnic/racial community with physical symptom severity was non-significant but its indirect effect via depressive symptoms was significant. These results provide support for depressive symptoms as an important mechanism between minority stress and physical symptoms among Latinx sexual minority populations.

A particular strength of this study was the measurement and testing of outer- and within-group minority stress. These findings underscore how overlapping forms of discrimination are not homogeneous in their effects on physical health among Latinx sexual minority individuals. That is, context and source of minority stress plays a role on its impact on health. Ibañez et al. (2009) reported similar findings in exploring Latinx gay men's experience with racism in general and within the gay community. Rooted in an intersectional framework, this quantitative approach to measuring intersecting forms of stigma acknowledges that Latinx sexual minority individuals do not experience additive forms of discrimination, but instead experience a network of overlapping forms of stigma across diverse settings. This framework is particularly critical in understanding how

diverse forms of racism and heterosexism within diverse settings (e.g., family, employment, healthcare) may contribute to health disparities.

Given the cross-sectional nature of this study, the findings cannot be used to imply causal links between the variables. Yet, the significant indirect effects align with the mechanisms proposed by (Hatzenbuehler, 2009; Lick et al., 2013). That is, greater exposure to minority stress were associated with an increase in depressive symptoms which was associated with greater perceived severity in physical. This corroborates previous empirical evidence noting that exposure to stigma and discrimination has been linked with an array of depressive symptoms such as perceived burdensomeness (Baams et al., 2015), rumination (Sarno et al., 2020), and negative affect (Mereish et al., 2021). Previous evidence has shown greater depressive symptoms are associated with worse physical health (Mereish & Poteat, 2015). Thus, findings may support a pathway on how depressive symptoms contribute to physical distress. It may be possible that these increases in depressive symptoms contribute to inflammation (Cunningham et al., 2012) and cortisol levels (Figueroa et al., 2020) that may then exacerbate physical symptoms. This study is novel in contributing evidence on these pathways for a Latinx sexual minority adult sample.

Furthermore, findings indicated that it was depressive symptoms linked to ethnic/racial discrimination and heterosexism within one's racial/ethnic community. As mentioned before, the source and context of perceived discrimination experiences matters. In the context of Latinx sexual minority adults, it is possible that experiences with racism discrimination may have been more pervasive and present earlier in life. That is, Latinx adults may be more vulnerable to ethnic/racist discrimination earlier in life as

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this identity may more visible than a sexual minority identity. It is plausible that racial identity development may occur earlier in life resulting to an individual to be more aware of experiences of ethnic/discrimination. On the other hand, a sexual identity development process may not occur until adolescence or later. Heterosexism within one's racial/ethnic community may be perceived as more detrimental if an individual had previously developed social and coping skills within that community to buffer the effects of racism. This may be related to perceiving that stigma and rejection from family members, friends, and/or individuals within their community who may otherwise be a source of social and psychological support.

It is critical to acknowledge the broad heterogeneity among the Latinx SGM community. Individual experiences with stigma and discrimination may vary significantly based on diverse social, political, and cultural differences. For example, race/ethnicity and sexual identity may be disclosed or presented differently. That is, one's racial/ethnic identity may often be less hidden, that is, based on phenotypic characteristics Latinx people may be more racialized as a minority and more prone to racist discrimination earlier in life. On the other hand, a sexual minority identity could be hidden or undisclosed, yet one may still be subjected to a hostile cisheterosexist environment in one's family and/or ethnic/racial community. Given the broad heterogeneity among Latinx sexual minority communities, many of these experiences may vary across racialized phenotypic appearance (e.g., skin color, hair texture/color, etc.), gender non-conforming behaviors, and identity disclosure among other factors.

Limitations & Future Directions

Findings from this study should be contextualized within certain limitations. For example, the use of a convenient sample precludes generalizability of the findings given the lack of a truly representative sample of the Latinx sexual minority population in the United States. While mediation analysis imply causation, the cross-sectional nature of this study precludes assuming temporal and causal directionality between the variables. Future research should include a longitudinal approach to better understand how minority stress affects health outcomes over time. The findings from this study provide guidance for longitudinal research to assess temporal casual links underlying physical health among Latinx sexual minorities. Moreover, longitudinal research may also benefit in measuring diverse biomarkers (e.g., cortisol levels, inflammation, etc.) to test how physiological health is directly affected by stigma.

Regarding the conceptualization of intersectionality, the scope of this study was limited to sexual orientation identity and a Latinx identity and specifically measured individual-level perceived experiences of discrimination as opposed to structural forms oppression. Moreover, the heterogeneity among the Latinx SGM community may also significantly impact how stigma and discrimination is experienced. For example, the Latinx community represents a vastly diverse range of racial/ethnic identities. Individual characteristics such as skin color, documentation status, and immigration history may moderate how someone experiences discrimination. Future research should measure and test the effects of stigma at the community, legal, and institutional levels considering the heterogeneity among this community. Additionally, this study did not measure identity salience or centrality among participants. Latinx SGM may vary in how closely they hold

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certain identities which may affect how experiences with stigma and discrimination are perceived. For example, if a person does not feel strongly linked with their Latinx identity, racially microaggressive comments from others may not be as bothersome. Despite these limitations, the findings contribute useful evidence on the links between psychological and physical health among Latinx sexual minority individuals.

Research & Clinical Implications

This study contributes to a critical research gap in minority stress and health among Latinx sexual minority adults. Findings underscores the importance of measuring the source and context of overlapping forms of stigma. For example, experiences of heterosexism appeared to be particularly affective when it occurred within one's ethnic/racial community. This implies that the effects of racism and heterosexism on health may also differ across other settings (e.g., family, employment, healthcare, etc.) and sources (e.g., family members, friends, employers, communities). In advancing a theoretical framework to understand intersectional minority stress among Latinx sexual minority adults, it would be critical to implement a systemic view of how stigma presents differently across context, community, and cultural groups. The findings also suggested depression as a potential mechanism between minority stress and physical health outcomes among Latinx sexual minority adults. This provides further empirical support for the neurobiological links between minority stress and physical health via cognitive and affective components. Furthermore, it is likely then that minority stressors may also exacerbate other physical health conditions (e.g., cardiovascular health, immunodeficiency, chronic pain, etc.) via psychological health. Thus, these findings may

provide building blocks towards empirical investigation of how minority stress

contributes to health disparities via psychological distress among this community.

These results also have relevant clinical applications. In particular, the results

provide evidence for how intersecting forms of discrimination may worsen mental and

physical health in Latinx sexual minorities. This may be particularly informative for

health providers working with this population. For example, reports of worsening

physical health can be contextualized within a biopsychosocial framework integrating

how systemic and interpersonal oppression may contribute and exacerbate physical

health. Providers working with Latinx sexual minority adults may then benefit from

assessing how patients' experiences with discrimination may be affecting their

psychological well-being and physical health. Importantly, medical providers and mental

health providers may benefit in further collaboration to provide holistic care for Latinx

sexual minority patients. Noting that heterosexism within one's ethnic/racial group was

significantly predictive of worse health, it would be critical to utilize interventions that

are culturally-responsive and trauma-informed. For example, the Healing Ethno-Racial

Trauma (HEART) model by Chavez-Dueñas et al. (2019) may be a useful framework

given its direct focus on how individuals, families, and communities can survive and

confront interlocking systems of oppression that cause and maintain psychological

distress. This study supported that stigma within one's community affects well-being,

thus another strength of the HEART model is the focus on building collective action and

resistance within one's community.

Conclusion

  Ultimately, this study is aims to address a larger gap in Latinx sexual minority health research. These findings provide initial support of how intersectional discrimination accounts for health outcomes among this community. This emphasizes the need to apply holistic approaches to scientific and clinical applications that aim to mitigate health disparities among Latinx sexual minority adults. That is, psychological and physical health are inextricable linked to each other thus efforts to achieve health equity must include a holistic perspective on health. Finally, this study contributes to empirical evidence on the effects of general and within-group discrimination. This approach contributes to intersectional approaches to better understand how overlapping forms of oppression affect health. While this approach is not without limitations, evidence demonstrates that assessing within-group stigma may help clarify the heterogeneity in the lived experiences among Latinx sexual minority communities.

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APPENDIX A

TABLES

Table 1

Sample Demographics (N = 369)

Age (*M / SD*)	30.4 (9.5)
Gender	%
Cisgender man	36.1
Cisgender woman	31.8
Nonbinary	19.1
Transgender man	3.8
Transgender woman	3.0
Different identity (Write In)	4.9
Did not respond	1.3
Sexual identity	
Gay/Lesbian	43.1
Bisexual	23.7
Queer	19.7
Pansexual	8.1
Questioning	1.9
Another identity	3.5
Racial Identity	
White/European Latin American	49.6
Afro-Latinx or of African descent	4.6
American Indian or Alaska Native	3.5
East Asian descent	0.5
Indigenous descent	4.3
Another identity	10.2
Did not respond	27.2
US-born	61.2
Education	
Less than high school	2.2
High school diploma or equivalent	28.3
Associate's or some college	12.1
Bachelor's degree	32.6
Graduate or professional degree	23.7
Other	1.1

Note. *p < .05, **p < .01, *** p < .001

Table 2

Descriptive Statistics and Correlations (N = 369)

	Range	*M*	*SD*	1	2	3	4	5	6
1. Racist Discrimination	1-5	2.00	.75	--					
2. Heterosexist Discrimination	1-6	2.19	.98	.64*	--				
3. Racism within LGBTQ+ Community	1-6	2.91	1.30	.54*	.50*	--			
4. Heterosexism within Ethnic/Racial Community	1-6	2.95	1.39	.49*	.54*	.69*	--		
5. Depression	1-4	2.18	.81	.45*	.31*	.31*	.46*	--	
6. Anxiety	1-4	2.28	.86	.44*	.28*	.34*	.46*	.77*	--
7. Physical Symptom Severity	1-5	1.82	.72	.49*	.39*	.34*	.44*	.58*	.52*

Note. *p < .05, **p < .01, *** p < .001

Table 3

Exploratory factor analysis of the Cohen-Hoberman Inventory of Physical Symptoms (CHIPS)

Item	Factor loading
Weight change (gain or loss of 5 libs. or more)	.360
Back pain	.550
Constipation	.418
Dizziness	.659
Diarrhea	.449
Faintness	.628
Headache	.646
Migraine headache	.550
Nausea and/or vomiting	.639
Acid stomach or indigestion	.585
Stomach pain (e.g., cramps)	.692
Hot or cold spells	.511
Hands trembling	.609
Heart pounding or racing	.692
Poor appetite	.521
Shortness of breath when not exercising or working hard	.640
Numbness or tingling in parts of your body	.672
Felt weak all over	.705
Pains in heart or chest	.690
Stuffy head or nose	.560
Blurred vision	.519
Muscle tension or soreness	.615
Muscle cramps	.652
Severe aches and pains	.688
Acne	.301
Bruises	.429
Nosebleed	.383
Pulled (strained) muscles	.502
Pulled (strained) ligaments	.362
Cold or cough	.550

Table 4

Goodness-of-Fit Indices for ethnic/racial discrimination, psychological distress, and physical symptom severity structural models (N = 369)

Model Description	$\chi2$	*df*	*SB* $\Delta\chi2$	CFI	SRMR	RMSEA (90%)	AIC
Model 1-Measurement	628.37***	314	--	.940	.048	.052 (.046, .058)	20648.58
Model 2 – Structural	628.37***	314	25.95***	.940	.048	.052 (.046, .058)	20648.58
Model 3 – Full Mediation	655.24***	316	--	.935	.058	.054 (.048, .060)	20675.12

Note. CFI = Comparative Fit Index; SRMR = Standardized Root Mean Square Residual; RMSEA = Root Mean Square Error of Approximation; AIC=Akaike Information Criterion; *df* = Degrees of freedom; *SB* = Satorra-Bentler; 90% CI: 90% Confidence Interval for RMSEA. *$p < .05$, **$p < .01$, ***$p < .001$.

Table 5

Goodness-of-Fit Indices for heterosexist discrimination, psychological distress, and physical symptom severity structural models (N = 369)

Model Description	χ^2	*df*	*SB* $\Delta\chi^2$	CFI	SRMR	RMSEA (90%)	AIC
Model 1- Measurement	671.35***	314	--	.937	.056	.056 (.050, .061)	20773.33
Model 2 – Structural	671.35***	314	24.84***	.937	.056	.056 (.050, .061)	20773.33
Model 3 – Full Mediation	694.14***	316	--	.933	.066	.057 (.051, .063)	20794.17

Note. CFI = Comparative Fit Index; SRMR = Standardized Root Mean Square Residual; RMSEA = Root Mean Square Error of Approximation; AIC=Akaike Information Criterion; *df* = Degrees of freedom; *SB* = Satorra-Bentler; 90% CI: 90% Confidence Interval for RMSEA. *p < .05, **p < .01, ***p < .001.

Table 6

Standard effects of distal stressors (predictor) on physical symptom severity via psychological distress (hypothesized mediator)

| Indirect Effects	β	SE	p
Ethnic Discrimination → Anxiety → Physical SS	.003	.033	.938
Ethnic Discrimination → Depression → Physical SS	.189**	.060	.003
Racism in LGBTQ+ Community → Anxiety → Physical SS	.001	.018	.938
Racism in LGBTQ+ Community → Depression → Physical SS	.051	.040	.222
Heterosexist Discrimination → Anxiety → Physical SS	.000	.004	.991
Heterosexist Discrimination → Depression → Physical SS	.033	.040	.407
Heterosexism in Ethnic/Racial Community → Anxiety → Physical SS	.022	.045	.631
Heterosexism in Ethnic/Racial Community → Depression → Physical SS	.200**	.063	.002
Direct Effects	β	SE	p
Ethnic discrimination → Physical SS	.475***	.088	>.001
Racism in LGBTQ+ Community → Physical SS	.100	.093	.282
Heterosexist Discrimination → Physical SS	.217**	.078	.005
Heterosexism in Ethnic/Racial Community → Physical SS	.335***	.075	>.001

Note: SS = Symptom severity.*p < .05, **p < .01, ***p < .001.

APPENDIX B

FIGURES

Figure 1

Hypothesized pathways of structural equation model for racial discrimination,
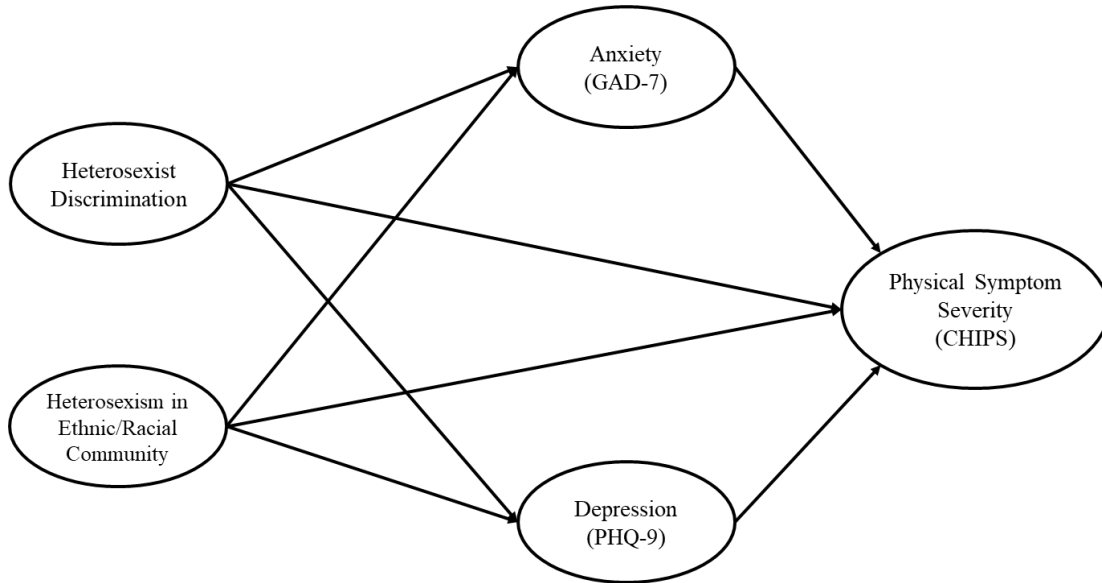*psychological distress, and physical symptom severity*
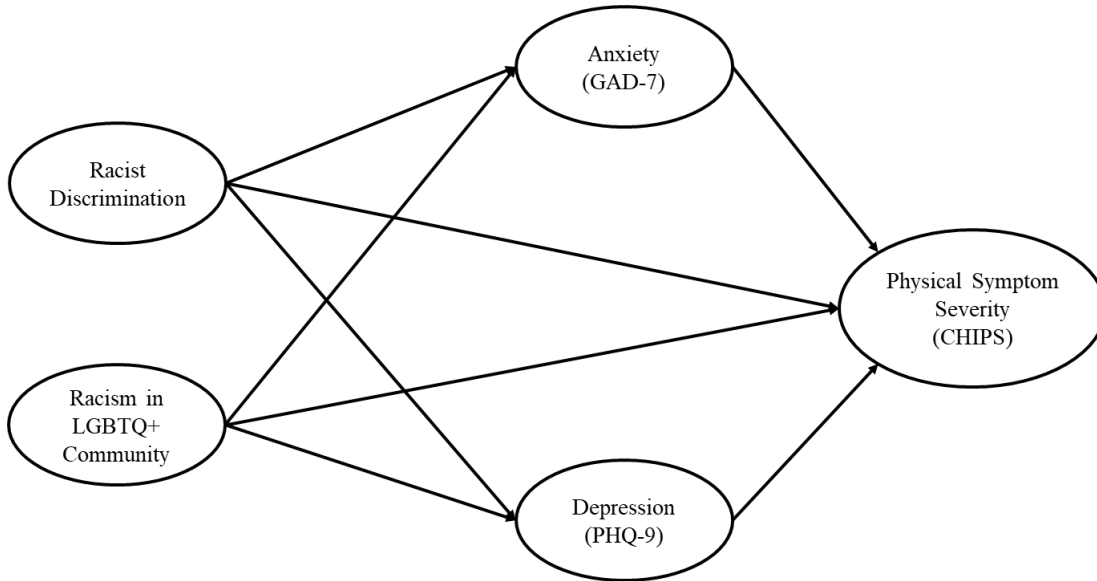
Note. Indicators for latent discrimination variables not shown for simplicity.
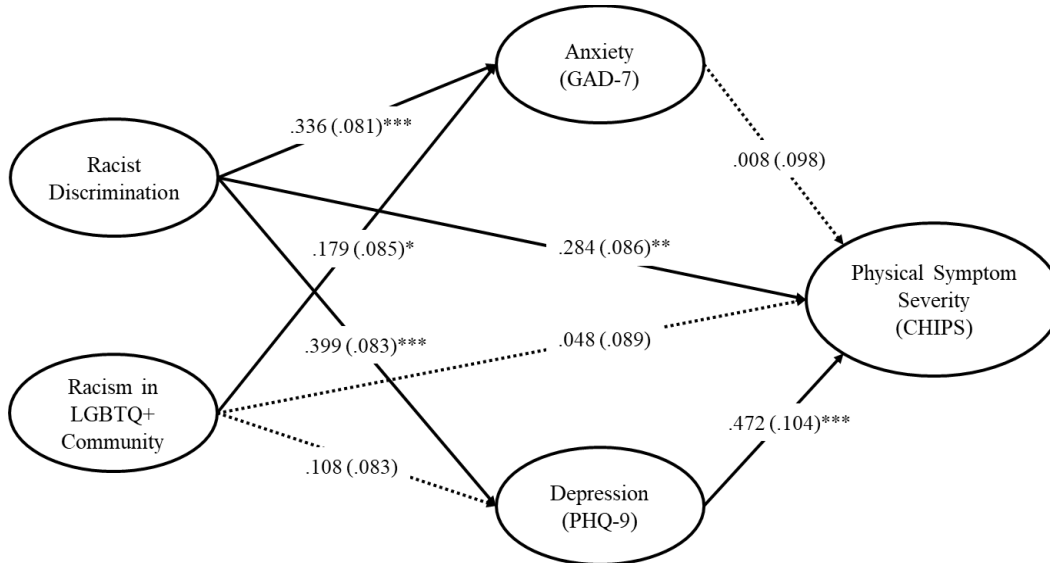
Figure 2

Hypothesized pathways of structural equation model for heterosexist discrimination, psychological distress, and physical symptom severity

Note. Indicators for latent discrimination variables not shown for simplicity.
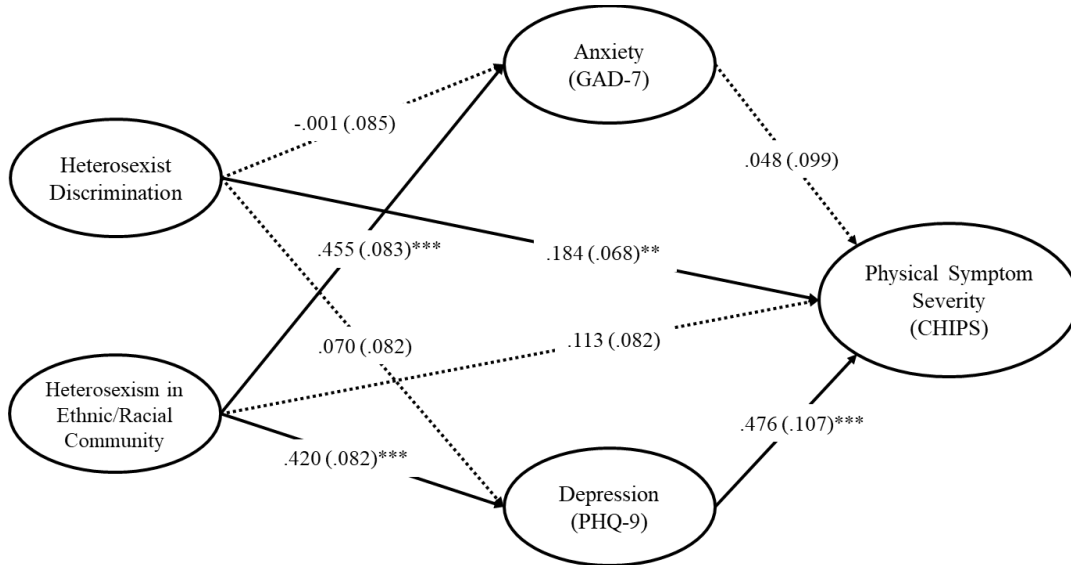
Figure 3

Standardized path coefficients (standard errors) in the structural model for racial discrimination, psychological distress, and physical symptom severity

Note. Significant pathways are shown in solid lines while non-significant pathways are shown in dashed lines. *p* < .05, **p* < .01, ***p* < .001.

Figure 4

Standardized path coefficients (standard errors) in the structural model for heterosexist discrimination, psychological distress, and physical symptom severity

Note. Significant pathways are shown in solid lines while non-significant pathways are shown in dashed lines. *p* < .05, **p* < .01, ***p* < .001.