The Effects of Parental Protective Factors and Internalized Nonbinary Negativity on Negative Mental Health Outcomes among Nonbinary Young Adults of Color

by

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ABSTRACT

Despite the growing nonbinary population and their unique experiences, nonbinary people of color specific research remains scarce as most studies were done with predominantly white samples and failed to disaggregate transgender men and transgender women from nonbinary people. While parental acceptance and support (PAS) serve as protective factors for distal and proximal stressors-induced negative mental health outcomes among TNB youth, more research is needed to examine whether PAS play a role in nonbinary young adults of color's mental health. Additionally, PAS may lead nonbinary young adults to internalize negative messages toward their gender identity, impacting mental health. This study aimed to examine whether PAS received by nonbinary young adults of color vary by race, whether PAS are associated with depression and suicidality, and whether these associations are mediated by internalized nonbinary negativity (INN) among nonbinary adults of color. Cross-sectional data from 174 nonbinary young adults of color were analyzed. Only parental support (PS) but not parental acceptance (PA) differed across racial groups. PAS were found to be negatively associated with depression and suicidality, but INN did not mediate the association between PS and negative mental health outcomes. Findings of this study reiterate the mental health disparities seen within the nonbinary community and serve as a call for attention to the effects of PAS in the lives of nonbinary young adults of color. Future research should inquire about the cultural values that influence PAS, ways to cultivate PAS among parents using existing cultural strengths, and the benefits of helping nonbinary young adults of color to maintain integral social support from parents.

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INTRODUCTION

In recent years, more nonbinary people have openly embraced their genders, which has created more visibility for gender identities outside the rigid structure of the gender binary (i.e., men and women). The term "nonbinary" is an umbrella term for those who identify with 1) no gender (e.g., genderless, agender); 2) multiple genders (e.g., bigender, pangender); 3) fluctuate between genders (e.g., genderfluid); 4) identify with a third gender either in between or outside of the gender binary (e.g., genderqueer, neutrois); or 5) partially identify with being a man or a woman (e.g., demiboy, demigirl; Matsuno et al., 2021). Nonbinary can also be used as a gender identity label itself and typically refers to someone who does not exclusively identify as a man or woman. This study will use the term "nonbinary" in its umbrella term definition to include the variety of gender identities outside the binary.

A large number of U.S. adults identify as nonbinary, as a 2021 study by the Williams Institute at UCLA School of Law using data from two nationally representative surveys, Generation and TransPop, revealed that approximately 1.2 million (~0.36%) nonbinary adults in the U.S. (Wilson & Meyer, 2021). Although not all nonbinary people identify as transgender, nonbinary people are often considered a subpopulation of the broader transgender community, making up more than one-third of the larger transgender community (38%; James et al., 2024). Nonbinary people's experiences are often collapsed with that of the broader transgender community (Moradi et al., 2016), despite the fact that nonbinary individuals may encounter unique challenges and stressors, including having to constantly navigate social infrastructures built upon the gender binary

(e.g., languages, bathrooms; Matsuno et al., 2022; Matsuno & Budge, 2017). Most research treats transgender and nonbinary (TNB) individuals as a homogenous group and fails to disaggregate the subgroups under the transgender umbrella, resulting in a dearth of nonbinary-focused research (Scandurra et al., 2019).

Mental Health of Nonbinary Individuals

Nonbinary people experience unique challenges and stressors that may contribute to their mental health risks. For instance, nonbinary individuals have higher levels of negative mental health outcomes such as psychological distress, anxiety, depression, and suicidal ideation than cisgender individuals (Aparicio-García et al., 2018; Lefevor et al., 2019; Warren et al., 2016). In Kirakosian et al.'s (2023) study, nonbinary individuals were found to have significantly higher odds of current suicidal ideation than cisgender men, with nonbinary assigned male at birth individuals endorsing 3.55 times higher odds and nonbinary assigned female at birth individuals having 2.49 times higher odds. When compared with their binary trans counterparts (e.g., trans men, trans women), nonbinary individuals were found to have either higher rates of depression symptoms, anxiety, and substance use (Clark et al., 2019; James et al., 2016; Lefevor et al., 2019; Reisner & Hughto, 2019; Stanton et al., 2021), or comparable mental health outcomes (Guy et al., 2020; Kidd et al., 2021; Rimes et al., 2017). More research is needed on how unique experiences of stress and resilience influence mental health outcomes among nonbinary people to help alleviate these disproportionate health disparities.

Gender Minority Stress and Mental Health

The challenges and stressors nonbinary people face are labeled as minority stress in literature. Minority stress theory has been used to help explain the negative mental health outcomes experienced by LGBTQ populations. The original model identified minority stressors relevant to cisgender sexual minority people (Meyer, 2003). Hendricks and Testa (2012) proposed an adapted version of Meyer's (2003) minority stress model called the gender minority stress (GMS) model to apply to TNB populations. The GMS posits that TNB-specific minority stress serves as the precursor of the aforementioned negative mental health outcomes (J. Bradford et al., 2013; James et al., 2016; Klein & Golub, 2016; Rodriguez et al., 2018; Rood et al., 2016; Stotzer, 2009; Testa et al., 2012). Minority stressors are divided into two categories - distal factors and proximal factors, with the former being external and objective stressors, such as discrimination, victimization, non-affirmation, and rejection related to one's gender identity, and the latter being internal and subjective stressors, such as internalized gender-related negative messages, anticipated rejection, and concealment of gender identity due to past negative experiences (Testa et al., 2015). Scholars have conceptualized proximal stressors as mediators between distal stressors and mental health outcomes (Hatzenbuehler, 2009), such that distal stressors lead to increased proximal stressors, which, in turn, lead to increased negative mental health outcomes.

Nonbinary people experience unique minority stressors (Johnson, LeBlanc, Deardorff, et al., 2020; Matsuno et al., 2022) and experience different patterns of the identified stressors in the GMS model (Goldberg, Kuvalanka, Budge, et al., 2019;

Goldberg, Kuvalanka, & dickey, 2019; Lykens et al., 2018; McLemore, 2015; Poquiz et al., 2021; Puckett et al., 2018). For example, Johnson, LeBlanc, Deardorff, et al. (2020) highlighted that identity invalidation is a unique and prominent stressor among nonbinary youth, who, in addition to proving to others that they are the gender they identify as just like their binary trans counterparts, have to demonstrate that their gender identity is real and valid. Through a qualitative study, Matsuno and colleagues (2022) also identified interpersonal invalidation as a unique nonbinary distal stressor. Additional nonbinary-specific distal stressors identified were binary normativity (i.e., structures and systems that promote the ideology that only two genders exist) and burdening (i.e., mental and emotional labor placed on nonbinary people to educate others or prove their gender; Matsuno et al., 2022). They also found nonbinary-specific proximal stressors such as mental and emotional labor. Identifying these stressors further indicates the need for understanding the unique factors that contribute to nonbinary people's mental health.

Parental Acceptance and Support

Parental acceptance and support (PAS) has been identified as important protective factors to buffer the negative effects of minority stress and mental health risk among TNB people (Bauer et al., 2015; Puckett et al., 2019), specifically youth younger than 25 years (London-Nadeau et al., 2023; Olsavsky et al., 2023; Olson et al., 2016; Ryan et al., 2010). TNB youth with higher levels of perceived PAS reported lower levels of depression, non-suicidal self-injury, and suicidal ideations and attempts, and increased self-esteem compared to those with lower perceived PAS (London-Nadeau et al., 2023; Olsavsky et al., 2023; Olson et al., 2016; Ryan et al., 2010; Simons et al., 2013).

While parental acceptance (PA) and parental support (PS) are closely correlated and often promote one another, the terms are distinct. PA is ideology/belief-oriented, exemplified by parents' positive attitudes about their child's gender identity (Matsuno et al., 2024). On the other hand, PS is action-oriented, which refers to the encouraging behaviors parents engage in regarding their child's gender identity (Matsuno et al., 2024). It is also crucial to understand that the occurrences of acceptance and support might not happen simultaneously. For instance, a parent may not fully accept their child's gender identity but be very outspoken against the gender-related bullying the child is experiencing solely because of the parent-child relationship. Conversely, a parent may have an accepting attitude towards their TNB child but not know how to show their support behaviorally.

Effects of Parent Acceptance and Support on Young Adult Mental Health

Most research thus far has examined PAS for TNB youth, especially youth under the age of 18. Therefore, little is known about the role of PAS for TNB adults, and to date, no studies have examined the influence of PAS on nonbinary adults specifically. However, young adult years (18-30 years old) are a critical identity formation period when many TNB people realize they are TNB and subsequently come out to others as TNB (Tatum et al., 2020). According to the 2015 U.S. Transgender Survey (USTS), 39% of participants started to think they were transgender between the ages of 16 and 25 (James et al., 2016), and 67% of participants began to tell others they were transgender between the ages of 16 and 30 (James et al., 2016). Nonbinary people also tend to come to realize and disclose to others their nonbinary identity at older ages than binary trans

people as they navigate through societal expectations and embrace their internal identity (Matsuno & Budge, 2017; Tatum et al., 2020).

Concurrently, parental relationships typically remain an integral part of TNB young adults' lives (Stewart-Brown, 2005), as demonstrated by nonbinary adults' high endorsement (60%) of having strained or conflicted relationships with parents in two population-based surveys (Wilson & Meyer, 2021). As such, parents' responses, attitudes, and actions can influence TNB young adults' mental health (Bockting & Coleman, 2013; Bosse et al., 2024). For instance, among 2015 USTS adult participants, those whose families were unsupportive were more likely to report attempted suicide and current experiences of serious psychological distress than those whose families were supportive (54% and 50% vs. 37% and 31%, respectively; James et al., 2016). The association between family support and mental health was further confirmed by Puckett and colleagues (Puckett et al., 2019), who found that among a sample of TNB adults in the U.S., family support had the strongest association with mental health compared to other forms of social support, such as support from friends or the trans community.

Racial/Ethnic Variations in Parent Acceptance and Support

Another scarcity seen with TNB PAS research is research that has examined PAS towards TNB youth thus far has been with predominantly white samples (Abreu et al., 2019), creating a knowledge gap in the methods, intensity, and frequency of how parents of color display PAS. The 2015 USTS concluded that there were little racial/ethnic variations (except for American Indian) in family rejection (James et al., 2016), a construct related to PA (Rohner et al., 2012), but did not examine racial/ethnic variations

in PAS. It is still critical to explore the racial/ethnic variations of PAS as they are strength-based (Rohner et al., 2012). PAS may be expressed distinctively by racial groups due to the influence of racial/ethnic-cultural values and contexts (Chao & Otsuki-Clutter, 2011). For example, Latinx fathers reported that the core concept of *familismo* in their culture, the need to keep the family unit together, had helped them conceptualize showing unconditional acceptance towards their transgender children as a necessity (Teran et al., 2023). Additionally, the values of "saving face" and protecting the family from shame, which are prominent in Asian cultures, influenced Asian parents to show PAS privately but not publicly to their queer children (Thai et al., 2021). As such, more research on the potential racial differences in showing PAS toward TNB people is needed.

Parental Acceptance and Support Received by Nonbinary People

Since nonbinary people experience unique challenges and stressors, parents and caregivers of nonbinary people may also have unique experiences and challenges compared to parents of binary trans people that influence their levels of PAS. The limited research that compares family support between binary trans and nonbinary individuals has shown mixed results. Some studies revealed that nonbinary people received lower levels of family support than binary trans people (N. J. Bradford & Catalpa, 2019; Fuller & Riggs, 2018), whereas others found there were no significant differences in perceived family support between the two groups (Coburn et al., 2022). Further, the 2015 USTS found that nonbinary adults experienced less family rejection than trans women and trans men (32%, 63%, and 55%, respectively; James et al., 2016).

Parents or caregivers may have more difficulty accepting or supporting their nonbinary child because of binary normativity (i.e., the assumption that everyone identifies within the gender binary; Matsuno et al., 2022). Binary normativity is heavily embedded in most societies and may make nonbinary identities less familiar to parents and make it challenging for parents to understand nonbinary identities (Bull et al., 2022; Crofts, 2020; Rahilly, 2015). Indeed, nonbinary individuals living under these societal norms may also find themselves having to explain their gender identity constantly (Austin, 2016). This experience may also transfer to parents who may have to constantly educate others about nonbinary identities (Hidalgo & Chen, 2019), which may create an added layer of stress. Even parents who accept that their child is trans may insist that their children conform to the gender binary when transitioning due to internalizing binary normative messages (Losty & O'Connor, 2018). Additionally, nonbinary people find themselves misgendered more often by others under the influence of binary normativity because the usage of gender-neutral language and pronouns (e.g., they/them pronouns) has yet to be widely adopted by the general public (Johnson, LeBlanc, Deardorff, et al., 2020), including parents (Johnson, LeBlanc, Sterzing, et al., 2020; Pullen Sansfaçon et al., 2020). Parents struggle to correctly gender their children, especially when the gender expressions of their children do not match the stereotypes of their gender identity (Pullen Sansfaçon et al., 2020). Given these unique experiences among parents of nonbinary people, more research is needed on PAS for nonbinary people and its impacts on mental health.

Internalized Nonbinary Negativity

PAS may relate to how nonbinary people view their nonbinary identity and therefore may relate to Internalized nonbinary negativity (INN). This construct was first claimed by Matsuno and colleagues (2022), mirrors the proximal stressor internalized transphobia from the GMS model by Hendricks and Testa (2012) but holds a nonbinary focus. The term describes the internalization of negative societal attitudes toward nonbinary identities among nonbinary people (Matsuno et al., 2022). While this construct has been identified from a qualitative standpoint, it has not been tested quantitatively. However, internalized transphobia has been found to be positively associated with mental health difficulties (Helsen et al., 2021), specifically depression (Chodzen et al., 2019; Conn et al., 2023; Pellicane & Ciesla, 2022) and suicidal ideation (Testa et al., 2017), among TNB individuals of all ages within the U.S. (Bockting et al., 2020; Chodzen et al., 2019; Testa et al., 2015) and abroad (Jäggi et al., 2018; H. Lee et al., 2020). Additionally, past TNB research supports the mediating effects that internalized transphobia induces between distal stressors and mental health outcomes (Scandurra et al., 2018; Staples et al., 2018; Tebbe & Moradi, 2016; Testa et al., 2015, 2017). While several studies have highlighted the role of internalized transphobia, research has yet to examine INN specifically.

Parental attitudes, views, values, messages, and expectations about gender are easily internalized by children, given the consistent exposure and repeated reinforcement of these beliefs. Bronfenbrenner's (1994) Bioecological Model and Harro's (2000) Cycle of Socialization suggested that parents are the first front that children receive information

and are socialized with values, roles, and rules. The proximity and immediacy of parents' presence in the early stages of children's lives consequently shape children's perception of self and world views without much push back, given that children are dependent on their parents and have yet to develop critical thinking skills to evaluate the information that was being passed on to them (Harro, 2000). As such, parental messages about gender can profoundly influence TNB individuals' sense of self (Beaty, 1999; Witt, 1997). Surprisingly, there are only a few studies that reported the negative association between PAS and internalized transphobia among TNB youth (e.g., Conn et al., 2023; Hidalgo et al., 2019), and there are no studies that examine the association between PAS and internalized transphobia among TNB adults, let alone nonbinary individuals. It is imperative to understand how the lack of PAS influences the intensity of internalized negativity because parents remain one of the earliest, closest, and most significant interpersonal relationships an individual has (Umberson, 1992). Considering rejection and internalized transphobia are positively correlated in the GMS model (Testa et al., 2015), it is anticipated that the lack of PAS towards the nonbinary identity would contribute to INN among nonbinary adults.

PRESENT STUDY

While research on transgender-related issues in general remains lacking (Barr et al., 2021; Connolly et al., 2016; Corrington et al., 2020; Safer, 2021; Wanta & Unger, 2017), nonbinary-specific experiences are even more understudied (Connolly et al., 2016; Darwin, 2020). Nonbinary individuals have to navigate unique stressors and societal perceptions that binary-conforming transgender individuals might not encounter, such as

binary normativity (Matsuno et al., 2022). As such, it is crucial for researchers to study variables that may influence mental health disparities within nonbinary populations specifically. Further, while it appears that PAS have a strong influence on TNB mental health, research has yet to identify relevant mediators of this association, which can provide a more in-depth understanding of how PAS affect TNB mental health outcomes. Additionally, the dearth of representation of people of color seen in TNB-related research is alarming (Farvid et al., 2021), and little is known about the role of PAS for TNB people of color.

To address these notable gaps in the literature, this study explored PAS differences across various nonbinary POC racial groups. It also examined the association between parent-related protective factors (i.e., parental acceptance and parental support) and mental health outcomes (i.e., depression and suicidality) among nonbinary young adults. Additionally, this study investigated whether internalized nonbinary negativity mediates these associations. See Figure 1 for the analysis models that were run.

Specifically, this study tested the following hypotheses (H) and research question (Q):

Q1: Do levels of parental acceptance and parental support differ across the various nonbinary POC racial groups?

H1: Parental acceptance will be negatively associated with depression (H1a) and suicidality (H1b).

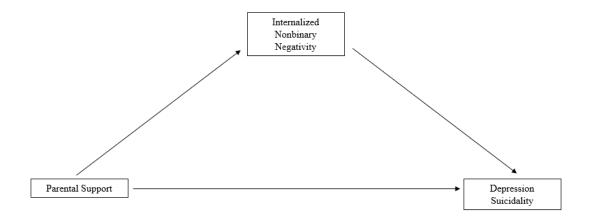
H2: Parental support will be negatively associated with depression (H2a) and suicidality (H2b).

H3: Internalized nonbinary negativity will mediate the negative association between parental support and depression (H3a) and suicidality (H3b), such that lower levels of support would predict higher levels of INN, which in turn would predict higher levels of depression (H3a) and suicidality (H3b).

Note that no mediation analysis was done with parental acceptance due to temporal concerns caused by the lack of a specific timeframe in the measure prompts for PA and INN. The items could be interpreted as asking about the participants' current experiences of PA and INN, which could lead to the uncertainty of which construct took precedence (e.g., perceived low PA promoting INN vs. INN promoting perceived low PA).

Figure 1

Effects of Parental Acceptance and Internalized Nonbinary Negativity on Depression and Suicidality



METHOD

Recruitment and Procedure

All study procedures were approved by the Institutional Review Board at Arizona State University (STUDY #00014761). This cross-sectional study used data collected during the third time point (March-May, 2023) of *the Enby Project*, a larger study that longitudinally investigated minority stress and resilience experienced by nonbinary individuals. Eligible participants 1) were 18 years or older, 2) resided in the United States or Canada at the time of recruitment, 3) were fluent in English, 4) identified under the nonbinary umbrella (e.g., nonbinary, genderqueer, genderfluid, agender, etc.), 5) were capable of providing consent, and 6) not incarcerated at the time of recruitment. These participants were recruited through two recruitment sources: 1) Prolific, a research panel platform, and 2) social media and email listservs.

The initial recruitment for the longitudinal study included 609 nonbinary adults. Most (416) were recruited from Prolific, a research panel platform, and 193 were recruited from social media. Quota sampling was applied to ensure that at least 55% of the survey respondents through Prolific would be a racial and ethnic minority, specifically, 15% identifying as Black or African American. To achieve our quota, Prolific kept track of the racial-ethnic distribution of the participants to cap off recruitment for groups meeting the preset quota. However, the quota for POC participants was not met through Prolific. Therefore, during the initial recruitment, 193 POC participants were recruited through social media posts and email listserys. In addition to

social media and email posts, snowball sampling was used by asking participants who had completed the survey to forward the study to eligible participants.

Participants recruited from Prolific received a Qualtrics survey link through the Prolific platform. No screener was conducted with these participants, as Prolific only presented the study information to those who met the inclusion criteria based on the panelists' information on their database. The informed consent was displayed before the questionnaires, and upon completion of the consent, participants completed a 40-minute online survey, including the demographics portion and instruments of interest. The study team was able to minimize the number of fraudulent responders from Prolific because the platform utilized various vetting methods to guarantee the authenticity of the research panelists, such as verifying their demographics and running ID checks. To ensure that the data collected was valid, the study team embedded three attention-check questions throughout the survey. Participants who answered at least two of these questions correctly would be compensated \$10 through Prolific. Those who failed more than one attention check question or dropped out before completing the survey would not receive compensation.

Participants recruited through social media and email underwent a two-step process to minimize fraudulent entries. The informed consent was shown to the participants when they clicked on the survey link from the recruitment information. After providing consent, participants were asked to provide their email addresses for tracking purposes and to complete a 10-minute screener that included participant demographics. IP addresses were also collected for further fraudulent identification. The screener survey

included eligibility questions, multiple validity questions, including open-ended questions, and demographic questions. Participants who passed all validity checks were deemed legitimate and were sent an email invitation with the link to the 30-minute survey containing the remaining questionnaires of interest. Upon completing the main survey, participants received a \$10 electronic gift card for either Amazon or Target. On the other hand, those who failed the validity checks were not sent an invitation to the main survey and were not compensated. Beyond the initial validity checks, three attention-check questions were embedded in the main survey. Responses from participants who answered two or more questions incorrectly were removed from data analysis to ensure the data quality.

Participants who completed the time point 1 survey (March/April 2022) were invited to complete 30-minute follow-up surveys at time point 2 (September/October 2022) and time point 3 (March/April 2023), which took place six months and 12 months after the initial time point, respectively. Participants who completed time point 1 but skipped time point 2 were invited to participate in time point 3 regardless. Participants received compensation of \$7.50 for their time at each time point.

Participants

Given the study's focus on parental acceptance and support among nonbinary young adults of color, only POC participants between the ages of 18 and 30 were retained for analyses. The cutoff age of 30 was consistent with the young adult age range used in the literature (e.g., A. M. Anderson et al., 2023; Kamal et al., 2021; Tonkuş et al., 2022). As such, the sample in the analyses consisted of 174 nonbinary young adults of color.

Table 1 reports participant demographic information. Among the 174 nonbinary young adults of color included in the analyses, the mean age of the sample was 24.18 years old (SD = 3.12; range = 18-30). The sample was racially diverse, with 33.3% of participants identifying as Asian, 28.7% as Multiracial, 19.5% as Black, 15.5% as Latinx, 1.7% as Middle Eastern, and 1.1% as American Indian. Regarding sex assigned at birth, 80.5% of participants were assigned female at birth, 18.4% were assigned male at birth, and 1.1% declined to disclose.

Measures

Predictor Variables

Parental Acceptance. Perceived parental acceptance was measured only in time point 3 using the 14-item Parental Attitudes of Gender Expansiveness Scale for Youth (PAGES-Y; Hidalgo et al., 2017). This study adapted the scale prompt and three items of the PAGES-Y to be more age-appropriate for the participants as the original scale was intended for gender expansive/trans* youth ages 12 to 24 years. For example, the item "My parent(s)/caregiver(s) uses rewards or treats to pressure me to live as my sex assigned at birth" was adapted to "My parent(s)/caregiver(s) use rewards to pressure me to live as my sex assigned at birth." Participants were asked to rate the degree of acceptance and attitudes towards their gender identity from their parent(s) or caregiver(s) who they grew up with based on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items included: "My parent(s)/caregiver(s) have problems with my gender expression" and "My parent(s)/caregiver(s) worry about how my gender identity will affect our family's image." Sum scores ranged from 14 to 70, with a higher

score representing higher perceived parental acceptance. Cronbach's alpha was 0.91 among the current sample. See Appendix A for reference to the original and adapted versions of PAGES-Y.

Parental Support. Perceived parental support was measured only in time point 3 using the 14-item Trans Affirming Parental Practice - Youth Version (TAPP-Y) measure (Matsuno et al., 2024). Participants indicated the frequency of supportive behaviors in the past year by their parent(s) or caregiver(s) whom they grew up with using a 7-point Likert scale ranging from 1 (*never*) to 7 (*frequently*) or selecting the option "*not applicable*" for behaviors that did not apply to the participant (e.g., medical transition). Sample items included "My parent(s)/caregiver(s) practiced using my name/pronouns when I was not around" and "My parent(s)/caregiver(s) intervened if someone made a negative comment about me." Mean scores were calculated by dividing the sum scores of the items by the total number of items that were not labeled as not applicable, with a higher score indicating higher levels of perceived parental support. Cronbach's alpha was 0.92 among the current sample. See Appendix B for reference of the TAPP-Y.

Race. Participants reported their racial-ethnic identity in time point 1 by responding to the question, "How do you describe your race? (check all that apply)" with options including "American Indian," "Asian," "African American," "White," "Latinx," "Middle Eastern," "Multiple," and "Other." For analytic purposes, the variable was collapsed into four groups: "Asian," "Black," "Latinx," and "Multiracial." Those who selected only one option were categorized as their respective racial/ethnic groups, and those who selected more than one option were recoded as "Multiracial." Those who

selected "American Indian," "Middle Eastern," and "Other" only were excluded from the categorization and the subsequent analyses using the categorization due to limited sample size.

Mental Health Outcomes

Depression. The 9-item version of the Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001) was utilized across all three time points to measure depression among the participants. They were prompted to report the frequency of depressive symptoms in the past two weeks using a 4-point Likert scale ranging from 0 (*not at all*) to 4 (*nearly every day*). Sample items of the scale included: "Feeling down, depressed, or hopeless?" and "Feeling bad about yourself – or that you are a failure or have let yourself or your family down?" Sum scores ranged from 0 to 27, with a higher score indicating more severe depression. Only data from time point 3 was used in this study. Cronbach's alpha was .90 among the current sample. See Appendix C for reference of the PHQ-9.

Suicidality. Suicidality was measured across all three time points with the 14item Concise Health Risk Tracking Self-Report (CHRT-SR) assessment (ReillyHarrington et al., 2016). Using a 5-point Likert scale ranging from 0 (*strongly disagree*)
to 4 (*strongly agree*), participants reported the severity of suicidal thoughts and
associated thoughts that indicate the possibility of suicidal acts in the past week. Sample
items included: "I feel as if things are never going to get better" and "I have been having
thoughts of killing myself." Sum scores ranged from 0 to 56, with a higher score
representing more severe risks of suicidal thoughts and behaviors. The analysis only

included data collected from time point 3. Cronbach's alpha was .91 among the current sample. See Appendix D for reference of the CHRT-SR.

Mediator

Internalized Nonbinary Negativity. Internalized nonbinary negativity was measured at every time point using the 4-item internalized nonbinary negativity subscale from the Nonbinary Proximal Minority Stressors Scale (Matsuno et al., 2023).

Participants reported feelings of internalized nonbinary negativity using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) or selecting the "not applicable" option if the listed item did not reflect their experience. Sample items included: "Something is wrong with me for being nonbinary" and "If I had the option, I would not be nonbinary." Mean scores were calculated by taking the average of items scored on the Likert scale, with a higher score indicating higher levels of internalized negativity. The analysis only included data collected from time point 3. Cronbach's alpha was 0.85 among the current sample. See Appendix E for reference of the internalized nonbinary negativity subscale of the Nonbinary Proximal Minority Stressors Scale.

Statistical Analysis Plan

Outness to parents and recruitment method were added as covariates because of their significant correlations with outcome variables. Recruitment method correlated with depression and outness to parents correlated with both depression and suicidality. There were also strong theoretical rationales justifying these covariates. For outness to parents, parents' awareness of one's nonbinary identity can affect the amount of PAS shown towards the participant. It is measured through a binary question, "Do one or more of

your parents/caregivers know that you are nonbinary?" with options "Yes" and "No." Recruitment method was included to rule out differences due to recruitment method rather than the variables of interest. For example, those who joined the study through social media/email might have been more integrated into the nonbinary community, which may have impacted the analyses.

Before the commencement of data analysis, statistical assumptions such as missing data, outliers, and normality (e.g., skewness and kurtosis) were checked. By examining Q-Q plots, box plots, and histograms, it was confirmed that there were no outliers in the data, and the data was approximately normally distributed for each variable. Missing data for each analysis was no more than 15% and was dealt with pairwise deletion, resulting in the varied number of cases included across the analyses. All proposed analyses were conducted using SPSS 29 (IBM Corp, 2022). ANCOVA analyses were conducted to explore differences in levels of PA and PS between the various racial groups (Q1). The data was checked for power using G*Power (Faul et al., 2007), and it was suggested that the current sample (n = 174) was sufficient for the analyses because only a minimum of 126 participants were needed to reach a medium to large effect. Correlation analyses were run to test the negative association between PAS and Depression (H1a; H2a) and Suicidality (H1b; H2b). Additionally, two mediation analyses (see Figure 1) were conducted using PROCESS Macro Model 4 (Hayes, 2017) to test for the mediating effects of Internalized Nonbinary Negativity on the association between 1) Parental Support and Depression (H3a) and 2) Parental Support and Suicidality (H3b). The main effects of Parental Support on Depression (H2a) and

Suicidality (H2b) were examined again when running the two different analyses (refer to Figure 1). Using Fritz & MacKinnon's (2007) simulation analysis, it was determined that a minimum sample size of 78 is needed to achieve 0.8 power for mediation paths with medium effect, which the current sample exceeded.

The IVs, DVs, mediator, and covariates were entered into PROCESS concerning each analysis model. PROCESS was set to use the default confidence level of 95% and the number of bootstrap samples at 5000. Interpretation of the analysis started with examining the beta coefficient between the IV and mediator and the covariates and mediator (step 1). It then examined the beta coefficient between the IV and DV, the covariates and DV, and the mediator and DV (step 2). Both analysis models were interpreted similarly using this process. This approach to computing the indirect effects and testing for their statistical significance was preferred over the causal steps mediation approach proposed by Baron and Kenny (1986) or the Test of joint-significance (MacKinnon et al., 2002) because the current approach was most capable of quantifying indirect effects and is the most efficient approach in testing for mediation (Hayes, 2017).

RESULTS

Table 2 shows the means, standard deviations, ranges, and correlations for the variables used in the analyses. On average, participants reported that they "disagree" or "neither disagree nor agree" (M = 2.88, SD = .82, Scale range = 1-5) in regards to receiving PA for their nonbinary identities and that their parents "rarely" or "occasionally" (M = 2.67, SD = 1.45, Scale range = 1-7) showed PS towards their nonbinary identities. The sample had a mean score of 12.99 (SD = 6.87, Scale range = 0-

27) for the PHQ-9 and a mean score of 21.18 (SD = 12.19, Scale range = 0-48) for the CHRT-SR. The correlation between PS and INN was not statistically significant, r(146) = -.03, p = .36, but the correlation was statistically significant between INN and depression, r(163) = .21, p < .01, as well as between INN and suicidality, r(164) = .29, p < .001. The correlations between PA and depression, r(162) = -.26, p < .001, PA and suicidality, r(163) = -.27, p < .001, PS and depression, r(145) = -.16, p < .05, and PS and suicidality, r(146) = -.21, p < .01, were all statistically significant. Moreover, the significant correlation between PA and PS showed that the two concepts were related but conceptually distinct, r(146) = .70, p < .001. While depression and suicidality were significantly correlated, r(163) = .75, p < .001, the correlation coefficient remained below the typical cutoff of 0.8 (Berry & Feldman, 1985), suggesting the absence of multicollinearity and justifying the separate examination of depression and suicidality in the mediation analyses.

Differences in Parental Acceptance and Support Across Racial Groups Parental Acceptance

An ANCOVA was conducted to examine potential differences in perceived PA across the racial groups in the study. No differences were found in perceived PA across the racial groups, F(3, 153) = .76, p = .52, partial $\eta^2 = .02$.

Parental Support

The ANCOVA analysis and the subsequent post-hoc test with Bonferroni corrections showed that there was a significant difference in perceived PS across the racial groups in the study, F(3, 137) = 6.42, p < .001, partial $\eta^2 = .12$. Specifically, Black

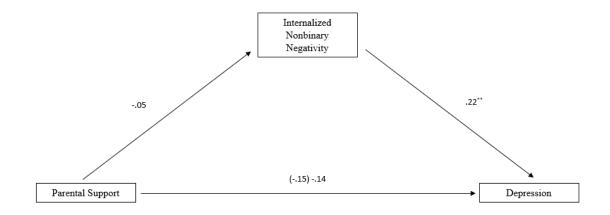
nonbinary young adults reported higher levels of perceived PS than their Asian ($M_{\rm diff}$ = 1.24, 95% CI [0.39, 2.10], p < .001), Latinx ($M_{\rm diff}$ = 1.41, 95% CI [0.39, 2.44], p < .01), and Multiracial ($M_{\rm diff}$ = 1.14, 95% CI [0.24, 2.03], p < .01) counterparts. Perceived PS did not differ among Asian, Latinx, and Multiracial nonbinary young adults. Table 3 shows the adjusted and unadjusted means and variability for perceived PS among nonbinary young adults of color.

Mediation Analysis Between Parental Support and Depression

Figure 2 displays the mediation analysis results between PS and depression. It was revealed that INN did not mediate the association between PS and depression. The direct effect of PS on INN was non-significant. However, PS, INN, and the covariates (recruitment method and outness to parents) accounted for significant variation in depression as a set, $R^2 = .11$, F(4,141) = 4.51, p < .01. The direct effect of PS on depression was negative but non-significant, and the direct effect of INN on depression was positive and significant ($\beta = .13$, SE = .05, t(141) = 2.72, p < .01).

Mediation Relationship among Parental Support, Internalized Nonbinary Negativity, and Depression for Nonbinary Young Adults of Color.

Figure 2



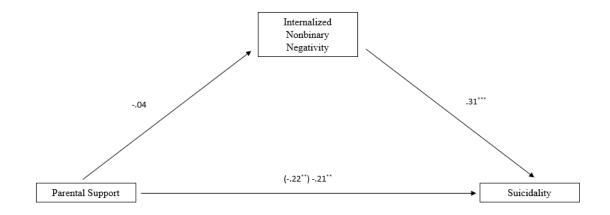
Note. Values presented are standardized path coefficients. The value in parentheses represents the coefficient for the total effect (without controlling for the mediator). *p < .05 **p < .01 ***p < .001

Mediation Analysis Between Parental Support and Suicidality

Figure 3 exhibits the mediation analysis results between PS and suicidality. INN did not mediate the association between PS and suicidality, as the direct effect of PS on INN was non-significant. Yet, PS, INN, and the covariates (recruitment method and outness to parents) jointly accounted for significant variations in suicidality, $R^2 = .23$, F (4,142) = 10.82, p < .001. PS significantly and negatively predicted suicidality ($\beta = -.13$, SE = .05, t(142) = -2.68, p < .01). INN significantly and positively predicted suicidality ($\beta = .21$, SE = .05, t(142) = 4.16, p < .001).

Figure 3

Mediation Relationship among Parental Support, Internalized Nonbinary Negativity, and Suicidality for Nonbinary Young Adults of Color.



Note. Values presented are standardized path coefficients. The value in parentheses represents the coefficient for the total effect (without controlling for the mediator). p < .05 *p < .01 ***p < .001

DISCUSSION

Mental Health

The findings of this study echo the alarming mental health concerns among nonbinary individuals that other studies have highlighted (e.g., Aparicio-García et al., 2018; Kirakosian et al., 2023; Lefevor et al., 2019; Warren et al., 2016). More than two-thirds (67.9%) of nonbinary young adults of color in our study reported a PHQ-9 score equal to or above the clinical cut-off score of 10 for depression (Levis et al., 2019), signifying that they experienced moderate depression symptoms and would meet DSM criteria for depression (Kroenke et al., 2001). This finding is comparable to that of a 2024

study on a majority white TNB young adult sample, which found that three-fourths of their sample indicated moderate depression symptoms (Bosse et al., 2024). Notably, the depression rates observed from this study shed light on the elevated risk within the nonbinary community, as the prevalence of having a lifetime depression diagnosis in the general population was 21.5% for adults 18-24 years and 19.9% for adults 25-44 years (B. Lee et al., 2023).

Additionally, almost half of the sample (48.2%) scored a CHRT-SR score equal to or above the cut-off score of 22, indicating a higher probability of any future suicidal event taking place. The cut-off score was determined to have high sensitivity and good specificity in predicting any suicidal event among a sample of adolescents aged 12-18 years in a suicide-prevention intensive outpatient program (Mayes et al., 2020). Such a high endorsement of suicidal propensity, impulsivity, and thoughts implies that those above the cut-off were at high suicidal risk. Additionally, slightly more than a quarter of the sample (25.9%) reported having suicidal thoughts by selecting "Agree" or "Strongly Agree." While this prevalence finding was lower than the average lifetime suicidal ideation rate (46.55%) revealed in a 2019 systematic review of 34 studies on majorly white TNB people (N. J. Adams & Vincent, 2019), it was still markedly higher than the rates reported for the general population (13.6% for adults 18-25 years and 5.5% for adults 26-49 years; National Institute of Mental Health, 2024). Considering that depression also acts as a risk factor and robust predictor for suicidality (Gili et al., 2019), the results call for continued attention to reducing these mental health disparities among nonbinary individuals.

The high depression and suicidality rates observed in this study may reflect not only the ongoing gender minority stressors that nonbinary POC experience (Valentine & Shipherd, 2018) but also contextual factors such as the proposing and passing of antitrans legislation that became more prominent and pervasive in recent years. Time point 3 data used in this study was collected in Spring 2023 when anti-trans legislation was at an all-time high. Another study found TNB Individuals with higher awareness of anti-trans legislation efforts reported higher levels of depression (Tebbe et al., 2022), and depression- and suicide-related Internet searches increased as anti-trans bills were passed in states (Cunningham et al., 2022). It is possible that the negative mental health prevalence will reach a new concerning high within the TNB community with the anti-trans legislation intensifying. The number of anti-trans bills is rapidly increasing from 125 introduced bills in 2021 to 503 introduced bills in 2023 (2024 Anti-Trans Bills, 2024), and anti-trans legislation is broadening its focus to not only TNB youth but TNB adults as well (Parks, 2024).

Parental Acceptance and Support

Similar to studies conducted with TNB youth (e.g., London-Nadeau et al., 2023; Olsavsky et al., 2023; Olson et al., 2016; Ryan et al., 2010), this study confirms that PAS remain significant protective factors against negative mental health among nonbinary young adults of color. This finding is insightful as it counters the common belief that young adults, with their newly gained autonomy and independence, can fully set aside and disregard the emotional impact their parents exerted on them. Building on previous studies that have found PA as a protective factor for TNB adults (Puckett et al., 2019),

the findings of this study also highlight the necessity of promoting PAS among parents with nonbinary adult children.

To the author's knowledge, this is the first study ever to examine PAS among nonbinary young adults of color. Participant scores of PAS were on the lower end of the scale range, which may indicate low levels of acceptance and support overall. The median score of parental acceptance perceived by the sample was 10 points lower than that of a sample of Black and Latinx TNB youth ages 12-20 (14 vs. 24, respectively; Vance et al., 2023). Such comparison reveals that nonbinary young adults of color may receive less PA than TNB youth of color, and potentially is a result of generational differences in understanding of gender identities among parents. For example, parents of youth might have more exposure to a more expansive lens when viewing gender than parents of young adults (Allen et al., 2022). Additionally, the difference observed in the comparison may also be due to the nonacceptance of nonbinary identities in a binary normative society (Matsuno et al., 2022). Through a mixed-method study, Morgan and colleagues (2022) found that parents with gender-expansive children were less accepting than parents with transgender children identifying within the gender binary. The low PAS reported in this study, along with the literature (e.g., Johnson, LeBlanc, Deardorff, et al., 2020; Morgan et al., 2022), indicate that binary normativity does not stop on a structural level but can trickle down to the interpersonal level, such as interactions with parents.

Racial Differences in Parental Acceptance and Support

PA was not different across Asian, Black, Latinx, and Multiracial people, which was consistent with previous findings that parental rejection was comparable across the

various racial/ethnic groups (James et al., 2016). Strikingly, a difference in PS was detected across the four main POC groups, with Black participants having higher perceived PS than other nonbinary young adults of color. Such a finding further supports the conceptual distinction between PA and PS. Therefore, future research should work not to conflate the two concepts and consider measuring them separately.

It is noteworthy that this study could only document the difference seen in PS between racial groups but not conclude the underlying factors that are driving the difference. However, a few possibilities could be explored further in future research. First, support may be conveyed in different ways across racial/ethnic groups (Chao & Otsuki-Clutter, 2011). The overtness and type of supportive behaviors may vary, perhaps due to the influence of communication styles (Delucio et al., 2020). While there has not been research on how racial/ethnic groups differ in how they show support for their child's TNB identity, research has documented different forms of PS behaviors generally across racial groups (Chao & Otsuki-Clutter, 2011). For example, some racial/ethnic groups might be more inclined to show emotional support (e.g., stating appraisal) while others tend to show tangible support (e.g., offering coresidence; Hardie & Seltzer, 2016). The way of showing support can also vary, with some racial/ethnic groups showing support explicitly (e.g., directly expressing acceptance) and others tacitly (e.g., demonstrating protectiveness; Chao & Otsuki-Clutter, 2011; Delucio et al., 2020). Second, how PS was operationally defined and measured in the study may explain why Black nonbinary young adults reported higher levels of PS. The TAPP contained four subscales, each related to different types of supportive behaviors (i.e., explicit

communication, affirming language, advocacy, and seeking resources). Some of the behaviors measured may be influenced by cultural ways of communicating. In particular, explicit communication and advocacy could parallel the racial socialization processes, also known as "The Talk," in Black communities (R. E. Anderson et al., 2023; Lesane-Brown, 2006). "The Talk" refers to when Black parents deliberately educate their children about their racial identity, convey love and pride in the identity, and share coping strategies for facing racism. Therefore, Black parents may feel more prepared and comfortable in engaging in explicit communication and advocacy regarding their young adult children's nonbinary identity, given the similarities with the racial socialization process. More research is needed to determine whether cultural values and other racial-ethnic factors are attributed to the differences observed in PS.

Internalized Nonbinary Negativity

INN is a new proximal minority stress construct that captures the internalized stigma nonbinary individuals experience (Matsuno et al., 2022). This study found that INN significantly predicted depression and suicidality among nonbinary young adults of color, which is congruent with studies examining the association between internalized transphobia and negative mental health outcomes (Williams et al., 2023).

Surprisingly and in contrast to our hypotheses, INN did not mediate the association between PS and negative mental health outcomes, specifically that the lack of PS did not predict higher levels of INN. This finding does not align with past literature that found lack of PAS was associated with internalized homophobia after sexual orientation disclosure among sexual minority adults (Puckett et al., 2015) or studies that

showed PAS and internalized transphobia were negatively associated among TNB youth (e.g., Conn et al., 2023; Hidalgo et al., 2019). While it is unclear why this association was non-significant, it might be that parental influences on self-understanding and identity development become less salient as nonbinary individuals enter young adulthood.

Additionally, nonbinary young adults may have more exposure to positive messages and attitudes about nonbinary people, which may offset the messages they receive from their parents. With the aid of virtual social platforms and communication tools, young adults may have more opportunities to connect with accepting and supportive communities, which may further reduce the transference and internalization of stigma sourced from parents (Parra et al., 2018). However, although PS did not predict INN, the lack of PS predicted higher levels of suicidality, indicating it still has a detrimental effect on the mental health of nonbinary young adults of color.

Limitations and Future Directions

Though this study has several strengths as it centers on the voices of nonbinary young adults of color and attempts to dismantle the white-heavy narrative within TNB psychology research, it also has several limitations. First, this study utilized a cross-sectional design, which may limit the causal attributions that can be made between variables and the mediation. For instance, nonbinary young adults who have higher INN may perceive low PS from their parents regardless of the amount of PS parents have shown, which further exacerbates their depression and suicidality. Second, while this study examined PA between-group differences among nonbinary young adults of color, a mediation analysis was not conducted with PA due to the undefined timeframe in the

measure prompts for both PA and INN, which were up for interpretation by the participants. A longitudinal replication of the current study would be able to establish the temporal effects, confirm the causality of the variables, and explore the associations between PAS and INN. Third, the PAS measures used in this study were adapted from other validated scales; therefore, these adaptations could potentially affect the validity of the scales. The results of this study should be interpreted with caution, although the adaptations made were minor and mainly substituted terms and concepts surrounding "kids" and "children." Fourth, all measures used in this study relied on self-report, which made the results prone to self-report bias. Future studies can incorporate aspects less susceptible to self-report bias, such as reports from others (e.g., parents reporting their PAS and researchers looking at the congruence of PAS reported by parents and nonbinary adult children) and psychological interviews done by a trained assessor. Lastly, although this study focused on two apparent identities (i.e., race/ethnicity and gender), it only scratches the surface of intersectionality work as it did not delve into the specifics of how these two identities intertwine nor consider the effects of other identities including sexual orientation, religion, and SES. Further, the study only measured racial differences, not cultural differences, limiting our ability to interpret the meaning behind the racial differences found (Newcomb et al., 2019). Future research should consider the underlying factors that may drive the racial differences in PAS.

Research and Clinical Implications

This study highlights the relevance of PAS in nonbinary young adults' lives, indicating that more research in this area is needed. Given the demonstrated differences

between acceptance and support, with one being ideology-based and the other action-based, future research could compare the effects of PA and PS individually as well as the combined effects on mental health. Additionally, by showing racial-ethnic between-group differences of PS, this study calls for more research on the potential effects of racial-ethnic cultural values and expression styles on how families show PAS regarding their child's TNB identity. Further, research can explore how cultural values can help increase PAS among various racial/ethnic groups (Abreu et al., 2020; Teran et al., 2023). More intersectional research with TNB populations is needed in general. However, most intersectional research related to LGBTQ+ POC thus far has focused on the interlocking systems of oppression (e.g., Balsam et al., 2011; Salerno et al., 2023), and very little research has examined how intersections of identity relate to strengths or resilience among LGBTQ+ POC (Aguilera & Barrita, 2021; Ghabrial & Andersen, 2021). More research is needed on the unique strengths and resilience among TNB POC to inform interventions that can increase resilience (Matsuno & Israel, 2018).

Clinically speaking, interventions specifically for parents of nonbinary young adults of color are a critical need to promote PAS. Current family interventions to increase PAS are typically only designed for parents of TNB youth. Hence, future research and clinical work should develop or adapt family interventions to increase PAS for TNB adults. Additionally, taking into account that nonbinary individuals and their parents experience unique primary and secondary minority stress, such as binary normativity, interventions specifically for parents of nonbinary individuals should be developed and tested. Interventions should aim to increase knowledge about the

nonbinary identity (Morgan et al., 2022), reflect on the impacts of binary normativity that are present in societal structure and interpersonal relationships (Matsuno et al., 2022), debunk the influence of racial/ethnic-based gender norms and expectations (e.g., machismo and marianismo in Latinx communities; Abreu et al., 2023), and cultivate PAS through shedding light to existing racial/ethnic values (e.g., familismo in Latinx communities; Teran et al., 2023). On the other hand, it may be helpful to assist nonbinary young adults of color in understanding how their parents display PAS can potentially be influenced by racial/ethnic cultural values and communication styles (Chao & Otsuki-Clutter, 2011) and that their parents may opt for a more nonverbal, contextual, and tangible approach (Delucio et al., 2020). Holding parents to a "PAS standard" created by white narratives depicted in research and media may elicit feelings of confusion and resentment towards their parents among nonbinary young adults of color. Such feelings may be reduced, and relationships with parents may improve if nonbinary young adults of color recognize that there are racial/ethnic-based variations in expressing PAS, and the discrepancy from the white standard may not equate to a complete lack of PAS. Family therapy may be a setting where TNB people and their parents can work through cultural misunderstandings related to PAS.

Conclusion

Nonbinary young adults of color face tremendous mental health disparities compared to their cisgender counterparts. PAS plays a significant role in negating depression and suicidality among nonbinary young adults of color and are important factors to focus on increasing as a way to reduce the mental health disparities that

nonbinary young adults of color experience. Additionally, PS varies across the different racial/ethnic groups. As such, more attention should be given to how PS may vary due to cultural values in order to meet the unique needs of nonbinary people of color and their families.

Table 1

Participant Demographics (n = 174)

Demographic	n (%)
Mean age (Standard deviation)	24.18 (3.12)
Race	
Asian or Asian American or Pacific Islander	58 (33.3%)
Multiracial	50 (28.7%)
African or African American or Black	34 (19.5%)
Latino/a/x or Hispanic or Chicano/a/x	27 (15.5%)
Middle Eastern	3 (1.7%)
American Indian	2 (1.1%)
Income	
Less than \$10,000	67 (38.7%)
\$10,000 - \$39,999	72 (41.5%)
\$40,000 - \$69,999	23 (13.3%)
\$70,000 - \$99,999	8 (3.5%)
More than \$100,000	3 (1.8%)
Highest Level of Education	` ,
Less than high school diploma	4 (2.3%)
Completed high school or GED	27 (15.5%)
Some college, no degree	60 (34.5%)
Completed Associates degree	4 (2.3%)
Completed Bachelor's degree	47 (27.0%)
Some graduate school	15 (8.6%)
Completed graduate or professional degree	17 (9.8%)
Geographic Location	,
Urban	94 (54.0%)
Suburban	71 (40.8%)
Rural	9 (5.2%)
Sexual Orientation*	(3.7.7.7)
Queer	123 (70.7%)
Bisexual	70 (40.2%)
Pansexual	65 (37.4%)
Asexual	38 (21.8%)
Gay	32 (18.4%)
Lesbian	23 (13.2%)
Demisexual	23 (13.2%)
Greysexual	17 (9.8%)
Same-gender loving	14 (8.0%)
Another sexual identity	11 (6.3%)
Heterosexual	8 (4.6%)
Sex Assigned at Birth	
Female	140 (80.5%)
Male	32 (18.4%)
Decline to state	2 (1.1%)

Note. *Percentages may sum to more than 100% due to these questions allowing for

multiple selections of options.

Table 2

Correlations between Recruitment Method, Outness to Parents, Parental Acceptance, Parental Support, Internalized Nonbinary Negativity, Depression, and Suicidality

Variable	1	2	3	4	5	6	7
1. Recruitment	-	-	-	-	-	-	-
2. Outness	.18*	-	-	-	-	-	-
3. PA	18**	.26***	-	-	-	-	-
4. PS	12	.25***	.70***	-	-	-	-
5. INN	02	001	05	03	-	-	-
6. Depression	13	18*	26***	16*	.21**	-	-
7. Suicidality	24**	20**	27***	21**	.29***	.75***	-
Mean	-	-	2.88	2.67	2.19	1.44	1.51
SD	-	-	0.82	1.45	1.28	0.76	0.87
Range	0-1	0-1	1-5	1-7	1-7	0-3	0-3.43

Note. PA = Parental Acceptance; PS = Parental Support; INN = Internalized Nonbinary Negativity

p < .05 *p < .01 ***p < .001

Table 3

Adjusted and Unadjusted Means and Variability for Perceived Parental Support among Nonbinary Young Adults of Color with Recruitment Method and Outness to Parents as Covariates

			Unadjusted	Adjusted	
	N	M	SD	М	SE
Asian	48	2.28	1.34	2.42	.20
Black	28	3.51	1.39	3.67	.26
Latinx	23	2.31	1.42	2.25	.28
Multiracial	44	2.75	1.49	2.53	.21

Note. N = number of participants, M = Mean, SD = Standard Deviation, SE = Standard Error

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APPENDIX A

PARENTAL ATTITUDES OF GENDER EXPANSIVENESS SCALE FOR YOUTH (PAGES-Y; HIDALGO ET AL., 2017)

Adapted Version

<u>Directions</u>: The statements below are related to your parent(s)/caregiver(s) who you grew up with, and how much they support your gender identity and/or gender expression.

Please select the answer that corresponds best with what you think or feel about your parent/caregiver's support of you. There are no right or wrong answers.

Answer Choices: 1 = Strongly disagree; 2 = Disagree; 3 = Neither; 4 = Agree; 5 = Strongly agree

- 1. My parent(s)/caregiver(s) are proud of me.
- 2. My parent(s)/caregiver(s) are ashamed of me.
- 3. My parent(s)/caregiver(s) try to hide me.
- 4. I can be myself around my parent(s)/caregiver(s).
- My parent(s)/caregiver(s) advocates for my rights as a gender expansive/trans person.
- My parent(s)/caregiver(s) protect me and defend me against others' prejudice against gender expansive/trans people.
- 7. My parent(s)/caregiver(s) have problems with my gender expression.
- 8. My parent(s)/caregiver(s) use rewards to pressure me to live as my sex assigned at birth.
- 9. I can talk to my parent(s)/caregiver(s) about romantic relationships and dating.
- 10. My parent(s)/caregiver(s) worry about how my gender identity will affect our family's image.

- 11. My parent(s)/caregiver(s) probably believe they are bad parent(s)/caregiver(s) because I am gender expansive/trans.
- 12. My parent(s)/caregiver(s) probably believe that I am gender expansive/trans because of something they did wrong.
- 13. My parent(s)/caregiver(s) are supportive of my gender transition.
- 14. My parent(s)/caregiver(s) are worried that my gender identity is a bad influence on other individuals in my family.

Scoring: Reverse score items 2, 3, 7, 8, 10, 11, 12, 14 (where 1 = 5, 2 = 4, 3 = 3, 4 = 2, 5 = 1). Sum all items to obtain the total score.

Original Version

<u>Directions</u>: The statements below are related to your parent(s), and how much they support your gender identity and/or gender expression. Please select the answer that corresponds best with what you think or feel about your parent's support of you. There are no right or wrong answers.

Answer Choices: 1 = Strongly disagree; 2 = Disagree; 3 = Neither; 4 = Agree; 5 = Strongly agree

- 1. My parent(s) are proud of me.
- 2. My parent(s) are ashamed of me.
- 3. My parent(s) try to hide me.
- 4. I can be myself around my parent(s).
- 5. My parent(s) advocate for my rights as a gender-expansive/trans* child.

- 6. My parent(s) protect me and defend me against others' prejudice against genderexpansive/trans* people.
- 7. My parent(s) have problems with my gender expression.
- 8. My parent(s) use rewards or treats to pressure me to live as my sex assigned at birth.
- 9. I can talk to my parent(s) about romantic relationships and dating.
- 10. My parent(s) worry about how my gender identity will affect our family's image.
- 11. My parent(s) probably believe they are bad parent(s) because I am gender-expansive/trans*.
- 12. My parent(s) probably believe that I am gender-expansive/trans* because of something they did wrong.
- 13. My parent(s) are supportive of my gender transition.
- 14. My parent(s) are worried that my gender identity is a bad influence on other kids in my family.

Scoring: Reverse score items 2, 3, 7, 8, 10, 11, 12, 14 (where 1 = 5, 2 = 4, 3 = 3, 4 = 2, 5 = 1). Sum all items to obtain the total score.

APPENDIX B

TRANS AFFIRMING PARENTAL PRACTICE – YOUTH VERSION

(TAPP-Y; MATSUNO ET AL., 2024)

<u>Directions</u>: In the past year, please rate how frequently your parent(s)/caregiver(s) have engaged in the following behaviors.

Answer Choices: 0 = N/A; 1 = Never; 2; 3; 4; 5; 6; 7 = Frequently

- 1. My parent(s)/caregiver(s) told me that they support my gender identity.
- 2. My parent(s)/caregiver(s) practiced using my correct name/pronouns when I was not around.
- 3. My parent(s)/caregiver(s) stood up to family or friends who disrespected me.
- 4. My parent(s)/caregiver(s) researched options for medical transition-related procedures.
- 5. My parent(s)/caregiver(s) avoid talking to me about my gender.
- 6. My parent(s)/caregiver(s) told me they appreciate my clothing and hairstyle, even if it is not typical for my assigned gender.
- 7. My parent(s)/caregiver(s) continued to use the name and pronouns that were given to me at birth.
- 8. My parent(s)/caregiver(s) advocated for me if I am mistreated.
- 9. My parent(s)/caregiver(s) sought advice from a trans-affirming therapist.
- 10. My parent(s)/caregiver(s) told me they love me unconditionally.
- 11. My parent(s)/caregiver(s) intervened if someone made a negative comment about me.
- 12. My parent(s)/caregiver(s) sought advice from a trans-affirming medical provider.
- 13. My parent(s)/caregiver(s) used my correct name and pronouns.
- 14. parent(s)/caregiver(s) respected my decision to be called daughter, son, or child.

Scoring: Reverse score item 7 (where 0 = 0, 1 = 7, 2 = 6, 3 = 5, 4 = 4, 5 = 3, 6 = 2, 7 = 1). To obtain the total score, divide the sum score of items 1-14 by the total number of items not labeled as not applicable.

APPENDIX C

PATIENT HEALTH QUESTIONNAIRE – 9 ITEM

(PHQ-9; KROENKE ET AL., 2001)

<u>Directions</u>: Over the <u>last two weeks</u>, how often have you been bothered by any of the following problems?

Answer Choices: 0 = Not at all; 1 = Several days; 2 = More than half the days; 3 = Nearly every day

- 1. Little interest or pleasure in doing things.
- 2. Feeling down, depressed, or hopeless.
- 3. Trouble falling, staying asleep, or sleeping too much.
- 4. Feeling tired or having little energy.
- 5. Poor appetite or overeating.
- 6. Feeling bad about yourself or that you are a failure or have let yourself or others down.
- 7. Trouble concentrating on things, such as reading the newspaper or watching television.
- 8. Moving or speaking so slowly that other people could have noticed? Or the opposite being so fidgety or restless that you have been moving around a lot more than usual.
- 9. Thoughts that you would be better off dead or of hurting yourself in some way. Scoring: Sum all items to obtain the total score.

APPENDIX D

CONCISE HEALTH RISK TRACKING SELF-REPORT ASSESSMENT

(CHRT-SR; REILLY-HARRINGTON ET AL., 2016)

<u>Directions</u>: Please rate the extent to which each of the following statements describes how you have been feeling or acting <u>in the past week</u>.

Answer Choices: 0 = Strongly disagree; 1 = Disagree; 2 = Neither agree nor disagree; 3

- = Agree; 4 = Strongly agree
 - 1. I feel as if things are never going to get better.
 - 2. I have no future.
 - 3. It seems as if I can do nothing right.
 - 4. Everything I do turns out wrong.
 - 5. There is no one I can depend on.
 - 6. The people I care the most for are gone.
 - 7. I wish my suffering could just all be over.
 - 8. I feel that there is no reason to live.
 - 9. I wish I could just go to sleep and not wake up.
 - 10. I find myself saying or doing things without thinking.
 - 11. I often make decisions quickly or "on impulse."
 - 12. I have been having thoughts of killing myself.
 - 13. I have thoughts about how I might kill myself.
 - 14. I have a plan to kill myself.

Scoring: Sum all items to obtain the total score.

APPENDIX E

INTERNALIZED NONBINARY NEGATIVITY SUBSCALE NONBINARY PROXIMAL MINORITY STRESSORS SCALE (MATSUNO ET AL., 2023)

<u>Directions</u>: How much do you currently agree or disagree 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. Something is wrong with me for being nonbinary.
- 2. I don't like being nonbinary.
- 3. I will never be happy as a nonbinary person.
- 4. If I had the option, I would be not be nonbinary.

Scoring: To obtain the total score, divide the sum score of items 1-4 by the total number of items not labeled as not applicable.

APPENDIX F

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:

On 2/1/2022 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:	Em Matsuno			
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:	 Consent Longitudinal 2-7-22.pdf, Category: Consent Form; IRB Social Behavioral Protocal - 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