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Exploring dimensions of bias-based bullying victimization, school fairness, and school belonging through mediation analysis

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Abstract

Bias-based bullying (BBB) is a serious problem for school-aged adolescents. However, limited attention has been paid to the mechanism of how BBB may affect youths' sense of belonging to the school. The purpose of the current study was to understand the associations between BBB victimization, school belonging, and school fairness among school-aged adolescents. The present study also examined whether school fairness mediated the link between BBB victimization and school belonging. Data were drawn from the "No Place For Hate" project, which examined bias-based incidents, school equity, and school belonging of a school district. The analytic study sample consisted of 2600 middle and high school students. Results from a structural equation model revealed that BBB victimization was negatively related to school fairness and school fairness was positively linked to school belonging. BBB victimization was also inversely associated with school belonging. Furthermore, a significant mediation effect was found in that school fairness mediated the link between BBB victimization and school belonging. The findings highlight the importance of addressing perceived

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fairness given its mediating role between BBB victimization and school belonging.

KEYWORDS

adolescents, bias-based bullying, peer victimization, school belonging, school fairness

1 | INTRODUCTION

There has been a concerning rise in the frequency and severity of hate-based victimization toward minoritized groups in recent times (Carrega & Krishnakumar, 2021). Even more troubling, acts of hate have trickled down into schools, causing deleterious effects on the safety and wellbeing of minoritized youth (Mulvey et al., 2018). Despite this rise in hate-based incidents within schools, there has been much less focus on peer victimization in which youth are targeted based on race/ethnicity, gender identity, sexuality, ability status, and other minoritized identities (e.g., immigrant students), a phenomenon commonly referred to as bias-based bullying (BBB). Although BBB situations have received far less empirical attention than general bullying, there is evidence that peer victimization based on one's identity causes more pronounced consequences for targeted youth (Jones et al., 2018). Existing research has identified short and long-term consequences of BBB victimization, which exist across various ecological levels. To better understand the mechanisms by which school-level factors are affected by BBB victimization, this study examined the relationships between BBB victimization, school fairness, and school belonging.

In this article, we draw upon the Phenomenological Variant of Ecological Systems Theory (PVEST) model to examine the relationship between the individual-level vulnerability factor of BBB victimization with school-level factors of school belonging and school fairness among youth who experience bullying based on actual or perceived race/ethnicity, gender, sexual orientation, and physical/mental disability. PVEST is a theoretical framework that summarizes the development of coping strategies and wellbeing outcomes among culturally diverse youth according to the presence of individual-level vulnerability factors as well as environmental stressors and supports. Though PVEST is a stage-based model that explains the development of coping strategies and psychosocial outcomes over time, it can be applied as a conceptual framework to guide the investigation of continuous variables through cross-sectional analyses. In doing so, researchers examine the relationship between past BBB victimization with present appraisals of school belonging and fairness. By examining the relationship between the three variables, we seek to expand the understanding of how victimization based on specific identity markers impacts the environmental experiences of culturally diverse youth within a school context.

1.1 | BBB victimization

Peer victimization is a common occurrence among school-age children and a major threat to a youth's short- and long-term wellbeing. Peer victimization is commonly labeled as bullying and defined as physical, verbal, or psychological aggression of victims by perpetrators who are within one's age group and who intend to cause harm (Graham & Bellmore, 2007). BBB is a form of peer victimization that involves targeting based on perceived group membership and is thought to have greater adverse effects on victimized youth than general bullying (Jones et al., 2018). Scholars suggest that BBB is especially prevalent across secondary school contexts, as one-in-five youth in one study reported being targeted by peers based on race, sexual orientation, disability, or gender across the span of 1 year (Bucchianeri et al., 2016). A similar study found that, of the 52% of participants who reported peer victimization, approximately 17% reported that the harassment was biased in nature (Jones et al., 2018).

BBB victimization is associated with numerous externalized and internalized problems related to wellbeing, socialization, and academic functioning (Jones et al., 2018; Russell et al., 2012; Xu et al., 2020). That is, youth who experience BBB victimization are more likely to report internalized symptoms including anxiety, depression, self-harm, and suicidality, as well as externalized behaviors of aggression, substance use, and social isolation when compared to their peers (Cardoso et al., 2018; Russell et al., 2012). Additionally, school-related consequences of BBB victimization include the limited sense of school safety, truancy, and limited engagement in co-curricular activities (Poteat et al., 2011). BBB victimization also has significant long-term psychological effects on targeted individuals. For instance, Greene et al. (2014) report that peer victimization in adolescence was associated with maladaptive coping and anxiety in adulthood, particularly for lesbian, gay, bisexual, and transgender individuals. Similarly, BBB victimization in adolescence was associated with long-term depressive symptoms for Black individuals (English et al., 2014; Hou et al., 2015). Short- and long-term consequences are exacerbated with the presence of two or more minoritized identities, chronic victimization, and when there are multiple perpetrators of an incident (Bucchianeri et al., 2016; Jones et al., 2018; Shramko et al., 2019).

1.2 | School belonging

Scholars have defined the sense of belonging as an individual's identification or emotional bonding of having a membership to a group (Demant & Van Houtte, 2012; Hagerty et al., 1992; Hagerty & Patusky, 1995). Similarly, school belonging refers to a student's sense of being accepted, respected, and included by others in the school environment (Goodenow & Grady, 1993). This definition by Goodenow and Grady (1993) has been broadly operationalized through the use of the Psychological Sense of School Membership (PSSM) scale in existing literature across groups of students (Anderman, 2002; Knifsend & Graham, 2012; Li et al., 2020; Ma, 2003; Nichols, 2006). Ratings of school belonging are influenced by peer and teacher relationships, perceptions of fair treatment, and the presence of academic and social support (Allen et al., 2018). Additionally, school belonging perceptions are linked to a number of prosocial mental health, academic, and psychosocial outcomes (Allen et al., 2018). Growing research has focused on the associations between bullying victimization and school belonging among culturally diverse student populations as well as school belonging as a potential mediator for general and BBB situations (Davis et al., 2019; Doumas & Midgett, 2019; Han et al., 2021; Hatchel & Marx, 2018; Li et al., 2020; Mulvey et al., 2018; Rose et al., 2015). These studies have yielded two main findings: (1) there is a negative association between bullying victimization and school belonging, and (2) school belonging can act as a protective factor against the adverse impact of victimization. However, few attempts have been made to explore the relationship between victimization and school belonging for bullying situations that are motivated by bias.

1.3 | School fairness

Although school rules are ostensibly written to uphold equal distributive and procedural justice across student populations, students commonly report varying degrees of partiality among school personnel (Chory-Assad, 2002). Sense of school fairness refers to students' beliefs about the degree of justness by which rules are enforced as well as the consistency of allocated punishments, resources, and reinforcements across student populations (Chory-Assad, 2002). Like belonging, school fairness is positively associated with a number of favorable behavioral, academic, and psychosocial youth outcomes (Griffin, 2018; Jagers et al., 2017; Peguero et al., 2017; Way, 2011). Conversely, youth who perceive their environments as unfair report deleterious outcomes, such as more prevalent depressive symptoms, shorter sleep patterns, greater classroom disengagement, and greater delinquent behaviors when compared to their peers who believe their schools are just (Griffin, 2018; Ripski & Gregory, 2009).

1.4 | School belonging, school fairness, and BBB victimization

Peer victimization scholarship has demonstrated multifarious relationships between victimization experiences and school-level factors of belonging and fairness. For instance, between-school ratings of school belonging and fairness significantly predict the prevalence of peer harassment such that students attending schools with lower school-wide ratings of belonging and fairness are more likely to report incidents of bullying and BBB in their schools (Acosta et al., 2019; Gower et al., 2021; Jeong et al., 2013). Further, when investigating individual ratings of belonging and fairness as subjective student perceptions of the school environment, scholars report an inverse relationship between these school-level factors and BBB victimization (Kupchik & Farina, 2016; Poteat & Espelage, 2007; Sinclair et al., 2012). Finally, school belonging, in particular, has also been identified as a buffer against a range of negative outcomes following BBB victimization (Espelage et al., 2019; Hatchel & Marx, 2018; Shah et al., 2021). Altogether, these findings highlight the significance of school-level factors in variably shaping victimization experiences for youth. Although we know much about the general significance of school-level factors for BBB situations, much less is known about the specific mechanisms by which BBB influences perceptions of school belonging and school fairness for victimized youth. Therefore, the present study concentrates on exploring the potential protective qualities of school-level factors for students who experience BBB victimization.

Many studies have investigated the mediating qualities of belonging for both general bullying and BBB; far less attention has been paid to the potential significance of school fairness for BBB situations. However, there is reason to believe that school fairness plays a particularly important role in influencing perceptions of school belonging and shaping various outcomes for youth victimized by BBB. Importantly, fairness is characterized as a key facet of school belonging (Allen et al., 2018), with a greater appraisal of school fairness corresponding to more favorable ratings of school belonging (Allen et al., 2021). Further, there is a negative relationship between general peer victimization and school fairness, as more frequent bullying victimization is associated with lower ratings of school fairness (Carney et al., 2011; Espinoza et al., 2019).

Considering the influence of bias, which separates BBB from general bullying, it is important to also highlight distinct differences in general perceptions of school fairness reported across student groups (Mattison & Aber, 2007). That is, Black, Indigenous, and persons of color and sexual and gender minoritized youth consistently report lower ratings of school fairness than their peers, which are influenced by experiences of discrimination from both peers and teachers (Bottiani et al., 2017). While there are no known studies that investigate fairness and belonging for BBB situations, one study reported that experiences of peer discrimination had differential effects on school belonging for culturally diverse youth and concluded school fairness likely mediated this relationship (Montoro et al., 2021). Taken together, it is reasonable that fairness may mediate bias-based peer victimization and school belonging; however, few studies have explored the potential mediating nature of school fairness within this phenomenon. Accordingly, we are interested in determining whether fairness still maintains its mediating qualities for any youth who experiences BBB victimization.

1.5 | Theoretical framework

The present study employs the PVEST as an organizing framework. PVEST is a stage-wise ecological model that considers how individual-level vulnerability factors and environmental appraisals within specific contexts shape coping responses and influence short- and long-term developmental outcomes for youth (Spencer et al., 1997). According to PVEST, individual-level vulnerability factors are represented by experiences of bias and discrimination based on an identity marker such as race, gender, sexual orientation, or familial socioeconomic status (Spencer, 2008). Further, youth develop environmental appraisals based on social interactions within the environmental context, which interact with vulnerability stressors to influence the development of coping behaviors. Environmental appraisals can either serve as added risk factors that lead to maladaptive coping when the context presents as stressful or aversive, or protective factors that lead to adaptive coping when the context is perceived as supportive. Importantly,

environmental appraisals are assessed across two levels: (1) environmental stressors and (2) environmental social supports, which combine to produce a net appraisal of the overall environment as either a risk or protector. Over time, the coping behaviors that emerge as a result of these individual experiences and environmental appraisals become integrated within the youths' identity and influence long-term developmental outcomes.

The current study draws on PVEST as a framework for examining the effect of individual-level discrimination on school-level factors of belonging and fairness. Consistent with similar studies (e.g., Seaton et al., 2013), we conceptualize reported peer victimization as an individual-level vulnerability factor for minoritized youth and explore how previous victimization experiences are associated with present reports of school belonging, indicating the degree of environmental social support at the school level. Finally, we position school fairness as indicating the degree of environmental stressors at the school level, which can explain the relationship between vulnerability factors and perception of environmental social supports.

1.6 | Present study

Empirical studies highlight myriad individual- and school-level adverse consequences of bullying on victimized youth. While the prevalence of bullying is universal, there are often nuances in the bullying situation that influence how the victim experiences and is impacted by the event. One such distinction is BBB, or the victimization of youth based on minoritized identities. However, there is a dearth of literature that investigates school-level factors affected by BBB victimization or identifies potential environmental protective factors that may mitigate adverse effects. A greater empirical understanding of school-level factors impacted by BBB victimization can allow individuals to provide more pointed implications for school personnel looking to construct nurturing and inclusive schools, particularly for youth experiencing BBB victimization.

Utilizing the PVEST framework, we aimed to examine the relationship between BBB victimization based on race, gender, sexuality and ability status, and school belonging. We also aimed to explore whether school fairness mediated the relationship between BBB victimization and school belonging. Specific research hypotheses of the study were as follows: (1) Youth who report BBB victimization will also report lower school belonging than youth who do not report BBB, (2) youth who report BBB victimization will also report lower school fairness than youth who do not report BBB, and (3) school fairness will mediate the relationship between BBB victimization and school belonging. To test our research hypotheses, we used structural equation modeling (SEM) based on youth self-reported experiences of each of the three variables of interest: BBB victimization, school belonging, and sense of fairness.

2 | METHODS

2.1 | Data and sample

Data for the current study was drawn from the "No Place For Hate" (NPFH) project, which examined bias-based incidents, school equity, and school belonging by an equity office of a school district. The study utilized a cross-sectional design with data collection occurring in the 2021–2022 fall semester academic school year during in-class lessons with homeroom teachers. Surveys were administered via Qualtrics by teachers for all schools across the district participating in the NPFH campaign. The survey was voluntary for all students enrolled at participating schools in the district. Data were deidentified by school district administrators before being obtained by researchers at Pennsylvania State University as secondary data.

The current study sampled secondary students attending a school district in a rural northeastern city in the United States. The district is comprised of two high schools, three middle schools, and eight elementary schools, and represents a racially homogenous student population, with 78.6% of students identifying as white, with the next

highest racial groups consisting of Asian (8%) and multiracial (6.6%). Further, approximately 20% of students in the district identify as economically disadvantaged, and 11% meet the criteria for special education support. All high schools and middle schools participated in the NPFH initiative.

Study participants were initially 2655 adolescents and 55 cases were removed during data cleaning due to incomplete responses, missing on all substantive survey items including demographic variables. The final analytic sample for this study was 2600 middle and high school students, ranging from 6th grade to 12th grade. Of these participants, the majority was White (70.75%), followed by Asian/Asian American (9.32%), multiracial (5.35%), prefer not to answer (3.89%), Latinx/Hispanic-American (3.82%), Black/African American (3.59%), and others. Regarding the gender of the participants, 48.00% of them identified as male, 43.14% as female, 3.51% as nonbinary, 2.37% as prefer not to say, and others. For grade level, 14.31% were in 6th grade, 13.18% in 7th grade, 12.24% in 8th grade, 17.70% in 9th grade, 15.18% in 10th grade, 14.16% in 11th grade, and 12.61% in 12th grade. Finally, when asked about special education status, 4.9% reported having an Individualized Educational Plan, 2.4% a Gifted Individualized Education Plan, and 3.2% a 504 plan, with 31.3% opting not to respond and 56.8% indicating that they were "not sure."

2.2 | Project description

NPFH is a national campaign that combats prejudice and promotes justice within K-12 schools and was launched by the district during the 2019–2020 academic year as part of a new initiative to increase school equity and inclusivity. District-identified objectives associated with the NPFH campaign were to bring attention to the recent rise in student-reported BBB incidents that were occurring throughout the district and to integrate school-wide interventions aimed at reducing BBB. School principals were charged with opting their school in or out of the initiative; initially, the district only opened participation to middle- and high schools based on the campaign's requirement for student-led participation and developmental limitations of elementary-aged students. As part of the requisite of becoming an NPFH school, the research team administered surveys to participating schools to clarify BBB victimization and bystander reporting trends and to assess school climate at various time points throughout the academic years.

2.3 | Measures

2.3.1 | BBB victimization

Students were asked to report any peer victimization experiences that occurred in the past 30 days. Five items were sampled from an instrument used to assess for prejudice-based peer harassment (Bucchianeri et al., 2016), asking the prevalence of peer victimization according to a 5-point scale (never, once or twice, about once a week, several times a week, and every day). Each of the items assessed "how often have other students harassed or bullied you for any of the following reasons?" according to five group membership domains: (1) race/ethnicity/national origin, (2) gender, (3) sexual orientation (or perceived sexual orientation), (4) physical/mental disability, and (5) weight/physical appearance.

2.3.2 | School fairness

School fairness was assessed using 12 items that were developed based on the Equal Status subscale of the School Climate for Diversity scale (Byrd, 2017). Items assessed students' perceptions of fair treatment according to four group membership domains (1) "race and ethnicity," (2) "gender, gender identity, and sexual orientation," (3) "disability status," and (4) "religion," and across three dimensions: perceptions in general, perceptions about principals, and perceptions about teachers. Examples of items include "Students of all races/ethnicities are treated

equally at your school (race and ethnicity—student's perception),” “The principals treat all students fairly regardless of their disability (disability status – perception about principals),” and “At your school, teachers treat students fairly regardless of their religion (religion – perception about teachers).” The items were rated on a 5-point Likert scale (1—*Not at all true*, 2—*A little true*, 3—*Somewhat true*, 4—*Very true*, 5—*Completely true*). Internal consistency for four group membership across the three domains in this study was 0.88 for race/ethnicity, 0.87 for gender and sexual orientation, 0.91 for disability status, and 0.94 for religion.

2.3.3 | School belonging

Students' sense of school belonging was assessed using the PSSM scale (Goodenow & Grady, 1993). This 18-item instrument is used to measure the sense of belonging related to social inclusion and academic motivation in school. Sample items include: I am treated with as much respect as other students; I feel like a real part of (name of school). Participants respond to individual items based on a 5-point Likert scale (1—*Not at all true*, 2—*A little true*, 3—*Somewhat true*, 4—*Very true*, 5—*Completely true*). Internal consistency for belonging was .94 and rejection (i.e., reversed items) was 0.84 in the current study.

2.4 | Analytic techniques

To test our mediation model, we conducted SEM using Mplus 8.4. Following Anderson and Gerbing's (1988) two-step procedure, the overall measurement model was evaluated using confirmatory factor analysis before estimating the structural model. As indicators for latent variables, individual items or item parcels (i.e., summed item scores) were set. Specifically, we specified the five individual items of BBB victimization as the indicators for that variable. For school fairness, we created four composite indicators, including race, gender, ability, and religion fairness, using a content-based item parceling strategy (Landis et al., 2000); three item scores were summed up for each indicator. Lastly, based on prior research, we formed two item parcels for the latent school belonging variable, referred to as belonging and rejection (Cheung & Hui, 2003): these parcels include 13 and 5 items, respectively.

While the indicators of school fairness and school belonging (composite indicators) were handled as continuous variables, those of BBB victimization (individual items) were treated as ordered categorical variables due to prominent floor effects (Viladrich et al., 2017); specifically, all items of BBB victimization indicated more than 85% of cases piled at the “never” category. Given the measurement model with a combination of continuous and ordinal indicators, we used the weighted least squares with mean and variance adjustment (WLSMV) estimator. WLSMV provides unbiased estimates and robust standard errors for ordinal variables even when data are asymmetric, so it is recommended to use WLSMV when fitting a measurement or structural model with ordinal indicator variables or a mixture of ordinal and continuous indicators (Li, 2016, 2021). Missing data were handled by pairwise deletion, the default under WLSMV estimation in Mplus. Pairwise deletion with WLSMV is recommended when the sample size is large and small amounts of data are missing (Lei & Shiverdecker, 2020). This missing data handling approach is appropriate for the current study, considering the large sample size ($n = 2600$) and low missing data rates (the range of covariance coverage = 87.2%–96.8%).

To evaluate overall model fit, we used four goodness-of-fit indices: the comparative fit index (CFI), Tucker–Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). Model fit was considered acceptable if the CFI and TLI were greater than 0.95 and the RMSEA and SRMR were lower than 0.08 (Browne & Cudeck, 1993; Hu & Bentler, 1999). Mediation was tested using the bootstrapping technique; we generated 95% bias-corrected confidence intervals (CIs) based on 10,000 bootstrap draws.

3 | RESULTS

3.1 | Descriptive statistics and correlations of indicator variables

The means, SDs, and correlations of indicator variables are presented in Table 1. All variables were significantly correlated with one another at the .001 level. Specifically, the indicator variables for BBB victimization were negatively correlated with those for school fairness and school belonging. Between school fairness and school belonging, indicators were positively correlated. Indicators for each latent variable were strongly intercorrelated in general.

3.2 | Measurement model

Goodness-of-fit indices indicated that the measurement model fit the data well, $\chi^2(41, N = 2600) = 213.589$, $p < .001$, CFI = 0.977, TLI = 0.969, RMSEA = 0.040, 90% CI [0.035, 0.046], SRMR = 0.032. All standardized factor loadings were significant at $p < .001$, ranging from .762 to .871 for BBB victimization, from .874 to .941 for school fairness, and from .507 to .890 for school belonging. All between-factor correlations were also significant at the .001 level. BBB victimization was negatively correlated with school fairness and school belonging ($r = -.393$ – $.602$, respectively), while school fairness and school belonging were positively correlated ($r = .638$).

TABLE 1 Descriptive statistics and correlations of indicators.

	M	SD	1	2	3	4	5	6	7	8	9	10
BBBV												
1. Race	1.10	0.46										
2. Gender	1.15	0.58	0.49									
3. SO	1.17	0.61	0.41	0.61								
4. Ability	1.10	0.48	0.38	0.45	0.46							
5. Appearance	1.25	0.72	0.40	0.46	0.48	0.49						
School fairness												
6. Race	12.74	2.40	-0.22	-0.21	-0.19	-0.15	-0.22					
7. Gender	12.57	2.55	-0.17	-0.25	-0.27	-0.19	-0.25	0.86				
8. Ability	12.85	2.54	-0.14	-0.19	-0.18	-0.18	-0.19	0.82	0.82			
9. Religion	13.19	2.33	-0.19	-0.18	-0.19	-0.17	-0.23	0.81	0.78	0.82		
School belonging												
10. Belonging	51.54	9.65	-0.19	-0.24	-0.26	-0.24	-0.32	0.53	0.56	0.53	0.53	
11. Rejection	18.60	4.31	-0.18	-0.10	-0.23	-0.19	-0.22	0.27	0.29	0.26	0.27	0.45

Note: All correlations were significant at $p < .001$. 1–5, single-item scores; 6–9, 3-item summed scores; 10 and 11, 13- and 5-item summed scores, respectively. Each item was scored on a 5-point Likert scale.

Abbreviations: BBBV, bias-based bullying victimization; SO, sexual orientation.

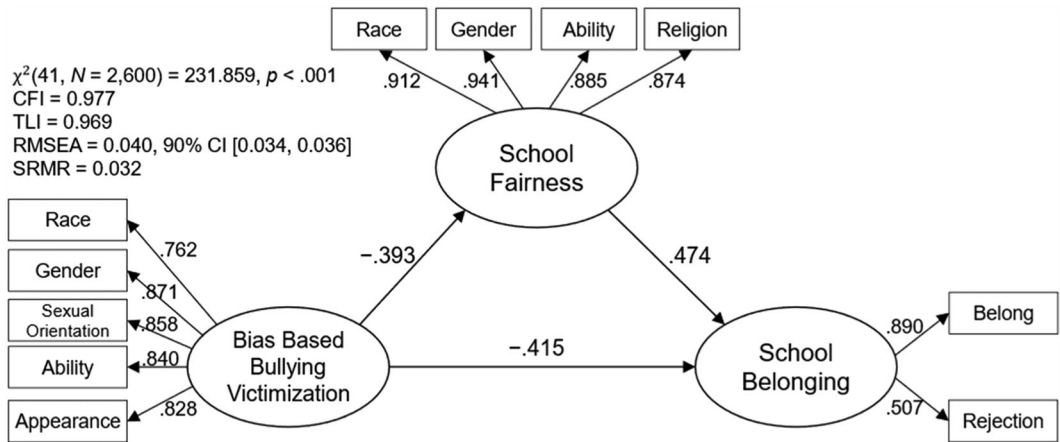


FIGURE 1 Standardized estimates of the structural model. All coefficients were significant at $p < .001$. CFI, comparative fit index; CI, confidence interval; RMSEA, root mean square error of approximation; SRMR, standardized root mean square residual; TLI, Tucker–Lewis index.

3.3 | Structural model

The structural model provided an adequate fit to the data, and all paths were statistically significant (see Figure 1). Specifically, BBB victimization was negatively related to school fairness ($B = -1.128, SE = 0.082, p < .001, \beta = -.393$), and school fairness was positively linked to school belonging ($B = 1.862, SE = 0.077, p < .001, \beta = .474$). BBB victimization was also inversely associated with school belonging ($B = -4.684, SE = 0.336, p < .001, \beta = -.415$). Furthermore, the bootstrap CIs indicated a significant indirect effect of bullying victimization on school belonging via school fairness ($B = -2.100, 95\% \text{ bootstrap CI } [-2.496, -1.733], \beta = -.186$), suggesting school fairness significantly mediates the link between bullying victimization and school belonging.

4 | DISCUSSION

Despite growing research interest in BBB, less attention has been paid to understanding the role of decreased school fairness potentially attributed to BBB, especially in the relationship between BBB and school belonging. To our knowledge, this is one of the first studies that examined the associations between BBB, school fairness, and school belonging. The present study significantly expanded the existing literature by employing the PVEST framework to examine the mechanism explaining how BBB may lead to decreased school belonging through diminished levels of perceived school fairness. In addition, the current study tested the mechanism and assessed BBB with a large size of the adolescent study sample.

To begin, the increased experience of BBB victimization among school-aged adolescents had a significant direct association with a lower perception of school belonging in the mediation model. The PVEST model highlights how the effects of discrimination are influenced by the presence of stressful or supportive environments. Since the discrimination incident (i.e., BBB) takes place within the school context, it is reasonable to assume that the victimization experience, itself, also shaped perceived environmental supports, measured in this study as belonging. Indeed, previous studies indicated more experience of victimization is associated with a lower sense of school belonging among culturally diverse youths (Davis et al., 2019; Han et al., 2021; Li et al., 2020). Our findings are consistent with the existing studies and expanded upon the literature by exploring the unique impacts of BBB victimization rather than general bullying. Results, in addition, supported a direct relationship between BBB

victimization and decreased school fairness. From an ecological systems perspective, this finding may be explained not only by their direct experience of BBB victimization from their peers but also in part by lack of support and culturally responsive interventions by school leadership and personnel (Spencer, 2008). A recent review study suggests that current interventions for bullying victimization are less effective for minority students (Xu et al., 2020), which may let the students who are victimized due to their marginalized social identity come to believe that they are not likely to be equally treated and receive adequate support and care in school when a bias-motivated incident occurs.

An interesting finding was that school fairness was positively associated with school belonging. This finding supports current literature, which denotes teacher–student relationships and student appraisal of organizational structures as significant components of school belonging (Allen et al., 2018; Thapa et al., 2013). Although PVEST separates stress engagement across two levels, stressful environment, and perceived social supports, we would expect there to be a strong relationship between the two constructs given their interconnected nature within the school context (Spencer, 2008). As such, when youth evaluate the school environment as objectively just for all students and perceive their interactions with aspects of the school environment as subjectively fair, they are more likely to experience a sense of membership.

We also found that the perception of fairness significantly mediated the relationship between BBB victimization and school belonging, supporting the theoretical PVEST framework. This was not a surprising finding given that previous literature demonstrates significant associations between fairness and each of the two variables in our model (Kupchik & Farina, 2016; Mulvey et al., 2018; Ripski & Gregory, 2009). There are a few schools of thought regarding the mediating effect of perceived school fairness for peer victimization situations. One perspective looks to bystander intervention behaviors as influential in shaping a student's experience of the school environment (Doumas & Midgett, 2019). Accordingly, it may be that victimized youth evaluate intervention responses as either just or unjust and construct net environmental appraisals based on these actions. For instance, if the student feels that the event was dismissed, ignored, or minimized by school personnel, they may evaluate the school environment more broadly as stressful rather than supportive, leading to decreased belonging. Another explanation could be that a student's appraisal of fairness insulates the youth from the negative effects of peer victimization that otherwise might result, including a decreased sense of school belonging. That is, if other aspects of the school process are deemed fair, the student may not attribute the victimization as a school-level issue but view it instead as an individual-level problem. This perspective is in line with the PVEST model, which positions environmental stressors and supports them as separate but interdependent determinants of reactive coping (Spencer et al., 1997). Accordingly, the net environmental appraisal may still be positive, even in the presence of risk factors. Related studies have described the protective qualities of fairness in buffering youth from similar adverse experiences that take place in school contexts (Clemente, 2018; Peguero et al., 2017; Way, 2011).

4.1 | Implications for practice

Taken together, the results of the current investigation provide support in understanding the relationship between BBB victimization and school belonging and evidence for fairness as a protective factor that mediates this relationship. These results can extend existing literature that aids in the development of prevention and intervention programs that aim to decrease the prevalence of BBB victimization. For instance, prior studies have identified school belonging and fairness as school-level factors that reduce the prevalence of, and in some cases prevent, BBB behaviors (Gower et al., 2021; Jeong et al., 2013). Related, diversity education activities and bystander intervention training initiatives are examples of specific programs that further reduce BBB in school settings (Chatters & Zalaquett, 2018; Eisenberg et al., 2021). In instances when school-based BBB is reported, our findings demonstrate that perceptions of fairness mitigate the impact of victimization on students' sense of belonging. Taken together, schools may benefit from integrating comprehensive initiatives that work simultaneously to prevent BBB behaviors as well as equitably support youth who do report BBB victimization.

Incorporating multitiered initiatives that provide diversity education, facilitate bystander intervention training, and deliver school-wide initiatives that promote belonging and fairness may yield more positive outcomes for youth at risk of BBB victimization (Nickerson, 2019).

Results can also be used to influence professional development efforts that help school personnel recognize BBB incidents and understand how to best support victims. Given that teacher support is a significant indicator of school belonging (Allen et al., 2021), teachers may play a critical role in fostering greater perceptions of belonging for those students who have experienced peer victimization. Professional development may also focus on teaching educators and other school personnel strategies for preventing and intervening during BBB incidents, which, in turn, can allow youth to feel more supported by the school environment.

In addition, the results of this study provide clear evidence highlighting the need for schools to ensure fair systems when enforcing rules. Results demonstrate the significance of students' perceptions of fairness, particularly among youth victimized by BBB. Consequently, schools should identify strategies to ensure greater uniformity when implementing consequences for perpetrators of bullying and when providing support for victimized students. Ensuring that school personnel are equipped to justly intervene in BBB situations is critical, as research provides evidence that while teachers report witnessing bias-based victimization among students, they do not always intervene (Greytak et al., 2016). Training teachers to know effective intervention strategies and feel confident in utilizing these strategies may foster greater fairness and, in turn, improve overall belonging for victimized youth. Ultimately, implications can lead to adaptive coping and more productive long-term development for BBB-targeted youth.

4.2 | Limitations and future research directions

Several limitations of the current study should be acknowledged. The nature of the cross-sectional data in this study can only describe associations between variables rather than causal relationships, despite the theoretical framework implying the suggested structural model. Longitudinal investigations are recommended to further verify the causal relationships in the mediation model, given strong associations among key variables in the current model. In addition, the sample of the present study was drawn from a single school district, which may restrict the generalization of the study findings. Additionally, in light of the use of secondary data that was collected by a school district for nonresearch purposes originally, there are methodological limitations related to the data collection instruments. For example, it should be noted that types of BBB victimization (i.e., race, gender, ability, sexual orientation, and appearance) are inconsistent with the subscales of school fairness (i.e., race, gender, ability, and religion) because the instruments were adopted from different existing measures. Future investigation is warranted using congruous measures to solidify the association between two variables, BBB victimization, and school fairness. We also did not oversample minority adolescents (e.g., racial minority, gender minority, adolescents with disabilities) who may have greater risks of experiencing BBB victimization. Future research should consider diversifying study samples to better represent minority youth's experiences and contribute to making study findings more generalizable. Despite the limitations mentioned above, findings from the current study are significant, as less is known about how BBB is associated with school fairness and a sense of belonging to the school. Therefore, the current study offers an important contribution to the existing literature on BBB.

4.3 | Conclusion

This study investigated an interrelationship model of BBB victimization, school fairness, and school belonging, guided by perspectives of the PVEST framework. Findings demonstrated that BBB victimization was negatively associated with school belonging and school fairness perceptions. This study also demonstrated the mediating role

of school fairness in the relationship between BBB victimization and school belonging. Findings from this study can inform future school-wide bullying prevention and intervention efforts to create more nurturing and inclusive school conditions for culturally diverse youth.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

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