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Perceived distress tolerance accounts for the covariance between discrimination experiences and anxiety symptoms among sexual minority adults

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ABSTRACT

Sexual orientation-related discrimination experiences have been implicated in elevated rates of anxiety symptoms within sexual minority groups. Theory suggests that chronic discrimination experiences may dampen the ability to tolerate distress, increasing vulnerability for anxiety. This study examined the role of distress tolerance, or the capacity to withstand negative emotions, as a construct underlying associations between discriminatory experiences and anxiety among sexual minority adults. Participants ($N = 119$; $M_{age} = 36.4 \pm 14.8$; 50% cisgender male, 31% cisgender female, 19% transgender; 37% non-Latino white) were recruited from Houston, Texas. Measures administered included the Heterosexist Harassment, Rejection, and Discrimination Scale (discrimination experiences), Distress Tolerance Scale (distress tolerance), and the State-Trait Inventory for Cognitive and Somatic Anxiety (anxiety). The association of discrimination experiences and anxiety through distress tolerance was assessed using covariate-adjusted mediation modeling. Results indicated that sexual orientation-related discrimination experiences were significantly and positively associated with anxiety and that this association was mediated through lower distress tolerance. Significant indirect effects were specific to cognitive (versus somatic) anxiety symptoms. Results suggest that distress tolerance may be an explanatory mechanism in the association between discriminatory experiences and cognitive symptoms of anxiety and a potentially relevant target within clinical interventions to address anxiety-related health disparities among sexual minority adults. However, more sophisticated designs are needed to delineate causal associations.

1. Introduction

Individuals ascribing to non-hetero sexual orientations (e.g., lesbian, gay, bisexual; hereafter referred to as sexual minorities) are at higher risk of anxiety disorders and symptomatology relative to heterosexuals (Bostwick, Boyd, Hughes, & McCabe, 2010; Cochran, Mays, & Sullivan, 2003; Gilman et al., 2001; King et al., 2008; Lewis, 2009; Meyer, 2003). Research suggests that minority stressors, such as discrimination experiences, may play a causal role in these elevated anxiety rates (Frisell, Lichtenstein, Rahman, & Langstrom, 2010; Mays & Cochran, 2001; Meyer, 2003; Yang, Manning, van den Berg, & Operario, 2015). Discriminatory behaviors, or actions demonstrating intolerance toward those of perceived sexual minority status, can include unfair treatment, verbal or physical harassment, and physical violence. Unfortunately, discrimination experiences are not uncommon among sexual minority individuals (Bostwick, Boyd, Hughes, West, & McCabe, 2014; McLaughlin, Hatzenbuehler, & Keyes, 2010; Swim, Pearson, & Johnston, 2007). For example, one study using a national sample cited that 54% of lesbian women, 50% of gay men, 24% of bisexual men, and 17% of bisexual women experienced at least one form of discrimination based on sexual orientation over the past year (Bostwick et al., 2014). A link between discrimination experiences and anxiety symptomology among sexual minorities has been largely established by data and is supported by theory (Meyer, 2003; Reisner et al., 2016). Previous studies have suggested that certain coping methods, including not accepting or discussing discrimination experiences with others, may be associated with elevated psy-

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chopathology (McLaughlin et al., 2010), though pathways are likely to be multifaceted and complex (Bostwick et al., 2010). Thus, more research on explanatory mechanisms that underlie associations between discrimination experiences and anxiety symptomology is needed (Gilman et al., 2001; McLaughlin et al., 2010). The delineation of these underlying constructs can increase understanding of why discrimination experiences are associated with negative mental health outcomes, aid in the identification of factors that may transmit risk for negative mental health symptomatology in response to discrimination experiences, and highlight promising targets for interventions to reduce anxiety-related health disparities among sexual minority groups.

Hatzenbuehler and colleagues proposed a theoretical framework positing that sexual minority stigma has a negative effect on mental health through greater emotional dysregulation (Hatzenbuehler, Nolen-Hoeksema, & Dovidio, 2009). Specifically, this framework suggests that chronic experiences of discrimination based on sexual orientation may, among other things, erode the capacity to regulate emotional responses (Hatzenbuehler, 2009; Hatzenbuehler, Nolen-Hoeksema et al., 2009; Leyro, Zvolensky, & Bernstein, 2010; McLaughlin, Hatzenbuehler, & Hilt, 2009), which can ultimately contribute to psychological symptomatology and disorders (McLaughlin, Hatzenbuehler, Mennin, & Nolen-Hoeksema, 2011). Although this framework supports the potential relevance of emotional dysregulation in explaining associations between discrimination experiences and anxiety symptomatology among sexual minorities, empirical literature examining this pathway is scarce.

Distress tolerance, a potentially lower-order facet of emotional dysregulation, is the perceived capacity or actual ability to endure or tolerate negative affective states (Leyro et al., 2010; Simons & Gaher, 2005). Individuals with low distress tolerance are less equipped to manage challenging situations and may exhibit a pronounced reaction to stress or distress. Distress tolerance is considered a key transdiagnostic vulnerability factor that is associated with elevated anxiety symptomatology independent of other related constructs like anxiety sensitivity and general negative affect (Keough, Riccardi, Timpano, Mitchell, & Schmidt, 2010). Although associations between lower distress tolerance and greater anxiety symptomatology have been cited among a number of diverse samples, including individuals who were HIV+ (Brandt, Zvolensky, & Bonn-Miller, 2013), these associations have not been previously been investigated among a sexual minority sample. Yet if distress tolerance is linked with the onset and/or maintenance of anxiety symptoms among this group, it makes an apt intervention target to combat mental health disorders or distress through the promotion of healthier coping methods and greater emotional regulation in response to provocative stimuli (Zvolensky & Leventhal, 2016).

Factors playing a causal or maintenance role in distress tolerance itself, however, are not well understood. Recently, researchers have suggested a potential neurobiological basis to distress tolerance that is complemented by learning experiences, contextual factors, and executive functioning (Leyro et al., 2010). Specifically, they suggest that individuals with low distress tolerance may exhibit behavioral inhibition in the face of provocative situations that leads to perceptions of low control over the stress response (Leyro et al., 2010). Likewise, chronic exposure to discrimination experiences may also lend to the perception of low controllability over an aversive stimuli, especially given that not all contexts offer the benefit of legal protection against discrimination. Moreover, it has been suggested that some individuals may become sensitized to emotionally provocative events and exhibit increased intolerance of them or the affective states they engender over time (Leyro et al., 2010), which suggests a possible causal link between discrimination experiences and low distress tolerance – especially relevant to population subgroups experiencing discrimination events at relatively high rates. Likewise, research has suggested deficits in emotional regulation capacity among sexual minority adolescents relative to heterosexual adolescents (Hatzenbuehler, McLaughlin, & Nolen-Hoeksema, 2008), and supported links between discrimination experiences and enhanced emotional dysregulation among sexual minority youth (McLaughlin et al., 2009) as well as adults (Hatzenbuehler, 2009; Hatzenbuehler, Nolen-Hoeksema et al., 2009). Therefore, discrimination experiences may possibly engender or perpetuate low distress tolerance, a facet of emotional dysregulation, among sexual minority individuals.

The current correlational study represents an important initial step in the empirical study of Hatzenbuehler and colleagues' theoretical framework (Hatzenbuehler, Nolen-Hoeksema et al., 2009) by examining the indirect effect of distress tolerance in the association of discrimination experiences with anxiety symptomatology among a sample of sexual minority adults. Although the elimination of discrimination based on sexual orientation is likely to be most impactful in the promotion of mental health and wellness, enhanced understanding of the factors that link discrimination and anxiety symptomatology may have implications for the design of clinical interventions to address or prevent anxiety-related health disparities within this minority group in the current social/structural context wherein discrimination experiences are not uncommon.

2. Methods

2.1. Procedures

Participants were adults recruited from the Houston metropolitan statistical area to participate in *Project FRESH AIR (Focused Research to Enhance Social Health Among Individuals in the Rainbow)*, which was aimed toward understanding associations of stress and health among sexual minority adults. Recruitment for Project FRESH AIR was achieved via strategic flyer posting and through targeted paid mediums, and enrollment into the study spanned February 2015 to October 2015. Eligibility criteria were: 1) adult aged 18 years or older; 2) self-identification as bisexual, gay, or lesbian; 3) provision of valid contact information (home address, functioning phone number); 4) willingness to comply with the study protocol; 5) not currently pregnant or lactating; and 6) had not participated in a companion online study via self-report.

Interested individuals called a devoted study line, were screened for eligibility, and scheduled for an in-person appointment if eligible. Written informed consent was obtained at this in-person contact at the Social Determinants/Health Disparities Lab at the University of Houston. Participants then completed study measures, which were administered on a laptop computer. Participants were compensated $30 in department store gift cards for the time and effort associated with the data collection. Study procedures were approved by the Institutional Review Board at the University of Houston.

2.2. Measures

2.2.1. Sociodemographics

Sociodemographics included age, gender (cisgender male, cisgender female, or transgender), sexual orientation (bisexual vs monosexual), education (≤high school diploma vs trade school or college degree), and race/ethnicity (non-Latino white vs other race/ethnicity).

2.2.2. Discrimination experiences

Discrimination experiences were assessed using the 14-item self-report Heterosexist Harassment, Rejection, and Discrimina-

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