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GENDER NONCONFORMITY, PSYCHOSOCIAL STRESSORS, AND  
PSYCHOPATHOLOGY:  
LOOKING BEYOND SEXUAL ORIENTATION

By

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Bachelor of Arts, Whitman College, Walla Walla, Washington, 2009

Thesis

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## ABSTRACT TEMPLATE

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Clinical Psychology

Gender Nonconformity, Psychosocial Stressors, and Psychopathology:  
Looking Beyond Sexual Orientation

Chairperson: Bryan Cochran

LGBT individuals experience disproportionately more victimization than their heterosexual and cisgender counterparts. Within these populations, perceived gender nonconformity predicts even higher rates of victimization. The current investigation examined relationships between gender nonconformity, experiences with victimization, and psychopathology among 671 students from the University of Montana, including 64 LGBT-identified individuals, who took part in an online study as part of course requirements. Hierarchical regressions were calculated to examine the relationships between gender expression, victimization, and psychopathology while controlling for sexual orientation, gender identity, and ethnicity. Gender nonconformity was a significant predictor of reported victimization, beyond sexual orientation and ethnicity ( $\Delta R^2 = .018, p = .009$ ), contributing to an overall model that predicted 15.0% of the variance in victimization scores. Additionally, gender nonconformity and victimization significantly predicted psychopathology scores ( $\Delta R^2 = .061, p < .001$ ) above and beyond sexual orientation and ethnicity, contributing to a model that explained 14.7% of the variance in psychopathology scores. Gender also appeared to moderate the relationship between gender nonconformity and experiences of victimization, [ $\Delta R^2 = .007, \Delta F(1, 559) = 3.913, p = .048$ ], suggesting that gender nonconforming women in this sample experienced a significantly greater degree of childhood trauma than did gender nonconforming men. These results have several implications for treatment involving gender nonconforming clients, as well as for non-discrimination ordinances that often exclude gender identity and expression from protected categories. These implications, as well as ideas for future research, are addressed in the manuscript.

## Gender Nonconformity, Psychosocial Stressors, and Psychopathology:

### Looking Beyond Sexual Orientation

A growing body of literature suggests that adolescents who do not conform to heteronormative gender expectations are at a higher risk for discrimination and victimization (Grossman & D'Augelli, 2006; Toomey, Ryan, Diaz, Card, & Russell, 2010; D'Augelli, Grossman, & Starks, 2006). Research suggests that these individuals also experience disproportionately more symptoms of mental health disorders than their gender conforming counterparts (Aubre & Koestner, 1992; Beard & Bakeman, 2001; Lippa, 2008; Lui & Mustanski, 2012). The existing research, in seeking to explain elevated rates of stress and psychopathology, often focuses exclusively on sexual minority or transgender samples. Within these samples, research indicates that gender nonconformity plays an important role in explaining elevated rates of psychopathology. However, gender nonconformity exists as a broader phenomenon outside the populations from which these samples were taken. The current paper closely examines gender nonconformity, including its relationship with victimization, stress, and psychopathology, by drawing on the experiences of gender nonconforming individuals in a broader context.

### **Literature Review**

Children in Western cultures are exposed to gender stereotyped behaviors starting in infancy. These stereotypes may take the form of delegated tasks deemed “masculine” or “feminine” by parents, relatives, or caretakers. In this way, children are often situated in an environment that enforces culturally specific ideas of masculinity and femininity from the earliest days of their lives.

While gender education often starts in infancy, it continues—and usually intensifies—as children enter the school system. Gender roles are often enforced through hiring patterns, varied student expectations depending on gender, and the gendered make-up of various educational fields (e.g., disproportionately more men in science and math departments, and more women in humanities) (Basow, 2010). While some forms of gender education are more subtle, gender roles are often enforced overtly. Lessons often include specific gendered behavior that align with traditional gender roles, and peer dynamics often police and enforce rigid ideas of masculinity and femininity (Basow, 2010; Pascoe, 2005). Continued informal education about gendered behaviors allows for children to internalize gendered expectations, and understand socially accepted conceptualizations of maleness and femaleness by kindergarten (Carver et al., 2003, Halim & Ruble, 2004). Dichotomous conceptualizations of specific gender roles often encourage children to pick one of these options early on in their development, and pick one based on physiological markers associated with their assigned sex.

Gender identity more broadly can be conceptualized as an internal sense of maleness and femaleness (Israel, 2005). Egan and Perry (2001) propose a multidimensional construct of gender identity including knowledge of one's membership in a gender category, perceived compatibility with that gender group, perceived pressure for gender conformity, and attitudes toward gender groups. A core feature of both conceptualizations involves recognition of gendered categories and one's internal sense of placement within those categories. Given the amount of social education and exposure supporting gender norms, children are generally expected to develop gender identities that are seen to correspond with their assigned sex.

Butler (1988; 1990) argues that the ubiquitous presence of gendered messages contributes to a social order that dictates appropriate gender expressions based on cultural norms, rather than physiology or sexual orientations. In this way, Butler (1988) argues that gender is performed by the individual through the repetition of stylized acts over time. According to Butler, then, the existence of gender constitutes self-presentation: a performative accomplishment that is achieved through the illusion of a uniquely gendered self. Rather than a stable trait of the individual, gender is a performance constantly maintained by the individual through specific behaviors and presentations.

### **Gender Nonconformity**

Gender nonconformity refers to gender-related behaviors, interests, appearances, or traits that do not coincide with the social expectations of one's assigned sex at birth. In childhood and adolescence, gender nonconformity may manifest as a preference for toys, playmates, and dress typically associated with another gender. Ehrensaft (2011) describes gender nonconforming children as those who transgress culturally expected girl/boy binaries. For example, a gender nonconforming female may choose to pee standing up, play with trucks, and refuse to wear skirts as a child—each of these behaviors transgresses typical expectations of a young female's preferences. Many of these activities would typically be associated with male children. In fact, the behavior of female children choosing to pee while standing was explicitly pathologized in the previous edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM), the DSM-IV-TR, as part of the criteria for Gender Identity Disorder.

It should be clarified that gender nonconforming individuals may or may not identify as transgender. Many gender nonconforming individuals express an interest or

desire to engage in activities associated with another gender, but still identify as the gender typically associated with their assigned sex. Gender nonconformity, then, encompasses both transgender individuals and a wider array of individuals who demonstrate atypical gendered behaviors and attitudes. Since gender norms influence different aspects of our daily lives to such a large degree (Basow, 2010; Carr, 2007), there are multiple opportunities for an individual to transgress these culturally expected roles.

### **Gender Nonconformity and Sexual Orientation**

Gender nonconformity also relates to sexual orientation in adolescence and adulthood. Individuals who identify as lesbian, gay, or bisexual (LGB) typically display more gender nonconforming traits and behaviors than their heterosexual peers (Bailey & Zucker, 1995; Lippa, 2005; Rieger et al., 2008). LGB adults also recall substantially more childhood gender nonconforming behaviors than heterosexual adults (Bailey & Zucker, 1995). In a review of literature examining associations between childhood gender nonconformity and sexual orientation, over half of the sexual minority male participants reported substantial gender nonconforming behavior during childhood (Bailey & Zucker, 1995). Most retrospective studies that examine gender nonconformity rely on self-report or other report. This method has been criticized for being susceptible to biased recall, particularly if reports of gender nonconforming behaviors are consistent with the individual's current sense of gender. Rieger et al. (2008) provided additional support for elevated rates of gender nonconformity among sexual minority adults by having third parties systematically code gender nonconforming behaviors in childhood home videos of

sexual minority adults, thus effectively eliminating potential recall bias in retrospective studies.

Although sexual minority adults generally display higher rates of gender nonconformity than heterosexual adults, not all sexual minorities are gender nonconforming (Bailey & Zucker, 1995; Lippa, 2005). Additionally, a recently collected population based sample indicated that 59.6% of the top decile of gender nonconforming youth grew up to identify as heterosexual (Roberts et al., 2012). Thus, although gender nonconformity and sexual orientation appear to be related and often become conflated in heteronormative Western cultures (Ma'ayan, 2003), the exact nature of this relationship is not fully understood.

### **Psychopathology and Sexual Minority Stress**

Sexual minorities (i.e., individuals who identify as gay, lesbian, bisexual) report higher rates of psychological distress than their heterosexual peers. A substantial body of research documents elevated rates of depression, anxiety, suicidal ideation, and substance abuse disorders within this population (Cochran & Mays, 1994; Meyer, 1995; Rosario, Scrimshaw, & Hunter, 2009; Sandfort et al., 2001). To account for the elevated rates of psychopathology found in sexual minority populations, Meyer (2003) proposes a model of minority stress. The minority stress hypothesis posits that sexual minorities experience elevated levels of stress due to institutional and interpersonal discrimination based on stigma and prejudice. According to Meyer, sexual minorities consistently experience discrimination and its associated stresses, which can cause psychopathology for the individual. Thus, elevated rates of mental health disorders in sexual minority populations



are a consequence of stigma, discrimination, and prejudice, rather than sexual orientation itself.

Instances of institutional and interpersonal discrimination are well documented for sexual minority youth. The Gay Lesbian and Straight Education Network's (GLSEN) recent National School Climate Survey found 4 out of 5 sexual minority youth sampled reported experiencing some sort of physical or verbal harassment in the last 12 months. Poteat (2005) also found 30% of 7<sup>th</sup> grade participants agreed with the statement, "I could never stay friends with someone who told me he or she was gay or lesbian" and 43% of 7<sup>th</sup> graders agreed with the statement "I would rather attend a school where there are no gay or lesbian students" (Poteat, 2005, pg. 956). Additionally, sexual minority youth also experience elevated rates of discrimination in familial and interpersonal relationships outside of school as well (D'Augelli et al., 2006). Roughly 50% of sexual minority youth report that their parents reacted negatively when they initially disclosed their sexual minority identity (D'Augelli et al., 1998; LaSala, 2000). Sexual minority youth, then, are more likely to experience elevated levels of stress at home in addition to the heightened levels of stress often experienced at school.

Upon closer examination, much of the discrimination and prejudice that sexual minorities encounter relates more to atypical gender expression than sexual orientation. In a qualitative study examining the use of the homophobic language among young males, Pascoe (2005) proposes that these phrases are more often intended to police masculinity and gender expression rather than comment on sexual orientation. Participants in this study explained how males can be gay, but still "throw around a football," so the homophobic insult would not be appropriate for them (Pascoe, 2005, p.

329). The homophobic insult, then, is reserved for those males who do not perform traditional masculinity, or prefer not to “throw around a football,” regardless of their sexual orientation.

Familial animosity towards sexual minority youth often targets atypical gender expression more directly than sexual orientation, as well. In a sample of 528 sexual minority youth, beginning roughly at age 8, 66% of females were called tomboys and 58% of males were called sissies by members of their families (D’Augelli et al., 2006). Family members seemed to detect and target atypical gender expression before sexual orientation may even be known. Ma’ayan (2003) also highlights how the discrimination experienced by a sample of young sexual minority women with masculine gender expressions related more to their rejection of traditional femininity than to their sexual orientation. Participants in this study experienced the most hostility when they refused to conform to feminine expectations in schools and at home. Some of the most salient examples of behavior that elicited negative responses from families and school administrators included refusing to wear skirts as part of a school uniform and choosing to wear men’s clothing more generally. Because harassment in both studies specifically focused on atypical gender expression, these findings suggest participants in both studies may not have experienced the same degree of hostility from family members if their gender expression aligned more closely with traditional expectations of masculinity and femininity.

### **Gender Nonconformity, Victimization, and Stress**

Within sexual minority populations, gender nonconforming individuals report disproportionately more discrimination and animosity from peers than their gender

conforming counterparts. Sexual minority youth report that gender nonconformity often makes their sexual orientation more visible (Lasser & Tharinger, 2003). Gender nonconforming adolescents who identify as heterosexual also experience elevated rates of animosity related to their gender expression (Roberts, Rosario, Corliss, Koenen, & Austin, 2012). Thus, atypical gender expression may increase an individual's risk for experiencing discrimination both because it is perceived as an indicator of sexual minority status and because such expression challenges deeply held beliefs about gender roles.

Gender nonconforming youth within sexual minority samples also generally experience more peer rejection than sexual minority youth. Within sexual minority youth samples, both physical and verbal harassment were more common for gender nonconforming youth (D'Augelli et al., 2006; Toomey et al., 2010). Grossman and D'Augelli (2006) also report that transgender youth often experience discrimination in gay, lesbian, and bisexual communities, as well. In this way, transgender youth often have even less support than sexual minority youth—being stigmatized in heteronormative Western culture as well as within sexual minority communities. These findings suggest that gender nonconformity in sexual minority youth might be an important contributor to the elevated rates of discrimination and harassment in sexual minority youth populations. In other words, negative attitudes towards gender nonconformity could be an important contributor to the elevated rates of stress experienced by sexual minorities.

Gender nonconforming youth also experience elevated rates of parental rejection and abuse. In a recent study, Roberts et al. (2012) examined childhood gender nonconformity in a population-based sample. Results from this study indicate gender

nonconforming children were more likely to experience physical, psychological, and sexual abuse from family and acquaintances than children who expressed more traditional gendered behavior, even after controlling for sexual orientation. These findings suggest gender nonconformity may be an important predictor of childhood abuse, independent of sexual orientation. Similarly, in a study looking at transgender youth, over half of these youth reported that their parents reacted negatively to their gender identity and expression (Grossman et al., 2005). Correlational analyses also revealed that the more gender nonconforming an individual was, the more likely the individual was to have experienced both verbal and physical abuse from one or more parents (Grossman et al., 2005). These studies suggest that gender nonconforming youth, regardless of their sexual orientation, experience elevated rates of parental rejection and abuse.

Conceptualizing Meyer's model of minority stress, it would make sense that gender nonconforming individuals, who experience elevated rates of discrimination when compared with sexual minority populations generally, would also demonstrate higher rates of distress and psychopathology.

### **Gender Nonconformity and Psychopathology**

In recent literature, gender nonconformity has been linked to the elevated rates of psychological distress observed in sexual minority populations. Researchers propose that rates of gender nonconformity in sexual minority populations may mediate the relationship between sexual orientation, psychological distress, and psychopathology (Toomey et al., 2010). The current paper explores the relationship between gender

nonconformity and psychological well-being, and how this relationship might help explain the elevated rates of psychopathology across sexual orientations.

### **Depression and Distress**

One of the most researched forms of psychopathology among gender nonconforming youth and adults is depression. Using data from the Family Acceptance Project's young adult survey, Toomey et al. (2010) found that among the 245 sexual minority participants, retrospective childhood gender nonconformity was positively correlated with self-reported rates of depression, using the Center for Epidemiologic Studies Depression Scale. These authors also found that reports of life satisfaction and peer acceptance were negatively correlated with gender nonconformity in both adolescents and young adults. Similarly, Smith and Leeper (2006) reported that gender nonconformity was associated with lower rates of peer acceptance and self-worth in a sample of 229 adolescents. In both these studies, gender nonconformity predicted lower rates of peer acceptance and higher rates of depression and distress.

School victimization and bullying also appear to mediate the relationship between gender nonconformity and psychological distress (Carver, Young, & Perry, 2003; Toomey et al., 2010). Consistent with the minority stress model, gender nonconforming youth appear to experience elevated rates of peer rejection and stress. These external factors then serve as accurate predictors of depression when compared to other sexual minority youth.

Childhood gender nonconformity was also found to predict feelings of imposterhood and lower self-esteem for boys (Beard & Bakeman, 2001). Atypical gender expression was also linked to negative parental interactions, believed by the authors to

account for at least part of the elevated rates of poor adjustment found in this sample. Consistent with existing research, a prospective longitudinal study by Aubrey and Koestner (1992) found that men who at age 12 had endorsed traits and interests typically associated with femininity reported increased levels of distress—both at the original time of assessment and at the follow-up 19 years later. Therefore, childhood gender nonconformity not only predicts lower rates of adjustment in children, but may help predict poorer adjustment through adulthood as well.

Gender nonconformity in adulthood is also linked with higher rates of distress in gay men. In a study of 912 adult sexual minority men, those who considered themselves to be effeminate experienced more victimization and reported higher levels of psychological distress than sexual minority men who considered their gender expression to be more masculine (Sandfort, Melendez, & Diaz, 2007). Similarly, Skidmore (2006) found self-reported gender nonconformity was related to psychological distress in gay men. Thus, although childhood gender nonconformity was not recorded in these studies, gender nonconformity in adulthood appeared to predict adjustment in sexual minority men.

### **Anxiety**

In addition to depression, gender nonconforming individuals also report higher levels of anxiety, as both children and adults (Carver et al., 2003; Landolt et al., 2004; Lippa, 2008; Roberts, Schwartz, & Hart, 2011). In a study of 950 sexual minority and heterosexual adults, Lippa (2008) examined the relationship between recalled childhood gender nonconformity, adult self-reported gender typicality, and self-reported anxiety. In this study, gender nonconformity predicted higher rates of reported anxiety for both gay

and heterosexual men, but not for women. Consistent with these findings, Landolt et al. (2004) found that parental and peer rejection due to childhood gender nonconformity predicted increased rates of attachment anxiety among 191 adult gay men. In both of these studies, recalled childhood gender nonconformity was a significant predictor of adult anxiety.

In addition to general symptoms of anxiety, gender nonconformity is associated with elevated rates of Social Anxiety Disorder, more specifically. Roberts et al. (2011) outlines a model where childhood gender nonconformity may help explain the increased prevalence of Social Anxiety Disorder found in gay men and bisexual women. According to these authors, the increased risk for familial abuse and peer victimization related to gender atypical expression provides both indirect and direct support for the development of an anxiety disorder within sexual minority populations. This research also provides further support for the hypothesis that gender nonconformity may add additional stressors to the process of peer relationship development, and in turn contribute to elevated rates of anxiety within sexual minority populations.

### **Post-Traumatic Stress Disorder**

As research documenting elevated rates of abuse related to gender nonconformity gains momentum and breadth, research looking at rates of Post-Traumatic Stress Disorder (PTSD) as a consequence of this abuse has also started to emerge. For example, as part of the research looking at elevated rates of physical, psychological, and sexual abuse experienced by gender nonconforming youth, Roberts et al. (2012) also documented the rates of PTSD found within this sample. In this study, gender nonconformity predicted increased risk of PTSD in a population-based sample of youth, after statistical adjustment

for sexual orientation. PTSD rates were mediated by increased rates of abuse and victimization in the study. These findings suggest that gender nonconformity may be an important predictor, not only of abuse and victimization, but of PTSD, independent of sexual orientation. This also helps to shed light on the trauma experienced by gender nonconforming youth that exists across sexual orientations.

Elevated rates of PTSD are also found when comparing gender nonconforming youth with a broader sample of sexual minority youth. In a sample of 528 sexual minority youth, roughly 10% of this population met criteria for PTSD (D'Augelli, 2006). Those who were gender nonconforming were significantly more likely to have experienced physical and verbal victimization than those who were not. Those children who experienced physical victimization were also significantly more likely to meet criteria for PTSD ( $p < .01$ ). Those who met criteria for PTSD were also more likely to have been called a “sissy” or a “tomboy” by parents and others. These results suggest that abuse and victimization associated with atypical gender expression helps to explain the elevated rates of PTSD found in sexual minority populations.

### **Suicidal Ideation**

The link between sexual orientation and suicidality has gained increasing attention in recent years. Although elevated rates of suicidal ideation and self-harm are found in sexual minority populations, a growing body of research suggests victimization and abuse based on sexual minority status accounts for much of this variation (Lui & Mustanski, 2012). What is less studied, however, is how gender nonconformity contributes to increased rates of suicidal ideation and self-harm among sexual minority populations.



Research looking at individual traits associated with suicide attempts has identified gender nonconformity as a potential risk factor. Remafedi, Farrow, and Deisher (1998) reported nearly one-third of the 137 gay and bisexual men in their sample had attempted suicide one or more times in their lives. In this study, those who had attempted suicide were more likely to be feminine or undifferentiated than masculine or androgynous, according to the Bem Sex Role Inventory. Proctor and Groze (1994) also proposed gender nonconformity as a potential risk factor for suicidal ideation, after exploring the relationship between social support and suicide risk. These authors found gender nonconformity predicts less social support among sexual minority samples, and hypothesized this lack of social support may contribute to increased risk for suicidal ideation among gender nonconforming individuals. Friedman et al. (2006) also found evidence connecting gender nonconformity with an increased risk of suicide attempts among sexual minority males. In this study, those sexual minority males who reported higher levels of femininity also reported higher levels of suicidality, particularly during middle school. In addition to finding higher rates of suicidal ideation among gender nonconforming men, research suggests this relationship may be mediated by higher rates of peer bullying experienced by reportedly more feminine boys. In other words, higher rates of gender nonconformity are associated with higher rates of peer bullying, which contributes to suicidal ideation among sexual minority males.

Savin-Williams and Ream (2003) also found patterns between gender nonconforming behavior among sexual minority males and suicidal ideation. In addition to suicidal thoughts and feelings of hopelessness, gendered peer victimization and abuse were also associated with elevated rates of gender nonconformity. In this case, those who

had attempted suicide were more likely to have experienced victimization as result of gender atypical behaviors and appearances, to use substances, and to have lower self-esteem than participants who had not previously attempted suicide. These studies contribute to a growing body of literature that suggests perceived femininity in sexual minority males may exacerbate already elevated rates of victimization and bullying experienced by this population, consequently impacting depression, anxiety and other risk factors for suicidal ideation.

In a review, McDaniel, Purcell, and D'Augelli (2003) outline risk factors that may contribute to elevated rates of suicidal ideation among sexual minority populations. A prominent risk factor highlighted by these authors is gender nonconformity. Additionally, these authors suggest elevated rates of depression, anxiety, and substance abuse experienced by gender nonconforming individuals contribute to increased rates of suicidal ideation among this population. Gender nonconformity was also associated with higher rates of victimization and suicidal ideation among males than among females. Consistent with previous literature, these authors suggest gender nonconformity may be a more stigmatizing experience for boys than for girls.

In a longitudinal study, gender nonconformity was a significant predictor of non-suicidal self-harm, but not suicidal ideation, among the 246 male and female sexual minority participants (Liu & Mustanski, 2012). Other significant predictors of self-harming behavior were female gender, feelings of hopelessness, and LGBT victimization. LGBT victimization also significantly predicted suicidal ideation in the sample. These data suggest that the LGBT victimization experienced by gender nonconforming females may manifest in self-harming behavior to a greater extent than in suicidal ideation.

## **Substance Abuse**

A substantial body of literature supports a relationship between sexual minority status, stress, and elevated rates of substance abuse (Burgard et al., 2005; Cochran et al., 2000; Hughes et al., 2010; McCabe et al., 2009; McLaughlin et al., 2010; Rosario, Scrimshaw, & Hunter, 2009; Talley et al., 2011). Any links between stress related to gender nonconformity and substance misuse, however, are only beginning to be examined. Of all the studies reviewed in the current paper, only two addressed substance use as it relates to gender nonconformity (May'an, 2003; McDaniel et al., 2011). Neither of these studies, however, provides empirical data for rates of substance use within gender nonconforming samples. May'an (2003) discussed qualitative data that links alcohol and tobacco use as possible coping mechanisms for gender nonconforming girls who experience elevated rates of harassment, and McDaniel et al. (2011) examined substance use together with gender nonconformity as predictors of suicidal ideation within a sexual minority sample.

### **The Current Study**

Although recent research has started to address the role of gender nonconformity as a predictor of psychopathology outside of exclusively sexual minority samples (Roberts et al., 2013a, Roberts et al., 2013b), this research does not specifically address the experiences of gender nonconforming individuals in more rural environments. The experiences of gender nonconforming individuals may vary based on community characteristics such as population size, political climate, and likelihood of knowing at least one other gender nonconforming individual. The current study examines the relationship between gender expression and identity as it relates to psychopathology

(depression, anxiety, and suicidal ideation) and substance use in a sample of U.S. college students who mostly grew up in small or medium sized towns. The role of sexual orientation identity and discrimination as it relates to psychopathology and substance use is also examined. Hypotheses include: (1) Higher scores on gender nonconformity scales will predict higher rates of reported trauma, (2) Experiences of trauma and gender nonconformity will predict symptoms of psychopathology above and beyond sexual orientation, (3) Gender identity will moderate the relationships between gender nonconformity scores and reported trauma.

## **Methods**

### **Participants**

A total of 671 university students completed an online survey between March 12, 2014 and December 15, 2014. Of these participants, 72.1% ( $n = 484$ ) identified as female, 27.7% ( $n = 186$ ) identified as male, and 1 participant identified as “transgender female.” This individual was included in analyses as part of the female-identified sample, and gender nonconformity scores were calculated according to this gender identity. Participants’ age ranged between 18 and 57 years old, with 76.3% ( $n = 512$ ) participants aged 18-22 years old. Approximately 90.3% ( $n = 606$ ) of the sample identified as White, 3.9% ( $n = 26$ ) identified as Asian or Pacific Islander, 1.8% ( $n = 12$ ) as Black or African American, 5.2% ( $n = 35$ ) as Native American or American Indian, 3.7% ( $n = 25$ ) as Latino, Hispanic, or Chicano, and 2.8% ( $n = 19$ ) of participants identified as multi-racial. Approximately 90.6% ( $n = 608$ ) of participants identified as straight, 1.2% as lesbian ( $n = 8$ ), 0.4% as gay ( $n = 3$ ), 6.7% as bisexual or pansexual ( $n = 45$ ), and 1.0% identified as queer or other ( $n = 7$ ).

## **Procedure**

Participants were recruited from psychology courses at The University of Montana, a mid-sized university in Western Montana, as part of their course requirements or for extra credit. Participants signed up for the survey via the online survey management website, SONA. At this website, participants read a brief description of the study and the expected completion time. If participants chose to take part in the study, they were asked to follow a link to the online survey via [limesurvey.org](https://limesurvey.org). The online survey included all measures outlined in the above section, and measures were administered in the order described.

## **Measures**

**Demographic and social history questionnaire** (Appendix B). Participants were asked to provide demographic information including age, relationship status, race/ethnicity, size of community of origin, and religious background. Participants were asked to select their gender identity from several options, including: male, female, transgender female (male to female), transgender male (female to male), or to write in another gender identity, if applicable. Sexual orientation was measured in the following ways: (1) identification, “What best describes your sexual orientation?” (2) behavior, “In your life, who have your romantic and/or sexual partners been?” and (3) attraction, “In your lifetime, who have you found yourself physically attracted to?”

**Gender nonconformity** (Appendix C). *Gender nonconformity* was assessed using several different measures. Five questions from the Recalled Childhood Gender Identity/Gender Role Questionnaire (RCGIQ) regarding childhood behaviors up to 11 years of age (Zucker et al., 2006) were used to assess childhood gender nonconformity.

This scale consists of items such as, “As a child, my favorite playmates were boys/girls” and “As a child, I felt very masculine/feminine.” Response options range on a 5-point scale. For each question, there is also an option: “I did not do this type of play/I did not feel ‘feminine’ or ‘masculine.’”

*Activity-Based Gender Nonconformity* was assessed with the 22-item version of the Gender Diagnosticity Measure (GDM; Lippa, 2005). Examples of male-typical interests included “working on cars” and “going fishing;” of female-typical interests, “watching romantic movies” and “going clothes shopping.” Participants use a 5-point scale, ranging from 1=strongly dislike to 5=strongly like, to indicate interest for each item. Additionally, participants were also asked to rate their self-perception of gender nonconformity in terms of masculinity and in terms of femininity, each on a scale of 1-9 with one being “Not masculine (feminine) at all” and 9 being “Very masculine (feminine).” Participants were then asked to rate their gender nonconformity according to their perceptions of how others might perceive their masculinity and femininity, using the same 1-9 scale described above. Lastly, participants were asked to rate how androgynous they feel they are (on a scale of 1-9), one being “Not androgynous at all,” and 9 being “Very androgynous.”

**School victimization** (see Appendix D). The Olweus’ Bullying and Victimization Scale (OBVS; Olweus, 1994) was used to measure school-based victimization. The scale contains nine questions that assess various forms of bullying and victimization (e.g. “I was called mean names, was made fun of, or teased in a hurtful way”). Additional gender and sexual orientation specific items were also added (Heck et al., 2011). These items include: “I heard gay jokes and homophobic comments being made by other students,” “I

have been called things like a sissy, or tomboy in a negative way,” and “People have at school have commented on how I act like someone of a different gender than mine.” Additionally, after each victimization item, a follow-up question assessed whether the experience was “mostly related” to the participant’s perceived sexual orientation or gender identity.

**Childhood trauma** (see Appendix D). The Childhood Trauma Questionnaire, (CTQ; Bernstein et al., 1994) was used to measure childhood abuse and neglect. The CTQ is a 27-item measure that inquires about five types of maltreatment: emotional, physical, and sexual abuse and emotional and physical neglect. Each item is scored on a 5-point scale from 1 (never true) to 5 (always true), with higher scores indicating more abuse, and the items are averaged to calculate an overall score. The measure contains statements such as, “I believe I was physically abused” and “People in my family called me things like ‘stupid,’ ‘lazy,’ or ‘ugly’” (Bernstein et al., 2003). Additional questions were added such as “People in my family have made fun of me for not acting the way they think someone of my gender should” and “People in my family think I don’t dress masculine [feminine] enough” to specifically target gender-related abuse. High internal consistency reliability coefficients have been demonstrated using adolescent samples ( $\alpha = .86 - .95$  for each of the abuse subscales; Bernstein et al., 2003).

**Current experiences of discrimination** (Appendix I). Seventeen items from The Experiences of Discrimination Measure (EOD) were adapted and used to measure perceptions of current discrimination (Krieger et al., 2005). Scale items target participants’ perceptions of discrimination in society, as well as in their own personal experiences. Original items targeted discrimination based on race and ethnicity and were

adapted to reference gender and perceived sexual orientation for this study. For example, the item “How often do you feel that racial/ethnic groups who are not White, such as African Americans and Latinos, are discriminated against?” was changed to “How often do you feel that gay, lesbian, or bisexual people are discriminated against?”

**Microaggressions and Climate** (see Appendix F). Based on the literature reviewed as part of the current study, a series of 21 questions were created that sought to target less explicit negative biases participants might have toward sexual and gender minority individuals. Questions include “I would be offended if someone thought I might be gay or lesbian” and “If I had children, I would feel comfortable with a transgender person as a babysitter.” Participants are asked to rate their responses on a 4-point scale, from 1 (Strongly Agree) to 4 (Strongly Disagree).

**Adult sexual assault** (see Appendix D). Three items were included from the Sexual Experiences Survey (SES; Koss et al. 2007) to assess sexual assault. The items use behaviorally specific language to assess unwanted sex acts, asking participants how many times someone had oral, vaginal (i.e., “inserted their fingers, objects, or penis into vagina”), or anal (i.e., “inserted their fingers, objects, or penis into butt”) sex with them without their consent since their fourteenth birthday. Response categories for these items ranged from 0 (never) to 3 (three or more times).

**Alcohol and substance use** (see Appendix H). The Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, de la Fuente, & Grant, 1993) and the Drug Abuse Screening Test-10 (DAST-10; Skinner & Goldberg, 1986) were used to assess alcohol and substance use patterns. The AUDIT contains 10 items that assess the frequency and dependency of alcohol use (Saunders et al., 1993). The AUDIT has been



found to have acceptable internal reliability consistency in several previous studies, with ( $\alpha = .85 - .96$ ) in sexual minority and population based samples of youth (Heck et al., 2011; O'Hare et al., 2004). The DAST-10 a 10-item self-report measure designed to identify individuals who are experiencing problems related to illicit substance use. The DAST-10 has been found to have an acceptable internal consistency in previous studies ( $\alpha = .74 - .95$ ; Yudko, Lozhkina, & Fouts, 2007). Participants choose between dichotomous “yes” or “no” in response to items such as, “Can you get through the week without using drugs?” and “Have you lost friends because of your use of drugs?” Higher scores indicate increasingly problematic drug use.

Tobacco use was measured with four items related to cigarette use (Corliss et al., 2013), which were adapted to also include the use of chewing tobacco. To assess age at first use, participants were asked to indicate whether or not they had ever smoked cigarettes/chewed tobacco, and at what age they first tried smoking or chewing. Current use is defined as smoking or chewing in the past month (yes or no). Frequency of past year tobacco use ranges from never smoking/chewing, smoking/chewing less than monthly, smoking/chewing less than weekly, smoking/chewing weekly, to smoking/chewing daily. Number of cigarettes smoked daily was assessed with the question, “When you are smoking, how many cigarettes do you smoke in one day?” Response options included: don't smoke/ $<1$ , 1, 2-5, 6-10, 11-20, and 21 or more.

**Mental health** (see Appendix G). To assess mental health, participants completed the DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Adult (2013) and the PTSD Checklist—Civilian version (PCL-C; Elhai, Gray, Kashdan, & Franklin, 2005; Weathers, Litz, Herman, Huska, & Keane, 1993). The Level 1 Cross-Cutting Symptom

Measure (CCSM) includes 23 questions assessing psychological symptom domains, such as depression, anger, anxiety, somatic symptoms, suicidal ideation, sleep problems, and memory. One question that asked about self-harm was removed at request by the University of Montana's Internal Review Board, resulting in 22 questions included in the final survey. Each question asked participants to rate how much (or how often) the individual has been bothered by the specific symptom during the past 2 weeks. Each item on the measure was rated on a 5-point scale (0=none or not at all; 1=slight or rare, less than a day or two; 2=mild or several days; 3=moderate or more than half the days; and 4=severe or nearly every day). The PCL-C (Elhai et al., 2005) was used to assess post-traumatic stress disorder symptoms. The PCL-C is a 17-item measure that measures the frequency with which participants have experienced a number of post-traumatic stress disorder symptoms over the past month. Internal consistency reliability coefficients above  $\alpha = .90$  have been found for the PCL-C (McDonald & Calhoun, 2010).

### **Analytic Strategy**

Hierarchical regression equations were used to test each of the three primary hypotheses in this study. Due to the strong theoretical connections between perceived gender nonconformity and trauma, the GDM and two questions assessing how individuals anticipated others' perceptions of their femininity and masculinity were selected as measures of gender nonconformity in the regression equations. The RCGIQ was excluded as a measure of gender nonconformity because internal consistency calculations (Cronbach's alpha) were relatively low ( $\alpha = .61$ ). The CTQ was used to measure trauma because this measure assesses instances of physical and emotional trauma that may have occurred throughout the individual's childhood in a variety of

environments, rather than the age- and domain-specific questions contained in measures such as the OBVS and EOD. The CTQ provides opportunities for participants to report experiences of trauma that might indirectly relate to familial rejection of an individual's gender expression, allowing for more widespread analyses of the types of trauma associated with negative familial reactions to gender nonconformity. While the OBVS provides relevant information to school-specific experiences, the current study aimed to examine how gender nonconformity may predict more global experiences of trauma throughout participants' lives. For analytic purposes, race/ethnicity and sexual orientation were dichotomized so participants were grouped according to their minority statuses (i.e., White vs. racial/ethnic minority and straight/heterosexual vs. sexual minority, respectively) for use as covariates in the regression equations to preserve power.

For the first two hypotheses, age, gender, and ethnicity were entered as covariates in block one and sexual orientation in block two of the regression analyses. Hypothesis one, higher gender nonconformity scores will predict elevated rates of victimization, was assessed using blocks one and two, as well as gender nonconformity scores in block three, as predictors of trauma. The second hypothesis, examining gender nonconformity and trauma as predictors of psychopathology above and beyond sexual orientation, used blocks one and two from hypothesis one, and added gender nonconformity and reported trauma in block three of the regression equation. These variables were analyzed as predictors of overall psychopathology, as indicated by the DSM-5 CCSM (2013).

The third hypothesis, gender will moderate the relationship between gender nonconformity and trauma, was also tested using hierarchical multiple regression. Self-reported gender identity and gender nonconformity scores (based on the GDM) were

entered in block one as predictors of reported trauma (CTQ) and a new gender identity\*gender nonconformity term was entered in block two to examine if gender nonconformity predicts victimization differently according to participants' self-reported gender identities. The GDM was selected for use in the interaction term because of its established use in the existing literature and high internal consistency within the current sample. Several measures described in this document were not included as part of the analyses described here, but were collected for use in future analyses.

## **Results**

Internal consistency reliabilities (Cronbach's alpha) were calculated for each multiple-item measure included in the final analyses. Cronbach's alpha was .71 for the GDM, .83 for the CTQ, and .90 for the DSM-5 CCSM. Table 1 contains the sample range, sample means and standard deviations for these measures. Table 2 contains bivariate correlations between variables that were included in the final analyses. All three measures of gender nonconformity were significantly positively correlated with both trauma ( $r = .124-.185, p < .01$ , two-tailed) and reported psychopathology ( $r = .086-.184, p < .05$ , two-tailed). Experiences of trauma were also significantly positively correlated with psychopathology ( $r = .229, p < .01$ , two-tailed).

### **Predictors of Childhood Trauma**

A hierarchical regression was calculated to identify the significance of gender nonconformity in predicting childhood trauma. At block one, a significant model emerged [ $F(3, 544) = 25.223, p < .001$ ], with age and dichotomous indicators of gender and ethnicity predicting 12.2% of the variance in childhood trauma. At block two, upon entering a dichotomous indicator of sexual orientation, the model remained significant [ $F$

(4, 545) = 20.681,  $p < .001$ ] and explained 13.2% of the variance in childhood trauma scores. At block three, with the addition of gender nonconformity, the model again remained significant [ $F(7, 542) = 13.677, p < .001$ ] and explained 15.0% of the variance in childhood trauma scores. Table 3 contains the standardized and unstandardized beta weights for the predictors. The change in  $R$  square ( $\Delta R^2 = .018$ ) was statistically significant [ $\Delta F(3, 542) = 3.899, p = .009$ ] and suggests that gender nonconformity is a significant predictor of childhood trauma above and beyond demographic indicators and sexual orientation identity (entered in blocks one and two, respectively).

### **Predictors of Mental Health**

Another hierarchical regression was calculated to examine the role of gender nonconformity and trauma in predicting psychopathology. At block one, a dichotomous indicator of ethnicity was entered<sup>1</sup>, creating a significant model [ $F(1, 487) = 8.957, p < .01$ ] which explained 1.8% of the variance in psychopathology scores. At block two, entering a dichotomous indicator of sexual orientation identity created a model that remained statistically significant [ $F(2, 486) = 22.912, p < .001$ ] and explained 8.6% of the variance in psychopathology. At block three, when gender nonconformity and trauma scores were entered, the model again remained statistically significant [ $F(6, 482) = 13.818, p < .001$ ] and explained 14.7% of the variance in psychopathology scores. Table 4 contains the standardized and unstandardized beta weights for the predictors. The change in  $R$  square ( $\Delta R^2 = .061$ ) was statistically significant [ $\Delta F = 8.558, p < .001$ ], suggesting that gender nonconformity and experiences of trauma are significant

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<sup>1</sup> Predictors age and gender, initially included in block one, were removed to help isolate the impact of gender nonconformity and victimization in predicting mental health outcomes after demonstrating that these variables failed to reach significance when included in the overall model.

predictors of psychopathology above and beyond ethnicity and sexual orientation identity (entered in blocks one and two, respectively).

### **The Impact of Gender as a Moderator**

In order to test the impact of gender as a moderator in the relationship between gender nonconformity and childhood trauma, another hierarchical regression predicting childhood trauma was calculated. At block one, gender and gender nonconformity scores were entered, creating a statistically significant model [ $F(2, 560) = 12.592, p < .001$ ] that explained 4.3% of the variance in childhood trauma scores. An interaction term, gender nonconformity\*gender was calculated by multiplying the values of these two cells together for each participant. The interaction term, gender nonconformity\*gender was then entered in block two. The model calculated at block two remained significant [ $F(3, 559) = 9.742, p < .001$ ] and explained 5.0% of the variance in childhood trauma scores. The change in  $R$  square ( $\Delta R^2 = .007$ ) was statistically significant [ $\Delta F(1, 559) = 3.913, p = .048$ ], suggesting gender nonconformity predicts trauma differently for women than it does for men (Figure 1).

### **Discussion**

In the present study, gender nonconformity predicted experiences of trauma above and beyond sexual orientation, even when controlling for ethnicity, gender, and other demographic variables. Additionally, gender nonconformity and trauma were significant predictors of psychopathology. Contrary to previous research (Rieger & Savin-Williams, 2012; Roberts et al., 2013a), however, gender nonconformity predicted higher rates of trauma for women than for men.

Results from this study suggest that researchers may want to increase the emphasis on gender expression and identity in minority stress research. Given that gender nonconformity was a significant predictor of victimization, even when controlling for sexual orientation, it may be that focusing exclusively on minority identities (rather than experiences) excludes the minority experiences of many gender nonconforming individuals. To test the predictive power of gender nonconformity outside of sexual minority orientations, the sample was limited to heterosexually-identified participants for a follow-up analysis. This analysis revealed that gender nonconformity was still a significant predictor of trauma in an exclusively heterosexual sample [ $F(6, 495) = 14.419, p < .001$ ], and predicted more variance in trauma scores than did gender nonconformity in the aggregate comparison of sexual minority and heterosexual participants [ $(\Delta R^2 = .033, \Delta F = 6.435, p < .001)$ ]. Incorporating gender nonconformity into examinations of minority stress would help refine our understanding of the relationships between stigma, stress, and psychopathology within sexual and gender minority populations, as well as our understanding of stigma and related health implications.

The relationship between gender nonconformity and experiences of trauma differed according to participants' reported gender identity. Contrary to previous results, gender nonconforming women experienced higher rates of trauma, on average, than did gender nonconforming men. These results may be part of an overall trend within this sample, where women experienced significantly more childhood trauma than men ( $t = 2.509, df = 416.08, p = .012$ , two-tailed). Additional research is needed to examine potential cohort effects in the associations between gender nonconformity and stigma over time. Additionally, these findings may also be the result of regional sampling

differences. Much of the existing literature on gender nonconformity relies on samples drawn from urban areas, or the areas surrounding major U.S. cities. The majority of participants in this study reported growing up in smaller cities and towns. Approximately 55% of participants reported growing up in communities with populations that had fewer than 20,000 people, and 82% of participants reported growing up in communities with fewer than 100,000 people. Perhaps gender nonconformity is perceived differently in these less urban environments. Additionally, there may also be differences in rates of victimization, or in the reporting of experiences of victimization, according to gender identity in more rural environments when compared to more urban samples.

Results from this study also have several clinical implications for therapists who work with gender nonconforming individuals. Gender expressions and identities may change over time. Regardless of clients' gender identities and expressions during therapy, by making room for this fluidity, therapists may help facilitate creating a space where clients feel safe and where meaningful progress can occur across a range of psychological symptoms. Additionally, considering the variety of ways in which gender intersects with other identity categories (e.g., race, sexual orientation, socioeconomic status, ability status), therapists may need to continuously reevaluate and question their own assumptions about these identity categories in isolation from each other, or in combinations with each other, and consider the new meaning that may come from each client's lived experiences and emphasis (or de-emphasis) on different identity categories.

Due to the higher rates of trauma reported by gender nonconforming individuals, clinicians may also want to pay special attention to trauma histories of their gender nonconforming clients, even if these histories are not included in a client's presenting



problem(s). Additionally, it may be helpful for clinicians to screen all gender nonconforming children for victimization or abuse, regardless of the degree of their nonconformity. Because gender identity appears to moderate the relationships between gender nonconformity and trauma, clinicians and researchers may also need to assess possible gender differences in the types of supports that are most helpful for gender nonconforming females compared to gender nonconforming males.

Non-discrimination ordinances are increasingly common at school, county, and statewide levels that include sexual orientation, and to a lesser extent gender identity and expression (GLSEN, 2012; Transgender Law Center, 2011). Intervention strategies implemented in schools and professional settings that identify discriminatory practices aimed at gay, lesbian, or bisexual individuals may need to expand to include professional and peer training on identifying discriminatory practices targeting gender identity and expression. For example, school-based Gay-Straight-Alliances may need to increase the focus on gender equality in addition to sexual orientation-based equality. Results from this study could also inform alternative approaches to the ways individuals and institutions conceptualize gender. Widespread efforts to increase acceptance of gender nonconforming individuals in smaller community settings may be needed.

### **Limitations**

This study has several limitations. Data collection relied on retrospective self-reports, which does not allow for data to be collected at multiple time points, or for external evaluation of mental health symptoms. Although this study aimed to generate a large sample of college students who predominately grew up in small-town environments, the results of this study do not necessarily generalize to the experience of

gender nonconforming individuals outside of college students in Montana. Additionally, because the sample of gender nonconforming participants was recruited from a college sample, we sampled from a relatively high-functioning population of people. Because of this, gender nonconforming individuals experiencing significantly higher levels of distress or pathology may have been excluded from data collection efforts.

Another limitation is the measurement tools used for assessing gender nonconformity. Currently, the author is unaware of any measure that assesses gender nonconformity across gender identities and along multiple dimensions, such as appearance, interpersonal style, hobby preferences, and self-perception. In an attempt to compensate for this, the current study included multiple methods of reporting gender nonconformity taken from several different measures to address these dimensions of gender nonconformity. Measures were chosen for analyses in this study that seemed most theoretically relevant to the hypotheses, and had acceptable internal consistencies. These measures (the GDM and self-reports of others' perceptions of masculinity and femininity) address domains such as hobby preferences and estimated perceptions by others, but do not address other potentially relevant domains of gender identity and expression. Future research could include the development of a multi-dimensional measure of gender nonconformity that applies to individuals with a variety of gender identities and expressions.

The measure of childhood trauma used in the current study (CTQ) is another potential limitation. While the CTQ contains several questions that address emotional, physical, and sexual trauma that could result from familial rejection, the CTQ also contains questions that may be more likely the result of poverty than of familial rejection.

These questions include participants' agreement with the following statements: "I didn't have enough to eat" and "I had to wear dirty clothes." While these experiences could be related to familial rejection, they are also highly correlated with experiences of poverty, regardless of familial attitudes toward the individual. It is possible, then, that experiences of poverty may have influenced reported rates of trauma in this sample, independently of gender-related trauma.

### **Future Research**

Future research could expand beyond overt or intentionally hostile forms of victimization by also addressing the prevalence of more subtle negative biases experienced by gender nonconforming and gender minority individuals. Recent research has placed an increased emphasis on microaggressions, which are "brief and commonplace daily verbal, behavioral, or environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative slights and insults toward members of oppressed groups" (Nadal, 2008, p. 23). Although research has indicated an increase in the number of Americans who consider themselves to be open-minded individuals who do not engage in hate crimes or blatant discrimination towards LGBT people, they may still be perpetrating microaggressions without being aware of it (Nadal, 2013). Although emerging research is beginning to address how microaggressions impact transgender and gender nonconforming individuals (Nadal, Rivera, & Corpus, 2010; Nadal, Skolnick, & Wong, 2012; Smith, Shin, & Officer, 2012), there is not currently a self-report measure to assess the prevalence of microaggressions experienced by these populations. A new measure addressing potential perpetrations of microaggressions towards gender nonconforming and LGBT individuals was developed

for use in this study. Findings from this measure are beyond the scope of this manuscript, and will be included in future analyses. Future research could also expand on measures that address microaggressions and explore the experiences of microaggressions as a predictor of health disparities impacting gender nonconforming and LGBT populations.

This study contributes to the existing literature in two distinct ways: it examines the relationships between gender expression, experiences of victimization, and psychopathology across heterosexual and sexual minority identities, while also addressing the experiences of individuals who mostly grew up in small or medium sized towns, who are largely excluded from existing LGBT and gender nonconformity research.

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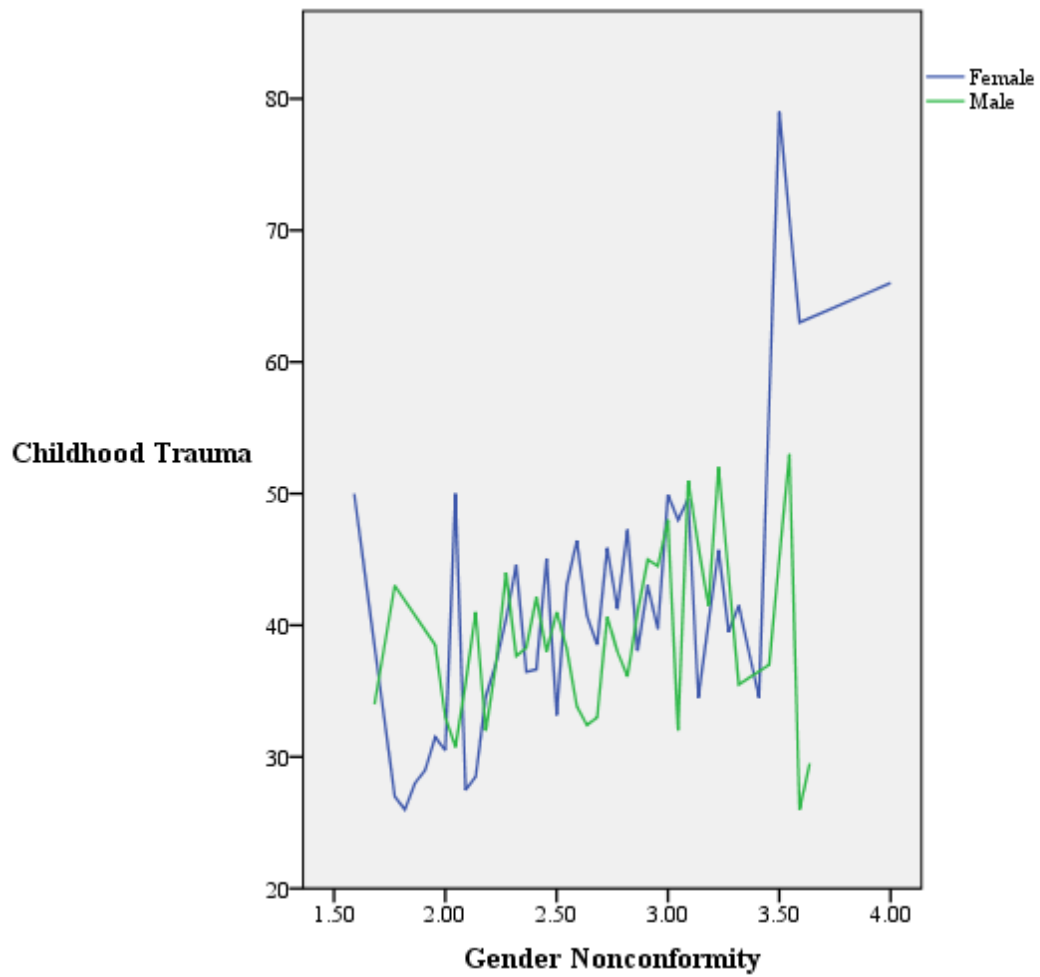
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*Range, Means, and Comparisons of Predictor Variables According to Gender Identity*

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*Figure 1.* Childhood trauma scores (CTQ) averaged across gender nonconformity scores (GDM).

Predictors	Sample Range	Sample <i>M</i> ( <i>SD</i> )	Females <i>M</i> ( <i>SD</i> )	Males <i>M</i> ( <i>SD</i> )	<i>t</i>
Gender Nonconformity (GDM)	1.95-2.41	2.64 (.34)	2.65 (.32)	2.58 (.38)	1.895†
Gender Nonconformity (Perceived Femininity)	1-9	2.85 (1.61)	2.93 (1.51)	2.59 (1.76)	2.304*
Gender Nonconformity (Perceived Masculinity)	1-9	2.90 (1.82)	2.91(1.85)	2.87 (1.71)	.241
Childhood Trauma (CTQ)	24-104	40.43 (14.78)	41.23 (15.86)	38.18 (10.96)	2.70**
Psychopathology (DSM-5 CCSM)	2.50-3.77	1.84 (.60)	1.84 (.60)	1.84 (.60)	.068

Table 1

†*p* < .10, \**p* < .05, \*\**p* < .01

Table 2

*Bivariate Correlations between Variables of Interest*

Variable	1	2	3	4
1. Gender Nonconformity (GDM)				
2. Gender Nonconformity (Perceived Femininity)	.349**			
3. Gender Nonconformity (Perceived Masculinity)	.304**	.583**		
4. Childhood Trauma	.185**	.124**	.127**	
5. Psychopathology	.086*	.200**	.184**	.229**

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



Table 3

*Model 1 Hierarchical Regression Predicting Victimization*

Predictors	Block 1 <i>b</i> ( <i>SE</i> )	Block 2 <i>b</i> ( <i>SE</i> )	Block 3 <i>b</i> ( <i>SE</i> )	$\beta$
<i>Demographics</i>				
Age	.82 (.11)	.80 (.11)	.76 (.11)	.27***
Gender	-3.38 (1.34)	-3.22 (1.33)	-2.81 (1.33)	-.084*
Ethnicity	7.17 (1.64)	7.13 (1.64)	6.38 (1.64)	.156***
Sexual Orientation		5.28 (2.10)	3.62 (2.15)	.069†
<i>Gender Nonconformity</i>				
GDM			3.70 (1.90)	.085†
GNC according to Femininity			.805 (.47)	.087†
GNC according to Masculinity			.003 (.42)	.000

†*p* < .10, \**p* < .05, \*\**p* < .01, \*\*\**p* < .001.

Table 4

*Model 2 Hierarchical Regression Predicting Psychopathology*

Predictors	Block 1 <i>b</i> ( <i>SE</i> )	Block 2 <i>b</i> ( <i>SE</i> )	Block 3 <i>b</i> ( <i>SE</i> )	$\beta$
<i>Demographics</i>				
Ethnicity	4.96 (1.66)	4.62 (1.60)	3.52 (1.58)	.095*
Sexual Orientation		12.00 (2.0)	9.81 (2.01)	.21***
<i>Gender</i>				
<i>Nonconformity</i>				
GDM			-2.34 (1.76)	-.061
GNC according to Femininity			.90 (.44)	.109*
GNC according to Masculinity			.52 (.44)	.071
<i>Victimization</i>				
Childhood Trauma			.17 (.038)	.19***

†*p* < .10, \**p* < .05, \*\**p* < .01, \*\*\**p* < .001.

## **Appendix A**

### Consent Form

Project Directors:  
Kathryn Oost, B.A.  
Bryan Cochran, Ph.D.

The University of Montana  
Department of Psychology  
Skaggs Building Room 143  
Missoula, MT 59812  
(406)-243-2391

Thank you for your interest in our study. The purpose of this study is to learn about college students' school experiences, development, and everyday lives. We would also like to know more about your community, and family in order to better understand your experiences. You must be at least 18 years old to participate in this study, and your participation is entirely voluntary.

If you agree to take part in this study, you will complete an online survey. As part of the survey, you will answer basic questions about yourself, and questions about your family, school, and community. You will also be asked about your mental health and your experiences with alcohol and drugs. You will also be asked about any experiences of abuse, victimization, or bullying that you might have had. Some of the questions may ask you to think about bad things that have happened in your life. It is possible that some people may feel sad or uncomfortable while participating in this study. Remember, you are volunteering to participate in this study, so you can choose to stop participating at any time, and you can choose to skip questions, especially those that might make you uncomfortable. More information about the study and a list of resources will be provided to you at the end of the survey.

If you are not currently in PSYX 100 and you complete the survey, you will have the option of entering your e-mail address into a drawing where you could win a \$200 electronic gift card for an online retailer. It will take approximately 30 minutes to complete the survey.

All of the information that you provide will be kept confidential and your data cannot be connected to your e-mail address. Your e-mail address and your data will be stored in separate databases that are stored on a secure sever within the Department of Psychology at The University of Montana.

Although we believe that the risk of taking part in this survey is minimal, the following liability statement is required of all University of Montana consent forms: In the event

you are injured as a result of this assessment you should immediately seek appropriate medical treatment. If the injury is caused by negligence of the University or any of its employees, you may be entitled to reimbursement or compensation pursuant to the Comprehensive State Insurance Plan established under the authority of M.C.A. Title 2, Chapter 9. In the event of a claim for such injury, further information may be obtained from the University's Claims representative or University Legal Counsel.

If you have any questions about this study, please call Bryan Cochran at (406) 243-2391 or Kathryn Oost at (360) 621-5382, or you can email us at [bryan.cochran@umontana.edu](mailto:bryan.cochran@umontana.edu) or [kathryn.oost@umontana.edu](mailto:kathryn.oost@umontana.edu). Please remember that we cannot guarantee the confidentiality of any information sent by email. If you have any questions regarding your rights as a research subject, you may contact The University of Montana's Research Office at (406) 243-6670 and ask to speak with the IRB Chair.

By clicking the "I Agree" button below, I give my consent to take part in this study. Clicking this button also means that I am at least 18 years old and have read the description of this research study. I have been told about the risks and benefits involved, and all my questions have been answered to my satisfaction. Furthermore, I understand that if I have questions in the future, I can contact the researchers to have my question answered. Finally, I voluntarily agree to take part in this study.

**Appendix B**  
Demographic Information

**Demographic Information**

1. What is your age? \_\_\_\_\_
  
2. What is your gender?
  - a. Male
  - b. Female
  - c. Transgender (male to female)
  - d. Transgender (female to male)
  - e. Other
  
3. What was your assigned sex at birth?
  - a. Male
  - b. Female
  - c. Intersex
  
4. Are you currently seeing anyone romantically? \_\_\_\_\_
  - a. If so, how long have you been together? \_\_\_\_\_
  - b. What is the gender of your romantic partner?
    - i. Male
    - ii. Female
    - iii. Transgender (male to female)
    - iv. Transgender (female to male)
    - v. Other
  
5. What group(s) do you belong to? (Please select all that apply)
  - a. Black/African-American
  - b. Asian or Pacific Islander
  - c. European-American/White/Caucasian
  - d. Latino, Hispanic, or Chicano
  - e. Native-American/American-Indian
  - f. Multi-racial
  - g. Other: \_\_\_\_\_
  
6. Most of the time while I was growing up, I spent time with the following people (select all that apply):
  - a. Mother(s)
  - b. Step-mother
  - c. Father(s)

- d. Step-father
  - e. Guardian(s)
  - f. Older brother(s)
  - g. Older sister(s)
  - h. Younger sister(s)
  - i. Younger brother(s)
7. Do you have any children of your own? If yes, what is the age of your oldest child? \_\_\_\_\_
8. Which of the following best describes the community where you spent most of your time between the ages of 12 and 16?
- a. Rural area, not really part of any town
  - b. Small town (**less** than 1,000)
  - c. Medium-sized town (1,000-10,000)
  - d. Large town (10,000-20,000)
  - e. Small city (20,000-100,000)
  - f. Medium city (100,000- 250,000)
  - g. Large city (**over** 250,000)
9. What was the zip-code of the home you spent most of your time when you were 12-16 years old? \_\_\_\_\_
10. What was your high school GPA on a 4.0 scale? \_\_\_\_\_
11. How many years of school did your mother complete, or what kind of degree did she get?
- \_\_\_\_\_
12. How many years of school did your father complete, or what kind of degree did he get?
- \_\_\_\_\_
13. What was your family's religion when you were young?
- a. Atheist
  - b. Catholic
  - c. Protestant
  - d. Jewish

- e. Buddhist
- f. Muslim
- g. Other: \_\_\_\_\_
- h. None

14. Overall, how religious are you currently?

- a. Not at all
- b. A little
- c. Somewhat
- d. Moderately high
- e. Very

15. What is your current religion?

- a. Catholic
- b. Protestant
- c. Jewish
- d. Buddhist
- e. Muslim
- f. Other: \_\_\_\_\_

16. What best describes your sexual orientation?

- a. Straight
- b. Gay
- c. Lesbian
- d. Bisexual
- e. Pansexual
- f. Queer
- g. Other: \_\_\_\_\_

17. In your life, who have your romantic and/or sexual partners been?

- a. Only males
- b. Only females
- c. One or more male(s) **and** one or more female(s)
- d. People who don't consider themselves "male" or "female"
- e. I have never had a romantic or sexual partner

18. In your lifetime, who have you found yourself physically attracted to?

- a. Only males
- b. Only females
- c. One or more male(s) **and** one or more female(s)
- d. People who don't consider themselves "male" or "female"

e. I don't find myself attracted to males or females



**Appendix C**  
Gender Nonconformity Measures

**Childhood Friends and Play Preferences**  
(Recalled Childhood Gender Identity/Gender Role Questionnaire)

Please answer the following questions about your behavior as a child, that is, until you were 12 years old.

1. As a child, my favorite playmates were
  - a. Always boys
  - b. Usually boys
  - c. Boys and girls equally
  - d. Usually girls
  - e. Always girls
  - f. I did not play with other children
2. As a child, my best or closest friend was
  - a. Always a boy
  - b. Usually a boy
  - c. A boy or girl
  - d. Usually a girl
  - e. Always a girl
  - f. I did not have a best or close friend
3. As a child, I enjoyed playing sports such as baseball, hockey, basketball, & soccer.
  - a. Only with boys
  - b. Usually with boys
  - c. With boys and girls equally
  - d. Usually with girls
  - e. Only with girls
  - f. I did not play these types of sports
4. As a child, I felt
  - a. Very masculine
  - b. Somewhat masculine
  - c. Equally masculine and feminine
  - d. Somewhat feminine
  - e. Very feminine
  - f. I did not feel masculine or feminine
5. As a child, my appearance (hair style, clothing, etc.) was
  - a. Very masculine
  - b. Somewhat masculine
  - c. Equally masculine and feminine

- d. Somewhat feminine
- e. Very feminine
- f. Neither masculine or feminine

**Current Activities**  
(Gender Diagnosticity Scale)

A number of hobbies are listed below. How much do you like each hobby? Please use the following 5-point scale.

1	2	3	4
5			
Strongly Strongly Dislike Like	Slightly  Dislike	Neutral or  Indifferent	Slightly  Like

1. \_\_\_\_\_ Home electronics
2. \_\_\_\_\_ Dancing
3. \_\_\_\_\_ Computers
4. \_\_\_\_\_ Keeping up with new fashions
5. \_\_\_\_\_ Video games
6. \_\_\_\_\_ Cardio workouts (such as aerobics, pilates, tae-bo)
7. \_\_\_\_\_ Going to car shows
8. \_\_\_\_\_ Singing
9. \_\_\_\_\_ Fishing
10. \_\_\_\_\_ Clothes shopping
11. \_\_\_\_\_ Playing poker
12. \_\_\_\_\_ Watching romance movies
13. \_\_\_\_\_ Playing basketball or football
14. \_\_\_\_\_ Collecting stuffed animals
15. \_\_\_\_\_ Watching sports on tv
16. \_\_\_\_\_ Taking & collecting photos of family and friends
17. \_\_\_\_\_ Weight lifting
18. \_\_\_\_\_ Reading romance novels
19. \_\_\_\_\_ Working on cars



**Appendix D**  
Bullying, Victimization, and Abuse Measures

**Family Environment**  
(Childhood Trauma Questionnaire)

These questions ask about some of your experiences growing up. For each question, select the number that best describes how you feel. Please try to answer as honestly as you can. Your answers will be kept confidential.

When I was growing up...	Never True	Rarely True	Sometimes True	Often True	Very Often True
1. I didn't have enough to eat.	1	2	3	4	5
2. I knew that there was someone to take care of me and protect me.	1	2	3	4	5
3. People in my family called me things like "stupid," "lazy," or "ugly."	1	2	3	4	5
4. My parents were too drunk or high to take care of the family.	1	2	3	4	5
5. There was someone in my family who helped me to feel important or special.	1	2	3	4	5
6. I had to wear dirty clothes.	1	2	3	4	5
7. I felt loved.	1	2	3	4	5
8. I thought that my parents wished I had never been born.	1	2	3	4	5
9. I got hit so hard by someone in my family that I had to see a doctor or go to the hospital.	1	2	3	4	5
10. There was nothing I wanted to change about my family.	1	2	3	4	5
11. People in my family hit me so hard that it left me with bruises or marks.	1	2	3	4	5
12. I was punished with a belt, a board, a cord, or some other hard object.	1	2	3	4	5
13. People in my family looked out for each other.	1	2	3	4	5

14. People in my family said hurtful or insulting things to me.	1	2	3	4	5
15. I believe that I was physically abused.	1	2	3	4	5
16. I had the perfect childhood.	1	2	3	4	5
17. I got hit or beaten so badly that it was noticed by someone like a teacher, neighbor, or doctor.	1	2	3	4	5
18. I felt that someone in my family hated me.	1	2	3	4	5
19. People in my family felt close to each other.	1	2	3	4	5
20. Someone tried to touch me in a sexual way, or tried to make me touch them.	1	2	3	4	5
21. Someone threatened to hurt me or tell lies about me unless I did something sexual with them.	1	2	3	4	5
22. I had the best family in the world.	1	2	3	4	5
23. Someone tried to make me do sexual things or watch sexual things.	1	2	3	4	5
24. Someone molested me.	1	2	3	4	5
25. I believe that I was emotionally abused.	1	2	3	4	5
26. There was someone to take me to the doctor if I needed it.	1	2	3	4	5
27. I believe that I was sexually abused.	1	2	3	4	5
29. People in my family didn't think I dressed masculine [feminine] enough	1	2	3	4	5

### **School Experiences**

(Olweus Bullying and Victimization Scale)

For the following items please select the statement which most accurately reflects your experiences in high school:

1. In high school, I was called mean names, made fun of, or teased in hurtful ways by other students:

This never happened to me

This happened rarely, maybe once or twice a year

- This happened 2 or 3 times per month
- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (being called mean names, being made fun of, or being teased in hurtful ways by other students) were mostly related to you not being perceived as masculine or feminine enough?

- Yes
- No

2. In high school, I was hit, kicked, pushed, or shoved around:

- This never happened to me
- This happened rarely, maybe once or twice a year
- This happened 2 or 3 times per month
- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (being hit, kicked, pushed, or shoved around) were mostly related to you not being perceived as masculine or feminine enough?

- Yes
- No

3. In high school, other students told lies or spread false rumors about me:

- This never happened to me
- This happened rarely, maybe once or twice a year
- This happened 2 or 3 times per month
- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (other students telling lies or spreading rumors about you) were mostly related to you not being perceived as masculine or feminine enough?

- Yes
- No

4. In high school, I had money or other things taken away from me or damaged:

- This never happened to me
- This happened rarely, maybe once or twice a year
- This happened 2 or 3 times per month
- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (having money or other things taken away from you or damaged) were mostly related to you not being perceived as masculine or feminine enough?

- Yes

No

5. In high school, I was threatened or forced to do things I don't want to do:

- This never happened to me
- This happened rarely, maybe once or twice a year
- This happened 2 or 3 times per month
- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (being threatened or forced to do things you don't want to do) were mostly related to you not being perceived as masculine or feminine enough?

- Yes
- No

6. In high school, I experienced hurtful or threatening messages in the form of phone calls, text messages, or over the internet:

- This never happened to me
- This happened rarely, maybe once or twice a year
- This happened 2 or 3 times per month
- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (experiencing hurtful or threatening messages in the form of phone calls, text messages or over the internet) were mostly related to you not being perceived as masculine or feminine enough?

- Yes
- No

7. In high school, I experienced physical abuse that requires medical attention:

- This never happened to me
- This happened rarely, maybe once or twice a year
- This happened 2 or 3 times per month
- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (experiencing physical abuse that requires medical attention) were mostly related to you not being perceived as masculine or feminine enough?

- Yes
- No

8. In high school, I was called mean names, made fun of, or teased in a hurtful way, by one or more teachers, staff members, or coaches at my school:

- This never happened to me
- This happened rarely, maybe once or twice a year
- This happened 2 or 3 times per month

- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (being called mean names, made fun of, or teased by one or more teachers, staff members, or coaches at your school) were mostly related to you not being perceived as masculine or feminine enough?

- Yes
- No

9. In high school, I was sexually victimized or sexually assaulted:

- This never happened to me
- This happened rarely, maybe once or twice a year
- This happened 2 or 3 times per month
- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (being sexually victimized or sexually assaulted) were mostly related to you not being perceived as masculine or feminine enough?

- Yes
- No

10. In high school, I heard gay jokes or homophobic/transphobic comments directed at others and/or me.

- This never happened to me
- This happened rarely, maybe once or twice a year
- This happened 2 or 3 times per month
- This happened on a weekly basis
- This happened several times each week

Do you think these experiences (hearing gay jokes or homophobic/transphobic comments) were mostly related to you not being perceived as masculine or feminine enough?

- Yes
- No

**Since you were 14 years old, how many times has:**

1. Someone had oral sex with me or made me have oral sex with them without my consent
  - a. 0
  - b. 1
  - c. 2
  - d. 3+
2. A man put his penis into my vagina, or someone inserted fingers or objects without my consent



- a. 0
  - b. 1
  - c. 2
  - d. 3+
3. A man put his penis into my butt, or someone inserted fingers or objects without my consent
- a. 0
  - b. 1
  - c. 2
  - d. 3+

## Appendix E

### Shame

#### Part I

Shame is a negative and painful feeling in which the entire self is viewed as bad and/or worthless. It may be accompanied by urges to withdraw or conceal some behavior or aspect of yourself. Shame is different from just generally being upset or distressed, because it relates to how you feel about yourself. Some people experience shame on a regular basis; others hardly experience shame at all.

The questions below are about *overall* shame feelings that you may experience.

1. Circle the number which indicates *how often* you typically experience shame.

Never	Seldom	Occasionally	Often	Always
0	1	2	3	4

2. Circle the number which indicates the *intensity or severity* of shame that you typically experience.

None	Slight	Moderate	Considerable	Extreme
0	1	2	3	4

3. To what extent does shame negatively affect the quality of your life?

No Effect	Slight Effect	Moderate Effect	Considerable Effect	Extreme Effect
0	1	2	3	4

Part II

This is a list of situations and behaviors that may be related to the experience of shame for you. Please write a number (between 0–4) beside each statement which indicates the intensity of your shame about that event. If the statement does not apply to you, write an “X” beside the statement.

Didn't Happen/Does Extreme Not Apply to Me Shame	No Shame	Slight Shame	Moderate Shame	Considerable Shame
X	0	1	2	3
4				

Rate

0-4 A time when I . . .

- 
- \_\_\_\_\_ 1. Didn't act or dress the way that others think someone of my sex should
  - \_\_\_\_\_ 2. Was called a sissy/tomboy
  - \_\_\_\_\_ 3. Was laughed at in front of others
  - \_\_\_\_\_ 4. Was criticized in front of others
  - \_\_\_\_\_ 5. Cried in front of others
  - \_\_\_\_\_ 6. Made a scene in public
  - \_\_\_\_\_ 7. Lost something important
  - \_\_\_\_\_ 8. I had sex with someone I didn't want to
  - \_\_\_\_\_ 9. Forced/coerced someone to have sex with me
  - \_\_\_\_\_ 10. Had an affair/was unfaithful/was sexually promiscuous

- \_\_\_\_\_ 11. Was sexually harassed
- \_\_\_\_\_ 12. Made a suicide attempt/threat or harmed myself on purpose
- \_\_\_\_\_ 13. Didn't know the answer to a question I felt I should know
- \_\_\_\_\_ 14. Was caught saying negative things about others
- \_\_\_\_\_ 15. Overate or ate unhealthy/high fat food
- \_\_\_\_\_ 16. Missed an important appointment
- \_\_\_\_\_ 17. Was praised for something I didn't do
- \_\_\_\_\_ 18. Didn't live up to a really important standard of mine
- \_\_\_\_\_ 19. Didn't live up to others' standards
- \_\_\_\_\_ 20. Told a lie
- \_\_\_\_\_ 21. Broke a promise
- \_\_\_\_\_ 22. Committed a crime
- \_\_\_\_\_ 23. Knew someone talked badly about me behind my back
- \_\_\_\_\_ 24. Received a compliment
- \_\_\_\_\_ 25. Found out someone I cared about didn't feel the same way
- \_\_\_\_\_ 26. Was turned down for a date/request to spend time with someone
- \_\_\_\_\_ 27. Could not afford something
- \_\_\_\_\_ 28. Was slow to learn something
- \_\_\_\_\_ 29. Hurt someone emotionally
- \_\_\_\_\_ 30. Hurt someone physically
- \_\_\_\_\_ 31. Hurt an animal
- \_\_\_\_\_ 32. Was physically or sexually abused
- \_\_\_\_\_ 33. Saw a picture of myself/saw myself in mirror
- \_\_\_\_\_ 34. Was afraid to do something
- \_\_\_\_\_ 35. Failed at work
- \_\_\_\_\_ 36. Lost a friendship
- \_\_\_\_\_ 37. Had fantasies of violence or death
- \_\_\_\_\_ 38. Had sexual/kinky fantasies
- \_\_\_\_\_ 39. Betrayed a friend
- \_\_\_\_\_ 40. Was betrayed by someone I care about
- \_\_\_\_\_ 41. Hated a family member

- \_\_\_\_\_ 42. Had an abortion
- \_\_\_\_\_ 43. Had a private aspect of myself exposed
- \_\_\_\_\_ 44. Other, describe:

This is a list of situations and behaviors that may be related to the experience of shame for you. Please write a number (between 0–4) beside each statement which indicates the intensity of your shame about that event. If the statement does not apply to you, write an “X” beside the statement.

Does Not Apply to Me	No Shame	Slight Shame	Moderate Shame	Considerable Shame	Extreme Shame
X	0	1	2	3	
4					

- \_\_\_\_\_ 45. Not being in an intimate relationship
- \_\_\_\_\_ 46. Not having children
- \_\_\_\_\_ 47. Being gay/lesbian/bisexual
- \_\_\_\_\_ 48. Feeling unattractive/ugly
- \_\_\_\_\_ 49. Having a mental disorder
- \_\_\_\_\_ 50. Being a certain race/ethnicity
- \_\_\_\_\_ 51. Not having good career
- \_\_\_\_\_ 52. Being adopted
- \_\_\_\_\_ 53. Not being masculine enough
- \_\_\_\_\_ 54. Not being feminine enough

**Appendix F**  
Microaggression and Climate Measure

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
1. I would prefer not to stay friends with someone who told me they were gay or lesbian	0	1	2	3

2. I would rather attend a university where there are no gay, lesbian, or bisexual students	0	1	2	3
3. I wish there were no transgender people in my town	0	1	2	3
4. I don't mind if other people are gay, I just prefer if they didn't make a big deal about it	0	1	2	3
5. I prefer not to see same-sex public displays of affection	0	1	2	3
6. I believe same-sex couples should be able to legally marry	0	1	2	3
7. I know at least 1 gay, lesbian, or bisexual person	0	1	2	3
8. I know at least one transgender person	0	1	2	3
9. I think I would be uncomfortable meeting someone I know/think is gay or lesbian for the first time	0	1	2	3
10. I think I would be uncomfortable meeting someone who I know/think was transgender for the first time	0	1	2	3
11. If I had children, I would feel comfortable with someone who identified as gay, lesbian, or bisexual as a babysitter	0	1	2	3
	<b>Strongly Agree</b>	<b>Agree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
12. If I had children, I would feel comfortable with a transgender person as a babysitter	0	1	2	3
13. It would make me uncomfortable to see a male student at my university wearing make-up or dressed in women's clothing	0	1	2	3
14. It would make me uncomfortable to see a female student at my university who wore mostly men's style clothing	0	1	2	3
15. I have been told by my friends that I am too sensitive when it comes to mistreatment I associate with my sexual orientation	0	1	2	3
16. I have been told by my friends that I am too sensitive when it comes to mistreatment I believe is because of my gender identity or expression	0	1	2	3
17. I would be offended if a friend asked me if I was attracted to someone of my gender	0	1	2	3
18. I would be offended if someone thought I might be gay or lesbian	0	1	2	3
19. I am uncomfortable saying "gay" or	0	1	2	3

“lesbian” around someone who identifies as gay or lesbian				
20. I don't think there is anything wrong with calling something “gay” if the person who says it doesn't mean it to be hurtful or about sexual orientation	0	1	2	3
21. I have used “gay” as another word for “stupid” in the last 12 months	0	1	2	3

**Appendix G**  
Mental Health Questions

**(DSM-5 Self-Rated Level 1 Cross-Cutting Symptom Measure—Adult)**

The questions below ask about things that might have bothered you. For each question, circle the number that best describes how much (or how often) you have been bothered by each problem during the **past TWO (2) WEEKS**.

	During the <b>past TWO (2) WEEKS</b> , how much (or how often) have you been bothered by the following problems?	<b>None</b> Not at all	<b>Slight</b> Rare, less than a day or two	<b>Mild</b> Several days	<b>Moderate</b> More than half the days	<b>Severe</b> nearly every day
I.	1. Little interest or pleasure in doing things?	0	1	2	3	4
	2. Feeling down, depressed, or hopeless?	0	1	2	3	4
II.	3. Feeling more irritated, grouchy, or angry than usual?	0	1	2	3	4
III.	4. Sleeping less than usual, but still have a lot of energy?	0	1	2	3	4
	5. Starting lots more projects than usual or doing more risky things than usual?	0	1	2	3	4
IV.	6. Feeling nervous, anxious, frightened, worried, or on edge?	0	1	2	3	4
	7. Feeling panic or being frightened?	0	1	2	3	4
	8. Avoiding situations that make you anxious?	0	1	2	3	4
V.	9. Unexplained aches and pains (e.g., head, back, joints, abdomen, legs)?	0	1	2	3	4
	10. Feeling that your illnesses are not being taken seriously enough?	0	1	2	3	4
VII.	12. Hearing things other people couldn't hear, such as voices even when no one was around?	0	1	2	3	4
	13. Feeling that someone could hear your thoughts, or that you could hear what another person was thinking?	0	1	2	3	4
IX.	14. Problems with sleep that affected your sleep quality over all?	0	1	2	3	4
	15. Problems with memory (e.g., learning new information) or with location (e.g., finding your way home)?	0	1	2	3	4
X.	16. Unpleasant thoughts, urges, or images that repeatedly enter your mind?	0	1	2	3	4
	17. Feeling driven to perform certain behaviors or mental acts over and over again?	0	1	2	3	4
XI.	18. Feeling detached or distant from yourself, your body, your physical surroundings, or your memories?	0	1	2	3	4
XII.	19. Not knowing who you really are or what you	0	1	2	3	4

	want out of life?					
	20. Not feeling close to other people or enjoying your relationships with them?	0	1	2	3	4
XIII.	21. Drinking at least 4 drinks of any kind of alcohol in a single day?	0	1	2	3	4
	22. Smoking any cigarettes, a cigar, or pipe, or using snuff or chewing tobacco?	0	1	2	3	4
	23. Using any of the following medicines ON YOUR OWN, that is, without a doctor's prescription, in greater amounts or longer than prescribed [e.g., painkillers (like Vicodin), stimulants (like Ritalin or Adderall), sedatives or tranquilizers (like sleeping pills or Valium), or drugs like marijuana, cocaine or crack, club drugs (like ecstasy), hallucinogens (like LSD), heroin, inhalants or solvents (like glue), or methamphetamine (like speed)]?	0	1	2	3	4

→ If 11. anything but zero, then “how many times have you intentionally hurt yourself before? Hurting yourself includes intentionally scratching, hitting, burning, or cutting oneself in addition to intentionally preventing injuries from healing, or intentionally engaging in reckless activities where the likelihood of harm is high.

- a. 1 time
- b. 2-5 times
- c. 6-10 times
- d. 10-15 times
- e. 16 or more times

In the past, have you ever been so down that you had thoughts of ending your own life?

- a. Yes
- b. No

If so, did you ever attempt to end your own life?

- a. No
- b. Yes, 1 time
- c. Yes, 2 times
- d. Yes, 3 or more times

In your lifetime, have you ever sought treatment for an emotional or psychological problem?

If yes, how many times?



**1. If you were having a personal or emotional problem, how likely is it that you would seek help from the following people?**

Please indicate your response by putting a line through the number that best describes your intention to seek help from each help source that is listed.

1 = Extremely Unlikely 3 = Unlikely 5 = Likely 7 = Extremely Likely

Intimate partner	1	2	3	4	5	6	7
Friend (not related to you)	1	2	3	4	5	6	7
Parent	1	2	3	4	5	6	7
Other relative/family member	1	2	3	4	5	6	7
Mental health professional (e.g. psychologist, social worker, counselor)	1	2	3	4	5	6	7
Phone helpline	1	2	3	4	5	6	7
Doctor/GP	1	2	3	4	5	6	7
Minister or religious	1	2	3	4	5	6	7
I would not seek help from anyone	1	2	3	4	5	6	7

I would seek help from another not listed above (please list in the space provided, (e.g., work colleague. If no, leave blank) \_\_\_\_\_

**Mental Health Questions Continued**  
(PTSD Checklist-Civilian Version)

Please select events that you have encountered from the following list (select all that apply):

- a. I was seriously injured, or feared that I would be seriously injured
- b. I was afraid I might die
- c. I was sexually assaulted
- d. I witnessed someone else become seriously injured, nearly become seriously injured, or be sexually assaulted

Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each item carefully and indicate how much you have been bothered by each problem **in the last month**.

REPEATED, DISTURBING MEMORIES, THOUGHTS, OR IMAGES OF A STRESSFUL EXPERIENCE FROM THE PAST?

- a. Not at all

- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

REPEATED, DISTURBING DREAMS OF A STRESSFUL EXPERIENCE FROM THE PAST?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

SUDDENLY ACTING OR FEELING AS IF A STRESSFUL EXPERIENCE WERE HAPPENING AGAIN (AS IF YOU WERE RELIVING IT)?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

FEELING VERY UPSET WHEN SOMETHING REMINDED YOU OF A STRESSFUL EXPERIENCE FROM THE PAST?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

HAVING PHYSICAL REACTIONS (E.G. HEART POUNDING, TROUBLE BREATHING) WHEN SOMETHING REMINDED YOU OF A STRESSFUL EXPERIENCE FROM THE PAST?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

AVOID THINKING ABOUT OR TALKING ABOUT A STRESSFUL EXPERIENCE FROM THE PAST OR AVOID HAVING FEELINGS RELATED TO IT?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

AVOID ACTIVITIES OR SITUATION BECAUSE THEY REMIND YOU OF A STRESSFUL EXPERIENCE FROM THE PAST?

- a. Not at all
- b. A little bit

- c. Moderately
- d. Quite a bit
- e. Extremely

TROUBLE REMEMBERING IMPORTANT PARTS OF A STRESSFUL EXPERIENCE FROM THE PAST?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

LOSS OF INTEREST IN THINGS YOU USED TO ENJOY?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

FEELING DISTANT OR CUT OFF FROM OTHER PEOPLE?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

FEELING EMOTIONALLY NUMB OR BEING UNABLE TO HAVE LOVING FEELINGS FOR THOSE CLOSE TO YOU?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

FEELING AS IF YOUR FUTURE WILL SOMEHOW BE CUT SHORT?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

TROUBLE FALLING OR STAYING ASLEEP?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

FEELING IRRITABLE OR HAVING ANGRY OUTBURSTS?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

HAVING DIFFICULTY CONCENTRATING?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

BEING "SUPER ALERT" OR WATCHFUL ON GUARD?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

FEELING JUMPY OR EASILY STARTLED?

- a. Not at all
- b. A little bit
- c. Moderately
- d. Quite a bit
- e. Extremely

**Appendix H**  
Substance Use Questions

**Alcohol Use**  
(AUDIT)

Please answer the following questions with respect to your current alcohol use. Consider a “drink” to be a 12oz. can or bottle of beer, a 4oz. glass of wine, a wine cooler, one cocktail, or a shot (1.25oz.) of hard liquor (like gin or vodka).

1. How often do you have a drink containing alcohol?

- Never
- Monthly or less
- 2-4 times a month
- 2-3 times a week
- 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

- 1 or 2
- 3 or 4
- 5 or 6
- 7 to 9
- 10 or more

3. How often do you have six or more drinks on one occasion?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

4. How often during the last year have you found that you were not able to stop drinking once you started?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

5. How often during the last year have you failed to do what was normally expected of you because of drinking?

- Never
- Less than monthly
- Monthly

- Weekly
- Daily or almost daily

6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

7. How often during the last year have you had a feeling of guilt or remorse after drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

8. How often during the last year have you been unable to remember what happened the night before because of your drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

9. Have you or someone else been injured because of your drinking?

- No
- Yes, but not in the last year
- Yes, during the last year

10. Has a relative, friend, doctor, or other health care worker been concerned about your drinking, or suggested you cut down?

- No
- Yes, but not in the last year
- Yes, during the last year

11. How many times in the **last 30 days** have you pre-gamed or pre-partied (i.e. drinking alcohol before going to a party or event where alcohol might be unavailable, expensive, or difficult to obtain)?

- Zero times
- Once
- Twice
- Three times

- Four times
- Five times
- Six or more times

12. Have you pre-gamed or pre-partied (i.e. drinking alcohol before going to an event or party where alcohol might be unavailable, expensive, or difficult to obtain) before attending any of the following (check all that apply):

- Night sporting events
- School trips
- Prom
- Parties

### **Tobacco Use**

(Adapted from Corliss et al., 2013)

#### **Smoking Tobacco**

1. Have you ever smoked tobacco? \_\_\_\_\_

If yes, how old were you when you first tried smoking?

- a. 8 years-old or younger
- b. 9-14 years-old
- c. 15-18 years-old
- d. 19 + years-old

2. Have you smoked tobacco in the last 12 months?

- a. Yes
- b. No

3. About how many times in the last year have you smoked tobacco?

- a. I haven't smoked in the last 12 months
- b. I have smoked less than 1 time a month
- c. I have smoked less than 1 time per week, but more than once a month
- d. I smoked weekly
- e. I smoked daily

4. When you are smoking, how many cigarettes/cigarellos do you smoke in one day?

- a. I don't smoke, or if I do I smoke less than 1
- b. 1
- c. 2-5
- d. 6-10
- e. 11-20
- f. 21 or more.

#### **Chewing Tobacco**

4. Have you ever chewed tobacco? \_\_\_\_\_

If yes, how old were you when you first tried it?

- e. 8 years-old or younger
- f. 9-14 years-old
- g. 15-18 years-old
- h. 19 + years-old

5. Have you chewed tobacco in the last 12 months?

- a. Yes
- b. No

6. About how many times in the last year have you chewed tobacco?

- a. I haven't chewed in the last 12 months
- b. I have chewed less than 1 time a month
- c. I have chewed less than 1 time per week, but more than once a month
- d. I chewed weekly
- e. I chewed daily

### **Drug Use Behaviors** (DAST-10)

The following questions concern information about your potential involvement with drugs *not including alcoholic beverages* **during the past 12 months**. Carefully read each statement and decide if your answer is 'Yes' or 'No'. Then, circle the appropriate response beside the question.

In the statements 'drug abuse' refers to (1) the use of prescribed or over the counter drugs in excess of the directions and (2) any non-medical use of drugs. The various classes of drugs may include: cannabis (e.g. marijuana, hash), solvents, tranquilizers (e.g. Valium), barbiturates, cocaine, stimulants (e.g. speed), hallucinogens (e.g. LSD) or narcotics (e.g. heroin). Remember that the questions *do not* include alcoholic beverages.

Please answer every question. If you have difficulty with a statement, then choose the response that is mostly right.

*These questions refer to the past 12 months. Select the appropriate response on the right.*

- |  |           |
|--|-----------|
| 1. Have you used drugs other than those required for medical reasons?            | Yes       |
| No   |           |
| 2. Do you abuse more than one drug at a time?                                    | Yes       |
| No   |           |
| 3. Are you always able to stop using drugs when you want to?                     | Yes       |
| No   |           |
| 4. Have you had 'blackouts' or 'flashbacks' as a result of drug use?             | Yes    No |
| 5. Do you ever feel bad or guilty about your drug use?                           | Yes       |
| No   |           |
| 6. Have family members (i.e., partner/spouse, parents, children) ever complained |           |



- |  |     |     |
|--|-----|-----|
| about your involvement with drugs?   | Yes | No  |
| 7. Have you neglected your family because of your use of drugs?  | Yes | No  |
| 8. Have you engaged in illegal activities in order to obtain drugs?  | Yes | No  |
| 9. Have you ever experienced withdrawal symptoms (felt sick) when you stopped taking drugs?                                | Yes | No  |
| 10. Have you had medical problems as a result of your drug use (e.g. memory loss, hepatitis, convulsions, bleeding, etc.)? |     | Yes |
| No   |     |     |

11. Have you ever used any type of illegal drug (e.g., marijuana, cocaine, LSD) OR have you ever misused over the counter or prescription medications (e.g., recreational use of medications)? \_\_\_ No  
 \_\_\_ Yes

Have you ever used any of the following:

Cocaine  
 \_\_\_ Yes \_\_\_ No

Ecstasy, Molly, or MDMA:  
 \_\_\_ Yes \_\_\_ No

GHB, Ketamine, or Rohypnol  
 \_\_\_ Yes \_\_\_ No

Heroin  
 \_\_\_ Yes \_\_\_ No

Hallucinogens (LSD; Psychedelic Mushrooms)  
 \_\_\_ Yes \_\_\_ No

Inhalants (Nitrous Oxide; Huffing Paint/Glue)  
 \_\_\_ Yes \_\_\_ No

Marijuana  
 \_\_\_ Yes \_\_\_ No

Methamphetamines  
 \_\_\_ Yes \_\_\_ No

How often in the last 365 days?

- a. Once
- b. 2-3 times
- c. 3-4 times
- d. More than 4 times

Steroids  
 \_\_\_ Yes \_\_\_ No

Recreational/Non-medical use of ADHD Medications (Adderall; Ritalin)  
 \_\_\_ Yes \_\_\_ No

Recreational/Non-Medical Use of Anxiety Medications (Xanax; Valium)

Yes  No

Recreational/Non-Medical Use of Pain Medications (Vicodin; Oxycodone; Percocet)

Yes  No

## **Appendix I**

### Experience of Discrimination (EOD)

This next section is going to ask about how you and others like you are treated, and how you typically respond.

If you feel you have been treated unfairly, do you usually: (please select the best response)

1. Accept it as a fact of life
2. Try to do something about it

If you have been treated unfairly, do you usually: (please select the best response)

1. Talk to other people about it
2. Keep it to yourself

(1) How often do you feel that gay, lesbian or bisexual people are discriminated against? (choose the number that best represents how you feel)

Response options:

1. Never
2. Rarely
3. Sometimes
4. Often

(1) How often do you feel that transgender people are discriminated against? (choose the number that best represents how you feel)

Response options:

1. Never
2. Rarely
3. Sometimes
4. Often

In the following questions, we are interested in the way other people have treated you or your beliefs about how other people have treated you. Can you tell me if any of the following has ever happened to you:

- (1) At any time in your life, have you ever been unfairly fired?
- (2) For unfair reasons, have you ever not been hired for a job?
- (3) Have you ever been unfairly denied a promotion?
- (4) Have you ever been unfairly stopped, searched, questioned, physically threatened or abused by the police?

(5) Have you ever been unfairly discouraged by a teacher or advisor from continuing your education?

For each situation to which the participant replied “yes,” the follow-up question: What do you think was the main reason for this experience?

1. Your ancestry or national origins
2. Your gender or gender expression
3. Your race
4. Your age
5. Your religion
6. Your height or weight
7. Your shade of skin color
8. Your sexual orientation
9. Your education or income level
10. A physical disability
11. Other

In your day-to-day life, how often have any of the following things happened to you?

- (1) You have been treated with less courtesy than other people
- (2) You have been treated with less respect than other people
- (3) You have received poorer service than other people at restaurants or stores
- (4) People have acted as if they think you are not smart
- (5) People have acted as if they are afraid of you
- (6) People have acted as if they’re better than you are
- (7) You have been called names or insulted
- (8) You have been threatened or harassed

Response options were:

1. Four or more times
2. Two or three times
3. Once
4. Never

Respondents who indicated any of these events occurred at least once were then asked one question, covering all the situations: What do you think were the main reasons for this/these experience(s)?

1. Your ancestry or national origins
2. Your gender or gender expression
3. Your race
4. Your age
5. Your religion
6. Your height or weight
7. Your shade of skin color
8. Your sexual orientation
9. Your education or income level

- 10. A physical disability
- 11. Other