

Trauma, Misgendering, Invalidation, Pride, and Community Connectedness
among Nonbinary Adults

by

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ABSTRACT

Transgender and nonbinary (TNB) people experience elevated rates of post-traumatic stress disorder (PTSD) due to transphobic violence, discrimination, microaggressions, and minority stress. Oppression against TNB people could also contribute to complex post-traumatic stress disorder (c-PTSD) symptoms, which arises due to exposure to prolonged and repeated trauma from a state of subordination. Nonbinary people in particular experience unique chronic minority stressors (e.g., misgendering, interpersonal invalidation) because of the assumption that gender is inherently binary. These chronic minority stressors threaten nonbinary people's psychological and interpersonal senses of safety. This study aims to examine how misgendering and invalidation can predict PTSD and c-PTSD symptoms among nonbinary people and whether this association is moderated by pride and community connectedness. Cross-sectional data from 611 nonbinary people were analyzed using hierarchical linear regressions. Misgendering and invalidation were found to be significant predictors of PTSD and c-PTSD symptoms. However, pride and community connectedness were not significant moderators of these associations. Findings from this study contribute to the conceptualizations of traumatic stress among nonbinary people and provide considerations for more affirming trauma-informed care. Future research should explore how additional resilience factors may promote resilience and healing for nonbinary people coping with trauma.

TABLE OF CONTENTS

	Page
LIST OF TABLES.....	iv
LIST OF FIGURES.....	v
CHAPTER	
1 INTRODUCTION.....	1
Experiences of Trauma among TNB People.....	3
Theoretical Frameworks.....	4
Misgendering and Invalidation as Chronic Distal Minority Stressors.....	7
Pride and Community Connectedness as Resilience Factors.....	9
Present Study.....	12
2 METHODOLOGY.....	15
Participants.....	15
Measures.....	17
Procedure.....	22
Data Analysis.....	24
3 RESULTS.....	26
4 DISCUSSION.....	31
Misgendering and Invalidation.....	31
Pride and Community Connectedness.....	33
Implications for Clinical Practice and Advocacy.....	35
Strengths, Limitations, and Future Directions.....	39

CHAPTER	Page
Conclusion.....	41
REFERENCES	42
APPENDIX	
A MISGENDERING SUBSCALE OF THE NONBINARY	
DISTAL STRESSORS SCALE.....	50
B INVALIDATION SUBSCALE OF THE NONBINARY	
DISTAL STRESSORS SCALE.....	52
C THE PTSD CHECKLIST FOR DSM-5.....	
	54
D C-PTSD SUBSCALE OF THE INTERNATIONAL	
TRAUMA QUESTIONNAIRE.....	56
E NONBINARY PRIDE SUBSCALE OF THE NONBINARY	
RESILIENCE SCALE.....	58
F NONBINARY COMMUNITY CONNECTEDNESS	
SUBSCALE OF THE NONBINARY RESILIENCE SCALE.....	60
G IRB APPROVAL.....	
	62

LIST OF TABLES

Table		Page
1.	Participant Demographics	16
2.	Correlation Matrix	26
3.	Hierarchical Multiple Regression	28

LIST OF FIGURES

Figure	Page
1. PTSD Model.....	14
2. DSO Model	14

CHAPTER 1

INTRODUCTION

The term nonbinary is an umbrella term which describes diverse gender identities including, but not limited to: (a) people who experience masculinity and femininity fluidly, simultaneously, or separately (e.g., bigender, genderfluid), (b) people whose gender exists outside binary masculinity and femininity (e.g., genderqueer, trigender), and (c) people who do not experience gender (e.g., agender, neutrois). Nonbinary people account for about one third of the transgender (trans) community, however, there is little research that specifically focuses on their experiences (James et al., 2016; Matsuno & Budge, 2017). Nonbinary people experience unique stressors because of the assumption that gender is inherently binary (Matsuno, 2019; Matsuno & Budge, 2017). The gender binary is pervasive as evident in binary language, gender roles, bathrooms, clothing stores, and medical care, among other aspects of society in the United States (U.S.). As a result, nonbinary people often have to reckon with structural challenges that enforce binary gender categorizations.

According to the United States Transgender Survey (USTS, $N = 27,715$; James et al., 2016), nonbinary people have a higher prevalence of serious psychological distress (49%) compared to the general population (5%). Specifically, nonbinary people have a high risk for depression, anxiety, substance use disorders, eating concerns, self-harm, and suicidality (Lefevor et al., 2019; Stanton et al., 2021). Nonbinary people also frequently report lack of support from family and friends which likely exacerbates these health disparities (Aparicio-García et al., 2018). Despite the numerous risk factors nonbinary people experience, they may be hesitant to access healthcare services because of

discrimination and invalidation by providers and/or systemic obstacles, such as insurance barriers and strict requirements for gender affirming care (Puckett et al., 2018). For instance, the USTS reported that 70% of nonbinary people wanted gender-related counseling and 49% wanted hormone therapy, but only 31% and 13% were able to access the respective services (James et al., 2016). It is worthwhile to note that the 2016 USTS report was comprised of a majority of White participants (James, 2016), and therefore nonbinary Black, Indigenous, People of Color (BIPOC) may experience even more barriers to care.

Nonbinary people may experience even more distress given the dramatic rise in anti-trans legislation within the U.S. during the past four years. This year (2023) has been the fourth consecutive record-breaking year for the most anti-trans legislation filed in a legislative session with more than 393 anti-trans bills introduced across the U.S. (Trans Legislation Tracker, 2023). For reference, 2022 had over 137 anti-trans bills introduced (Human Rights Campaign, 2022). The political attacks against trans and nonbinary (TNB) people are dehumanizing, and they contribute to feelings of hopelessness and lack of belonging among TNB people (Tebbe et al., 2021). Horne and colleagues (2022) found that TNB people reported elevated levels of anxiety and depression symptoms regarding a state referendum to remove gender-based protections, even though the referendum did not pass (Horne et al., 2022). This finding suggests that merely having TNB people's rights up for political debate contributes to psychological distress among TNB individuals. Furthermore, 94% of LGBTQ youth in the U.S. reported that recent politics negatively impacted their mental health (The Trevor Project, 2022). TNB youth have especially been under attack as legislators seek to control their access to sports, gender

affirming care, and right to privacy. As transphobia continues to infect political agenda, nonbinary people are likely experiencing an increase of interpersonal stigma, especially BIPOC nonbinary people who also experience systemic racism.

Experiences of Trauma among TNB People

In addition to psychological distress, research has shown that TNB people experience elevated rates of post-traumatic stress disorder (PTSD; Barr et al., 2022; Shipherd et al., 2019). With a sample of 575 predominately White TNB adults from the U.S., Barr and colleagues (2022) found that 46% of participants endorsed clinically significant posttraumatic stress and 44% met criteria for a provisional PTSD diagnosis. For context, the 12-month prevalence for PTSD was 4.7% among a nationally representative sample of adults in the U.S. (American Psychiatric Association, 2022). The PTSD diagnosis in the DSM-V is contingent upon exposure to trauma as defined by Criterion A: death, threatened death, actual or threatened serious injury, or actual or threatened sexual violence (American Psychiatric Association, 2013). Consistent with their elevated risk for PTSD, TNB people are more likely to be exposed to Criterion A trauma than the general population (Shipherd et al., 2019). The 2016 USTS found that TNB people reported high levels of violence in all aspects of life, including work, school, family, romantic relationships, healthcare, and interactions with law enforcement (James et al., 2016). For example, 55% of nonbinary respondents reported experiencing sexual assault within their lifetime. Furthermore, there has been a rise in fatal violence against TNB people in the U.S., especially Black and Latinx trans women who are the majority of murder victims (HRC, 2022). As a result, the Human Rights Campaign in 2018 declared anti-trans violence as a national epidemic in the U.S. (HRC, 2018).

Theoretical Frameworks

However, Criterion A does not capture all forms of trauma that can contribute to PTSD symptoms. Feminist perspectives on trauma recognize that the psychological toll from trauma is inherently subjective, so it is not mental health providers' responsibility to gatekeep what is considered traumatic (Root, 1992). Root (1992) conceptualized trauma as a demolition of security dimensions, which were theorized as physical, psychological, or interpersonal. These security dimensions are used to organize one's perspectives on self, others, and the world. When trauma destroys pre-existing schemas, a survivor's sense of safety is threatened which can leave them in a constant state of alertness (Root, 1992). Post-traumatic stress symptoms can then be understood as attempts to restructure the security dimension that was shattered by trauma (Root, 1992). Furthermore, a feminist conceptualization of trauma requires attention to the influence of one's sociopolitical status. Root (1992) asserted that oppression against a group of people can contribute to insidious trauma, which is an accumulation of sociopolitical domination and violence applied collectively across oppressed communities. Due to its ongoing nature, insidious trauma leaves victims in a vulnerable state in which they may internalize blame and struggle to seek help (Root, 1992).

Theorists have been using Root's concept of insidious trauma for decades to further understanding of racial trauma caused by interpersonal and systemic racism (Bryant-Davis & Ocampo, 2005; Carter, 2007; Nadal et al., 2019). Bryant-Davis and Ocampo (2005) illustrated how stress reactions to racism are more aligned with traumatic stress responses as distinguished from nontraumatic stress. Furthermore, Carter (2007) asserted that race-based traumatic stress is nonpathological because these trauma

responses are understandable mechanisms of coping with racial trauma. Consistent with this approach, Nadal and colleagues (2019) found that more frequent experiences of racial microaggressions were associated with more traumatic stress symptoms among a racially diverse sample of BIPOC people.

Similar to racial trauma theory, the Trauma and Minority Stress Exposure Model (TMSE) expands upon the DSM-V definition of trauma by integrating feminist ideology to highlight how cisnormativity contributes to the increased rates of PTSD among TNB people (Shipherd et al., 2019). Specifically, it identifies Criterion A trauma, discrimination, microaggressions, and minority stressors as clinically significant traumatic experiences (Shipherd et al., 2019). The TMSE model is supported by research which has found that discrimination experiences reported by TNB people are associated with PTSD symptoms, even after controlling for Criterion A trauma exposure (Barr et al., 2022; Reisner et al., 2016). In addition to acute instances of discrimination, TNB people experience incessant microaggressions which can compound and amplify posttraumatic stress symptoms (Shipherd et al., 2019). Criterion A trauma, discrimination, and microaggressions can also be understood as distal minority stressors within the minority stress framework (Hendricks & Testa, 2012; Shipherd et al., 2019; Testa et al., 2015). Distal minority stressors are interpersonal or systemic stressful events (e.g., discrimination, prejudice, rejection) that sexual and gender minority people experience due to their perceived identities (Meyer, 2003). These stressors can be intermittent or experienced daily (i.e., chronically), which overtime can have a cumulative effect on mental health. In summary, PTSD among TNB people is influenced by distal minority stress experiences in addition to Criterion A trauma experiences.

Some of the trauma-related symptoms that TNB people experience may more comprehensively be understood as complex PTSD (c-PTSD). Although c-PTSD is not recognized in the DSM-V, it is a diagnosis within the International Classification of Diseases 11 (ICD-11; World Health Organization, 2019). The diagnostic criteria for c-PTSD accounts for PTSD symptoms and also requires symptoms of disturbances in self-organization (i.e., affective dysregulation, negative self-concept, and disturbances in relationships) to be present (World Health Organization, 2019). Examples of DSO symptoms include heightened emotional reactivity, pervasive feelings of shame and guilt, and feeling distant from others. C-PTSD was first articulated as a way to capture the complexity of exposure to prolonged and repeated trauma from a state of subordination (Herman, 1992). Herman (1992) suggested that post-traumatic stress responses should be conceptualized along a continuum of “simple” PTSD as characterized in the DSM-V to “complex” PTSD, which especially arises from trauma that is chronic, cumulative, and interpersonal.

Considering Root’s (1992) assertion of insidious trauma as a feature of oppression, TNB people experience continuous trauma due to systemic domination through violence and discrimination. This trauma is chronic, cumulative, and interpersonal, which poses a threat to TNB people’s physical, psychological, and interpersonal dimensions of security (Barr, 2018; Herman, 1992; Root 1992). Barr (2018) drew upon Root’s (1992) and Herman’s (1992) trauma frameworks, along with other trauma theories, to propose a conceptualization of anti-transgender bias experiences as potentially traumatic. Consequently, the mental health disparities that are attributed to TNB people can be better understood as trauma responses (Barr, 2018). Therefore, distal

minority stressors can be understood as psychologically traumatic because they are a threat to TNB people's psyche and contribute to posttraumatic stress symptoms.

Although distal minority stressors likely contribute to c-PTSD among TNB people due to their prolonged and repeated nature, research has yet to support this association.

Misgendering and Invalidation as Chronic Distal Minority Stressors

Nonbinary people experience chronic (i.e., persistently occurring) distal minority stressors due to binary normativity. Binary normativity refers to the pervasive expectation that all individuals have a binary gender identity (Matsuno et al., 2022). For example, nonbinary people are frequently misgendered because of the lack of recognition that gender is more expansive than just man or woman (Goldberg et al., 2019; McLemore, 2015). Misgendering is the misclassification of someone's gender identity, which can be evident linguistically through the use of incorrect pronouns, honorifics, or gendered labels (e.g., ladies, guys) or behaviorally through the gendered treatment of others (McLemore, 2015). Chronic misgendering has deleterious psychological and emotional intrapersonal impacts, such as feelings of dysphoria, helplessness, powerlessness, anger, and emotional pain (Goldberg et al., 2019; McLemore, 2018; Mitchell et al., 2021; Losty & O'Connor, 2018). It is associated with decreased body-identity congruence and increased body dissatisfaction and dietary restraint (Mitchell et al., 2021). Chronic misgendering also creates psychological distress, including self-doubt and self-loathing which can contribute to anxiety and depression related symptoms (Goldberg et al., 2019; McLemore, 2018).

Chronic misgendering can also have negative effects on interpersonal relationships (Losty & O'Connor, 2018). The stressfulness of misgendering is influenced

by the context in which it happens (Matsuno et al., 2022). For instance, someone may be more hurt by a close friend misgendering them than a stranger. Additionally, chronic misgendering can be interpreted as an intentional attack and rejection of one's gender identity (Losty & O'Connor, 2018). Therefore, a nonbinary person may conceal their identity or avoid certain relationships due to anticipation of stigma (Goldberg et al., 2019; Losty & O'Connor, 2018). Feelings of alienation, devaluation, and decreased social support often occur as a result of chronic misgendering (Goldberg et al., 2019; McLemore 2015; McLemore, 2018).

Another chronic distal stressor that nonbinary people experience is interpersonal invalidation (Johnson et al., 2020; Matsuno et al., 2022). Because of binary normativity, nonbinary people often receive messages that nonbinary identities do not exist or that they are not actually nonbinary. They may be accused of fabricating their nonbinary identity as a phase, for attention, or to try to be special (Croteau & Morrison, 2022; Matsuno et al., 2022). Furthermore, nonbinary people's legitimacy is often assessed by whether they conform to a stereotypical depiction of being nonbinary as being White, thin, androgynous, assigned female at birth, and able-bodied (Matsuno et al., 2022). The stereotypical depiction of a nonbinary person is especially problematic in BIPOC communities that may associate nonbinary identities with whiteness, thereby invalidating BIPOC nonbinary people (Matsuno et al., 2022). These invalidation messages are ubiquitous as they come from cisgender people, trans men and trans women, and the larger LGBTQ+ community (Johnson et al., 2020).

Chronic interpersonal invalidation takes a toll as nonbinary people are expected to prove their identity to skeptics. Invalidation messages can be internalized to cause self-

doubt, anxiety, and shame (Johnson et al., 2020). Chronic invalidation can also have negative impacts on nonbinary people's social life if they feel like they are unaccepted or misunderstood (Johnson et al., 2020). The prevalence of interpersonal invalidation makes coming out as nonbinary an exhausting process, which leads some people to conceal their nonbinary identity (Goldberg et al., 2019). In fact, 63% of nonbinary respondents to the 2016 USTS reported not disclosing their nonbinary identity because it is often dismissed as being fake or just a phase (James et al., 2016). Considering Barr's (2018) conceptualization of trauma among TNB people, the adverse repercussions from chronic misgendering and invalidation can be understood as potential trauma responses. Therefore, it is worthwhile to investigate whether the constant erasure that nonbinary people experience could be considered traumatic.

Pride and Community Connectedness as Resilience Factors

Resilience refers to someone's ability to overcome adversity (Meyer, 2015; Puckett et al., 2022). Meyer (2015) conceptualized resilience as an important aspect of minority stress theory due to its ability to buffer the impact of discriminatory experiences. Research has found that TNB people use both individual-level and group-level resilience factors to cope with minority stress (Matsuno & Israel, 2018; Meyer 2015; Puckett et al., 2022). Individual-level resilience factors among TNB people include pride, hope, self-advocacy, critical consciousness, and the ability to define one's own gender experience (Matsuno & Israel, 2018; Puckett et al., 2022). These individual aspects of resilience can help TNB people to reclaim agency over their identity and experiences amidst widespread transphobia (Meyer, 2015). Moreover, group-level resilience factors promote coping through community cohesion (Matsuno & Israel, 2018). Examples of group-level

resilience among TNB people include connectedness to a TNB community, social activism, general social support, having positive role models, and being a positive role model (Matsuno & Israel, 2018; Puckett et al., 2022). By strengthening both individual and group levels of resilience, TNB people can heal from potentially traumatic minority stress experiences.

Pride has been identified as an important aspect of resilience for TNB people (Testa et al., 2015). For example, Valente and colleagues (2022) found that higher levels of trans pride buffered the impact of gender-based stigma on distress, and this effect was three times stronger at high levels of pride than low levels of pride. Additionally, BIPOC TNB people attributed pride in their racial/ethnic and trans identities as an important aspect of resilience when grappling with traumatic life events (Singh & McKleroy, 2011). It is important to note that developing pride in one's identity is a process that involves challenging oppressive ideologies and conditions as well as understanding how external oppressive forces materialize as internalized oppression. By strengthening one's connection to their TNB identity, pride also helps mitigate internalized transphobia, which in turn can increase connection to TNB communities (Bockting et al., 2020).

Community connectedness can also act as a protective factor against PTSD and potentially c-PTSD caused by minority stress among TNB populations (Valente et al., 2022; Valentine & Shipherd, 2018). Sherman and colleagues (2020) described TNB community connectedness as emotional connection to the TNB community and/or behavioral involvement with the TNB community. This description emphasizes the relational quality of community connection in addition to access to a TNB community. TNB community connectedness acts as a source of resilience by improving mental health

and overall well-being (Barr et al., 2016; Sherman et al., 2020). For example, TNB community connectedness was associated with fewer symptoms of depression and PTSD as well as higher rates of help-seeking behaviors among Black trans women who have survived violence (Sherman et al., 2022). TNB community connectedness is also associated with increased connection to knowledge and resources, such as information about gender affirmation steps and community care providers (Sherman et al., 2020).

Pride and community connectedness are likely important resilience factors for nonbinary people given the existing research among TNB populations broadly. Nonbinary people specifically may feel pride in their ability to challenge binary normativity, which can serve as a buffer against potentially traumatic minority stress experiences (Barbee & Schrock, 2019; Testa et al., 2015). Through the process of unlearning internalized gender expectations (e.g., gendered roles and clothing), nonbinary people can experience increased authenticity and confidence (Barbee & Schrock, 2019). Nonbinary people have described this “ungendering” process as liberatory, which encourages them to continue challenging the gender binary despite the negative consequences (Barbee & Schrock, 2019). However, further research is needed to examine if nonbinary pride can buffer the development of PTSD and c-PTSD associated with minority stress. While there has been growth in the body of literature concerning TNB community connectedness, the majority of the research in this area has focused either on trans women and trans men exclusively or trans and nonbinary people grouped together. Considering the unique stressors that nonbinary people experience, it is important to understand how specifically nonbinary community connectedness affects nonbinary people.

Present Study

It is evident that TNB people experience PTSD at elevated rates due to their exposure to Criterion A trauma, discrimination, microaggressions, and minority stressors (Barr et al., 2021; Shipherd et al., 2019). However, there is a lack of research that specifically focuses on trauma and trauma responses among nonbinary people. Nonbinary people experience unique stressors such as chronic misgendering and interpersonal invalidation, which take a toll on both intrapersonal and interpersonal functioning (Goldberg et al., 2019; Johnson et al., 2020; Losty & O'Connor, 2018; Matsuno et al., 2022). It is unclear if these unique stressors are linked to PTSD symptoms. With the understanding of minority stressors as insidious trauma due to their prolonged and chronic nature, it is possible that nonbinary people may also be at increased risk for c-PTSD (Herman, 1992). However, research has yet to explore the association between minority stress and c-PTSD. Furthermore, the majority of existing literature has come from predominantly White samples, so BIPOC TNB people's experiences may not be represented. It is worthwhile to note that most of the existing literature on TNB people is also within a U.S. context.

Since nonbinary people experience high levels of PTSD and potentially c-PTSD, it is critical to identify resilience factors that may buffer this association. Pride in one's identity and community connectedness have been identified as important resilient factors among the TNB community (Barbee & Schrock, 2019; Valente et al., 2022; Valentine & Shipherd, 2018). Pride can help challenge internalized oppression while community connectedness can increase access to social support, knowledge, and resources (Barbee & Schrock, 2019; Sherman et al., 2020). However, there is a lack of research that focuses on

whether pride and community connectedness act as resilience factors specifically for nonbinary people. Furthermore, there is a need for research to show if pride and community connectedness buffer the effect of misgendering and invalidation on trauma symptomatology.

This study aims to examine how misgendering and invalidation contribute to PTSD and c-PTSD symptoms among a racially diverse sample of nonbinary people and whether this association is moderated by pride and community connectedness (See Figures 1 and 2). Given the c-PTSD diagnosis is comprised of both PTSD symptoms and disturbances of self-organization (DSO) symptoms, we only use DSO symptoms to represent c-PTSD symptoms. The following hypotheses were tested:

Hypothesis 1(a): Experiences of misgendering and invalidation will be positively associated with PTSD symptoms.

Hypothesis 1(b): Experiences of misgendering and invalidation will be positively associated with DSO symptoms.

Hypothesis 2(a): Pride and community connectedness will moderate the positive associations between misgendering and invalidation experiences and PTSD, such that higher levels of pride and community connectedness will be associated with a weaker association between misgendering and invalidation experiences and PTSD.

Hypothesis 2(b): Pride and community connectedness will moderate the positive associations between misgendering and invalidation experiences and DSO, such that higher levels of pride and community connectedness will be associated with a weaker association between misgendering and invalidation experiences and DSO.

Figure 1

Impact of Misgendering, Invalidation, Pride, and Community Connectedness on PTSD

Symptoms

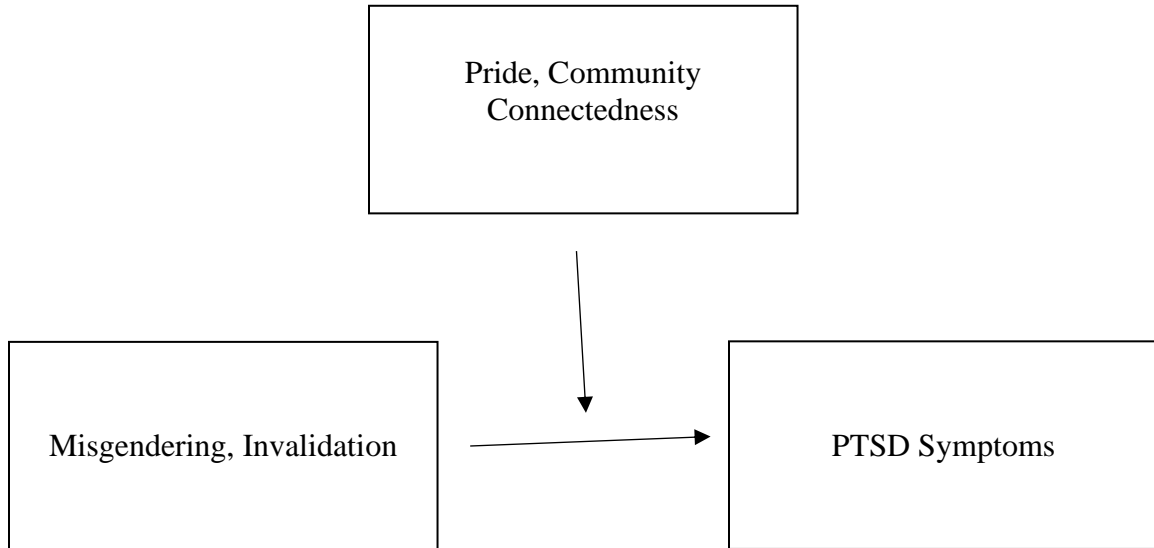
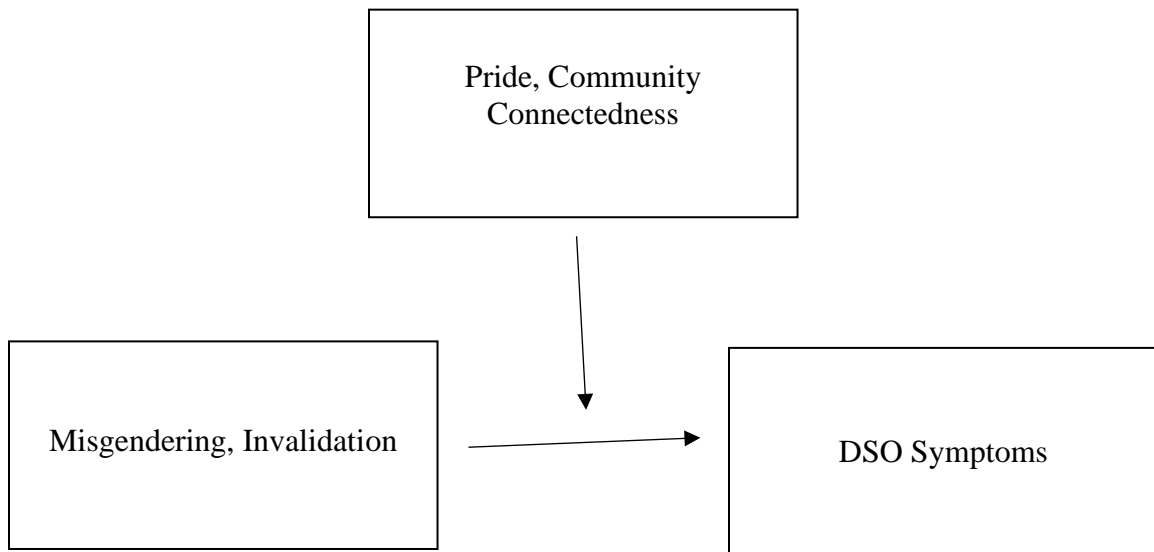


Figure 2

Impact of Misgendering, Invalidation, Pride, and Community Connectedness on DSO

Symptoms



CHAPTER 2

METHODOLOGY

Participants

The final sample size included 611 nonbinary participants. The average age of the participants was 26 years old ($SD = 6.96$; range = 18–68). The median age of participants was 24 years old. All participants identified under the nonbinary umbrella. Participants were asked to check all applicable gender identities from a list of terms. Nonbinary (91.2%), genderqueer (39.9%), and genderfluid (26.5%) were the most common identities that were indicated. Participants were also able to describe their gender identity labels in a free response question. Some examples of identities that were provided include Two-Spirit, agender, demigirl, and trans. Although nonbinary people may not identify with their sex assigned at birth, it could still be an influential factor on their experiences of minority stress, resilience, and trauma. Regarding sex assigned at birth, 78.1% ($n = 477$) of participants were assigned female, 20.9% ($n = 128$) were assigned male, and 1% ($n = 6$) declined to state their sex assigned at birth. A majority (70.0%) of participants identified their sexual orientation as queer. Other sexual orientations that were represented in this sample include, but are not limited to, bisexual (39.4%), pansexual (37.2%), gay (19.5%), lesbian (16.4%), and heterosexual (3.3%). Participants were also asked to check all racial and ethnic identities that applied to them. A majority (56.3%) of participants identified with at least one racial or ethnic minority identity, including Asian/Asian American/Pacific Islander (14.1%), African American/African/Black (11.9%), Latino/a/x or Hispanic or Chicano/a/x (7.7%), American Indian/Alaska Native

(1.3%), Middle Eastern or Northern African (1.3%). The percentage of participants who identified as European American/White was 43.7% ($n = 267$). One fifth ($n = 122$) of the sample identified as Multiracial. Refer to Table 1 for additional participant demographic information.

Table 1

Participant Demographics

Demographic	<i>n</i> (%)
Mean age (Standard deviation)	26 (6.96)
Race	
American Indian or Alaska Native	32 (5.2%)
Latino/a/x or Hispanic or Chicano/a/x	106 (17.3%)
Asian or Asian American or Pacific Islander	120 (19.6%)
African or African American or Black	121 (19.8%)
Middle Eastern or Northern African	17 (2.8%)
European American or White	344 (56.3%)
Multiracial	80 (13.1%)
Another racial or ethnic identity	26 (4.3%)
Income	
Less than \$10,000	261 (42.7%)
\$10,000 - \$39,999	234 (38.3%)
\$40,000 - \$69,999	78 (12.8%)
\$70,000 - \$99,999	23 (3.8%)
More than \$100,000	14 (2.3%)
Education	
Less than high school diploma	11 (1.8%)
Completed high school or GED	83 (13.6%)
Completed trade or vocational school	8 (1.3%)
Some college, no degree	220 (36.0%)
Completed Associates degree	36 (5.9%)
Completed Bachelors degree	145 (23.7%)
Some graduate school	38 (6.2%)
Completed graduate or professional degree	70 (11.5%)
Sex Assigned at Birth	
Female	477 (78.1%)
Male	128 (20.9%)
Intersex	18 (2.9%)
Decline to state	6 (1%)

Note. Percentages may sum to more or less than 100 due to the “check all that apply” response format of some questions.

Measures

Qualitative Screening Questions

The screening survey sent to participants recruited through social media included open-ended questions to assess for fraudulent responses. The following four open-ended questions were asked: 1.) “How do you define nonbinary? Please write at least one complete sentence. This question will help us ensure you are an authentic responder,” 2.) “What is the hardest thing about being a nonbinary person of color?,” 3.) “What is your favorite thing about being a nonbinary person of color?,” and 4.) “In your own words, how would you describe your gender expression?”

Demographics

The collected demographic information included age, gender identity, sexual orientation, race/ethnicity, assigned sex at birth, highest education level, religion, pronouns, gender expression, employment status, political ideology, individual income, and geographic information (e.g., state, urban/suburban/rural area).

Misgendering

Experiences of misgendering were assessed using the Misgendering subscale of the Nonbinary Distal Stressors Scale (Nbi-DSS; Matsuno et al., in prep), which consists of four items. Specifically, this subscale measures the frequency of misgendering in the past six months based on a 6-point Likert-type scale. Sample questions from this subscale are “Someone using the wrong name or pronouns to refer to me” and “Someone I am close with not making an effort to gender me correctly.” Responses ranged from 1 = Never to 5 = Always/Daily, with Not Applicable responses coded as 0. Participants’

score will be based on a summation of the four items, with higher scores indicating more frequent experiences of misgendering and lower scores indicating less frequent experiences of misgendering. The Misgendering subscale of the Nbi-DSS was determined to be reliable (Cronbach's $\alpha = .87$) with adequate construct, convergent, and divergent validity with the current sample (Matsuno et al., in prep). See Appendix A for reference of the Misgendering subscale of the Nbi-DSS.

Invalidation

Invalidation experiences were measured using the 7-item Invalidation subscale of the Nbi-DSS (Matsuno et al., in prep). Similar to the Misgendering subscale, the Invalidation subscale assesses for frequency of invalidation in the past six months. Sample items from this subscale include "Being told my gender doesn't exist" and "Being told that I identify as nonbinary to get attention." Responses were recorded using a 6-point Likert-type scale that ranged from 1 = Never to 5 = Always/Daily, with Not Applicable responses coded as 0. Participants' score will be based on a summation of the seven items, with higher scores indicating more frequent experiences of invalidation and lower scores indicating less frequent experiences of invalidation. The Invalidation subscale of the Nbi-DSS demonstrated adequate reliability (Cronbach's $\alpha = .91$), construct validity, convergent validity, and divergent validity with the current sample. See Appendix B for reference of the Invalidation subscale of the Nbi-DSS.

PTSD

Symptoms of PTSD were measured using The PTSD Checklist for DSM-5 (PCL-5; Blevins et al., 2015). The PCL-5 is a 20-item measure that was designed to assess the 20 symptoms of PTSD in the DSM-V. The items on the PCL-5 parallel the DSM-V

criteria for PTSD. Participants were asked to rate on a 5-point Likert-type scale how much they were bothered by symptoms in the past month. Responses on this scale ranged from 0 = Not At All to 4 = Extremely. Example items from this scale are “Avoiding memories, thoughts, or feelings related to the stressful experience” and “Trouble remembering important parts of the stressful experience.” The PCL-5 can be scored and interpreted in multiple ways to either determine a provisional diagnosis or provide a total symptom severity score. There are two methods that use the PCL-5 to provide a provisional diagnosis. In the first method, all 20 items are summed and a cut-off score of 31-33 is used to evaluate whether the respondent potentially has PTSD. The second method treats items that are rated as 2 = Moderately or higher as an endorsed symptom, then the DSM-5 diagnostic criteria is applied based on symptom clusters (e.g., Criterion B symptoms correspond to questions 1-5). Since determining provisional diagnoses is not the aim of the current study, the total symptom severity scores were utilized for this analysis. Total symptom severity scores are calculated based on a summation of the scores on the 20-items. Higher scores indicate more severe symptomatology, and lower scores indicate less severe symptomatology. This scale was determined to have strong construct, convergent, and divergent validity (Blevins et al., 2015). The PCL-5 also exhibited high reliability (Cronbach’s $\alpha = .96$) among a sample of people who identified as having a gender different from their sex assigned at birth (Barr et al., 2021). There was strong reliability among the current sample (Cronbach’s $\alpha = .95$). See Appendix C for reference of the PCL-5 scale.

DSO

DSO symptoms were assessed using the International Trauma Questionnaire (ITQ; Cloitre et al., 2018). The ITQ was developed to measure symptoms of PTSD and c-PTSD, as defined by the ICD-11 (World Health Organization, 2019). The full ITQ scale consists of 18 items divided into two subscales, one for PTSD and one for c-PTSD. The ITQ scale in its entirety demonstrated adequate reliability (Cronbach's $\alpha = .89$ to $.94$) when validated among a sample of United States veterans (Cloitre et al., 2021). The c-PTSD subscale was utilized in this analysis.

The c-PTSD subscale of the ITQ measures DSO, which is one of the distinguishing features of c-PTSD from PTSD. DSO is assessed using three domains: affective dysregulation, negative self-concept, and disturbances in relationships. These domains and respective items reflect the domains of DSO established in the ICD-11 criteria for c-PTSD. The c-PTSD subscale consists of 9 total items which are divided into two question sets. The first question set consists of 6 items that ask participants to rate how true the following statements are of them. Sample items from this question set are "I feel numb or emotionally shut down" and "I feel worthless." Responses on this scale were scored on a 5-point Likert-type scale that ranged from 0 = Not At All to 5 = Extremely. Then, participants were asked how the previously mentioned statements have affected them in the past month. Example items from this question set are "Created concern or distress about your relationships or social life" and "Affected your work or ability to work." Responses on this scale were also scored on a 5-point Likert-type scale that ranged from 0 = Not At All to 5 = Extremely. Scores consist of the summation of the six items from the first question set, with high scores indicating more severe symptoms of DSO and low scores indicating less severe symptoms of DSO. The three items from the

second question set are utilized for diagnosis of c-PTSD, which was not the focus of the current analysis. Therefore, these three items were omitted from scoring. There was strong reliability for the 6-item c-PTSD subscale among the current sample (Cronbach's $\alpha = .88$). See Appendix D for reference of the c-PTSD subscale of the ITQ.

Pride

Experiences of nonbinary pride were measured by the Nonbinary Pride subscale of the Nonbinary Resilience Scale (Nbi-RS; Matsuno et al., in prep). This subscale asks participants to rate how much they agree with the following five statements. Example statements from this subscale include “I am confident in my nonbinary identity” and “I love being nonbinary.” Responses are scored on an 8-point Likert-type scale that ranges from 0 = Not Applicable to 7 = Strongly Agree. Total scores are created by summing the ratings on each of the five items. Higher scores indicate more pride in one's nonbinary identity and lower scores indicate less pride in one's nonbinary identity. The Nonbinary Pride subscale of the Nbi-RS demonstrated adequate reliability (Cronbach's $\alpha = .80$), construct, divergent validity, and convergent validity with the current sample (Matsuno et al., in prep). See Appendix E for reference of the Nonbinary Pride subscale of the Nbi-RS.

Community Connectedness

Connectedness to a nonbinary community was assessed through the Nonbinary Community Connectedness subscale of the Nbi-RS (Matsuno et al., in prep). This 6-item subscale measures how much participants agree with each statement. Sample items from this subscale are “I feel connected to other nonbinary people.” and “I have nonbinary role models.” Participants responded using an 8-point Likert-type scale that ranges from 0 =

Not Applicable to 7 = Strongly Agree. Responses are scored based on the summation of the six items, with higher scores indicating more nonbinary community connectedness and lower scores indicating less nonbinary community connectedness. The Nonbinary Community Connectedness subscale of the Nbi-RS was determined to be reliable (Cronbach's $\alpha = .86$) with adequate construct, convergent, and divergent validity with the current sample (Matsuno et al., in prep). See Appendix F for reference of the Nonbinary Community Connectedness subscale of the Nbi-RS.

Procedure

Participants were recruited as a part of a larger longitudinal study on nonbinary people's experiences of minority stress and resilience. This study utilized data from the first wave of data collection, which was gathered in March and April of 2022. Eligibility criteria for participation required participants to 1.) identify with a gender identity considered underneath the nonbinary umbrella (e.g., agender, genderfluid, etc.), 2.) be at least 18 years old, and 3.) live in the United States or Canada.

Participants were recruited using an online research platform, Prolific, and social media. Quota sampling was utilized to ensure that at least 50% of the sample included participants who identified as BIPOC. A total of 418 participants were recruited via Prolific of which 162 participants identified with at least one ethnic or racial identity. Because Prolific did not have a large enough pool of BIPOC nonbinary participants, the research team continued recruitment through Facebook, Instagram, Twitter, and TikTok. Recruitment messages were also emailed to LGBTQ+ oriented organizations and listservs to advertise the study. Only nonbinary people who identified as BIPOC were eligible through social media and email recruitment because the quota of White participants had

already been met through Prolific recruitment. An additional 193 participants were recruited via social media and email. The total sample size for the first wave of data collection, which will be used for this analysis, was 611 participants. This sample size was sufficient to have adequate power ($\beta = 0.95$) for a hierarchical linear regression with two independent variables and four interaction terms, as determined by G*Power 3.1.9.7 (Faul et al., 2009).

Participants who were recruited via Prolific completed a demographic questionnaire and baseline measures in March through April of 2022. The median duration of the survey was 36 minutes. Participants who finished the survey were paid \$10 in the form of an electronic gift card to their choice of Amazon, Target, gc2b, or TransTape.

Although Prolific verifies the legitimacy of participants, social media recruitment can attract bots and fraudulent responses (Pozzar et al., 2020). Therefore, additional screening measures were utilized for participants who were recruited through social media and email. People who were interested in participating in the study were given a demographic questionnaire and screening survey before being invited to take the remaining survey questionnaires. The initial screening survey took an average of 10 minutes to complete. Several steps were taken to verify the legitimacy of participants based on their answers. First, the research team confirmed that the potential participant's IP address matched with their reported location. Participants were asked four open-ended questions which were used to assess legitimacy. If multiple participants responded with the exact same answers to the open-ended questions, their surveys were excluded. Demographic information was then cross-checked for discrepancies. For example, if a

person indicated that their assigned gender at birth was male and that they currently identified as a transgender man, their survey would be excluded. Additionally, potential participants were given questions that instructed them to write specific responses (e.g., “The nonbinary flag has four colors: black, purple, white, and yellow. Based on the text you read above, what colors are on the nonbinary flag?”). Surveys that did not pass all validation checks were deemed ineligible. A total of 911 illegitimate participants (i.e., bots) were screened out from participation using this methodology. Only eligible participants were emailed the baseline survey. The median duration of the survey was 54 minutes among participants recruited through social media.

Data Analysis

Age and recruitment strategy were determined to be relevant control variables based on their significant correlations with DSO in the current analysis. There was a weak negative correlation ($r = -.10, p = .016$) between age and total DSO scores; thus, younger participants tended to have more DSO symptoms. Although research has shown that rates of PTSD tend to decrease with age (Magruder et al., 2004), there has been inconclusive evidence of age differences for c-PTSD (McGinty et al., 2021).

Additionally, there was a weak negative correlation ($r = -.13, p = .002$) between recruitment sources and DSO symptoms. Participants who were recruited from Prolific tended to endorse more DSO symptoms. Racial and ethnic identity was also examined as a potential control variable; however, there were no significant correlations between racial and ethnic identity and the outcome variables, PTSD and DSO symptoms.

Data was checked for power, missing data, outliers, and normality (e.g., skewness and kurtosis) before being analyzed. After making necessary corrections, a hierarchical

linear regression was conducted using SPSS 28 (IBM Corp., 2021). The analysis tested for possible main effects of misgendering and invalidation on PTSD symptoms (H1a) and the moderating effects of pride and community connectedness on the association between misgendering and invalidation and PTSD symptoms (H2a). A separate analysis tested for possible main effects of misgendering and invalidation on DSO symptoms (H1b) and the moderating effect of pride and community connectedness on the association between minority stress and DSO symptoms (H2b). The control variables were entered in the first model. The second model examined if misgendering and invalidation could significantly predict PTSD symptoms. The third model added in the interaction of misgendering and invalidation and pride and community connectedness to determine whether pride and community connectedness have a moderating effect on the association between minority stress and PTSD symptoms. The specific predictor variables entered were 1) Age, 2) Recruitment Strategy, 3) Misgendering, 4) Invalidation, 5) Misgendering X Pride, 6) Misgendering X Community Connectedness, 7) Invalidation X Pride, and 8) Invalidation X Community Connectedness. The same steps were repeated to evaluate the associations between misgendering, invalidation, pride, community connectedness, and DSO symptoms. Analyzing multiple models through hierarchical linear regression will help establish the possible moderating effect of pride and community connectedness.

CHAPTER 3

RESULTS

Table 2 summarizes the means, standard deviations, ranges, and correlations for the variables used within the analyses. Notably, the average scores for PTSD and DSO symptoms were 35.93 ($SD = 19.15$) and 19.37 ($SD = 6.24$) respectively. This indicates that on average participants experienced moderate levels of PTSD symptoms. Compared to the cut-off scores of 31-33 on the PCL-5 established by Blevins and colleagues (2015), 358 (58.6%) of the participants could receive a provisional PTSD diagnosis. Furthermore, participants on average experienced moderately high levels of DSO symptoms. As predicted, there were significant positive correlations between misgendering, invalidation, PTSD symptoms, and DSO symptoms. Additionally, there were significant negative correlations between pride, community connectedness, and DSO symptoms. However, there were not any significant associations between pride, community connectedness, and PTSD symptoms. There were significant positive associations between misgendering, invalidation, pride, and community connectedness.

Table 2

Correlations between PTSD Symptoms, DSO Symptoms, Misgendering, Invalidation, Pride, and Community Connectedness

Variable	1	2	3	4	5	6	7	8
1. Age	-	-	-	-	-	-	-	-
2. Recruitment	.04	-	-	-	-	-	-	-
3. PTSD	-.08	.01	-	-	-	-	-	-
4. DSO	-.10*	-.13**	.74**	-	-	-	-	-
5. Misgender	-.15**	.21**	.20**	.14**	-	-	-	-
6. Invalidation	-.09*	.19**	.39**	.23**	.44**	-	-	-
7. Pride	-.09*	.16**	-.03	-.16**	.23**	.16**	-	-
8. CC	.01	.21**	-.06	-.22**	.22**	.15**	.42**	-

<i>Mean</i>	26.19	0.31	35.93	19.37	3.24	2.46	5.82	4.43
<i>SD</i>	6.97	0.47	19.15	6.24	1.31	1.04	1.02	1.52
<i>Range</i>	18-68	0-1	0-79	6-30	0-5	0-5	0-7	0-7

Note. CC = Community Connectedness

* $p < .05$ ** $p < .001$

Before analyzing the results of the hierarchical linear regressions, data were checked to ensure necessary statistical assumptions were met. Both DVs (i.e., PTSD and DSO symptoms) were continuous variables, and the IVs (i.e., misgendering and invalidation), moderators (i.e., pride and community connectedness, and covariates (i.e., age and recruitment source) were all either continuous or binary variables. There was an independence of residuals for both PTSD ($DW = 1.92$) and DSO analyses ($DW = 1.96$). Furthermore, there were linear relationships found between both DVs and IVs collectively and individually. Both PTSD and DSO analyses showed homoscedasticity and normal distribution of residuals. There were also no significant instances of multicollinearity, outliers, or influential points for either analysis. There was one case of a high leverage point above .2 for both PTSD and DSO analyses, therefore, this case was removed from the data set.

Table 3 summarizes the hierarchical linear regression analysis for PTSD symptoms. Model 1 included age and recruitment source as covariates, which did not lead to a significant change in the prediction of PTSD symptoms. The addition of Misgendering and Invalidation to the prediction of PTSD symptoms (Model 2) led to a statistically significant increase in R^2 of .16, $F(2, 605) = 55.93$, $p < .001$. However, the addition of the interaction of Pride with Misgendering and Invalidation and the interaction of Community Connectedness with Misgendering and Invalidation to the

prediction of PTSD symptoms (Model 3) did not lead to a statistically significant change in R^2 at the 0.05 level. The full model of misgendering, invalidation, community connectedness, and pride to predict total PTSD symptoms (Model 3) was statistically significant, $R^2 = .17$, $F(8, 601) = 15.45$, $p < .001$, adjusted $R^2 = .16$.

Table 3 also outlines the results from the hierarchical linear regression analysis for DSO symptoms. Similar to the PTSD analysis, Model 1 included age and recruitment source as covariates, which led to a significant change in the prediction of DSO symptoms. Model 2 added Misgendering and Invalidation to the prediction of DSO symptoms, which led to a statistically significant increase in R^2 of .07, $F(2, 605) = 22.92$, $p < .001$. The addition of the interaction of Pride with Misgendering and Invalidation and the interaction of Community Connectedness with Misgendering and Invalidation to the prediction of DSO symptoms (Model 3) did not lead to a statistically significant change in R^2 at the 0.05 level. The full model of misgendering, invalidation, community connectedness, and pride to predict total DSO symptoms (Model 3) was statistically significant, $R^2 = .11$, $F(8, 601) = 9.11$, $p < .001$, adjusted $R^2 = .10$.

Table 3

Hierarchical Multiple Regression Predicting PTSD and DSO Symptoms from Misgendering, Invalidation, Pride, and Community Connectedness

	PTSD Symptoms Regression			DSO Symptoms Regression		
	R^2	ΔR^2	β	R^2	ΔR^2	β
Model 1	.01			.03		
Age			-.08			-.09
Recruitment			.01			-.13
$F(2, 607) = 1.88$, $p = .154$				$F(2, 607) = 7.84$, $p < .001$		
Model 2	.16	.16*		.09	.07*	
Age			-.03			-.06
Recruitment			-.07			-.18

Misgendering			.04		.06
Invalidation			.38		.24
<i>F</i> (4, 605) = 29.07, <i>p</i> < .001				<i>F</i> (4, 605) = 15.66, <i>p</i> < .001	
Model 3	.17	.01		.11	.01
Age			-.04		-.07
Recruitment			-.07		-.18
Misgendering			.05		.09
Invalidation			.38		.23
PrideXMisgendering			-.04		-.03
PrideXInvalidation			.11		.10
CCXMisgendering			.07		.12
CCXInvalidation			-.07		-.08
<i>F</i> (8, 601) = 15.45, <i>p</i> < .001				<i>F</i> (8, 601) = 9.11, <i>p</i> < .001	

Note. CC = Community Connectedness

**p* < .001

Misgendering had a small standardized beta (β) coefficient for both PTSD and DSO regressions as compared to the β coefficients for invalidation in each regression. Therefore, two stepwise hierarchical multiple regressions were run to examine the individual impact of misgendering on the prediction of PTSD and DSO symptoms. The first stepwise regression added covariates in Model 1, misgendering in Model 2, and invalidation in Model 3. The second stepwise regression also added covariates in Model 1, then added invalidation in Model 2, and misgendering in Model 3. For the prediction of PTSD symptoms, the first stepwise regression showed that both misgendering ($\Delta R^2 = .04, p < .001$) and invalidation ($\Delta R^2 = .12, p < .001$) led to statistically significant increases in R^2 . In the second stepwise regression for the prediction of PTSD symptoms, Model 2 with the addition of invalidation led to a statistically significant increase ($\Delta R^2 = .15, p < .001$) in R^2 , but Model 3 with the addition of misgendering was not statistically significant ($\Delta R^2 = .001, p = .302$). Both stepwise regressions for the prediction of DSO symptoms yielded similar results that misgendering had a small significant increase in R^2

when it was added before invalidation, which had a greater significant increase in R^2 . However, the addition of misgendering was not significant in the prediction of DSO symptoms when invalidation was added first. These results suggest that misgendering had a lesser impact than invalidation when it comes to the prediction of both PTSD and DSO symptoms.

In summary, the addition of misgendering and invalidation to the prediction of PTSD and DSO symptoms led to a statistically significant increase in R^2 in both analyses. Therefore, misgendering and invalidation were significant predictors of both PTSD and DSO symptoms. These results support both H1a and H1b. However, the stepwise hierarchical multiple regressions revealed that invalidation had a greater impact than misgendering on the prediction of both PTSD and DSO symptoms. Meanwhile, the addition of interaction terms with community connectedness and pride did not lead to a statistically significant change in R^2 for either PTSD or DSO analysis. Therefore, pride and community connectedness did not moderate the association between the misgendering and invalidation and PTSD and DSO symptoms. Thus, H2a and H2b were not supported.

CHAPTER 4

DISCUSSION

Misgendering and Invalidation

The results of this study advance conceptualizations of trauma among nonbinary people. This study supports the Trauma and Minority Stress Exposure Model (TMSE; Shipherd et al., 2019), which integrates feminist trauma perspectives with the DSM-V definition of trauma outlined in Criterion A (American Psychiatric Association, 2013) to explain why TNB people may have elevated rates of PTSD. Within a feminist trauma framework, misgendering and invalidation can be viewed as threats to nonbinary people's physical, psychological, and interpersonal senses of safety (Root, 1992). Additionally, the associations between misgendering, invalidation, and DSO symptoms support Barr's (2018) assertion that anti-transgender bias could be conceptualized as complex trauma. Thus, misgendering and invalidation can be understood as chronic, cumulative, and interpersonal threats to nonbinary people's physical, psychological, and interpersonal safety. The understanding of misgendering and invalidation as complex trauma rationalizes the mental health disparities among TNB people as trauma responses (Barr, 2018).

The findings from this study also further document the detrimental impacts of misgendering and invalidation for nonbinary people. Through a hierarchical linear regression analysis, both misgendering and invalidation were found to be significant predictors of PTSD and c-PTSD symptoms. These results extend previous literature which has primarily highlighted the associations between misgendering, invalidation, and general psychological distress (Goldberg et al., 2019; Johnson et al., 2020; Losty &

O'Connor, 2018; McLemore, 2018). In addition to negatively influencing psychological well-being, misgendering and invalidation have the potential to be traumatic experiences for nonbinary people due to their contribution to post-traumatic stress. Furthermore, this study is among the first to quantitatively examine the effects of interpersonal invalidation on nonbinary people's well-being. Additionally, these results further existing literature by representing a large sample of nonbinary people, a majority of which identified as BIPOC.

According to the results from the stepwise hierarchical multiple regressions, invalidation may have more of an impact than misgendering on the development of PTSD and DSO symptoms. These results may be due to the contextual influences on the stressfulness of misgendering (Matsuno et al., 2022). For example, a nonbinary person may not feel as much distress being misgendered by a stranger as they might when they are misgendered by a close friend. The importance of context leads to a wide variability in potential stress responses to misgendering. Invalidation may have a greater impact on the development of trauma symptoms because of the accusation that nonbinary people's identity is illegitimate or not real. Considering trauma as a shattering of psychological, interpersonal, and physical safety dimensions (Root, 1992), invalidation is a direct attack against nonbinary people's sense of security around their identity and how they are perceived by others. Therefore, invalidation may be more associated with trauma responses than misgendering, which can trigger an array of stress responses.

Furthermore, the findings document that nonbinary people have elevated PTSD and DSO symptoms. Participants demonstrated moderate levels of PTSD symptom experiences with an average score of 35.93 ($SD = 19.15$) on the PCL-5. Utilizing the cut-

off scores (31-33) for provisional diagnosis (Blevins et al., 2015), 358 (58.6%) of the participants could receive a provisional PTSD diagnosis. In comparison, the 12-month prevalence for PTSD was 4.7% among a nationally representative sample of adults in the United States (American Psychiatric Association, 2022). Additionally, the participants reported moderately high levels of DSO symptoms with an average score of 19.37 ($SD = 6.24$) on the DSO subscale of the ITQ (Cloitre et al., 2018). In comparison, the average score on the DSO subscale of the ITQ was 15.15 ($SD = 5.58$) among a sample of 254 predominantly White U.S. veterans (age range 22-77; Cloitre et al., 2021). Since veterans tend to report higher levels of DSO symptoms compared to the general population (Cloitre et al., 2021), the nonbinary people in this study likely reported higher levels of DSO symptoms than the general population as well. The elevated levels of PTSD and DSO symptoms among nonbinary participants further illustrates the potential for misgendering and invalidation to be complex traumatic experiences. Considering that the sample is predominantly BIPOC individuals, the influence of intersectional racial and gender oppression likely compounds to exacerbate PTSD and DSO symptom experiences.

Pride and Community Connectedness

Contrary to expectations, pride and community connectedness were not significant moderators of the positive associations between misgendering, invalidation, PTSD symptoms, and DSO symptoms. Although pride and community connectedness have been found to buffer against psychological distress among TNB people (Sherman et al., 2022; Valente et al., 2022), these resilience factors may not be as effective in the protection from the development of trauma symptoms. Given that pride is closely

associated with self-esteem, it may be a more effective buffer against distress related to self-esteem, such as depression or anxiety (Sowislo & Orth, 2013). On the other hand, post-traumatic stress involves attempts to reestablish a sense of safety within oneself, interpersonal relationships, and the world (Root, 1992). Pride alone may not be enough to make trauma survivors feel safer.

Community connectedness as a resilience factor has had conflicting results in previous literature. Valente and colleagues (2020) did not find a significant association between TNB community connectedness and psychological distress after utilizing a hierarchical regression to analyze data from 330 racially diverse TNB individuals. Furthermore, Bowling and colleagues (2020) interviewed and surveyed 80 predominantly white TNB people about their perception of TNB community connectedness. They found that participants reported both positive (e.g., normalization of experiences, safety) and neutral/negative (e.g., energy drain, stigmatization) effects of TNB community connectedness (Bowling et al., 2020). It could be beneficial for nonbinary people to heal within a community, but they also may be exposed to vicarious trauma through their community connection. Furthermore, this study's measurement of community connectedness may be limited because the items asked about connection specifically to a nonbinary community. Perhaps connection to other communities (e.g., broader LGBTQ+, racial, or ethnic communities) or other forms of social support are needed to protect against the development of trauma symptoms. For instance, familial support has been identified as a significant buffer of the effects of minority stress on depression and anxiety symptoms among TNB people (Puckett et al., 2019).

Pride and community connectedness were negatively associated with both PTSD and DSO symptoms, although these associations were nonsignificant. Therefore, pride and community connectedness can still be helpful, but other resilience factors may be necessary to mitigate the impacts of misgendering and invalidation on PTSD and DSO symptoms. For example, trans people of color have reported that pride, recognition of gender and racial oppression, familial relationships, healthcare and financial resources, connection with a transgender community of color, spirituality, and hope were all important resilience factors to help them cope with traumatic life experiences (Singh & McKleroy, 2011). Due to the similarities between racial trauma and trauma from misgendering and invalidation, it can also be worthwhile to also consider resilience factors that BIPOC people use to cope with racism. Black activists have described storytelling, activism, physical resistance, organizing, teaching, coalition-building, mentoring, scholar-activism, and spacemaking as helpful to resist and heal from anti-Black racism (Mosley et al., 2021). The aforementioned resilience factors attend to necessary aspects of wellness, such as emotional, intellectual, physical, social, environmental, financial, and spiritual (Stoewen, 2017). Given the complexities of traumatic experiences and subsequent meaning-making, holistic wellness is likely important to foster resilience.

Implications for Clinical Practice and Advocacy

The results of this study have several implications for clinical practice. First and foremost, the results of this study emphasize the importance of validating and affirming nonbinary clients' genders. Healthcare providers should take intrapersonal, interpersonal, and institutional precautions to avoid misgendering and invalidating nonbinary clients

Matsuno, 2019). For instance, clinicians and administrative staff should consider using more gender-neutral language and providing more gender options (e.g., nonbinary, genderfluid, or a write-in option) on client forms to avoid misgendering nonbinary clients (Matsuno & Budge, 2017). Administrative measures to avoid misgendering and invalidating nonbinary clients can also include asking about pronouns and chosen name, mirroring the client's language, and using affirming terminology (Puckett et al., 2018). Additionally, clinicians should seek out education on the diverse array of gender identities that exist outside of the gender binary and issues that nonbinary people commonly experience to decrease their own biases and avoid burdening their nonbinary clients with educating them (Matsuno, 2019; Matsuno & Budge, 2017). Clinicians can further validate their nonbinary clients by also attending to their self-described unique gender experiences and needs.

Furthermore, the findings of this study invite a reconceptualization of trauma from a non-pathological lens. As previously illustrated, the DSM-V definition of trauma is limited and can place the onus of post-traumatic stress symptoms on the individual (Root, 1992). A diagnostic-centered perspective can obscure insidious trauma and over pathologize nonbinary people's experience. A pathological approach to understanding trauma among nonbinary people is especially concerning considering the DSM's history of over pathologizing and stigmatizing TNB people (Matsuno, 2021). Therefore, clinicians may consider feminist perspectives of trauma when working with nonbinary clients to attend to the systemic contexts of misgendering and invalidation as complex traumatic experiences. For example, The Power Threat Meaning Framework proposed by the British Psychological Society's Division of Clinical Psychology may be a useful

alternative to the DSM's diagnostic lens (Johnstone & Boyle, 2018). This framework shifts attention from "what is wrong with you?" to "what has happened to you? What kinds of power influenced your experiences? How did you make sense of these experiences? What did you have to do to survive?" (Johnstone & Boyle, 2018).

Clinicians should assess for instances of chronic misgendering, and invalidation as potentially traumatic experiences influenced by systemic and interpersonal power. Herman (1998) outlined three stages of trauma recovery: stabilization through establishing safety, processing traumatic memories and traumatic stress, and integrating new skills while reconnecting with social support systems. Clinicians can utilize these three stages to guide post-traumatic healing and growth among nonbinary people who have experienced chronic misgendering and invalidation.

Clinicians may also integrate critical consciousness about the systemic oppression TNB people face to help clients externalize feelings of shame and self-blame (Adames et al., 2022). Given the parallels between racial trauma and trauma from misgendering and invalidation, nonbinary clients, especially those who are BIPOC, may also benefit from a therapeutic approach that centers on radical healing (French et al., 2020). The *Keeping Radical Healing in Mind Therapeutic Approach* provides important considerations to help BIPOC clients heal from racial trauma through fostering critical consciousness, cultural connection, radical hope, collectivism, and resilience (Adames et al., 2022). Furthermore, Mosley (in prep) integrates her embodied knowledge as a Black queer femme with radical healing and hope, tenets of Black feminist healing, liberation psychology, and dimensions of wellness to introduce the Blafemme Healing Framework, which centers healing for Black queer femmes. To incorporate healing into all aspects of

life, the Blafemme Healing Framework is made up of eight chambers of wellness: heart, body, knowing, spirit, finances, workspaces, ecosystems, and relationships (Mosley, in prep). Personal and collective wellness are intertwined within this framework, which can promote meaningful holistic healing for nonbinary people who have experienced trauma (Mosley, in prep). The Blafemme Healing Framework goes beyond holding space for healing by serving as an example of how to love, move towards dignity, and work towards collective liberation (Mosley, in prep).

When working with nonbinary people, clinicians should engage in advocacy and activism for their clients to create more life-affirming, supportive conditions for clients to thrive in. The current anti-trans political discourse continues to contribute to more misgendering and invalidation for nonbinary people, thereby exacerbating the complex trauma nonbinary people experience. Multiple states have introduced legislation to restrict TNB people's ability to use their chosen names and pronouns aligned with their gender, use public bathrooms, and receive necessary gender-affirming care (Trans Legislation Tracker, 2023). Additionally, legislation has been introduced across the United States to prevent gender diversity from being discussed within educational settings (Trans Legislation Tracker, 2023). For example, Arizona has introduced HB1700 which encourages bans on books that "promote gender fluidity or gender pronouns" and SB1001 that requires both a guardian and teacher approval of a student's pronouns (Trans Legislation Tracker, 2023). These anti-trans bills operate to promote misgendering and invalidation by reinforcing binary views of gender. These bills and the climate they create restrict TNB people's ability to live authentically which may limit their ability to live at all. For example, research has shown that anti-trans discrimination is associated with

increased suicidality (McNeil et al., 2017). Therefore, clinicians should explore how sociopolitical discourses may be impacting their nonbinary clients. To provide comprehensive care for their nonbinary clients, clinicians must also engage in advocacy efforts to combat anti-trans legislation, such as contacting legislators and supporting TNB activists and organizations.

Strengths, Limitations, and Future Directions

A notable strength of this study is its use of quota sampling to ensure that at least 50% of the sample included participants who identified as BIPOC. Therefore, the results of this study are representative of an understudied population of BIPOC nonbinary people. Given that this study is focused on understanding traumatic experiences among nonbinary people, it is critical that the voices of those impacted by intersectional systems of oppression are portrayed within our findings. Future research can build upon this study by examining the differences in trauma symptomatology associated with misgendering and invalidation within and between racial groups. Furthermore, this study is strengthened by the incorporation of feminist conceptualizations of trauma. Consequently, the theoretical framework of this study attends to oppressive systemic influences on trauma experiences among nonbinary people. The results of this study are contextualized within the pervasiveness of binary normativity and anti-trans sociopolitical discourses.

This study is limited by several factors. First, the current study's measurement of trauma is limited by the diagnostic lens of the PCL-5 and ITQ. These measurements were constructed to reflect the DSM-V's PTSD diagnostic criteria and the ICD-11's c-PTSD diagnostic criteria (Blevins et al., 2015; Cloitre et al., 2018). Therefore, the options of

potential trauma responses are limited to diagnostic symptom experiences. Considering that the DSM-V and ICD-11 are created by predominantly cisgender people, the symptoms outlined in these manuals may not be representative of the diverse trauma responses TNB people may use to make sense of their experiences and cope. Additionally, the use of a diagnostic lens can over pathologize nonbinary people and obscure the insidious societal trauma informing nonbinary people's trauma responses. Future research can utilize a non-pathological lens to better understand how TNB people respond to misgendering and invalidation as traumatic experiences. A non-pathological lens may include attention to meaning making, enabling participants to self-describe their trauma responses, and reframing symptoms as trauma responses (Johnson & Boyle, 2018). Future research can also control for exposure to Criteria A trauma to further support a feminist conceptualization of trauma among nonbinary people.

Additionally, this study is limited by its use of only two resilience factors to examine what may buffer the positive associations between misgendering, invalidation, and trauma responses. Considering the pervasive impacts of trauma, more resilience factors are likely needed to buffer against the development of PTSD and c-PTSD. Future research can qualitatively assess for nonbinary people's self-identified resilience factors that lessen trauma symptoms and develop subsequent interventions to foster healing. Furthermore, the results of this study are correlational in nature due to the study's cross-sectional design. Therefore, these results could have possible alternative explanations. For example, there could be a confounding variable or nonbinary people who experience more trauma may be more sensitive to instances of misgendering and invalidation. However, the present interpretation of results makes sense within the context of previous

literature. Future researchers may consider exploring the associations between misgendering, invalidation, pride, community connectedness, PTSD symptoms, and DSO symptoms in a longitudinal study to draw causal conclusions.

Conclusion

The findings of this study further extend existing literature by identifying misgendering and invalidation as significant predictors of PTSD and c-PTSD symptoms, which imply that these are potentially traumatic experiences for nonbinary people. These results may be more generalizable to nonbinary people from all racial backgrounds as the majority of the participants in this study identified as BIPOC nonbinary people, which is an understudied population. Clinicians can utilize these results to provide trauma-informed care that is more affirming for nonbinary clients. These results are also a call to action for clinicians and researchers alike to combat anti-trans legislation and sociopolitical discourses that contribute to the ongoing invalidation of nonbinary identities. Future researchers should explore resilience factors in addition to pride and community connectedness to promote healing from trauma among nonbinary people.

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APPENDIX A

MISGENDERING SUBSCALE OF THE NONBINARY DISTAL STRESSORS

SCALE

(NBI-DSS; MATSUNO ET AL., IN PREP)

Directions: Please indicate how frequently you have experienced the following in the past 6 months.

Answer Choices: 0 = *NA*; 1 = *Never*; 2 = *Rarely*; 3 = *Occasionally*; 4 = *Often*; 5 = *Always/Daily*

1. Someone using the wrong name or pronouns to refer to me.
2. Someone I am close with not making an effort to gender me correctly.
3. Someone using inaccurately gendered language to refer to me (e.g., sir/ma'am, ladies, guys, Mr./Miss).
4. My family using inaccurately gendered language to refer to me (e.g., daughter, son, etc).

Scoring: Find the sum of the items to obtain the total score.

APPENDIX B

INVALIDATION SUBSCALE OF THE NONBINARY DISTAL STRESSORS

SCALE

(NBI-DSS; MATSUNO ET AL., IN PREP)

Directions: Please indicate how frequently you have experienced the following in the past 6 months.

Answer Choices: 0 = *NA*; 1 = *Never*; 2 = *Rarely*; 3 = *Occasionally*; 4 = *Often*; 5 = *Always/Daily*

1. Being told my gender doesn't exist.
2. Being told that they cannot be used as a singular pronoun.
3. Someone trying to convince me that I am not nonbinary.
4. Being told that being nonbinary isn't an option in my culture.
5. Being told that I identify as nonbinary to get attention.
6. Someone doubting whether I'm "actually" nonbinary.
7. Someone not taking my nonbinary identity seriously.

Scoring: Find the sum of the items to obtain the total score.

APPENDIX C

THE PTSD CHECKLIST FOR DSM-5

(PCL-5; BLEVINS ET AL., 2015)

Directions: Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

Answer Choices: 0 = *Not at all*; 1 = *A little bit*; 2 = *Moderately*; 3 = *Quite a bit*; 4 = *Extremely*

1. Repeated, disturbing, and unwanted memories of the stressful experience?
2. Repeated, disturbing dreams of the stressful experience?
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?
4. Feeling very upset when something reminded you of the stressful experience?
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?
6. Avoiding memories, thoughts, or feelings related to the stressful experience?
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?
8. Trouble remembering important parts of the stressful experience?
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?
10. Blaming yourself or someone else for the stressful experience or what happened after it?
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?
12. Loss of interest in activities that you used to enjoy?
13. Feeling distant or cut off from other people?
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?
15. Irritable behavior, angry outbursts, or acting aggressively?
16. Taking too many risks or doing things that could cause you harm?
17. Being “superalert” or watchful or on guard?
18. Feeling jumpy or easily startled?
19. Having difficulty concentrating?
20. Trouble falling or staying asleep?

Scoring: Find the sum of the items to obtain the total score.

APPENDIX D

C-PTSD SUBSCALE OF THE INTERNATIONAL TRAUMA QUESTIONNAIRE

(ITQ; CLOITRE ET AL., 2018)

Directions: Below are problems that people who have had stressful or traumatic events sometimes experience. The questions refer to ways you typically feel, ways you typically think about yourself and ways you typically relate to others. Answer the following thinking about how true each statement is of you.

Answer Choices: 0 = *Not at all*; 1 = *A little bit*; 2 = *Moderately*; 3 = *Quite a bit*; 4 = *Extremely*

1. When I am upset, it takes me a long time to calm down
2. I feel numb or emotionally shut down.
3. I feel like a failure
4. I feel worthless.
5. I feel distant or cut off from people.
6. I find it hard to stay emotionally close to people.

Scoring: Find the sum of the items to obtain the total score.

APPENDIX E

NONBINARY PRIDE SUBSCALE OF THE NONBINARY RESILIENCE SCALE

(NBI-RS; MATSUNO ET AL., IN PREP)

Directions: How much do you agree with the following statements?

Answer Choices: 0 = *NA*; 1 = *Strongly Disagree*; 2 = *Disagree*; 3 = *Slightly Disagree*; 4 = *Neither Disagree nor Agree*; 5 = *Slightly Agree*; 6 = *Agree*; 7 = *Strongly Agree*

1. I am confident in my nonbinary identity.
2. I am proud to be nonbinary.
3. I reject binary narratives about gender.
4. I reject negative messages about being nonbinary.
5. I love being nonbinary

Scoring: Find the sum of the items to obtain the total score.

APPENDIX F

NONBINARY COMMUNITY CONNECTEDNESS SUBSCALE OF THE

NONBINARY RESILIENCE SCALE

(NBI-RS; MATSUNO ET AL., IN PREP)

Directions: How much do you agree with the following statements?

Answer Choices: 0 = *NA*; 1 = *Strongly Disagree*; 2 = *Disagree*; 3 = *Slightly Disagree*; 4 = *Neither Disagree nor Agree*; 5 = *Slightly Agree*; 6 = *Agree*; 7 = *Strongly Agree*

1. I feel like I'm part of a community of nonbinary people.
2. I feel connected to other nonbinary people.
3. I feel like I belong when I am with other nonbinary people.
4. I engage with nonbinary communities online or in person.
5. I personally know nonbinary people who I look up to.
6. I have nonbinary role models.

Scoring: Find the sum of the items to obtain the total score.

APPENDIX G

IRB APPROVAL FOR THE ENBY PROJECT: LONGITUDINAL INVESTIGATION
OF NONBINARY SPECIFIC MINORITY STRESS
AND RESILIENCE

APPROVAL: EXPEDITED REVIEW

Em Matsuno

CISA: Counseling and Counseling Psychology

Em.Matsuno@asu.edu

Dear Em Matsuno:

On 2/7/2022 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	The Enby Project: Longitudinal Investigation of Nonbinary Specific Minority Stress and Resilience
Investigator:	<u>Em Matsuno</u>
IRB ID:	STUDY00014761
Category of review:	(7)(a) Behavioral research (7)(b) Social science methods
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	<ul style="list-style-type: none"> • Consent Longitudinal 2-7-22.pdf, Category: Consent Form; • IRB Social Behavioral Protocol - Longitudinal Study 2-7-22.docx, Category: IRB Protocol; • PAU IRB Verification of Training for Enby Project Team members[20].pdf, Category: Off-site authorizations (school permission, other IRB approvals, Tribal permission etc); • Prolific Study Description.pdf, Category: Recruitment Materials; • Survey Time 2_3.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions); • Survey-Time1.pdf, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

Page 1 of 2

The IRB approved the protocol from 2/7/2022 to 2/6/2027 inclusive. Three weeks before 2/6/2027 you are to submit a completed Continuing Review application and required attachments to request continuing approval or closure.

If continuing review approval is not granted before the expiration date of 2/6/2027 approval of this protocol expires on that date. When consent is appropriate, you must use final, watermarked versions available under the “Documents” tab in ERA-IRB.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

REMINDER - Effective January 12, 2022, in-person interactions with human subjects require adherence to all current policies for ASU faculty, staff, students and visitors. Upto-date information regarding ASU’s COVID-19 Management Strategy can be found [here](#). IRB approval is related to the research activity involving human subjects, all other protocols related to COVID-19 management including face coverings, health checks, facility access, etc. are governed by current ASU policy.

Sincerely,

IRB Administrator

cc:

Alex Colson
Em Matsuno
Danny Shultz
Mel Holman