

Coping and Health in Sexual and Gender Minority Individuals

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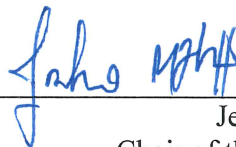
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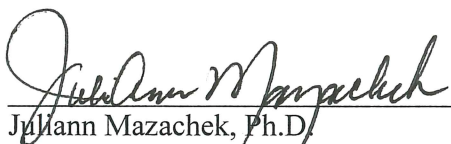
COPING AND HEALTH IN SEXUAL AND GENDER MINORITY INDIVIDUALS

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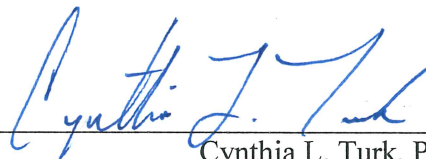
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Abstract

Sexual and gender minority (SGM) individuals tend to have poor health, which is partially attributable to distal (external) and proximal (internal) stressors related to their SGM identity (Gendron et al. 2013; Steele et al., 2017). SGM stressors may be managed by using ameliorative coping processes (e.g., visiting doctor's offices, reaching out to others), however reaching out to healthcare facilities may result in exacerbation of SGM stress (Hayman, Wilkes, Halcomb, & Jackson, 2013; Radix, Lelutiu-Weinberger, & Gamarel, 2014). The current study had participants complete measures related to SGM stress, coping processes, and health status problems. Proximal stressors were examined as a mediator between distal stressors and health status problems, and coping processes were examined as a moderator between SGM stressors and health status problems. Results will be discussed in a theoretical context. Limitations and future research directions will also be addressed.

### Coping and Health in Sexual and Gender Minority Individuals

In the United States, sexual and gender minority (SGM) individuals (including lesbian, gay, bisexual, transgender, and queer [LGBTQ] individuals) tend to have poor health partially as a result of stress related to SGM identity. The concept of minority stress has been proposed to capture the array of events commonly experienced by SGM individuals, and has been defined as a variety of internal (proximal) and external (distal) stressors that negatively impact SGM individuals (Jorm, Korten, Rodgers, Jacomb, & Christensen, 2002; Meyer, 2003). For example, SGM individuals may be at higher risk for developing chronic illnesses that may be exacerbated by minority stressors and may go untreated, resulting in more negative health consequences (Gendron et al. 2013; Steele et al., 2017). Minority stress as understood through Meyer's (2003) Minority Stress Model is made up of two types of stressors—proximal and distal—with four specific stress processes. These processes include experiencing prejudiced events (distal), expecting and anticipating the experience of rejection or discrimination (proximal), internalizing negative societal attitudes (proximal), and disclosing or concealing one's identity (proximal). Specifically, SGM populations face denial of services and inappropriate questions during visits (i.e., experiences of rejection or discrimination; Hayman, Wilkes, Halcomb, & Jackson, 2013; Radix, Lelutiu-Weinberger, & Gamarel, 2014), as well as delays in accessing healthcare services due to previous negative experiences and not being open about their SGM identity (i.e., expecting and anticipating the experience of rejection or discrimination and disclosing or concealing one's identity; Durso & Meyer, 2013; Radix et al., 2014). Within the Health Equity Promotion Model proposed by Fredriksen-Goldsen et al. (2014), individual-level discrimination (e.g., microaggressions, personal assaults) and structural-level discrimination (e.g., social exclusion, marriage laws) are hypothesized to be part of why SGM people may postpone getting

treatment for serious illnesses or injuries and may have significant barriers to accessing healthcare.

In assessing the relationship between health and minority stress, researchers (Mereish & Poteat, 2015; Walch Ngamake, Bovornusvakool, & Walker, 2016; Whitehead, Shaver, & Stephenson, 2016) have found that both physical and mental health diagnoses were positively correlated with each of the minority stress processes. Other researchers studying mental (Meyer, 2003; Scandurra, Amodeo, Valerio, Bochicchio, & Frost, 2017) or physical (Frost, Lehavot, & Meyer, 2015) health alone have found similar results. Researchers also suggest that there may be a geographical component to differences in access to and utilization of healthcare services, such that SGM individuals in rural locations are less likely to have access to LGBTQ-specific clinics and are less likely to disclose their SGM identity to family, friends, coworkers, and healthcare providers (Fredriksen-Goldsen et al., 2014; Rosenkrantz, Black, Abreu, Aleshire, & Fallin-Bennett, 2017; Whitehead, et al., 2016).

### **Experiencing Prejudiced Events**

Previous studies have found a positive correlation between experiencing prejudiced events (e.g., discrimination or violent acts) and SGM individuals' experience of mental and physical health problems (Frost et al., 2015; Meyer, 2003; Scandurra et al., 2017). Frost, Lehavot, and Meyer (2015) found evidence to suggest measures of minority stress as rated by an interviewer, including major life events based on prejudice (e.g., physical/sexual assault, robbery, homelessness, and being fired from a job) may be more likely to have a negative impact on SGM people's health than subjective reports of everyday stressors (e.g., microaggressions, everyday discrimination). Yet Scandurra, Amodeo, Valerio, Bochicchio, and Frost (2017) found evidence to suggest everyday stressors may have a more significant impact on SGM people's

health than major life events. In a review of literature regarding the Minority Stress Model's use in healthcare literature, Meyer (2003) espoused the idea that both subjective and objective measures of stress are acceptable ways of evaluating minority stress and seek the same end goal of reducing minority stress. However, each view provides different ways of understanding how minority stress affects the individual: the objective view states the stressful event is stressful regardless of an individual's ability to cope, and the subjective view states individuals should learn different coping strategies to protect themselves from stress.

In the healthcare literature, the experience of mental and physical health problems for SGM people is further exacerbated as healthcare providers continue the cycle of discrimination by denying services (Hayman et al., 2013; Rosenkrantz et al., 2017; Steele et al., 2017), providing inadequate care (Smith & Turrell, 2017), and assuming heterosexual and/or cisgender (birth sex-corresponding gender) identity (Smith & Turrell, 2017). Furthermore, prior research has demonstrated that SGM people are typically not satisfied with the healthcare services they receive based on their provider's lack of cultural competency and education on SGM specific healthcare concerns (Radix et al., 2014; Rosenkrantz et al., 2017). Researchers have also found support to suggest that delay in service utilization by SGM individuals may be partially due to expecting or anticipating rejection or discrimination based on previous discrimination, resulting in untreated and/or undiagnosed health conditions that further worsen health status (Gendron et al., 2013; Steele et al., 2017; Whitehead et al., 2017).

### **Expecting or Anticipating Rejection or Discrimination**

When SGM individuals expect or anticipate rejection or discrimination, they are likely to experience mental and physical health status deficits (Flenar et al., 2017; Walch et al., 2016; Walker, Powers, & Witten, 2017). In particular, Walker, Powers, and Witten (2017)

demonstrated that anticipated or expected discrimination from healthcare providers in aging SGM populations was associated with lower perceived successful aging, including but not limited to lack of physical health problems, environmental supports, and social resources. Aging SGM populations are faced with the issue of seeking end of life and retirement-based care while navigating individual-level and structural-level biases. Walker et al.'s (2017) research showed that in aging SGM populations, self-perceptions of successful aging were highly positively correlated with confidence that healthcare professionals will treat SGM individuals with respect. Overall, these findings suggest that as individual-level and structural-level discrimination based on SGM status decrease, SGM individuals will more easily access and utilize healthcare in many forms (Fredriksen-Goldsen et al., 2014; Walker et al., 2017).

Researchers have also demonstrated that anticipation of discrimination is associated with health status problems. Specifically, Walch, Ngamake, Bovornusvakool, and Walker (2016) found that SGM individuals who expected or anticipated rejection or discrimination had a higher number of mental and physical health status problems. Walch et al. (2016) also found that for those SGM individuals who widely disclosed their sexual orientation, there were direct effects of minority stress on both mental and physical health status. Conversely, for those individuals who concealed their sexual orientation, there were indirect effects of other minority stressors through internalized homophobia on mental health status. These findings suggest that for those individuals who conceal their sexual orientation, there may be a more deleterious toll taken on their mental health status.

### **Disclosing or Concealing Sexual or Gender Identity**

One potential barrier for SGM people accessing healthcare services, especially those in rural settings, is disclosure or concealment of SGM status to their healthcare provider, family,

friends, and/or coworkers (Meyer, 2003; Whitehead, 2016). The process of sexual and/or gender identity disclosure is somewhat unique for SGM identified people due to the considerable time and effort that may be taken to conceal one's SGM status. For example, an SGM individual may have intrusive thoughts about coming out to a friend or coworker and may suppress them to temporarily cope with the anticipated stress of disclosing their sexual orientation (Meyer, 2003). The effort SGM people may spend in concealing their SGM identity often leads to mental and/or physical health problems (Durso & Meyer, 2013; Rosenkrantz et al., 2017). Durso and Meyer (2013) found that when compared with lesbian and gay individuals, bisexual individuals were less likely to disclose their sexual orientation to their healthcare provider. Durso and Meyer (2013) noted that many individual factors (e.g., gender, race, immigration status, parenthood status.) as well as internalized homophobia were highly related to disclosure rates among all individuals.

Similarly, Rosenkrantz and colleagues (2017) found that only sometimes or never disclosing sexual orientation to healthcare providers was common for sexual minority individuals in rural locations. The authors also discovered that disclosing health status was associated with improved reports of health status for sexual minority individuals. However, many individuals reported they did not feel able to disclose their sexual orientation and/or gender identity status to their healthcare provider due to a number of factors, including healthcare providers' lack of knowledge regarding SGM identity, healthcare providers' attitudes, and SGM individuals' anticipation of stigma (Rosenkrantz et al., 2017; Whitehead et al., 2016). Consequently, SGM individuals in rural settings may find it harder to access and/or utilize healthcare services, especially when they have higher rates of sexual minority stress, including higher concealment of SGM identity.

### **Internalizing Negative Societal Attitudes**

Scholars have also pointed to internalized negative societal attitudes toward SGM identity as having a negative impact on physical and mental health status (Mereish & Poteat, 2015; Scandurra et al., 2017; Walch et al., 2016). In particular, prior researchers have found that higher rates of internalized homophobia (internalization of negative societal attitudes regarding sexual orientation; Walch et al., 2016) and internalized transphobia (internalization of negative societal attitudes regarding gender; Scandurra et al., 2017) are positively associated with depression and anxiety symptoms (Scandurra et al., 2017; Walch et al., 2016), as well as physical distress and physical health concerns (Mereish & Poteat, 2015; Walch et al., 2016).

In assessing minority stressors in an Italian sample of transgender individuals, Scandurra et al. (2017) found that internalized transphobia was an important factor in predicting mental health outcomes. Given the current climate (e.g., national level discrimination aimed at limiting marriage, adoption, employment, and/or housing rights) in both the United States and Italy regarding transgender human rights, the Scandurra et al. (2017) study provides useful data on how gender minority individuals may be at a higher risk for suicide, depression, anxiety, and other potential negative mental health problems. Similar to Fredriksen-Goldsen et al. (2014), Scandurra et al.'s (2017) research points to policy and structural changes as ways to improve the quality of life for gender minority individuals as there are currently minimal protections regarding their health and human rights.

Mereish and Poteat (2015) also found that internalizing negative societal attitudes, especially internalized homophobia, is one important factor in considering health outcomes for sexual minority individuals. In examining whether minority stressors affect mental and physical health, Mereish and Poteat (2015) found support for a model of analysis where proximal

stressors mediated the relationship between distal stressors and health outcomes (confer Hatzenbuehler, 2009). The mediation of these variables shows that proximal stressors may account for how some of the distress of distal stressors affect an SGM person's health. Mereish and Poteat (2015) also found that another proximal minority stressor of concealing sexuality was a significant predictor of poor mental health outcomes, showing that internalizing issues like concealing identity may play an important role in evaluating health of SGM people.

### **Resilience and Coping Strategies**

When looking at health and coping at a broader level, Carver and Vargas (2011) defined coping as dealing with a threatening situation, removing the threat, or diminishing the way it is impacting the person's life. In studying coping methods, two in particular have been at the forefront of research on stress and coping: problem-focused coping (attempting to deal with the stressor directly) and emotion-focused coping (attempting to deal with the emotions elicited by the stressor; Carver & Vargas, 2011). Furthermore, researchers have looked at the effectiveness of problem-focused and emotion-focused coping in different situations and found that problem-focused coping is likely to be helpful when individuals have control over their stressor, such as gathering information, and that emotion-focused coping is helpful when individuals have little control, such as when someone experiences a significant loss (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Folkman, Lazarus, Gruen, & DeLongis, 1986).

In order to examine minority stress and coping processes, the Minority Stress Model has explored the relationship between minority stressors and health as moderated by ameliorative coping processes (i.e., problem-focused coping, emotion-focused coping, and community resources). When analyzing if and how minority stress affects health outcomes in SGM individuals, researchers have found it is important to consider the moderating and suppressing

effects of resiliency and coping strategies (Freese, Ott, Rood, Reisner, & Pantalone, 2018; Meyer, 2015; Wilson, Meyer, Antebi-Gruszka, Boone, Cook, & Cherenack, 2016). Specifically, Meyer (2015) described resilience as one's ability to thrive in the face of adversity. Meyer (2015) further stated that resilience may have one of two theoretical effects on SGM peoples' health: a suppressor effect, in which the stressor "activates" the resilience or buffer, or a moderator effect, in which one's intrinsic level of resilience impacts how much the stressor affects them.

Moreover, Wilson, Meyer, Antebi-Gruszka, Boone, Cook, and Cherenack (2016) posited that resilience and adaptive coping strategies, such as using personal characteristics and external resources to adapt to stressful situations have important parts to play in an individual's ability to negotiate minority stress, especially for multiple minority identities (e.g., racial, sexual, gender). Freese and colleagues (2018) found that gender minority stress was negatively associated with engagement in functional coping methods (e.g., regular doctor's visits, screenings for physical health problems, reaching out to friends/family) and that certain dysfunctional coping methods (e.g., substance use) were positively associated with transgender individuals' abilities to cope with stressful situations. Understanding how SGM individuals currently cope with stressful situations is one path that may lead to better promotion of more functional coping methods and discouraging dysfunctional coping methods in healthcare settings, thus potentially increasing satisfaction with health care services and health outcomes (Freese et al., 2018).

### **Purpose of the Current Study**

Prior research has identified that SGM individuals are at higher risk for developing physical and mental illnesses (Gendron et al. 2013; Steele et al., 2017), partially due to minority stress (Jorm et al., 2002; Meyer, 2003). Prior research has also identified many discrepancies in

SGM individuals' abilities to access services (Hayman et al., 2013; Rosenkrantz et al., 2017; Steele et al., 2017) and high dissatisfaction with services they do have access to (Radix et al., 2014; Rosenkrantz et al., 2017). When seeking to determine how SGM people negotiate minority stress, researchers have found that resiliency and coping methods are possible mediators in the relationship between minority stressors and physical and mental health (Freese et al., 2018; Meyer, 2015; Wilson et al., 2016). However, prior research has not extensively explored the variety of coping and resiliency strategies SGM individuals employ to manage their healthcare when faced with an unsupportive healthcare system.

Given the dearth of research assessing coping strategies' effect on the relationship between sexual and/or gender minority stress and the severity of physical and mental health concerns experienced the current study is interested in further exploring this relationship. Specifically, prior research has demonstrated coping strategies may have a moderating effect between sexual and/or gender minority stress and health status problems. Thus, the current study chose to explore if SGM individuals' use of coping strategies are helpful in moderating the effect sexual and/or gender minority stress has on health issues. Furthermore, if there is a moderating effect, the current study is interested in what coping strategies and/or resilience factors are most effective in reducing distress related to health problems. The current study was also interested in assessing if minority stress affects health outcomes directly and/or indirectly through proximal minority stressors. In order to assess the relationship between minority stressors, health outcomes, coping strategies, and resilience factors, the current study tested three hypotheses based on Meyer's (2003) updated Minority Stress Model as understood through Hatzenbuehler's (2009) framing of distal minority stressors being mediated by proximal minority stressors and affecting health outcomes.

**Hypothesis 1:** Higher endorsement of sexual minority stress and/or gender minority stress will be positively correlated with endorsement of health status problems.

**Hypothesis 2:** Proximal minority stressors will mediate the relationship between distal minority stressors and health status problems.

**Hypothesis 3:** Health-relevant coping strategies will moderate the relationship between sexual and/or gender minority stress and health status problems.

## Method

### Participants

42 participants were initially recruited with a final total of 24 sexual and/or gender minority individuals used in analyses due to nonresponse rates on demographic information. These individuals were recruited via snowball sampling and asked to respond to a survey posted to online LGBT social groups/forums (e.g., Facebook, Tumblr, Reddit) and an email listserv dedicated to SGM individuals (i.e., APA Division 44: Society for the Psychology of Sexual Orientation and Gender Diversity). See Table 1 for participants' demographic characteristics.

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### Materials

**Sexual Minority Stress.** The Minority Stress Scale (MSS; Norcini Pala, Dell'Amore, Steca, Clinton, Sandfort, & Rael, 2017; see Appendix A) is a 43-item measure that assesses both

distal and proximal sexual minority stigma and stressors. The MSS has eight subscales: Structural Stigma (three items; e.g., “Because of my sexual orientation I won’t be able to get married.”), Enacted Stigma (three items; e.g., “Because of my sexual orientation I have been the target of verbal aggressions.”), Expectations of Discrimination (12 items; e.g., “Because of my sexual orientation I feel excluded from my society.” or “Because of my sexual orientation, I may be discriminated against by my general practitioner.”), Expectations of Discrimination from Family Members (three items; “Because of my sexual orientation I think my family would not accept me.”), Sexual Orientation Concealment (seven items; e.g., “Nobody knows I am gay/bisexual.”), Internalized Homophobia Towards Others (six items; e.g., “Seeing two men or two women holding hands, I feel intense discomfort.” or “Seeing two men or two women kissing in the street, I feel intense disgust.”), Internalized Homophobia Toward Oneself (six items; “I wish I were not gay/bisexual.”), and Stigma Awareness (three items; e.g., “Because of my sexual orientation, I might be considered abnormal.”). Thirty-five of the items are rated on a 5-point Likert scale ranging from 1 (Completely Disagree/Never) to 5 (Completely Agree/Always) and eight of the items are rated on a dichotomous scale of yes/no. Participants’ responses to each item were totaled within each of the subscales with higher scores on each subscale reflecting more experience of that particular sexual minority stress. Total scale scores were not computed due to mixed item scoring between subscales and no validation for the use of a total scale score. Rather, scoring focused on subscale scores to determine SGM stressors and their relation to health status.

Psychometric properties of the MSS have been assessed in an Italian sexual minority sample and have demonstrated strong internal consistency reliability coefficients of  $\alpha = .95$  (Structural Stigma),  $\alpha = .81$  (Enacted Stigma),  $\alpha = .90$  (Expectations of Discrimination),  $\alpha = .89$

(Expectations of Discrimination from Family Members),  $\alpha = .92$  (Sexual Orientation Concealment),  $\alpha = .89$  (Internalized Homophobia Toward Others),  $\alpha = .96$  (Internalized Homophobia Toward Oneself), and  $\alpha = .92$  (Stigma Awareness; Norcini Pala et al., 2017). Cronbach's alphas for the current study were  $\alpha = .88$  (Structural Stigma),  $\alpha = .80$  (Enacted Stigma),  $\alpha = .70$  (Expectations of Discrimination),  $\alpha = .92$  (Expectations of Discrimination from Family Members),  $\alpha = .47$  (Sexual Orientation Concealment),  $\alpha = .48$  (Internalized Homophobia Toward Others),  $\alpha = .92$  (Internalized Homophobia Toward Oneself), and  $\alpha = .84$  (Stigma Awareness). See Table 2 for intercorrelations among the subscales.

**Gender Minority Stress and Resilience.** The Gender Minority Stress and Resilience Measure (GMSRM; Testa, Habarth, Peta, Balsam, & Bockting, 2015; see Appendix B) is a 58-item measure that assesses both distal and proximal gender minority stress and resiliency factors. The GMSRM has nine subscales: Gender-Related Discrimination (five items; e.g., "I have had difficulty getting medical or mental health treatment [transition-related or other]."), Gender-Related Rejection (six items; e.g., "I have had difficulty finding a partner or have had a relationship end because of my gender identity or expression."), Gender-Related Victimization (six items; e.g., "I have been verbally harassed or teased because of my gender identity or expression. [For example, being called 'it.']."), Non-Affirmation of Gender Identity (six items; e.g., "I have to repeatedly explain my gender identity to people or correct the pronouns people use."), Internalized Transphobia (eight items; e.g., "I resent my gender identity or expression."), Pride (eight items; e.g., "My gender identity or expression makes me feel special and unique."), Negative Expectations for the Future (nine items; e.g., "If I express my gender IDENTITY/HISTORY, others won't accept me."), Nondisclosure (five items; e.g., "Because I don't want others to know my gender IDENTITY/HISTORY, I don't talk about certain

experiences from my past or I change parts of what I will tell people.), and Community Connectedness (five items; e.g., “I feel a part of a community of people who share my gender identity.”). Seventeen of the items are rated using response options of “Never; Yes, before age 18; Yes, after age 18; Yes, in the past year” while the remaining 41 items are rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Participants’ responses to each item were totaled within the subscales for the 5-point Likert rated subscales with higher scores on Non-Affirmation of Gender Identity, Internalized Transphobia, Negative Expectations for the Future, and Nondisclosure indicating more experience with that particular gender minority stressor and higher scores on Pride and Community Connectedness reflecting more experience of resiliency factors that may protect against gender minority stress. Total scale scores were not computed as there is no validation for the use of a total scale score with this measure.

Psychometric properties have been assessed in a gender minority (transgender and gender non-conforming) sample and have demonstrated adequate internal consistency reliability with alpha coefficients documented to be  $\alpha = .61$  (Gender-Related Discrimination),  $\alpha = .71$  (Gender-Related Rejection),  $\alpha = .77$  (Gender-Related Victimization),  $\alpha = .93$  (Non-Affirmation of Gender Identity),  $\alpha = .91$  (Internalized Transphobia),  $\alpha = .90$  (Pride),  $\alpha = .89$  (Negative Expectations for the Future), and  $\alpha = .80$  (Nondisclosure). The GMSRM also demonstrated adequate convergent validity where all seven of the minority stress subscales were significantly positively correlated with depressive symptoms ( $r_s = .10$  to  $.49$ ,  $p_s < .05$ ) and six of the seven minority stress subscales were significantly positively correlated with social anxiety ( $r_s = .08$  to  $.38$ ,  $p_s < .05$ ) symptoms. Additionally, the two resilience subscales were significantly negatively correlated with depression ( $r_s = -.19$  to  $-.21$ ,  $p_s < .05$ ) and social anxiety ( $r_s = -.17$  to  $-.20$ ,  $p_s < .05$ ) and

significantly positively correlated with perceived social support ( $r_s = .21$  to  $.30$ ,  $p_s < .05$ ). In analyzing the GMSRM, Testa, Habarth, Peta, Balsam, and Bockting (2015) determined there were no correlations of  $.60$  or greater between each subscale. In Testa and colleagues' (2015) approach, having intercorrelations between the subscales below  $.60$  suggests adequate discriminant validity as no two subscales are so similar that they are indistinguishable from one another. Cronbach's alphas for the GMSRM in the current study were  $\alpha = .79$  (Gender-Related Discrimination),  $\alpha = .79$  (Gender-Related Rejection),  $\alpha = .85$  (Gender-Related Victimization),  $\alpha = .96$  (Non-Affirmation of Gender Identity),  $\alpha = .95$  (Internalized Transphobia),  $\alpha = .93$  (Pride),  $\alpha = .65$  (Negative Expectations for the Future),  $\alpha = .80$  (Nondisclosure),  $\alpha = .77$  (Community Connectedness). See Table 2 for intercorrelations among the subscales.

**Health Status.** The history of illness form (see Appendix C) asked participants to identify if they had received a diagnosis from a healthcare professional in the past year. In particular they were asked if they had been diagnosed by a medical healthcare professional (e.g., medical doctor, primary care physician) with one or more physical health problems (e.g., diabetes, hypertension, cancer) and if they had been diagnosed by a mental health professional (e.g., psychologist, psychiatrist) with one or more mental health problems (e.g., depression, anxiety, substance use).

Participants were then asked to fill out the Medical Outcomes Survey Short Form (SF-12; Ware, Kosinski, & Keller, 1994; see Appendix D), which is a 12-item measure that assesses distress and interference related to physical and mental health problems. The SF-12 has two summary scales: Physical Component Summary (PCS) and Mental Health Component Summary (MCS). The PCS is comprised of four subscales: General Health (one item; e.g., "In general, would you say your health is:"), Physical Functioning (two items; e.g., "Does your health now

limit you in these activities? If so, how much? Climbing several flights of stairs.”), Role Physical (two items; e.g., “During the past 4 weeks, have you had any of the following problems with your work or other regular activities as a result of your physical health? Were limited in the kind of work or other activities”), and Bodily Pain (one item; e.g., “During the past 4 weeks, how much did pain interfere with your normal work [including work outside the home and housework]?”). The MCS is also comprised of four subscales: Role Emotional (two items; e.g., “During the past 4 weeks, have you had any of the following problems (such as feeling depressed or anxious)? Accomplished less than you would like.”), Mental Health (two items; e.g., “How much of the time during the past 4 weeks have you felt calm & peaceful?”), Vitality (one item; e.g., “How much of the time during the past 4 weeks did you have a lot of energy?”), and Social Functioning (one item; e.g., “During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities [like visiting friends, relatives, etc.]?”). Per the SF-12 manual (Ware, Kosinski, & Keller, 1995), items are scored in SPSS using a four-step process. In step 1, items 1, 8, 9, and 10 are reverse scored. In step 2, dummy-coded variables (1 and 0) are created for item response choices to indicate if a response choice is endorsed (1) or if a response choice is not endorsed (0) for item 1, 8, 9, 10, 11, and 12. The other six items are not dummy-coded in this step as they are already in a dichotomous format (e.g., yes/no). Thus, the dummy-coding results in the creation of 35 indicator variables. In step 3, these dummy-coded variables are weighted by multiplying each variable by a corresponding regression coefficient derived from the U.S. population found in the scoring manual (Ware et al., 1995)—to compute the PCS, the variables are multiplied by their respective physical regression weights; to compute the MCS, they are multiplied by their respective mental regression weights. The PCS and MCS

are then aggregated by summing their respective corresponding 35 scores. Finally, in step 4, aggregated PCS and MCS scale scores are standardized by adding a constant (regression intercept), provided in the scoring manual (Ware, Kosinski, & Keller, 1995), to yield scores with a mean of 50 and a standard deviation of 10. Higher scores on the SF-12 indicate better health status.

Psychometric properties for the SF-12 have been tested in multiple populations with adequate test-retest reliability coefficients of .88 to .89 (PCS) and .76 to .78 (MCS) reported from a U.S. and U.K. based sample (Brazier, Jones, & Kind, 1993; McHorney, Kosinski, and Ware, 1994). Additionally, content validity scores have been computed using a four-group format test where groups of participants were distinct from one another in diagnosis and severity of health problems. Content validity scores were found to be .43 to .78 (PCS) and .93 to .98 (MCS) when compared with the Medical Outcomes Survey Short-Form (SF-36) demonstrating adequate to acceptable validity (McHorney, Kosinski, & Ware, 1994; Stewart & Ware, 1992; Ware, Kosinski, & Keller, 1994).

**Coping with Health Problems.** The Coping with Health Injuries and Problems Scale (CHIP; Endler, Parker, & Summerfeldt, 1998; see Appendix E) is a 32-item measure that assesses how individuals cope with physical health problems. The CHIP has four subscales: Palliative Coping (eight items; e.g., “Stay in bed”), Instrumental Coping (eight items; e.g., “Find out more information”), Distraction Coping (eight items; e.g., “Think about better times”), and Emotional Preoccupation Coping (eight items; e.g., “Wonder ‘why me?’”). The items are rated on a 5-point Likert scale, ranging from 1 (not at all) to 5 (very much), with instructions indicating participants should specify how much they engaged in each activity when they encountered a health problem. Participants’ responses were summed within each of the subscales

to yield scores for each of the coping subscales. Scores range from 8 to 40, with higher scores on the subscales indicating more use of that type of coping. Total scale scores were not computed as there is no validation for the use of a total scale score with this measure.

The CHIP's psychometric properties have been tested in a general medical sample, as well as in a group of patients reporting lower back pain, with adequate to good Cronbach's alpha reliability coefficients of .74 to .80 (Distraction Coping), .72 to .78 (Palliative Coping), .70 to .82 (Instrumental Coping), and .83 to .88 (Emotional Preoccupation Coping; Endler et al., 1998). Test-retest reliability for the CHIP was found to be  $r_s = .80$  to  $.88$  ( $p < .05$ ; Distraction Coping),  $r_s = .86$  to  $.92$  ( $p < .05$ ; Palliative Coping),  $r_s = .80$  to  $.88$  ( $p < .05$ ; Instrumental Coping), and  $r_s = .82$  to  $.88$  ( $p < .05$ ; Emotional Preoccupation), indicating the CHIP has good consistency over time (Endler et al., 1998). Cronbach's alphas for the current study were .70 (Distraction Coping), .59 (Palliative Coping), .89 (Instrumental Coping), and .84 (Emotional Preoccupation Coping). See Table 2 for intercorrelations among the subscales.

**Needs in Healthcare Settings.** The Assessment of LGBT Youths' Needs in Health Care Settings (ALYNHCS; Ginsburg, Winn, Rudy, Crawford, Zhao, & Schwarz, 2002; see Appendix F) is a 34-item measure that assesses what LGBT individuals value in their healthcare experiences. Item response options are on a 5-point Likert scale ranging from 1 (This is not at all important to me) to 5 (This is extremely important to me), with items such as "I will be treated with respect" and "Posters and health information at the site include LGBTQ issues." Total scale scores range from 34 to 170 with higher scores reflecting greater importance of practices LGBT people want from their healthcare providers. An exploratory factor analysis (see Table 10) was performed to determine the presence of any subscales where a five-factor model was supported. The five subscales extracted from this model were Professionalism, Openness to LGBTQ+

Issues, Representativeness, LGBTQ+ Representativeness at Site, and Cleanliness/Confidentiality. Cronbach's alphas for the current study were .87 (Professionalism), .66 (Openness to LGBTQ+ Issues), .83 (Representativeness), .87 (LGBTQ+ Representativeness at Site), .88 (Cleanliness/Confidentiality). See Table 2 for intercorrelations among the subscales.

### **Procedures**

The current study was approved by the Institutional Review Board (IRB). Participants were recruited through online LGBT social groups and forums (e.g., Facebook, Reddit, Tumblr) using a short description of the study along with a web link to the survey directing them to Survey Monkey (see Appendix G). Participants then viewed the consent form (see Appendix H) and either elected to participate in the study or declined. Those who declined to participate in the study were directed to the end of the survey and provided with a list of online and telephone LGBT-specific mental health supports and services. Participants who agreed to participate completed the MSS and the GMSRM and continued by completing a question related to health status followed by the SF-12 to assess health-related distress/interference. Then participants moved onto the CHIP and the ALYNHCS to ensure participants were aware of what coping behaviors they use in relation to the health problems previously mentioned and what they value in healthcare providers. Finally, participants completed the demographic survey (see Appendix I) including items assessing age, sex, gender identity, sexual orientation, employment status, insurance status, geographic location, and annual income at the end of the study in order to avoid introducing stereotype threat. At the end of the survey, all participants were presented with a list of online and telephone LGBT-specific mental health supports and services and fully debriefed regarding the purpose of the study (see Appendix J).

## Results

Participant characteristics can be found in Table 1 and descriptive statistics and bivariate correlations to test Hypothesis 1 (i.e., higher endorsement of sexual minority stress and/or gender minority stress will be positively correlated with endorsement of health status problems) can be found in Table 2. The results did not support Hypothesis 1; however the results did show that internalized transphobia was significantly negatively correlated with physical health problems ( $r = -.41, p < .05$ ) and that expectations of discrimination were significantly negatively correlated with mental health problems ( $r = -.38, p < .05$ ). Other significant intercorrelations that emerged were between subscales of either the MSS or the GMSRM. For example, there was a significant intercorrelation between the subscales of Expectations of Discrimination and Internalized Homophobia Toward Oneself which are both part of the MSS. The GMSRM subscales of community connectedness and gender-related victimization were significantly negatively correlated with expectations of discrimination from family ( $r_s = -.40$  and  $-.43$ , respectively,  $p_s < .05$ ), community connectedness was significantly negatively correlated with internalized homophobia toward oneself ( $r = -.40, p < .05$ ), and pride was significantly positively correlated with sexual orientation concealment ( $r = .83, p < .05$ ).

Independent samples *t*-tests and Analyses of Variance (ANOVAs), found in Tables 3 and 4, were conducted to assess demographic differences on the variables. Results showed that men were significantly more likely to utilize instrumental coping than women, and were significantly less likely to value professionalism, representativeness, and cleanliness/confidentiality in healthcare settings than women. Individuals with normative gender identities experienced more physical health problems and more internalized homophobia towards others, and individuals with non-normative gender identities experienced more enacted stigma, gender-related discrimination,

gender-related victimization, nonaffirmation of gender identity, and internalized transphobia.

Due to low response rates, the demographic variable of gender was recoded to reflect normative and non-normative gender identities (e.g., normative = male/female and non-normative = genderqueer/gender non-conforming).

*T*-tests could not be conducted on GMSRM subscales of Negative Expectations for the Future and Nondisclosure due to low response rates on the items for these subscales. In particular, in creation of the survey, there was a necessary question that used skip logic to determine what questions participants answered on the subscales Negative Expectations for the Future and Nondisclosure. There was an error in creation of this skip logic and many participants did not respond to items on these subscales. Additionally, ANOVAs could not be conducted to assess differences for the demographic variables of sexual orientation and income due to lack of variability on these items.

### **Mediation Analysis**

*Data analytic strategy.* To test Hypothesis 2 (i.e., proximal minority stressors will mediate the relationship between distal minority stressors and health status problems), the current study performed a Baron and Kenny (1986) mediational analysis to examine the extent to which proximal minority stressors mediated the relationship between distal minority stressors and health status problems. To assess for mediation, four separate regressions were conducted (Statistics Solutions, 2013) for the dependent variables of physical and mental health status problems, and all categorical variables were dummy coded for entry into the model and all continuous variables standardized to *Z*-scores. Because only two variables (i.e., expectations of discrimination and internalized transphobia) were significantly correlated with health status problems, the rest of the independent variables were excluded from this mediation analysis.

In Set 1, regressions were conducted to examine whether distal minority stressors would predict health status problems. For each dependent variable, participants' gender identity was entered in Step 1 to control for its effects; then distal minority stress scores were entered in Step 2. In Set 2, regressions were conducted to examine whether distal minority stressors would predict proximal minority stressors. For each dependent variable, participants' scores on distal minority stress were entered in Step 1. In Set 3, regressions were conducted to examine whether proximal minority stressors, controlling for distal minority stressors, would predict health status problems. For each dependent variable, participants' distal minority stress scores were entered in Step 1 to control for their effects; then, participants' scores on proximal minority stress were entered in Step 2. In Set 4, regressions were conducted to examine whether distal minority stressors, controlling for proximal minority stressors, would predict health status problems. For each dependent variable, participants' proximal minority stress scores were entered in Step 1 to control for their effects; then, participants' scores on distal minority stress were entered in Step 2.

The mediation model is presented in Figure 1. For mediation to occur, distal minority stress must be significantly related to health status problems (Set 1), distal minority stress must be significantly related to proximal minority stress, the hypothesized mediator (Set 2), and proximal minority stress should remain a significant predictor of health status problems while controlling for the effects of distal minority stress (Set 3). Finally, if proximal minority stress significantly mediates health status problems, distal minority stress should no longer significantly predict health status problems when controlling for proximal minority stress (Set 4). If this condition is met, then mediation has occurred, consistent with the second hypothesis that

proximal minority stress would mediate the relationship between distal minority stress and health status problems.

*Predicting Health Status Problems.* The complete regression results for health status problems are shown in Tables 5-8. The second set of regression analyses found a significant relationship between distal stressors and proximal stressors, where Non-Affirmation of Gender Identity significantly predicted Internalized Transphobia ( $\beta = .95, p < .01$ ). Because the other three sets of regressions were not significant, no interpretations can be made regarding mediation.

### **Moderation Analysis**

*Data analytic strategy.* To test Hypothesis 3 (i.e., health-relevant coping strategies will moderate the relationship between SGM stress and health status problems), a hierarchical multiple regression analysis was conducted to predict participants' scores on the SF-12. For each dependent variable, participants' standardized scores for SGM stress and coping strategies were entered in Step 1. Computed interaction terms for SGM stress and coping strategies were entered in Step 2. None of the correlations between coping style, SGM stress, and health status problems were significant (see Table 2). However, to test the hypothesis as proposed, instrumental coping and palliative coping were selected as moderation variables as these two were the most theoretically relevant variables that might moderate the relationship between SGM stress and health status problems. According to Folkman and colleagues (1986), problem-focused coping may be the more appropriate use of coping resources in this case as individuals are trying to tackle the stressor directly by getting information and help from professionals and doing things to care for themselves. Participants might use instrumental coping to gather information to take care of themselves with help from a professional and for palliative coping participants are

performing self-care activities and may seek less treatment from healthcare providers due to disenfranchisement from previous visits (Fredriksen-Goldsen et al., 2014; Walker et al., 2017).

The moderation model is presented in Figure 2. For moderation to occur, the interaction terms of SGM stress and coping strategies should significantly predict health status problems above and beyond the main effects of either SGM stress or coping alone.

*Predicting Health Status Problems.* The complete regression results for health status problems are shown in Table 9. Expectations of discrimination significantly predicted mental health status problems and internalized transphobia significantly predicted physical health status problems, but the interactions between expectations of discrimination and mental health status problems did not significantly predict mental health status problems, nor did the interactions between internalized transphobia and physical health status problems significantly predict physical health status problems.

### **Exploratory Factor Analysis**

An exploratory factor analysis was run for the Assessment of LGBT Youths' Needs in Healthcare Settings scale and found support for a five factor model as follows: Professionalism, Openness to LGBTQ+ Issues, Representativeness, LGBTQ+ Representativeness at Site, and Cleanliness/Confidentiality. Factor loadings for each of the subscales ranged from .63 to .86 (Professionalism), .69 to .85 (Openness to LGBTQ+ Issues), .73 to .82 (Representativeness), .64 to .85 (LGBTQ+ Representativeness at Site), and .64 to .89 (Cleanliness/Confidentiality). Some items did load on to the subscales but were of insufficient factor loading value to be considered meaningful (i.e., <.60). Thus, there is a need for future research and validation of a short-form of this scale to assess usefulness in SGM populations.

### Discussion

The purpose of the current study was to assess how distal and proximal minority stressors are related to health status problems in SGM individuals. It was expected that higher endorsement of sexual minority stress and/or gender minority stress would be positively correlated with endorsement of health status problems (hypothesis 1), proximal minority stressors would mediate the relationship between distal minority stressors and health status problems (hypothesis 2), and health-relevant coping strategies would moderate the relationship between sexual and/or gender minority stress and health status problems (hypothesis 3). The results did not support any of the three hypotheses posed.

There are limitations to the current study. First, the sample size was relatively small at 37 valid participants, which limits statistical power. Next, the use of self-report measures limits the accuracy of data collected as participants may have forgotten or misremembered experiences they have had regarding minority stress or healthcare visits. It is also possible that outside variables, such as racial identity, size of town participants live in, and other factors, may have influenced participants' levels of minority stress and/or their access to healthcare sites. For example, previous literature regarding SGM stress and racial identity has noted that individuals who have SGM and racial minority status may have less access to healthcare or use coping skills differently (Wilson et al., 2016). Similarly, SGM individuals in rural towns might not be "out" to others and thus choose to access healthcare needs specific to their SGM status (Meyer, 2003; Whitehead, 2016). Another potential limitation of this study is its length: as there were more than 200 questions in this survey, it is possible some participants experienced burn out or boredom, which may have influenced how long they took to answer questions, if they decided to continue with the survey, and how attentive they were to the survey items. Finally, there is the issue of

defining SGM stress and coping behaviors. Previous literature in both of these areas has attempted to provide cohesive definitions. However, the body of literature in SGM stress is sparse, due in part to the fact the model was created in 2003. For coping, there are many definitions and understandings of what coping is/looks like thus participants may have a different understanding and/or may use different coping strategies than those used in this study to navigate SGM stress.

Given these limitations and the results of the current study, there is a need for replication to further determine what sort of relationship exists between SGM stress and healthcare utilization among SGM individuals. The current study asserts that, although our findings are not in accordance with previous literature findings, some particular facets of SGM stress may have a potential negative relationship with health status problems. Specifically, the original SGM stressor identified as a problem may become a source of coping (e.g., experiencing SGM stress at a healthcare setting leading to practicing palliative coping to take care of self). Further research in this area ought to be conducted to replicate findings using a larger sample and smaller survey. In addition, future researchers should consider including city size and racial identity in their studies as these two factors have theoretical and empirical support as potential influences in navigating SGM stress. Had the results of the current study been significant, there would have been ongoing support for the idea that SGM stress may influence how often SGM individuals access healthcare services and what occurs internally and externally stress-wise if they do. Additionally, support for the current study's hypotheses would have provided further support for Hatzenbuehler's (2009) updated Minority Stress Model, which would mean that internal SGM stressors mediate the relationship between external SGM stressors and health problems. Practically, this information would provide medical/mental health providers with ways to negate

the effects of external and internal SGM stressors, such as by posting signs/stickers around their offices and being open with patients/clients.

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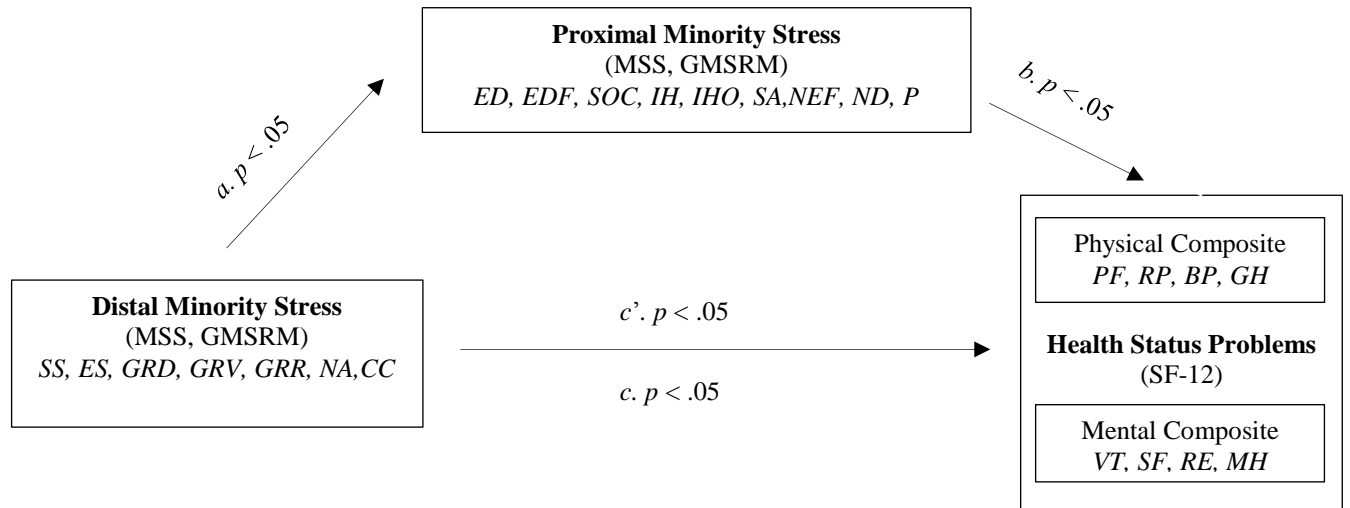
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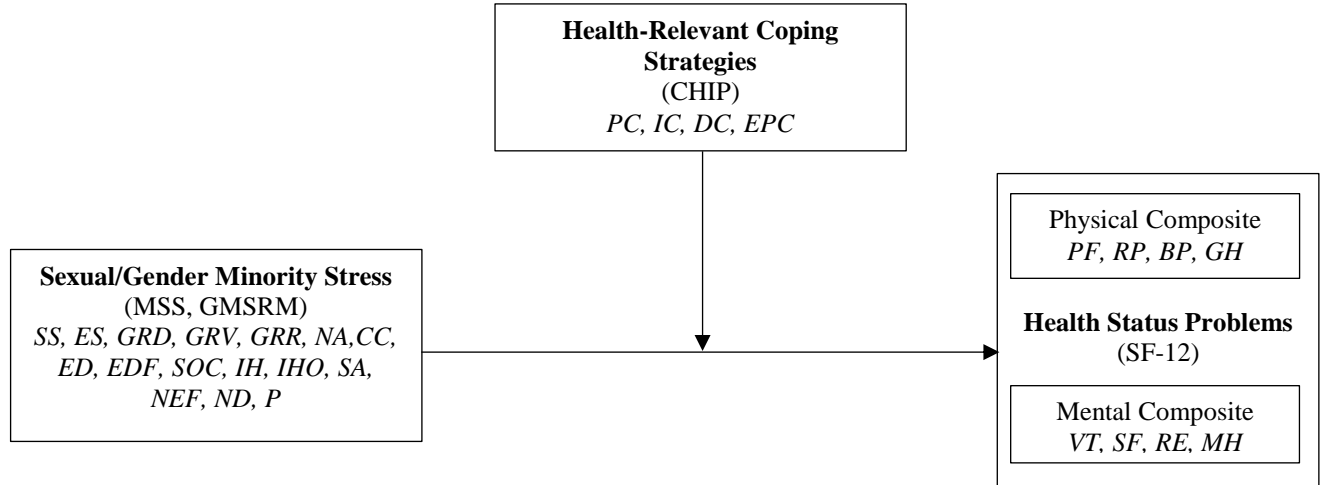
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### Figures



*Figure 1.* Proposed mediational analysis of the current study. The bold items are the independent variable (distal minority stress), the dependent variable (health status problems), and the mediator (proximal minority stress). Terms in parentheses are the measures which will be used to assess each variable. Terms that are italicized are the subscales that will be assessed. It is proposed that distal minority stress will significantly predict proximal minority stress (*a*), proximal minority stress will significantly predict health status problems (*b*), distal minority stress will significantly predict health status problems (*c*), and proximal minority stress will mediate the relationship between distal minority stress and health status problems (*c'*).



*Figure 2.* Proposed moderation analysis of the current study. The bold items are the independent variable (sexual/gender minority stress), the dependent variable (health status problems), the moderator (health-relevant coping strategies), and the interaction terms (sexual/gender minority stress by health-relevant coping strategies). Terms in parentheses are the measures which will be used to assess each variable. Terms that are italicized are the subscales that will be assessed. It is proposed that SGM stress will significantly predict health status problems and health-relevant coping strategies will significantly moderate the relationship between sexual/gender minority stress and health status problems.

## Tables

Table 1

*Participant Characteristics*

Characteristic	N	M	SD	%
Age		34.08	15.207	
20	1			4.0
22	1			4.0
23	2			8.0
24	1			4.0
25	1			4.0
26	2			8.0
27	1			4.0
28	7			28.0
31	1			4.0
32	1			4.0
33	1			4.0
35	1			4.0
45	1			4.0
59	1			4.0
62	1			4.0
71	1			4.0
72	1			4.0
Sex				
Male	11			44.0
Female	13			52.0
Not listed (please specify)	1			4.0
Gender				
Man*	7			28.0
Woman*	7			28.0
Trans Man <sup>+</sup>	3			12.0
Trans Woman <sup>+</sup>	1			4.0
Gender-Variant/Gender Non-Conforming <sup>+</sup>	3			12.0
Non-Binary <sup>+</sup>	2			8.0
Not listed (please specify) <sup>+</sup>	2			8.0
Sexual Orientation				
Gay	5			20.0
Lesbian	3			12.0
Bisexual	4			16.0
Pansexual	1			4.0
Asexual	3			12.0
Not listed (please specify)	9			36.0
Employment Status				

Table 1 (Continued)

Full-Time	8	32.0
Part-Time	10	40.0
Not listed (please specify)	7	28.0
Insurance Status		
Private	18	72.0
Government	7	28.0
Annual Income		
\$0-\$20,000	13	52.0
\$20,001-\$40,000	4	16.0
\$40,001-\$60,000	1	4.0
\$60,001-\$80,000	2	8.0
\$80,001-\$100,000	0	0
>\$100,000	5	20.0

*Note.* \*Adjusted to normative during analysis. <sup>+</sup>Adjusted to non-normative during analysis.

Table 2  
Descriptive Statistics and Intercorrelations

Pearson Correlations		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
53.5	7.88	-																			
34.49	11.73	-0.46*	-																		
5.32	2.54	0.02	-0.28	-																	
6.86	1.84	-0.27	-0.03	0.02	-																
32.78	5.54	0.06	-0.38*	0.26	0.32	-															
8.11	3.62	-0.03	-0.24	0.04	0.23	0.50**	-														
10.23	4.89	0.01	-0.31	0.16	0.08	0.52**	0.32	-													
11.68	2.97	-0.08	0.23	0.06	-0.08	-0.30	-0.53**	-0.25	-												
2.68	1.11	0.02	0.08	0.16	-0.06	0.18	0.10	0.50**	-0.24	-											
8.27	3.20	0.22	-0.02	0.09	0.20	0.38*	0.13	0.36*	-0.02	0.17	-										
6.71	2.98	-0.22	0.00	0.02	0.22	0.11	-0.19	-0.12	0.13	-0.12	0.19	-									
9.55	4.21	-0.22	-0.08	0.00	0.21	-0.06	-0.17	-0.25	0.20	-0.22	-0.07	0.66**	-								
7.52	3.12	-0.11	-0.16	-0.15	0.18	0.01	-0.43*	-0.25	0.29	-0.31	0.07	0.71**	0.66**	-							
13.13	7.64	-0.33	-0.01	0.18	0.36	0.18	-0.18	0.03	0.19	-0.21	0.27	0.76**	0.63**	0.59**	-						
14.17	7.03	-0.41*	-0.10	0.25	0.29	0.19	-0.06	0.30	0.15	-0.04	0.18	0.58**	0.50**	0.41*	0.84**	-					
24.13	8.05	-0.38	0.35	-0.17	0.04	-0.28	-0.34	-0.18	0.83	0.09	-0.02	0.61**	0.53**	0.38*	0.50**	0.33	-				
15.97	4.01	0.31	0.20	-0.12	-0.23	-0.27	-0.40*	-0.40*	0.08	0.21	-0.16	0.21	0.23	0.23	-0.01	-0.13	0.46*	-			
56.50	4.95	-1.00	-1.00	-1.00	c	1.00	1.00	1.00	1.00	c	c	1.00	c	1.00	c	1.00	c	1.00	-1.00	-	
28.50	6.36	-1.00	-1.00	-1.00	c	1.00	1.00	1.00	1.00	c	c	1.00	c	1.00	c	1.00	c	1.00	-1.00	1.00	-

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

Table 3

Variables
1. Physical Composite Scale
2. Mental Composite Scale
3. Structural Stigma
4. Enacted Stigma
5. Expectations of Discrimination
6. Expectations of Discrimination from Family
7. Internalized Homophobia Toward Oneself
8. Sexual Orientation Concealment
9. Internalized Homophobia Toward Others
10. Stigma Awareness
11. Gender Related Discrimination
12. Gender Related Rejection
13. Gender Related Victimization
14. Non-Affirmation of Gender Identity
15. Internalized Transphobia
16. Pride
17. Community Connectedness
18. Negative Expectations for the Future
19. Nondisclosure

*Results of T-tests for Sexual and Gender Minority Stress, Coping, Health Status Problems, and Healthcare Settings by Sex*

Variables	Group						95% CI For		t	df
	Male			Female			Mean			
	M	SD	N	M	SD	N	Difference			
Physical Composite Scale	55.42	6.24	11	53.24	8.22	13	-4.09, 8.46	.722	22	
Mental Composite Scale	32.73	9.74	11	32.88	12.27	13	-9.66, 9.36	-.033	22	
Structural Stigma	6.00	1.95	11	5.54	2.76	13	-1.60, 2.52	.47	22	
Enacted Stigma	6.00	1.79	11	7.31	1.97	13	-2.92, .30	-1.69	22	
Expectations of Discrimination	33.18	5.58	11	33.69	5.79	13	-5.35, 4.33	-.22	22	
Expectations of Discrimination from Family	7.18	3.60	11	7.62	3.69	13	-3.53, 2.67	-.29	22	
Internalized Homophobia Toward Oneself	10.00	3.61	11	11.23	5.18	13	-5.08, 2.62	-.66	22	
Sexual Orientation Concealment	12.27	2.20	11	11.54	3.04	13	-1.55, 3.02	.67	22	
Internalized Homophobia Toward Others	2.82	1.17	11	2.46	.88	13	-.51, 1.22	.85	22	
Stigma Awareness	9.55	3.21	11	8.62	2.75	13	-1.59, 3.45	.77	22	
Gender Related Discrimination	6.91	3.30	11	7.17	3.49	12	-3.21, 2.69	-.18	21	
Gender Related Rejection	10.10	4.72	11	9.83	4.32	12	-3.66, 4.18	.14	21	
Gender Related Victimization	7.55	3.14	11	8.5	3.83	12	-4.01, 2.10	-.65	21	
Non-Affirmation of Gender Identity	13.18	8.72	11	16.42	7.42	12	-10.23, 3.76	-.96	21	
Internalized Transphobia	13.45	6.83	11	17.73	7.79	11	-10.79, 2.24	-1.37	20	
Pride	25.10	7.13	10	22.75	8.75	12	-4.85, 9.55	.68	20	
Community Connectedness	16.36	3.04	11	15.75	4.65	12	-2.83, 4.06	.37	21	
Negative Expectations for the Future	0	-	-	56.50	4.95	2	-	-	-	
Nondisclosure	0	-	-	28.50	6.36	2	-	-	-	
Palliative Coping	30.00	2.49	11	31.62	4.33	13	-4.68, 1.45	-1.09	22	
Instrumental Coping	31.82	5.34	11	26.50	6.63	12	-4.57, 1.34	2.11*	21	
Distraction Coping	24.64	5.18	11	24.23	5.48	13	-4.14, 4.95	.19	22	
Emotional Preoccupation Coping	25.45	6.90	11	26.23	5.54	13	-6.04, 4.49	-.31	22	
Professionalism	28.18	4.69	11	32.38	2.79	13	-7.41, -1.00	-2.72**	22	
Openness to LGBTQ Issues	30.00	3.41	11	30.31	5.10	13	-4.05, 3.43	-.17	22	
Representativeness	14.00	2.65	11	17.15	3.76	13	-5.96, -.35	-2.33*	22	
LGBTQ Representativeness at Site	11.91	4.44	11	13.38	3.84	13	-4.98, 2.03	-.87	22	
Cleanliness/Confidentiality	16.91	2.81	11	19.46	1.13	13	-4.31, -.79	-3.01**	22	

Note. \*  $p < .05$ . \*\*  $p < .01$ .



Table 4

*Results of T-tests for Sexual and Gender Minority Stress, Coping, Health Status Problems, and Healthcare Settings by Gender*

Variables	Group						95% CI For Mean Difference	<i>t</i>	df
	Normative			Non-Normative					
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>			
Physical Composite Scale	57.50	3.85	14	48.65	8.90	11	3.39, 14.31	3.36**	23
Mental Composite Scale	32.49	8.63	14	34.66	14.15	11	-11.64, 7.30	-.47	23
Structural Stigma	5.64	2.06	14	6.09	2.81	11	-2.46, 1.56	-.46	23
Enacted Stigma	6.07	2.23	14	7.73	1.10	11	-3.18, -.13	-2.24*	23
Expectations of Discrimination	33.07	6.38	14	33.55	4.52	11	-5.18, 4.23	-.208	23
Expectations of Discrimination from Family	7.71	3.24	14	7.00	3.92	11	-2.25, 3.68	.499	23
Internalized Homophobia Toward Oneself	10.86	3.68	14	10.36	5.33	11	-3.24, 4.22	.274	23
Sexual Orientation Concealment	11.29	2.84	14	12.82	2.18	11	-3.68, .61	-1.48	23
Internalized Homophobia Toward Others	3.07	1.14	14	2.18	.60	11	.10, 1.68	2.34*	23
Stigma Awareness	9.00	3.26	14	9.36	2.62	11	-2.86, 2.13	-.30	23
Gender Related Discrimination	5.69	2.50	13	8.73	3.38	11	-5.52, -.55	-2.53*	22
Gender Related Rejection	7.70	2.98	13	12.55	4.32	11	-7.88, -1.68	-3.19	22
Gender Related Victimization	6.15	.55	13	10.10	4.16	11	-6.34, -1.53	-3.39**	22
Non-Affirmation of Gender Identity	9.62	6.53	13	20.91	3.96	11	-15.98, -6.61	-5.00**	22
Internalized Transphobia	11.92	6.21	13	20.30	5.91	10	-13.70, -3.06	-3.27**	21
Pride	21.25	8.13	12	27.10	6.58	11	-12.29, .61	-1.88	21
Community Connectedness	16.54	3.13	13	15.28	4.58	11	-2.01, 4.54	.80	22
Negative Expectations for the Future	0	-	-	56.50	4.95	2	-	-	-
Nondisclosure	0	-	-	28.50	6.36	2	-	-	-
Palliative Coping	30.64	3.18	14	31.27	4.13	11	-3.65, 2.39	-.43	23
Instrumental Coping	29.79	5.13	14	28.20	8.01	10	-3.97, 7.14	.59	22
Distraction Coping	24.50	3.74	14	24.45	6.71	11	-4.32, 4.42	.02	23
Emotional Preoccupation Coping	25.29	6.39	14	26.64	5.54	11	-6.38, 3.68	-.56	23
Professionalism	30.14	4.77	14	30.45	3.75	11	-3.94, 3.32	-.18	23
Openness to LGBTQ Issues	29.14	4.83	14	31.73	3.00	11	-6.03, .86	-1.56	23
Representativeness	15.14	3.61	14	16.00	3.82	11	-3.95, 2.23	-.57	23
LGBTQ Representativeness at Site	12.21	4.44	14	13.55	3.53	11	-4.72, 2.06	-.81	23
Cleanliness/Confidentiality	17.57	2.71	14	19.18	1.47	11	-3.49, .27	-1.77	23

*Note.* \*  $p < .05$ . \*\*  $p < .01$ .

Table 5

*Results of T-tests for Sexual and Gender Minority Stress, Coping, Health Status Problems, and Healthcare Settings by Insurance Status*

Variables	Group						95% CI For Mean Difference	<i>t</i>	df
	Private			Government					
	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>			
Physical Composite Scale	54.32	6.37	18	51.78	11.15	7	-4.73, 9.82	.72	23
Mental Composite Scale	35.03	11.16	18	29.36	10.94	7	-4.56, 15.90	1.15	23
Structural Stigma	5.89	2.56	18	5.71	1.98	7	-2.06, 2.41	.16	23
Enacted Stigma	6.83	2.09	18	6.71	1.80	7	-1.74, 1.98	.13	23
Expectations of Discrimination	34.33	4.86	18	30.57	6.60	7	-1.19, 8.71	1.57	23
Expectations of Discrimination from Family	7.78	3.69	18	6.43	2.99	7	-1.89, 4.59	.86	23
Internalized Homophobia Toward Oneself	10.78	3.10	18	10.29	7.04	7	-3.63, 4.62	.25	23
Sexual Orientation Concealment Internalized Homophobia	11.61	2.99	18	12.86	1.07	7	-3.67, 1.18	-1.06	23
Toward Others	2.61	1.04	18	2.86	1.70	7	-1.21, .72	.25	23
Stigma Awareness	9.44	2.53	18	8.43	3.95	7	-1.72, 3.75	.77	23
Gender Related Discrimination	7.06	3.33	17	7.14	3.34	7	-3.18, 3.02	-.06	22
Gender Related Rejection	9.88	4.74	17	10.14	3.39	7	-4.37, 3.85	-.13	22
Gender Related Victimization	8.18	3.65	17	7.43	2.99	7	-2.49, 3.99	.48	22
Non-Affirmation of Gender Identity	14.82	7.76	17	14.71	8.81	7	-7.39, 7.61	.03	22
Internalized Transphobia	15.31	6.79	16	16.14	8.93	7	-7.87, 6.20	-.25	21
Pride	22.47	7.83	17	28.50	6.53	6	-13.47, 1.42	-1.68	21
Community Connectedness	15.71	3.69	17	16.57	4.39	7	-4.49, 2.76	-.50	22
Negative Expectations for the Future	53.00	-	1	60.00	-	1	-	-	0
Nondisclosure	24.00	-	1	33.00	-	1	-	-	0
Palliative Coping	30.78	3.72	18	31.29	3.35	7	-3.85, 2.83	-.31	23
Instrumental Coping	29.71	6.54	17	27.71	6.21	7	-4.01, 8.00	.69	22
Distraction Coping	25.33	5.32	18	22.29	4.15	7	-1.60, 7.70	1.36	23
Emotional Preoccupation Coping	24.89	5.50	18	28.43	6.73	7	-8.92, 1.85	-1.36	23
Professionalism	30.17	3.84	18	30.57	5.56	7	-4.41, 3.61	-.21	23
Openness to LGBTQ Issues	30.39	4.59	18	30.00	3.56	7	-3.62, 4.39	.20	23
Representativeness	15.50	3.84	18	15.57	3.41	7	-3.51, 3.37	-.04	23
LGBTQ Representativeness at Site	13.06	4.52	18	12.14	2.61	7	-2.87, 4.70	.50	23
Cleanliness/Confidentiality	18.50	2.07	18	17.71	3.09	7	-1.40, 2.98	.74	23

*Note.* \*  $p < .05$ . \*\*  $p < .01$ .

Table 6

*Results of ANOVAs for Sexual and Gender Minority Stress, Coping, Health Status Problems, and Healthcare Settings by Employment Status*

Source	df	SS	MS	F	<i>p</i>
Physical Composite Scale	2	6.38	3.19	.05	.95
Mental Composite Scale	2	618.60	309.30	2.86	.08
Structural Stigma	2	2.33	1.17	.19	.83
Enacted Stigma	2	4.19	2.09	.51	.61
Expectations of Discrimination	2	17.51	8.76	.27	.77
Expectations of Discrimination from Family	2	36.39	18.19	1.55	.23
Internalized Homophobia Toward Oneself	2	2.17	1.09	.05	.95
Sexual Orientation Concealment	2	25.83	12.91	2.01	.16
Internalized Homophobia Toward Others	2	.11	.06	.05	.95
Stigma Awareness	2	5.00	2.50	.27	.76
Gender Related Discrimination	2	6.48	3.24	.29	.75
Gender Related Rejection	2	1.64	.82	.04	.96
Gender Related Victimization	2	7.49	3.74	.30	.74
Non-Affirmation of Gender Identity	2	111.79	55.89	.89	.43
Internalized Transphobia	2	75.08	37.54	.68	.52
Pride	2	59.78	29.89	.46	.64
Community Connectedness	2	41.70	20.85	1.48	.25
Negative Expectations for the Future	0	0	-	-	-
Nondisclosure	0	0	-	-	-
Palliative Coping	2	15.21	7.60	.58	.57
Instrumental Coping	2	262.42	131.21	4.10	.03*
Distraction Coping	2	60.93	30.46	1.17	.33
Emotional Preoccupation Coping	2	34.28	17.14	.46	.64
Professionalism	2	28.77	14.38	.78	.47
Openness to LGBTQ Issues	2	5.08	2.54	.13	.88
Representativeness	2	80.93	40.46	3.72	.04*
LGBTQ Representativeness at Site	2	31.39	15.69	.96	.40
Cleanliness/Confidentiality	2	14.14	7.07	1.31	.29

*Note.* \*  $p < .05$ .

Table 7

*Mediation Effects of Proximal Minority Stress on the Relationship Between Distal Minority Stress and Health Status Problems: Set 1, Distal Minority Stress Predicts Physical and Mental Health Status Problems*

Step and Variable	Physical Health Status Problems				
	$R^2$	$\Delta R^2$	B	SE B	$\beta$
Step 1	.34	.34*			
Gender Identity			-1.16	.35	-.58*
Step 2	.36	.25			
Structural Stigma			.30	.20	.28
Community			.38	.21	.36
Connectedness					
Enacted Stigma			-.09	.18	-.10
Gender Related			-.30	.30	-.32
Discrimination					
Gender Related			-.02	.27	-.02
Rejection					
Gender Related			.38	.31	.41
Victimization					
Non-Affirmation of			.30	.35	.31
Gender identity					
	Mental Health Status Problems				
Step 1	.03	.03			
Gender Identity			3.76	4.38	.18
Step 2	.44	.41			
Structural Stigma			-4.69	2.43	-.42
Community			3.38	2.53	.30
Connectedness					
Enacted Stigma			.56	2.19	.06
Gender Related			4.21	3.66	.43
Discrimination					
Gender Related			-4.73	3.33	-.46
Rejection					
Gender Related			-6.90	3.72	-.71
Victimization					
Non-Affirmation of			-2.21	4.27	-.21
Gender identity					

Note. \*  $p < .05$ . \*\*  $p < .01$

Table 8

*Mediation Effects of Proximal Minority Stress on the Relationship Between Distal Minority Stress and Health Status Problems: Set 2, Distal Minority Stress Predicts Proximal Minority Stress*

Step and Variable	Expectations of Discrimination				
	$R^2$	$\Delta R^2$	B	SE B	$\beta$
Step 1	.29	.29			
Structural Stigma			.30	.21	.28
Community			-.16	.20	-.17
Connectedness					
Enacted Stigma			.31	.18	.34
Gender Related			.22	.32	.22
Discrimination					
Gender Related			-.26	.26	-.26
Rejection					
Gender Related			.06	.28	.06
Victimization					
Non-Affirmation			-.03	.31	-.03
of Gender identity					
			Internalized Transphobia		
Step 1	.76	.76**			
Structural Stigma			.22	.15	.16
Community			-.13	.12	-.13
Connectedness					
Enacted Stigma			-.02	.11	-.02
Gender Related			-.13	.20	-.14
Discrimination					
Gender Related			.02	.15	.02
Rejection					
Gender Related			-.04	.16	-.04
Victimization					
Non-Affirmation			.95	.19	.95**
of Gender identity					

Note. \*  $p < .05$ . \*\*  $p < .01$

Table 9

*Mediation Effects of Proximal Minority Stress on the Relationship Between Distal Minority Stress and Health Status Problems: Set 3, Proximal Minority Stress Predicts Physical and Mental Health Status Problems, Controlling for Distal Minority Stress*

Step and Variable	Physical Health Status Problems				
	$R^2$	$\Delta R^2$	B	SE B	$\beta$
Step 1	.26	.26			
Structural Stigma			.07	.30	.05
Community			.38	.24	.35
Connectedness					
Enacted Stigma			-.11	.22	-.12
Gender Related			-.03	.37	-.03
Discrimination					
Gender Related			-.15	.30	-.14
Rejection					
Gender Related			.12	.31	.13
Victimization					
Non-Affirmation			-.27	.36	-.27
of Gender identity					
Step 2	.37	.11			
Expectations of			.45	.27	.45
Discrimination					
Internalized			.18	.51	.18
Transphobia					
Step and Variable	Mental Health Status Problems				
	$R^2$	$\Delta R^2$	B	SE B	$\beta$
Step 1	.18	.18			
Structural Stigma			-.34	.29	-.26
Community			.24	.24	.23
Connectedness					
Enacted Stigma			.05	.22	.06
Gender Related			.14	.36	.15
Discrimination					
Gender Related			-.11	.29	-.12
Rejection					
Gender Related			-.43	.30	-.48
Victimization					
Non-Affirmation			.21	.35	.23
of Gender identity					
Step 2	.33	.15			
Expectations of			-.45	.26	-.48
Discrimination					
Internalized			-.61	.49	-.65
Transphobia					

Note. \*  $p < .05$ . \*\*  $p < .01$

Table 10

*Mediation Effects of Proximal Minority Stress on the Relationship Between Distal Minority Stress and Health Status Problems: Set 4, Distal Minority Stress Predicts Physical and Mental Health Status Problems, Controlling for Proximal Stress*

Step and Variable	Physical Health Status Problems				
	$R^2$	$\Delta R^2$	B	SE B	$\beta$
Step 1	.19	.19*			
Expectations of Discrimination			.17	.20	.17
Internalized Transphobia			-.45	.19	-.45*
Step 2	.37	.18			
Structural Stigma			-.21	.35	-.15
Community Connectedness			.55	.29	.50
Enacted Stigma			-.26	.24	-.27
Gender Related Discrimination			-.04	.37	-.04
Gender Related Rejection			-.04	.30	-.04
Gender Related Victimization			.07	.30	.07
Non-Affirmation of Gender identity			-.50	.59	-.49
Step and Variable	Mental Health Status Problems				
	$R^2$	$\Delta R^2$	B	SE B	$\beta$
Step 1	.10	.10			
Expectations of Discrimination			-.30	.19	-.31
Internalized Transphobia			-.02	.19	-.02
Step 2	.33	.23			
Structural Stigma			.01	.34	.01
Community Connectedness			-.04	.28	-.04
Enacted Stigma			.23	.23	.25
Gender Related Discrimination			.10	.35	.11
Gender Related Rejection			-.19	.29	.20
Gender Related Victimization			-.40	.29	-.44
Non-Affirmation of Gender identity			.83	.57	.89

Note. \*  $p < .05$ . \*\*  $p < .01$

Table 11

*Moderation Effects of Health Coping Strategies on the Relationship Between Sexual and Gender Minority Stress and Health Status Problems*

Step and Variable	Physical Health Status Problems				
	$R^2$	$\Delta R^2$	B	SE B	$\beta$
Step 1	.24	.24*			
Internalized Transphobia			-.47	.19	-.49*
Step 2	.26	.03			
Internalized Transphobia x Instrumental Coping			-.41	.52	-.40
Internalized Transphobia x Palliative Coping			-.39	.92	-.38
Step and Variable	Mental Health Status Problems				
	$R^2$	$\Delta R^2$	B	SE B	$\beta$
Step 1	.18	.18			
Expectations of Discrimination			-.40	.19	-.42*
Step 2	.26	.08			
Expectations of Discrimination x Instrumental Coping			.12	.25	.12
Expectations of Discrimination x Palliative Coping			-.44	.42	-.47

Note. \*  $p < .05$ . \*\*  $p < .01$

Table 12

*Exploratory Factor Analysis for Assessment of LGBT Youths' Needs in Health Care Settings*

Item	Factor Loading				
	1	2	3	4	5
<b>Factor 1: Professionalism</b>					
People will speak to me in a language that I will understand.	<b>.86</b>	.15	.22	.00	.20
I will be treated with sensitivity.	<b>.85</b>	.14	.16	.09	.12
The provider is a good listener.	<b>.84</b>	.18	.20	.07	.25
The provider is professional.	<b>.78</b>	.06	.03	-.19	.33
Everyone at the site is friendly.	<b>.63</b>	.13	.09	.04	.17
I am able to choose a male or female provider.	<b>.58</b>	.08	.14	.08	-.18
The provider doesn't talk down to me like I'm a child.	<b>.43</b>	.25	-.03	-.10	.32
<b>Factor 2: Openness to LGBTQ+ Issues</b>					
The provider does not assume my sexual behavior is dangerous or painful.	.13	<b>.85</b>	.06	.00	.12
The provider is open-minded and nonjudgmental of the LGBTQ+ lifestyle.	.10	<b>.82</b>	-.23	.22	.05
Providers understand that my partner may be of the same sex, and they understand our needs.	.25	<b>.72</b>	-.10	-.06	.22
The provider is medically well-educated.	.08	<b>.69</b>	-.13	-.23	.47
The site offers services that focus on LGBTQ+ issues.	-.06	<b>.59</b>	.37	.53	.03
I may choose to be open with one provider without fearing they will tell other staff or providers.	.05	<b>.56</b>	.33	.16	.14
The provider seems like the kind of person who is willing to talk about issues around sex.	.30	<b>.56</b>	.39	.20	-.30
<b>Factor 3: Representativeness</b>					
Staff is discrete, they are sensitive to the issues of being LGBTQ+/closeted.	.28	.00	<b>.82</b>	.13	.02
Posters and health information at the site include LGBTQ+ issues.	-.02	-.14	<b>.80</b>	.40	.02
I know that the provider is able to get me help/counseling when I need it.	.47	-.10	<b>.73</b>	-.08	.04
The staff is racially diverse, a melting pot of ethnicities.	.41	.23	<b>.53</b>	.06	.21
<b>Factor 4: LGBTQ+ Representativeness at Site</b>					
There are magazines in the waiting room for LGBTQ+ people.	.14	.00	.12	<b>.85</b>	-.05
The site has a sticker clearly displayed that says this site is comfortable with LGBTQ+ issues (like a pink triangle or a rainbow).	.11	.15	.35	<b>.70</b>	.21
I have a choice of having an LGBTQ+ provider.	-.02	.34	.35	<b>.67</b>	.00
The site has some openly LGBTQ+ providers.	.03	.23	.22	<b>.64</b>	.00
<b>Factor 5: Cleanliness/Confidentiality</b>					
I will be treated with respect.	.13	.23	-.04	.16	<b>.89</b>
I know that my information will be kept private and confidential.	.26	.13	.11	-.08	<b>.86</b>
Patient information is not discussed in patient/public areas.	.42	.14	.09	.00	<b>.68</b>
The health care site, the instruments, and the provider are clean.	.48	-.03	.18	-.32	<b>.64</b>

*Note.* Bolded items are those that load highest onto the factor they are labeled under. Items that have strikethroughs are those that did not achieve a high enough loading value to be considered significant.

## Appendix A

## Minority Stress Scale (MSS)

**Instructions:** The following statements ask you about beliefs you hold related to your sexual orientation. Please indicate the extent to which you agree or disagree with each using the rating scales indicated below.

**Rating Scale:** 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree

1. Because of my sexual orientation, I won't be able to get married.
2. Because of my sexual orientation, I won't be able to adopt children.
3. Because of my sexual orientation, I won't be able to have a relationship that is legally recognized.
4. Because of my sexual orientation, I have been the target of verbal aggressions.
5. Because of my sexual orientation, I have experienced physical aggressions.
6. Because of my sexual orientation, I have been discriminated against.
7. Because of my sexual orientation, I feel excluded from my society.
8. Because of my sexual orientation, society welcomes me. (R)
9. Because of my sexual orientation, I feel at a high risk of being abused.
10. Because of my sexual orientation, I live with more disadvantages compared to heterosexual men.
11. Because of my sexual orientation, I expect to be the target of insults.
12. Because of my sexual orientation, I think my friends won't accept me.
13. Because of my sexual orientation, I live a disadvantaged living condition compared to heterosexual men.
14. Because of my sexual orientation, I should not disclose my sexual orientation at my place of work because it may have negative consequences.
15. Because of my sexual orientation, I may be discriminated against by the hospital staff.
16. Because of my sexual orientation, I may be discriminated against by my general practitioner.
17. Because of my sexual orientation, I may be discriminated against at my workplace.
18. Because of my sexual orientation, I may be discriminated against by my friends.
19. Because of my sexual orientation, I think my family would not accept me.
20. Because of my sexual orientation, I expect to be discriminated against by my family.
21. Because of my sexual orientation, The disclosure of my sexual orientation to my family has ruined our relationship.

**Rating Scale:** Yes/No

22. Nobody knows I am gay/bisexual.
  23. My father knows I am gay.
  24. My mother knows I am gay.
- With whom do you talk about your love life:
25. My friends
  26. My parents

- 27. My siblings
- 28. Relatives (e.g., uncles, aunts, cousins)

**Rating Scale:** 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree

- 29. Seeing two men or two women holding hands, I feel intense discomfort.
- 30. Seeing two men or two women holding hands, I feel intense disgust.
- 31. Seeing two men or two women kissing in the street, I feel intense discomfort.
- 32. Seeing two men or two women kissing in the street, I feel intense disgust.
- 33. I feel intense discomfort seeing a masculine woman.
- 34. I feel intense discomfort seeing a feminine man.
- 35. I wish I were not gay/bisexual.
- 36. My sexual orientation causes me intense distress.
- 37. I wish I were not attracted to men.
- 38. I would change my sexual orientation If I could.
- 39. I am not happy with being gay/bisexual.
- 40. I am ashamed of being attracted to persons of my own sex.
- 41. Because of my sexual orientation, I might be considered abnormal.
- 42. Because of my sexual orientation, I might be considered a pervert.
- 43. Because of my sexual orientation, I might be considered a pedophile.

## Appendix B

## Gender Minority Stress and Resilience Measure (GMSRM)

**Instructions:** The following statements ask you about beliefs you hold related to your gender identity. Please indicate the extent to which you agree or disagree with each.

**Rating Scale:** Never; Yes, before age 18; Yes, after age 18; Yes, in the past year

1. I have had difficulty getting medical or mental health treatment (transition-related or other) because of my gender identity or expression.
2. Because of my gender identity or expression, I have had difficulty finding a bathroom to use when I am out in public.
3. I have experienced difficulty getting identity documents that match my gender identity.
4. I have had difficulty finding housing or staying in housing because of my gender identity or expression.
5. I have had difficulty finding employment or keeping employment, or have been denied promotion because of my gender identity or expression.
6. I have had difficulty finding a partner or have had a relationship end because of my gender identity or expression.
7. I have been rejected or made to feel unwelcome by a religious community because of my gender identity or expression.
8. I have been rejected by or made to feel unwelcome in my ethnic/racial community because of my gender identity or expression.
9. I have been rejected or distanced from friends because of my gender identity or expression.
10. I have been rejected at school or work because of my gender identity or expression.
11. I have been rejected or distanced from family because of my gender identity or expression.
12. I have been verbally harassed or teased because of my gender identity or expression. (For example, being called “it”)
13. I have been threatened with being outed or blackmailed because of my gender identity or expression.
14. I have had my personal property damaged because of my gender identity or expression.
15. I have been threatened with physical harm because of my gender identity or expression.
16. I have been pushed, shoved, hit or had something thrown at me because of my gender identity or expression.
17. I have had sexual contact with someone against my will because of my gender identity or expression.

**Rating Scale:** 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree

18. I have to repeatedly explain my gender identity to people or correct the pronouns people use.
19. I have difficulty being perceived as my gender.
20. I have to work hard for people to see my gender accurately.
21. I have to be “hypermasculine” or “hyperfeminine” in order for people to accept my gender.
22. People don’t respect my gender identity because of my appearance or body.
23. People don’t understand me because they don’t see my gender as I do.

24. I resent my gender identity or expression.
25. My gender identity or expression makes me feel like a freak.
26. When I think of my gender identity or expression, I feel depressed.
27. When I think about my gender identity or expression, I feel unhappy.
28. Because my gender identity or expression, I feel like an outcast.
29. I often ask myself: Why can't my gender identity or expression just be normal?
30. I feel that my gender identity or expression is embarrassing.
31. I envy people who do not have a gender identity or expression like mine.
32. My gender identity or expression makes me feel special and unique.
33. It is okay for me to have people know that my gender identity is different from my sex assigned at birth.
34. I have no problem talking about my gender identity and gender history to almost anyone.
35. It is a gift that my gender identity is different from my sex assigned at birth.
36. I am like other people but I am also special because my gender identity is different from my sex assigned at birth.
37. I am proud to be a person whose gender identity is different from my sex assigned at birth.
38. I am comfortable revealing to others that my gender identity is different from my sex assigned at birth.
39. I'd rather have people know everything and accept me with my gender identity and gender history.

**Rating Scale:** Yes/No

- If *yes*: use “history” in items below. If *no*: use “identity” in items below.

<sup>a</sup> Question to determine appropriate wording for items regarding negative expectations for the future and nondisclosure: Do you currently live in your affirmed gender\* all or almost all of the time? (\*Your affirmed gender is the one you see as accurate for yourself.) <sup>a</sup>

**Rating Scale:** 1 = Strongly disagree, 2 = Disagree, 3 = Neither agree nor disagree, 4 = Agree, 5 = Strongly agree

40. If I express my gender IDENTITY/HISTORY, others won't accept me.
41. If I express my gender IDENTITY/HISTORY, employers would not hire me.
42. If I express my gender IDENTITY/HISTORY, people would think I am mentally ill or “crazy.”
43. If I express my gender IDENTITY/HISTORY, people would think I am disgusting or sinful.
44. If I express my gender IDENTITY/HISTORY, most people would think less of me.
45. If I express my gender IDENTITY/HISTORY, most people would look down on me.
46. If I express my gender IDENTITY/HISTORY, I could be a victim of crime or violence.
47. If I express my gender IDENTITY/HISTORY, I could be arrested or harassed by police.
48. If I express my gender IDENTITY/HISTORY, I could be denied good medical care.
49. Because I don't want others to know my gender IDENTITY/HISTORY, I don't talk about certain experiences from my past or change parts of what I will tell people.
50. Because I don't want others to know my gender IDENTITY/HISTORY, I modify my way of speaking.

51. Because I don't want others to know my gender IDENTITY/HISTORY, I pay special attention to the way I dress or groom myself.
52. Because I don't want others to know my gender IDENTITY/HISTORY, I avoid exposing my body, such as wearing a bathing suit or nudity in locker rooms.
53. Because I don't want others to know my gender IDENTITY/HISTORY, I change the way I walk, gesture, sit, or stand.
54. I feel part of a community of people who share my gender identity.
55. I feel connected to other people who share my gender identity.
56. When interacting with members of the community that shares my gender identity, I feel like I belong.
57. I'm not like other people who share my gender identity. (R)
58. I feel isolated and separate from other people who share my gender identity. (R)

<sup>a</sup> Wording for items regarding negative expectations for the future and nondisclosure varies. Respondents endorsing that they live in their affirmed gender all or almost all of the time are presented with the word "history", respondents indicating that they do not live in their affirmed gender all or almost all of the time are presented with the word "identity."

## Appendix C

## Health Status

**Instructions:** Please answer the following questions to the best of your knowledge.

**Rating Scale:** 1 = Never, 2 = A little, 3 = Somewhat, 4 = Much, 5 = A great deal

1. I have been diagnosed by a medical/physical healthcare professional (i.e., medical doctor, primary care physician) with one or more physical health conditions.
  - Examples of physical health conditions include, but are not limited to: Amyotrophic lateral sclerosis (ALS), Arthritis, Asthma, Cancer, Chronic Obstructive Pulmonary Disease (COPD), Cystic Fibrosis, Diabetes, Heart Disease/Heart Failure, Hepatitis, HIV/AIDS, Hypertension/High Blood Pressure, Osteoporosis, Stroke
  
2. I have been diagnosed by a mental health professional (i.e., psychologist, psychiatrist, social worker) with one or more mental health diagnoses.
  - Examples of mental health conditions include, but are not limited to: Anxiety (ex: Generalized, Social, etc.), Autism Spectrum, Bipolar, Depressive, Eating (ex: Anorexia Nervosa), Obsessive-Compulsive, Schizophrenia or related, Substance related or Addictive, Trauma related (ex: Post-Traumatic Stress)

## Appendix D

## Medical Outcomes Survey - Short-Form (SF-12)

**Instructions:** These questions ask for your views about your health. Please indicate the extent to which they apply to you as it pertains to your health.

**Rating Scale:** 1 = Excellent, 2 = Very good, 3 = Good, 4 = Fair, 5 = Poor

1. In general, would you say your health is:

**Rating Scale:** 1 = Yes, limited a lot, 2 = Yes, limited a little, 3 = No, not limited at all

The following questions are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

2. Moderate activities such as moving a table, pushing a vacuum cleaner, bowling, or playing golf.
3. Climbing several flights of stairs.

**Rating Scale:** 1 = Yes, 2 = No

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

4. Accomplished less than you would like.
5. Were limited in the kind of work or other activities.

During the past 4 weeks, have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

6. Accomplished less than you would like.
7. Were limited in the kind of work or other activities.

**Rating Scale:** 1 = Not at all, 2 = A little bit, 3 = Moderately, 4 = Quite a bit, 5 = Extremely

8. During the past 4 weeks, how much did pain interfere with your normal work (including work outside the home and housework)?

**Rating Scale:** 1 = All of the time, 2 = Most of the time, 3 = A good bit of the time, 4 = Some of the time, 5 = A little of the time, 6 = None of the time

9. How much of the time during the past 4 weeks have you felt calm and peaceful?
10. How much of the time during the past 4 weeks did you have a lot of energy?
11. How much of the time during the past 4 weeks have you felt down-hearted and blue?

**Rating Scale:** 1 = All of the time, 2 = Most of the time, 3 = Some of the time, 4 = A little of the time, 5 = None of the time

12. During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?

## Appendix E

## Coping with Health Injuries and Problems Scale (CHIP)

**Instructions:** The following are ways of reacting to health problems, such as illnesses, sicknesses, or injuries. We are interested in your last illness, sickness, or injury. Please indicate from 1 to 5 on the number scale provided how often you have engaged in each of these activities when you encountered this health problem.

**Rating Scale:** 1 = Not at all, 2 = Not really, 3 = Undecided, 4 = Somewhat, 5 = Very much

1. Think about better times
2. Stay in bed
3. Find out more information
4. Wonder "why me"
5. Be with others
6. Rest when tired
7. Seek treatment quickly
8. Feel angry
9. Daydream
10. Sleep
11. Focus on getting better
12. Become frustrated
13. Enjoy attention from people
14. Conserve energy
15. Learn more
16. Think about things I can't do
17. Plan for the future
18. Stay warm
19. Comply with advice
20. Fantasize about being healthy
21. Listen to music
22. Make surroundings quiet
23. Follow doctor's advice
24. Wish it hadn't happened
25. Invite company
26. Stay quiet
27. Take medications on time
28. Think about being vulnerable
29. Have nice things around
30. Get comfortable
31. Find out about treatments
32. Worry about my health

## Appendix F

## Assessment of LGBT Youths' Needs in Healthcare Settings (ALYNHCS)

**Instructions:** The following questions ask about what you as an LGBTQ+ person value in a healthcare setting and in your healthcare professionals.

**Rating Scale:** 1 = This is not at all important to me, 2 = This is slightly important to me, 3 = This is moderately important to me, 4 = This is very important to me, 5 = This is extremely important to me

1. The health care site, the instruments, and provider are clean.
2. I know that my information will be kept private and confidential.
3. I will be treated with respect.
4. The provider is medically well-educated.
5. People will be honest and up-front with me.
6. The provider doesn't talk down to me like I'm a child.
7. The provider is a good listener.
8. The provider should not downplay or dismiss my fears.
9. The provider is open-minded and nonjudgmental of the LGBTQ lifestyle.
10. The provider doesn't assume that every LGBTQ youth has HIV/AIDS.
11. The provider is professional.
12. People will speak to me in language that I understand.
13. I will be treated with sensitivity.
14. The provider does not assume that my sexual behavior is dangerous or painful.
15. I know that the provider is able to get me help/counseling when I need it.
16. The provider is aware and educated about the LGBTQ+ lifestyle.
17. Everyone at the site is friendly.
18. Patient information is not discussed in patient/public areas.
19. Providers understand that my partner may be of the same sex, and they understand our needs.
20. Staff is discreet, they are sensitive to the issue of being LGBTQ+/closeted.
21. The provider seems like the kind of person who is willing to talk about issues around sex.
22. I am able to choose a male or female provider.
23. The staff is racially diverse, a melting pot of ethnicities.
24. I may choose to be open with one provider without fearing they will tell other staff or providers.
25. The site is in a safe area and there is security at the site.
26. Posters and health information at the site include LGBTQ+ issues.
27. I have a choice of having an LGBTQ+ provider.
28. The site offers services that focus on LGBTQ+ youth.
29. The provider doesn't seem like he or she is too into using labels.
30. The site has some openly gay/lesbian or transgender providers.
31. The provider does not assume that I'm heterosexual/straight and/or cisgender.
32. The site has a sticker clearly displayed that says this site is comfortable with LGBTQ+ issues (like a pink triangle or rainbow).
33. There are magazines in the waiting room for LGBTQ+ people.
34. Health information (pamphlets, brochures, etc.) is offered in a private place.

## Appendix G

### Recruitment Materials

Hello! My name is Murray Heikes and I am a graduate student in a clinical psychology program interested in sexual and gender minority individuals' health experiences. I'm conducting a research study on this topic for my master's thesis, and need sexual and gender minority participants. If you think you might like to participate in my study, please follow this link to my informed consent form to find out more about the study and your participation in it. Please let me know if you have any questions, too! Thank you.

## Appendix H

### Informed Consent

The Department of Psychology supports the practice of protection for human subjects participating in research. The following information is provided so that you can decide whether you wish to participate in the present study. You should be aware that even if you agree to participate you are free to withdraw at any time, without penalty.

**Purpose:** This survey will be asking you about your experiences with healthcare professionals as a sexual/gender minority, your experiences of external and internal discrimination, and how connected you feel to the LGBTQ community.

**Participation:** This survey consists of various measures to assess these concepts. The survey will take about 30 minutes to complete and will be completed online.

**Benefits and rights:** You may learn about the psychological research process through your participation, and may gain insight into your own attitudes, beliefs, and experiences. Your responses will be contributing to psychological research and clinical practice related to sexual/gender minority mental and physical health. You may cease participation at any time.

**Expected risks:** You may experience psychological distress from thinking about and responding to items pertaining to identity, discrimination, and community. Helpful resources will be provided at the end of the survey in case you find any of the survey items distressing.

**Extent of confidentiality:** This survey will be completely anonymous and will not collect the IP address from your computer. Consistent with American Psychological Association standards, data will be retained in a restricted-access office for a minimum of five years and in the secure statistical program indefinitely. At no time will your personal data be accessible to anyone other than the researchers. Results of analyses including your data will be disseminated; however, be assured that your identity will not be associated in any way with the research findings—no individual's responses will be traceable from the products of this work, such as journal articles and presentations.

**Alternatives:** If you want to earn the extra credit but do not want your data used in analyses, you should let your instructor know. You may then complete the surveys for self-reflective purposes only, and your request for your data to be excluded from analyses will be honored.

Your participation is solicited, but strictly voluntary. Do not hesitate to ask any questions about the study. Be assured that your name will not be associated in any way with the research findings. Thank you for your participation!

Sincerely,

Murray Heikes, Principal Investigator  
murray.heikes@washburn.edu  
785-670-1564

I understand this project is research and that my participation is solicited but completely voluntary. By continuing, I verify that I have read and understood this document, that I agree to participate in this study under the terms described, and that I have retained a dated copy of this consent form for my own records.

- I do agree to participate.
- I do NOT agree to participate.

## Appendix I

## Demographic Survey

- Age (in years; e.g., 19): \_\_\_\_\_
- What sex do you identify with most?
  - Male
  - Female
  - Intersex
  - Not listed (please specify) \_\_\_\_\_
- What gender do you identify with most?
  - Woman
  - Man
  - Transgender woman
  - Transgender man
  - Gender variant/Gender non-conforming
  - Non-binary
  - Not listed (please specify) \_\_\_\_\_
- What sexual orientation do you identify with most?
  - Gay
  - Lesbian
  - Bisexual
  - Asexual
  - Pansexual
  - Not listed (please specify) \_\_\_\_\_
- What is your current employment status?
  - Full-time
  - Part-time
  - Temp/Holiday
  - Unemployed
  - Retired
  - Not listed (please specify) \_\_\_\_\_
- Please indicate your insurance status
  - Private Insurance (e.g., employment-based, direct purchase)
  - Government Insurance (e.g., Medicaid, Medicare)
  - Uninsured
- Please indicate your annual income
  - \$0-\$20,000
  - \$20,001-\$40,000
  - \$40,001-\$60,000
  - \$60,001-\$80,000
  - \$80,001-\$100,000
  - >\$100,000

## Appendix J

### Debriefing Materials

Thank you for your participation in this study! This study is interested in assessing how sexual and gender minority stressors are related to health status problems. This study is also interested in looking at what coping strategies are useful in dealing with said health status problems. As you answered questions today, you may have experienced psychological distress related to some of these items. If you are experiencing any distress related to your sexual orientation, gender identity, or otherwise, please use the following local and national resources:

- The Trevor Hotline: 1-866-488-7386
- LGBT National Help Center: 1-888-843-4564
- Trans Lifeline: 1-877-565-8860
- National Suicide Prevention Lifeline: 1-800-273-8255
- Washburn University Counseling Services (Topeka, KS Area): 785-670-3100
- Washburn Psychological Services Clinic (Topeka, KS Area): 785-670-1750