

School Climate and Bullying Bystander Responses in Middle and High School

Tracy Evian Waasdorp

Rui Fu

Laura K Clary

Catherine P Bradshaw

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Abstract

Bullying bystanders' reactions are important for either stopping or perpetuating bullying behaviors. Given school-based bullying programs' focus on bystanders, understanding the associations between school-level factors and individual bystander responses can improve intervention efficacy. Data from 64,670 adolescents were used to examine bullying bystander responses as a function of 13 school-climate dimensions within 3 main factors (Engagement, Environment, Safety) and individual-level factors (e.g., race/ethnicity, perceptions of student-teacher connectedness). Multi-level models showed schools with better Engagement and Safety had higher odds of defender behaviors, a better Environment was associated with lower odds of passive and assisting behaviors. Differences also varied by individual-level factors. For example, an aggressive climate was associated with passive behaviors more strongly in boys and high schoolers. Further, higher perceived parent-teacher and student-teacher connectedness were associated with positive bystander behaviors, and this was stronger for Black and Latinx youth, highlighting the importance of improving relationships as a crucial starting point.

School Climate and Bullying Bystander Responses in Middle and High School

By the end of high school, most adolescents have experienced bullying -- either as a direct participant (i.e., perpetrator and/or victim) or as a bystander (i.e., witness or onlooker) (National Academies of Sciences, 2016). In fact, up to 80% of bullying incidents take place in front of onlookers (Polanin et al., 2012; Salmivalli & Voeten, 2004). Although research on prosocial bystander behaviors is steadily increasing (e.g., Doumas et al., 2019; Hart Barnett et al., 2019; Midgett, Doumas, Trull, et al., 2017), there are still questions regarding potential malleable factors that impact youths bystander responses (e.g., Healy, 2020), which in turn may be targeted by bystander-focused preventive interventions. Research has demonstrated a link between school climate and bystander behaviors (Cui & To, 2020; Konishi et al., 2021; Mulvey, Gönültaş, Irdam, et al., 2021); however, more studies are needed that explore multiple dimensions of school climate and in relation to bystander responses in order to inform prevention and intervention efforts.

Bystander Behaviors

Research has shown that youth who witness bullying play a crucial role in either perpetuating or ameliorating the behavior (e.g., Padgett & Notar, 2013). Common categories of bystander responses include passive, assisting, and defending. Specifically, passive bystander behaviors include ignoring, or not taking any action (such as walking away or not passing on the harmful text message). Whereas assisting bystander behaviors include encouraging or contributing to the bullying behavior, such as by laughing, joining in, or excluding someone to appease the child who is bullying. Finally, defending bystander behaviors include supporting the victim, telling an adult, or stopping the bullying interaction entirely (Lindstrom Johnson et al., 2013; Pöyhönen et al., 2012; Salmivalli, 2014). From a prevention standpoint, it is helpful to

increase youth's likelihood of displaying defending behavior. As such, it would be beneficial to better understand the malleable factors that are associated with this particular response to witnessing bullying, relative to the other potentially harmful bystander responses.

Adolescence as a Critical Developmental Context for Examining Bystander Behaviors

Peer interactions, including bullying, are best conceptualized from a developmental contextual perspective, which emphasizes the interaction of individual factors and critical contexts that change over the life course (Bronfenbrenner, 1994; Espelage & Swearer, 2004). As a theoretical perspective that is sensitive to life stages, this framework posits that the importance of specific contexts will vary over time depending on the developmental stage of interest. This is a particularly helpful theoretical framework for examining adolescent peer interactions, as youth who participate in bullying are directly influenced by the interplay of (1) their individual factors, such as sociodemographic characteristics, with (2) peer characteristics and behaviors, and (3) within the context of the school system. Additionally, developmental contextualism also emphasizes the importance of peers' and schools' responses to individuals' from early to late adolescence, which can help explore ways in which age is related to the development of bystander behaviors within peer and school milieus. For instance, essential contexts for adolescents include both peer interactions and the school setting, and the ratio of the importance of these factors shifts across development (Adams & Marshall, 1996; Hogg, 2016; Palmer et al., 2015 2015) and this can be seen in the variability of both perceptions of school climate and bystander behaviors. Specifically, a study of high school youth found that upperclassmen (those in 11th and 12th grade) were more likely to report passive and assistive behaviors as compared to lowerclassman (9th and 10th; Waasdorp & Bradshaw, 2018). However, a study comparing middle and high school youth's perception of school climate revealed that middle schoolers

perceived the school climate more favorably than high schoolers (Waasdorp et al., 2020). Taken together it is likely that there are differences in both bystander responses and the associations with school climate that warrant further examination.

School Climate

There are many aspects of the school context that could interact with individual factors to influence bystander behaviors. Within the school context, the climate is a primary force that shapes interactions between individuals in schools (students, teachers, administrators, etc.) through the shared beliefs, values, and attitudes which together, create the parameters for norms and behaviors in a school (Emmons et al., 1996; Kuperminc et al., 1997). An authoritative school climate model conceptualizes a positive school climate as having a strong structure and system of supports for students (Gregory & Cornell, 2009; Gregory et al., 2010; Konold et al., 2014). Structure typically refers to high levels of discipline, clear rules and policies, and enforcement of school rules (e.g., Gregory et al., 2010; Konold et al., 2014), whereas support includes teacher, parent, and school staff presence, openness, and positive engagement with students. Students who receive more support and clear guidance on boundaries and expectations (i.e., structure) are more likely to demonstrate positive outcomes and follow school norms (e.g., Bradshaw et al., 2014; Gregory & Cornell, 2009).

There is a large, robust literature on school climate, as well as how it functions as a critical context that contributes to students' peer relationships and socioemotional development (e.g., Cohen et al., 2009; Espelage et al., 2014; Thapa et al., 2013; Wang & Degol, 2016). Although there is some debate around identifying key dimensions of school climate, the focus of this study aligns with the United States Department of Education's (USDOE) Model for school climate (U.S. Department of Education, 2009) which supports three main aspects of school

climate: Safety, engagement, and environment (Bradshaw et al., 2021; Bradshaw et al., 2014). Specifically, school engagement includes relationships (e.g., student-teacher, student-student, also called connectedness), respect for diversity, and school participation. Safety includes perceptions of emotional safety, physical safety, and substance use. Environment includes the physical environment in a school (i.e., one's physical comfort in the school such as temperature and perceptions of cleanliness), and a school's rules, policies, and discipline (e.g., Cornell & Bradshaw, 2015; Thapa et al., 2013). Research has generally suggested that the more positive the school climate, the lower prevalence of bullying and victimization (e.g., Bradshaw et al., 2021; Dorio et al., 2019; Konishi et al., 2017; Shukla et al., 2016; Yang et al., 2020).

School Climate Factors Related to Bystander Behaviors

Literature consistently shows that school climate can influence students' bullying and victimization. For example, prior research has examined the association between selected individual constructs, separately as they related to bullying and victimization. In fact, both unsupportive teachers (i.e., low engagement) and accepting attitudes towards aggression (i.e., emotionally unsafe) may contribute to an environment that inadvertently encourages bullying behavior (Gendron et al., 2011; Unnever & Cornell, 2003). Moreover, victims who view teachers and staff as supportive (i.e., engagement) are more likely to employ help-seeking behaviors (Eliot et al., 2010), whereas clearly stated school policies (i.e., environment) may lead to lower levels of student victimization (Gottfredson et al., 2005). It is, therefore, likely that these broad constructs, as well as the subscales within them, would be associated with bystander responses (e.g., Dorio et al., 2019; Konishi et al., 2017; Shukla et al., 2016). While it is ultimately most advantageous for schools to promote and improve all facets of school climate, a better

understanding of which specific components are associated with bystander responses can help target and prioritize areas of need given limited school resources.

Indeed, studies are beginning to examine the school climate subscales and bystander responses. For example, Mulvey and colleagues (2019) examined the association between school climate subscales (positive student-teacher relationships, discipline, and order, opportunities for engagement, parental involvement, school connectedness, perceived exclusion, and school social environment) and 6th and 9th graders' perceptions of using active/positive bystander responses or passive/inactive responses. They found that in response to a vignette depicting aggressive peer behaviors, none of the climate scales were significantly associated with positive bystander responses, yet positive student-teacher relationships and perceptions of the school's social environment were negatively associated with inactive responses (Mulvey et al., 2019).

Related research on Chinese 4th-9th grade youth by Cui and To (2020) examined three school climate subscales (teacher-student relationships, student-student relationships, and school safety) and found that better student-student relationships and school safety were associated with fewer assistive bystander behaviors. Whereas, better teacher-student relationships, student-student relationships, and school safety were associated with increased defending bystander behaviors (Cui & To, 2020). Konishi and colleagues (2021) recently examined the associations between 10 climate scales and three bystander responses; active/defending (i.e., told the persons doing the bullying to stop), support seeking, and avoidance/passive (i.e., walked away) in a large sample of 8th through 12th grade in British Columbia, Canada. They found that defending bystander behaviors were positively associated with school safety, adult support, and adult responsiveness. Support-seeking responses were negatively associated with perceptions of peer

support, belonging, and opportunities for involvement at school, whereas passive responses were negatively associated with school safety, and adult support (Konishi et al., 2021). Further, in examining associations with adult and youth acceptance of diversity (i.e., accepting all individuals regardless of race/sexual orientation/physical or mental ability/academic ability), results revealed more positive perceptions of diversity were associated with more defending behaviors and fewer avoidance behaviors. Taken together, additional research that examine the broad range of climate subscales, in large samples of diverse youth is needed to further explore these associations.

Individual-Level Factors and Bystander Responses: Gender Differences

In addition to school-level factors that influence bullying, studies have examined the relations between demographic characteristics such as gender, developmental (i.e., grade-level), and race differences in bystander responses. For example, concerning gender differences in defenders, girls are more likely to report being or be viewed as defenders than boys (Espelage et al., 2012; Pöyhönen et al., 2012; Pozzoli et al., 2012); this is most likely due to girls' higher levels of prosocial behavior and boys' tendency to endorse aggressive strategies in peer interactions (Hastings et al., 2000; Salmivalli et al., 1996; Trach et al., 2010). However, these differences may also vary as a function of school climate; for instance, schools with higher levels of perceived support from teachers and school staff could attenuate the difference in help-seeking between girls and boys (Eliot et al., 2010). Moreover, some research suggests that boys' defending may be more susceptible to contextual factors, such as school climate (Nickerson et al., 2008), and that gender differences may also vary by developmental level due to differential rates of association with same-sex peers between middle and high school (Rose & Rudolph, 2006).

Individual-Level Factors and Bystander Responses: Developmental Differences for Middle Schoolers vs. High Schoolers

Middle school students generally demonstrate more defender behaviors than high school students (Lindstrom Johnson et al., 2013; Salmivalli & Voeten, 2004). Social dominance theory posits that hierarchies are often reestablished at the beginning of middle school, which may lead to less risk-taking in stepping into a defender role (Juvonen & Graham, 2014; Meter & Card, 2015). On the other hand, valuing how one appears to peers and having close friendships becomes more important to adolescents over time (Brown, 1990), especially during the middle school years (Pozzoli et al., 2012) suggesting that defender behaviors might become less indiscriminate (i.e., defend everyone who is bullied), and more selective (i.e., standing up for close friends only). Also, older adolescents might be more familiar with the consequences of intervening in bullying, also resulting in a more selective approach to defending (Meter & Card, 2015). In addition, it is possible that associations between bystander behaviors and age may not be straightforward, and instead interact with other characteristics, such as gender (Trach et al., 2010). Thus, more research should focus on the intersection of developmental and individual characteristics of bystander behaviors.

Individual-Level Factors and Bystander Responses: Race and Ethnic Differences

Race and ethnicity, describe shared meanings, values, and cultural practices generalized to specific groups, and characterize how members within a group perceive their social environment and respond in social interactions (Triandis, 2002). When witnessing bullying towards peers, youth from different racial-ethnic backgrounds may evaluate and respond to the displayed aggressive behaviors consistent with their cultural normative beliefs about bullying victimization (Xu et al., 2020) and their social status relative to that of bullies (Yun & Graham,

2018). Research has suggested that youth of some minoritized groups (e.g., Black) are less likely to identify with the label “bullying” because of the pressure to appear invulnerable or stronger stigma attached to bullying (Sawyer et al., 2008; Xu et al., 2020). In a study of youth’s moral judgment of aggressive acts, Black and Latinx youth tended to evaluate the acts as more acceptable than their White counterparts (Gönültaş et al., 2020). This appears to be particularly the case in the subgroup of youth who experienced racial discrimination (Mulvey, Gönültaş, Hope, et al., 2021). Further, the study showed that this subgroup evaluated positive bystander behaviors to be less acceptable and reported a lower likelihood of engaging in upstander behaviors themselves than others, suggesting possible racial-ethnic differences in youth’s perceptions of bullying, acceptability of bystander responses, and ultimately, their responses to these incidents. Taken together, minoritized youth may be less likely to actively intervene in response to bullying incidents compared to European American youth (hereafter White).

In addition, youth’s perceived social status, which indicates access to resources and one’s overall ranking relative to others, appears to be lower in Latinx (Rahal et al., 2020) and Black (Goodman et al., 2015) youth than in other ethnic groups. Given that low subjective social status is linked to higher unwillingness to stand up to the bully or come to the aid of the victim (Juvonen & Graham, 2014), Latinx and Black youth may show fewer defending and other prosocial bystander responses. Indeed, relative deprivation theory has argued that feelings of low social status often correspond to greater hostility (Smith et al., 2012), which may contribute to a higher prevalence of assisting behaviors in response to the bullies. Also, youth with lower perceived social status may be more fearful of also being a target of bullying if they assist the victim (Salmivalli et al., 1996), which may be associated with fewer defending behaviors. However, they might be motivated to adhere to group norms established by dominant, powerful

bullies (Killen et al., 2013). This is particularly pronounced in the contexts where group norms encourage prejudicial treatment of others, such as intergroup bullying (Mulvey et al., 2016). The few studies that have looked at race/ethnicity and the three bystander behaviors have inconclusive findings: some reported that minoritized students (i.e., Black and Latinx) were more likely to report upstanding behavior than White students (Datta et al., 2016), other showed no differences (Mulvey, Gönültaş, Irdam, et al., 2021), and still, others indicated that minoritized youth were more likely to side with the children who bully than White youth (Bistrong et al., 2019). Regarding passive behaviors, one study indicated that compared to White youth, minoritized youth were more likely to be inactive bystanders (Gönültaş et al., 2020; Mulvey et al., 2019) whereas another one revealed the opposite (Palmer et al., 2017). Given these mixed findings, the current study sought to systematically examine the prevalence of the three bystander behaviors across racial-ethnic subgroups to address some of the gaps in the extant literature.

For example, there has been empirical evidence that some minoritized groups of students (e.g., Black, Latinx) perceive less social support and fairness in the school than others (Pena-Shaff et al., 2019), suggesting racial-ethnic differences in student perceptions of school climate which may further influence youth's bullying involvement (e.g., Hong et al., 2014).

Nevertheless, among the prior studies that examined the associations between school climate and youth's moral judgments and responses to witnessing bullying, few have examined whether such associations differ by race-ethnicity. This is an important issue in addressing racial-ethnic heterogeneity in youth's social experiences at school considering the clear racial and ethnic differences that exist among youth today across numerous facets of daily living and well-being (Benner et al., 2018). Moreover, at a broader level, this line of research may help researchers

better understand the impact of long-standing racial-ethnic inequities, disproportionately negative in Black and Latinx groups (Benner et al., 2018) by situating it within critical race theory (Delgado & Stefancic, 2017). From a strength-based perspective, an examination of whether the associations between the various aspects of school climate and bystander behaviors vary by youth race-ethnicity would indicate whether and how the possible racial-ethnic differences in bystander behaviors (particularly defending behaviors) could be lessened by enhancing certain aspects of school climate; this, in turn, may inform schools' strategies for promoting positive behaviors in students of all racial-ethnic backgrounds when witnessing bullying.

The Present Study

Researchers have called for additional studies on bystander responses to bullying that include *multiple individual-level and contextual variables*, as opposed to focusing on single aspects of school climate and student characteristics (Meter & Card, 2015). The current study aimed to address this knowledge gap by examining the separate contributions of individual and school-level factors in relation to bystander behavior (Aims 1 and 2). For our third aim, we expanded on previous work by considering intersectionality of individual characteristics (gender, grade level, race/ethnicity), and specific facets of school climate --such as Culture of Equity and Fairness and Student-Teacher Connectedness-- on defender, passive, and assistor behaviors.

Additional variables included in the model are worth noting, including bullying involvement status at the individual-level and other contextual variables at the school-level. Specifically, students who are bystanders may also be perpetrators or targets of bullying (Frey et al., 2014; Huitsing et al., 2014; Waasdorp & Bradshaw, 2018). As such, bullying and

victimization status were included in each model to control for their occurrences to try and capture the associations over and above youth's possible involvement in other bullying roles.

At the school-level, the contextual factors of student enrollment, out-of-school suspension rates, and school racial-ethnic diversity were included. As posited in social disorganization theory (see Bradshaw, Sawyer, et al., 2009 for a description), large student enrollment together with high out-of-school suspension rates may signal an unfavorable environment with poor student-teacher cohesion and limited resources and support available to them (Booth & Shaw, 2020). The impact of these two indicators of school disorder has been evidenced in prior studies such that high student suspension is related to students' increased negative perceptions of the school disciplinary environment (Pas et al., 2019), which may thus lower their feelings of safety and the likelihood of intervening in bullying encounters.

Another school contextual factor, school racial-ethnic diversity, captures the numerical balance of different student ethnic groups in the school. It is suggested that school ethnic diversity buffers many of the normative, behavioral challenges of adolescence (see Graham, 2018 for an overview). It contributes to positive peer relationships that alleviate peer victimization and enhance student perceptions of school safety (e.g., Juvonen et al., 2018). Nevertheless, whether and how this contextual-level factor may differentiate the three types of bystander behaviors is understudied. Given that greater school racial-ethnic diversity is related to a safe and supportive climate in which aggression is discouraged (Juvonen & Graham, 2014), it is especially important to examine its contribution to bystander behaviors.

Hypotheses Related to School Climate

Regarding the Engagement school climate construct, given the literature, we hypothesized that adult connections/relationships and perceptions of support would be associated

with defending behaviors and lower student-teacher connections and support (hereafter teacher connectedness) will be associated with increases in passive and assistor behaviors. It is less clear how connectedness between students (hereafter student connectedness) would be associated with bystander responses, as studies have shown a complicated relationship whereby positive peer support and belonging as well as low student connectedness was both associated with positive bystander behaviors (Konishi et al., 2021; Waasdorp & Bradshaw, 2018).

A recent study found that ‘acceptance of diversity’, similar to our ‘culture of equity and fairness’ scale, was positively associated with defender behaviors, however, that sample did not include U.S.-based individuals to examine race and ethnicity as noted above (Konishi et al., 2021). As such, we hypothesize that a culture of equity and fairness would be positively associated with defending behaviors. Only one study (Mulvey, Gönültaş, Irdam, et al., 2021) examined parental involvement and found no association with bystander responses although that study had a smaller sample of only 6th and 9th-grade students and did not include the full range of bystander responses, as such with regarding parent involvement no hypotheses were made.

Finally, regarding the Environment and the Safety constructs, research suggests our hypothesis that safer schools with more positive environments would have more positive bystander responses and fewer assistor and passive responses. For example, it could be that lower levels of perceived school safety (e.g., school policies towards bullying and student/teacher perception of feeling safe on school grounds) could be associated with increased passive responses given school is seen as a safe place as has been found in studies of adults responses to their child’s bullying (Waasdorp, Bradshaw, et al., 2011).

Method

Participants

The current study drew upon data from 64,670 youth attending 107 middle (grades 6-8, which includes youth approximately ages 11-13) and high schools (grades 9-12, which is youth approximately ages 14-18) participating in a statewide survey study of school climate called the Maryland Safe and Supportive Schools (MDS3) Initiative. The schools had a mean percentage suspension of 10.95 ($SD = 9.79$), average enrollment was 1,151 students ($SD = 451.83$) and an average ethnic diversity score (range: 0-1) of .51 ($SD = .17$; see below for explanation of the ethnic diversity score). The sample consisted of 54% ($N = 29,720$) high school and 46% ($N = 34,950$) middle school adolescents. In both middle and high school, there were equal percentages of males and females (e.g., 50% male in high school; 50.6% male in middle school). Approximately half of the youth (48.8%) were White, with the remainder reported race/ethnicities consisting of 25.7% Black, 10.5% Other, 9.6% Latinx, and 5.4% Asian; 15.3% of youth in this sample reported their mother attended some college and 55.5% reported their mother graduated from college.

Procedure

Districts were approached for participation in the MDS3 Project, which focused on the use of the self-report school climate measure. Participation was voluntary for both schools and individual youth, and a waiver of active consent process for parents and youth assent was used. All of the middle and high schools approached agreed to participate, students not present in school on the day of survey administration were not provided an additional opportunity to participate, resulting in a response rate of 76%, including completions and partials (i.e., RR2 formula; American Association for Public Opinion Research, 2016). The self-report MDS3 School Climate Survey (see Bradshaw et al., 2014 for details regarding the survey) was administered online and responses were anonymous. The study's non-identifiable data were

approved for analysis by the Institutional Review Board at the researchers' institutions. The survey has shown consistent measurement invariance across gender, race/ethnicity, and middle as well as high school youth (Bradshaw et al., 2014; Waasdorp et al., 2020).

Measures

Youth Demographic Characteristics

The MDS3 Survey (Bradshaw et al., 2014) included a series of self-reported demographic questions, such as students' age, gender, and race/ethnicity.

Exposure to Bullying

Before answering specific questions about bullying, a definition of bullying was provided to students that included: examples of physical, verbal, and relational bullying (e.g., threatening, teasing, and rumor spreading, etc.); descriptions of frequency and duration (e.g., occurs repeatedly and overtime) and; situations where there is a power or status difference (Gladden et al., 2014; Olweus, 1993). After the definition was read, students were asked, "During the past 30 days: how often have you been bullied?" (*Target*) and, "How often have you bullied someone else?" (*Bully*) using a 5-point scale (*several times a week, once a week, 2-3 times during the month, 1 time during the month, and not at all*). These items were based on the work of Olweus and were used to categorize youth into the target of the bullying, bully, or bully/target status, using a threshold of 2-3 times or more during the month (e.g., Solberg & Olweus, 2003). Specifically, those that endorsed 1 time or less per month were not considered a victim and/or perpetrator ('0') and those that endorsed 2 or more times in a month were considered a victim and/or perpetrator ('1') These items were used as control variables due to the likelihood that if a child is a target or a perpetrator this could impact how they respond when witnessing bullying (Waasdorp & Bradshaw, 2018).

Bystander Behaviors

Next, participants were asked “What do you usually do if you see another student is being bullied?” and to indicate whether they would use any of nine bystander behaviors (*yes/no*) See table 1 for a list of bystander items (Olweus et al., 2007; Salmivalli & Voeten, 2004). These items make up three sub-scales of bystander responses: *Assisting* (3 items; “watch the bullying but do nothing to stop it, join in on the bullying, laugh at the bullying”); *Victim defending* (i.e., *Defending*, 4 items; “try to make others stop the bullying, comfort the person being bullied, encourage the person being bullied to tell an adult at the school, tell an adult about the bullying”); and *Passive* (2 items; “stay out of the bullying, ignore the bullying”). A prior study of these items validated the three subscales (see Bistrong et al., 2019), further a confirmatory factor analysis of these dichotomous items validated the three scales in this sample (RMSEA = .04; CFI = .93; SRMR = .07). A dichotomous item was created for each scale such that if the response behaviors were endorsed in a construct the individual would get a 1, and if none of those response behaviors were endorsed in a construct the individual would get a 0.

School Climate Indicators at the Individual and School-Level

The MDS3 survey also includes 56 items that reflect the three domains of the U.S. Department of Education model of school climate, specifically: Engagement, school Environment, and Safety (American Institutes for Research, 2016; see Bradshaw et al., 2014). *Engagement* includes the subscales of: Teacher Connectedness (e.g., “my teachers care about me”; 6 items; $\alpha = .86$), Student Connectedness (e.g., “Students help one another”; 5 items; $\alpha = .87$), Academic Engagement (e.g., “I believe I can do well in school”; 4 items; $\alpha = .79$), Whole School Connectedness (e.g., “I like this school”; 4 items; $\alpha = .82$), Culture of Equity and Fairness (e.g., “At this school students of all races are treated the same”; “The school provides

instructional materials that reflect my culture”; “At this school, students of all races [whether boys or girls, whether parents are rich or poor] are treated the same”; 4 items; $\alpha = .83$), and Parent Involvement (e.g., “parents or guardians often come to my school to help out”; 4 items; $\alpha = .74$). *Environment* includes the subscales of: Rules and Consequences (e.g., students are rewarded for positive behavior; 5 items; $\alpha = .73$), Physical Comfort (e.g., “the temperature in this school is comfortable all year”; 4 items; $\alpha = .79$), Support (e.g., “there is someone at school who I can talk to about personal problems”; 4 items; $\alpha = .76$), and Disorder (e.g., “misbehaving students get away with it”; 5 items; $\alpha = .58$). *Safety* includes the subscales of: Aggression (e.g., “harassment or bullying of students is a problem at this school”; 4 items; $\alpha = .63$), Physical Safety (e.g., “I feel safe at this school”; 4 items; $\alpha = .64$) and General Drug Use (e.g., “drug use is a problem at this school”; 3 items; $\alpha = .87$). See Bradshaw et al. (2014) and Waasdorp, Lindstrom Johnson, Shuklah, and Bradshaw (2020) for additional information regarding the scale and subscale properties, items, and measurement invariance across this sample of middle and high youth. All answer choices were on a 4-point Likert scale from “*strongly disagree*” to “*strongly agree*”, and all items were coded such that higher scores represented more of that construct. Individual subscales were used at level-1, whereas overall scale scores for Engagement, Environment, and Safety were aggregated up to represent a school-level average (level-2).

School-Level Covariates

Three school-level demographic variables were included in the models to adjust for possible school-level associations with youths’ responses to bullying: student enrollment, percentage of out-of-school suspension (see Bradshaw, Koth, et al., 2009; for additional details on these variables). The student racial-ethnic diversity at the school level was computed using Simpson’s index of diversity, which accounts for both the number of different racial-ethnic

groups and the relative size of each group. Using a method that is recommended for determining diversity of social contexts (Juvonen et al., 2018), the index was calculated as a probability from 0 to 1, with higher scores indicating greater school ethnic diversity.

Data Analysis

For Aim 1, logistic regressions were used to obtain descriptive data regarding gender (0 = female, 1 = male), grade level (0 = middle school, 1 = high school), and dummy-coded child ethnicity (treating the majority race/ethnic group, White as the reference group) to examine differences in individual bystander responses, these models adjusted for the nested nature of the data where students were nested in schools using a Huber-White sandwich estimator in Mplus 8.3 (Muthén & Muthén, 1998-2017). For Aim 2, multilevel logistic regression modeling was used to examine the associations between specific facets of the school climate and bystander responses. The three commonly identified patterns – Passive, Assisting, and Defending—that categorize onlookers’ responses to bullying (e.g., Bistrong et al., 2019; Salmivalli, 2014; Waasdorp & Bradshaw, 2018), were modeled as dichotomous outcomes. At the student level (level 1), student self-report subscales from the three domains of school climate were included as predictors (while referred to as *predictors*, this is not meant to imply causation, as the data are cross-sectional): specifically, Teacher Connectedness, Student Connectedness, Academic Engagement, Whole School Connectedness, Culture of Equity and Fairness, and Parent Involvement for Engagement; Rules and Consequences, Physical Comfort, Support, and Disorder for Environment; and Physical Safety, Aggression, and General Drug Use for Safety. In addition, the following variables were also accounted for in the model: gender, grade level, dummy-coded youth race-ethnicity (i.e., Black, Latinx, Asian, and Bi-/Multi-racial, treating the majority race/ethnic group, White as the reference group), and dummy-coded bullying status as

control variables (i.e., Bully-target, Bully, and Target, treating uninvolved students as the reference group). At the school level (level 2), we included school-level climate of Engagement, Environment, and Safety that was formed by averaging and aggregating student self-report climate scores up to the school level to reduce collinearity between climate subscales. Other school-level variables (i.e., student enrollment, suspension rate, percentage of students suspended, student racial-ethnic diversity) were also entered in the model.

For Aim 3, we first examined the interactions between gender, grade level, and race-ethnicity and their association with defending, passive, and assisting behaviors by entering three two-way interaction terms (i.e., gender x grade level, gender x race-ethnicity, and grade x race-ethnicity) into the model built for Aim 2. Next, we examined the interaction effects of each climate subscale and gender, grade, and race-ethnicity, respectively, in the predictions of the three bystander behaviors. Multiple two-way interaction terms (e.g., gender x Academic Engagement, grade x Academic Engagement, race-ethnicity x Academic Engagement) were entered in the model and the variables that composed an interaction term were centered in the analyses to reduce multicollinearity. The same school characteristics were included at level 2 as in Aim 2.

Results

Descriptive Analyses

We first conducted descriptive analyses on the overall sample (middle school and high school students) to explore the frequency of students' endorsement of bystander behaviors. The top three selected responses were "try to make others stop the bullying" (defending), "stay out of the bullying" (passive), and "comfort the person being bullied" (defending). The least selected response was "join in on the bullying" (assisting). Approximately 40% (39.8%) of students

endorsed one or more defender bystander responses, 9.3% endorsed one or more assistor bystander behaviors, and 26.9% endorsed one or more passive bystander behaviors (see Table 1).

Gender, Grade Level, and Racial-Ethnic Differences Across Bystander Responses

Compared to middle school youth (treated as the reference group), high school youth had significantly higher odds of reporting the more negative bystander responses. In other words, high schoolers were more likely to answer “yes” to the items, specifically “ignore the bullying” and “watch the bullying and doing nothing to stop it” (passive) as well as “join in on the bullying” and “laugh at the bullying” (assistor). High school youth also had significantly lower odds for reporting the more positive/helpful bystander responses (less likely to choose the item), such as “comfort the person being bullied”, “encourage the person being bullied to tell an adult”, “tell an adult about the bullying” and “try to make others stop the bullying” (defending), they also had higher odds for “stay out of the bullying” (passive).

With regard to gender comparisons, there were no statistically significant gender differences for “ignore the bullying”. Compared to females (treated as the reference group), males had higher odds for the more negative bystander responses “join in on the bullying”, “laugh at the bullying” and “watching the bullying but doing nothing to stop it” and lower odds for endorsing “staying out of the bullying”, “try to make others stop the bullying”, “comfort the person being bullied”, “encourage the person being bullied to tell an adult”, and “tell an adult about the bullying” (See Table 2). Taken together, these results suggest that in general high school youth (i.e., boys and girls) and boys had higher odds for endorsing the behaviors consistent with assistors, and middle school youth and girls had higher odds for endorsing the behaviors consistent with defenders. See Table 2 for odds ratios (ORs) and percentages by grade level and gender.

Concerning the race-ethnicity comparisons (with White as the reference group), this model suggests that in general, Black and Latinx youth had lower odds of endorsing the more positive bystander responses and higher odds of endorsing the more negative bystander responses. However, there were fewer significant differences when comparing White youth to Asian and Bi-/Multi-racial youth. See Table 3 for ORs and percentages by race and ethnicity.

Multi-level Analyses

Predictors of Defender Behaviors

School Level Predictors. Multi-level logistic regression indicated that in schools with higher levels of (school-level) student-reported Safety and Engagement, students had higher odds of reporting defender behaviors (OR = 1.71, 2.64; see Table 4 for p-values, defender). There was no significant association between a school's Environment and defender responses.

Student/Individual Level Predictors. At the student/individual level, student perceptions of higher Physical Safety, Aggression, Academic Engagement, Whole School Connectedness, Culture of Equity and Fairness, and Parent Involvement and lower General Drug Use were associated with their higher odds of reporting defender behaviors. Also, the four subscales of Environment (i.e., Rules & Consequences, Physical Comfort, Support, and Disorder) were positively related to students' odds of reporting defender behaviors. With regard to the effects of covariates, males and high school students had lower odds of reporting defender bystander behaviors. Black and Latinx students had lower odds of reporting defender behaviors than White students whereas all other ethnic groups (Asian and Bi-/Multi-racial) were equivalent to White students.

Predictors of Passive Behaviors

School Level Predictors. In schools with better physical Environments, students reported lower odds passive behaviors (OR = .52). School-level Safety was positively related to students' reporting of passive behaviors (OR = 1.51). There was no significant association between Engagement and passive bystander responses (see Table 4, passive).

Student/Individual Level Predictors. At the student/individual level, student perceptions of higher Academic Engagement, Physical Safety, and Aggression were related to their higher odds of reporting passive behaviors whereas higher Student Connectedness, Parent Involvement, Support, and General Drug Use were related to lower odds of reporting passive behaviors. Males and middle school students reported lower odds of passive bystander behaviors. Moreover, Black, Latinx, and Bi-/Multi-racial students reported lower odds of passive behaviors than White students whereas Asian students were equivalent to White students.

Predictors of Assistor Behaviors

School Level Predictors. In schools with higher levels of Environment, students had lower odds of reporting assistor behaviors (OR = .60). There was no significant association between Engagement or feelings of Safety and assistor bystander responses. In addition, students reported fewer assistor behaviors in school with greater student ethnic diversity (see Table 4, assistor).

Student/Individual Level Predictors. Student perceptions of higher Student Connectedness, Disorder, and Aggression were associated with higher odds of reporting assistor behaviors. However, lower Teacher Connectedness, Academic Engagement, Parent Involvement, and Support were associated with higher odds of reporting assistor behaviors. Males and high school students had significantly higher odds of reporting assistor bystander behaviors, and

White students had significantly lower odds of reporting assistor behaviors compared to students of other ethnicities (i.e., Latinx, Black, Asian, and Bi-/Multi-racial).

Gender, Grade Level, Race-Ethnicity, and Climate Subscales Interactions

Next, we tested the interactions between grade level, gender, and race-ethnicity and their associations with the three types of bystander responses. Results showed that the interaction of grade x gender was significant in the predictions of defender behaviors ($B = -.10$, $SE = .05$, $t = -2.23$, $p < .05$) and assistor behaviors ($B = .31$, $SE = .07$, $t = 4.23$, $p < .001$). Specifically, in both middle and high schools, females were more likely to report defender bystander behaviors and this gender difference was significantly stronger in high school ($\Delta B = .10$, $SE = .05$, $t = 2.23$, $p < .05$). Within females, there were no significant differences in defender behaviors across middle and high school, but males were less likely to report defending behavior in high school than in middle school ($B = -.11$, $SE = .05$, $t = -1.99$, $p < .05$). In middle school, there were no significant gender differences in assistor bystander behaviors; however, in high school, males were more likely to report using assistor behaviors than females ($B = .41$, $SE = .05$, $t = 8.59$, $p < .001$). Further, males were more likely to report using assistor behaviors in high school than in middle school ($B = .46$, $SE = .08$, $t = 6.05$, $p < .001$) whereas this was nonsignificant in females.

The interaction between race-ethnicity and gender was significant in the predictions of defender behaviors ($B = -.14$, $SE = .04$, $t = -3.36$, $p < .01$), and the simple slope results showed that females were more likely to report defender bystander behaviors than males and this gender difference was significantly stronger in the white subgroup than in Latinx, Black, Asian, and Bi- and Multi-racial groups (ΔB ranging from .09 to .20, SE ranging from .05 to .10, t ranging from 1.98 to 2.60, $p < .05$ and .01). The interaction between Latinx group membership (White as the reference group) and grade was significant in predicting defender behaviors ($B = .22$, $SE = .08$, t

= 2.95, $p < .01$) and the simple slope results indicated that compared to their White peers, Latinx middle schoolers were less likely to report defender behaviors ($B = -.11$, $SE = .05$, $t = -2.18$, $p < .05$) whereas Latinx high schoolers were more likely to report defender behaviors ($B = .11$, $SE = .06$, $t = 1.97$, $p < .05$).

There were also significant two-way interactions between climate subscales and gender, grade, and race-ethnicity in predicting the bystander behaviors. Among the climate subscales of Engagement, student perceptions of Academic Engagement were positively associated with defender behaviors more strongly in females than in males ($\Delta B = .10$, $SE = .05$, $t = 2.04$, $p < .05$); Academic Engagement was positively associated with passive behaviors more strongly in males than in females ($\Delta B = .11$, $SE = .04$, $t = 2.44$, $p < .05$); it was negatively associated with assistor behaviors and this association was stronger in white students than in Black students, $\Delta B = .16$, $SE = .05$, $t = 3.15$, $p < .01$. There were no differences in this association between White students and other minoritized groups. Teacher Connectedness was negatively associated with assistor behaviors in Latinx students more strongly than in White students, $\Delta B = .17$, $SE = .08$, $t = 2.16$, $p < .05$. Student perceptions of Parent Involvement were negatively associated with assistor behaviors to a stronger extent in middle school than in high school ($\Delta B = .22$, $SE = .07$, $t = 3.16$, $p < .01$). Parent Involvement was positively associated with defending behaviors in Black and Latinx students more strongly than in White students, $\Delta B = .08$ and $.22$, $SE = .04$ and $.09$, $t = 2.10$ and 2.43 , $ps < .05$.

Among the climate subscales of Safety, student perceptions of Physical Safety were positively associated with defender behaviors in high schoolers ($B = .11$, $SE = .04$, $t = 2.89$, $p < .01$) but not in middle schools. Student perceptions of Aggression were positively associated with defender behaviors to a stronger extent in females than in males ($\Delta B = .08$, $SE = .04$, $t =$

2.34, $p < .05$). Higher Aggression was positively related to passive behaviors more strongly in males and high schoolers than in females and middle schoolers ($\Delta B = .10$ and $.15$, $SEs = .04$, $t = 2.60$ and 4.02 , $p < .01$ and $< .001$, respectively). The climate subscale of Safety, General Drug Use was negatively related to defender behaviors only in middle schoolers ($B = -.08$, $SE = .02$, $t = -4.07$, $p < .001$); although it was negatively related to passive behaviors in both middle and high school students, this relation was stronger for middle schoolers ($\Delta B = .06$, $SE = .03$, $t = 2.39$, $p < .01$).

Discussion

Bullying behaviors have an impact on and are impacted by the broader context in which the bullying occurs. As such, programming to reduce bullying that targets these broader systemic factors, like increasing positive bystander responses to bullying, has shown promise for reducing bullying behaviors (Polanin et al., 2012; Ttofi & Farrington, 2011). Although research has shown that school climate as a whole is associated with overall school bullying perpetration and victimization (Bradshaw et al., 2021; Espelage et al., 2014; Low & Van Ryzin, 2014; Wang et al., 2013), less is known about how specific aspects of school climate are related to types of bystander responses. The overarching goal of this study was to inform our understanding of the bullying bystander and school-climate literature by examining the association between 13 distinct components of school-climate and bystander behaviors, as well as examining grade, gender, and race differences in these associations in a large and diverse multi-level study of middle and high school-aged youth.

Results showed that schools with higher school-level student-reported school engagement and safety levels were more likely to have students who reported using defender behaviors during witnessed bullying interactions. On the other hand, a more favorable student-rated

physical environment was not associated with defender behaviors but was associated with lower odds of passive and assisting bystander responses. These results suggest that although improving overall school climate may increase the odds that adolescents will be positive bystanders, or ‘upstanders’ when they witness bullying, this association may be more complex than previously discussed. Only some aspects of school climate (i.e., Engagement and Safety) were positively associated with defender behaviors, whereas a poorer schools’ physical environment, on the other hand, was associated with higher passive and assisting responses. This finding is consistent with the authoritative school climate model conceptualizing a positive school climate driven by both structure and support (Gregory & Cornell, 2009; Gregory et al., 2010; Konold et al., 2014), this study suggests that the support/relationships facet of the model is likely crucial for improving bystander behaviors. This also highlights the needs of students in under-resourced schools, where the physical environment may be negatively influencing how students interact with each other and norms related to responses to bullying (Bradshaw, Sawyer, et al., 2009); in these schools, there are increased passive and assistor bystander behaviors, but the physical environment is not associated with defender bystander behaviors. Given that certain aspects of the schools’ physical environment may be cost-prohibitive to improve, it is encouraging to see that improving school engagement and feelings of safety could lead to an increase in positive bystander behaviors.

The few studies that have examined subscales have evinced mixed findings. In Mulvey and colleagues’ (2019) study of U.S.-based 6th through 9th graders in response to vignettes, the climate subscales were not associated with positive bystander behaviors, student-teacher relationships were associated with passive responses. In Cui and colleagues’ (2020) study of 4th-9th grade youth from China, better connectedness (student-teacher and student-student) was

associated with lower assisting behaviors, yet only teacher-student was associated with increased defending behaviors. Finally, Konishi and colleagues (2021) found in a sample of 8th-12th grade youth from Canada that higher student-student connectedness was associated with lower defending behaviors (i.e., support seeking) but higher student-teacher connectedness was associated with decreased passive responses. In the present study of 6th-12th grade U.S.-based youth, supportive environments, in general, were significantly associated with responses in the expected direction (more support, more defending, less support more passive, and assistor behaviors). Feeling a positive whole-school connection was specifically associated with higher defender behaviors only and better teacher-student connectedness was associated with lower assisting behaviors. While these findings do suggest a complex relationship. In general, hypotheses that a supportive environment would be associated with increased defender behaviors and decreased passive and assistor behaviors were partially supported, and it seems that different aspects of connectedness and support together would be associated with improved bystander responses, with the teachers' relationships with students having a strong association decreasing one of the more harmful responses, assisting.

Taken together with the findings regarding the school-level associations with engagement, this suggests that the individual perceptions of connectedness and child-parent-teacher relationships are more strongly associated with positive bystander behaviors and lower negative bystander behaviors. Prior research with school staff suggested that staff who felt more connected were more likely to intervene in bullying situations (Bradshaw et al., 2013). These results also suggest that while broader programming to improve school safety and engagement might increase the desired bystanders' behaviors, a more targeted approach might be necessary to decrease the assistor bystander behaviors. Specifically, given the environment is likely not an

easy aspect of the climate to shift, specifically targeting connectedness with teachers and improved academic engagement for those who are using assistor behaviors might be necessary. Notably, this study included a large range of early and late adolescents and according to the developmental contextual perspective (Bronfenbrenner, 1994; Espelage & Swearer, 2004), it is likely that the intersection between developmental stage and other individual and contextual factors can help to expand our understanding of these associations.

Individual-level associations

With regard to gender and grade level, the results both corroborate and build on what was found a decade ago (Trach et al., 2010). As compared to female students, male students were less likely to report defending and passive behaviors, yet more likely to report assistor behaviors. In general, boys had higher odds for endorsing the behaviors consistent with assistors (e.g., “join in on bullying”), and girls had higher odds for endorsing the behaviors consistent with defenders (e.g., try to make others stop bullying). Scholars have indicated that improving social skills, specifically improving empathy and assertion (i.e., knowing what to do and then intervening in bullying) would be key aspects of positive bystander interventions and should be incorporated in programming (Jenkins, 2019). This study suggests that males might need additional curricula to decrease their assistor behaviors. Passive behaviors were split with boys more likely to “ignore” bullying and girls more likely to “stay out”. It is possible that gender might shape these interactions, such that girls are more likely to bully those in their social circle or witness bullying within their social circle (e.g., Besag, 2006; Closson et al., 2017), and perhaps they are also more likely to step in to defend their friends (Oldenburg et al., 2018; van Rijsewijk et al., 2016). Boys, on the other hand, are more likely to bully/witness bullying of others outside their social circle (e.g., Salmivalli et al., 1997), so they might be less likely to feel motivated to step in to help out a

target of bullying that are not their friends (Oldenburg et al., 2018; van Rijsewijk et al., 2016). This could suggest that programming being developed to specifically focus on bystander behavior would benefit from including ways to defend a target when the perpetrator is a friend while still maintaining the relationships (more relatable to females) and when the perpetrator is outside of their immediate social network so they do not feel the need to ignore the behavior (more relatable for males).

High school students also had significantly lower odds of reporting defender bystander behaviors and significantly higher odds of reporting passive and assistor bystander behaviors. Specifically, the odds of defenders using the strategy of telling adults was significantly lower in high school, suggesting that programming should be tailored with a concerted focus on high school youth viewing adults as an acceptable option when witnessing bullying. To do this, utilizing prosocial and socially influential youth to shift the normative beliefs regarding this behavior may be particularly helpful.

Concerning the race-ethnicity results, Black and Latinx youth were less likely to report defender and passive behaviors whereas there were fewer significant differences when comparing White youth to Asian and Bi-/Multi-racial youth. As compared to White youth, all other groups were more likely to report assistor bystander behaviors. These results are consistent with yet add to some of the prior studies in arguing that certain minoritized groups, particularly Black and Latinx youth, tend to endorse the more assistor responses and the less defending responses (Bistrong et al., 2019; Gönültaş et al., 2020). This finding may be due to Black and Latinx youth' lower perceived social status in peer dynamics than other racial-ethnic peers (Goodman et al., 2015; Rahal et al., 2020), which may discourage them from defending bullying victims (Juvonen & Graham, 2014; Salmivalli et al., 1996). In addition, this difference may be

attributed to the possible racial-ethnic differences in how youth cognitively evaluate bullying incidents, one of which is that Black and Latinx youth may view aggressive acts as more acceptable than their White counterparts (Gönültaş et al., 2020). When these youth appraise bullying incidents to be less severe, they might be thus less likely to defend and ignore the victim and more likely to side with the bully. It is also worthwhile to note that the exhibition of fewer defending behaviors among the minoritized youth may be attributed to how they evaluate different bystander responses. As endorsed by Mulvey, Gönültaş, and colleagues (2021), minoritized youth who were targets of racial discrimination perceived lower acceptability of defending behaviors. Taken together, these findings suggest that cultural normative beliefs held by youth of different racial-ethnic backgrounds are likely manifested in their perceived acceptability of not only peer aggression and bullying, but also different bystander responses (e.g., minoritized youth appear to see themselves less as a defender in response to bullying). Perhaps, Black and Latinx youth's lower acceptance of defending behaviors is a vulnerability caused by their racialized experiences in the school. Future studies need to further explore minoritized youth's social and moral reasoning about each bystander behavior, particularly among those who were victimized because of their race or ethnicity. This exploration may provide a more nuanced understanding of the impact of pervasive, racialized school experiences (Bell, 2020) on minoritized youth's perceived role as a bystander and their responses, such as disengaging from defending the victim because of feeling empowered and fearful of possible retaliatory discrimination consequences.

Our finding of fewer assistor behaviors in schools with greater student racial-ethnic diversity is consistent with literature that suggests the positive role of school ethnic diversity in reducing youth's perceived vulnerability at school (e.g., Juvonen et al., 2018). Yet, it extends the

findings of prior research beyond the impact of school ethnic diversity on the likelihood of being bullied by showing that this contextual factor may also contribute to bystanders' fewer negative behaviors in bullying encounters. In other words, great school ethnic diversity appears to influence not only bullying victims but also the larger number of peer bystanders, whose behaviors are critical in determining the overall prevalence of peer aggression in schools (Waasdorp et al., 2017). Although beyond the scope of this paper, future studies would also benefit from examining the interaction between one's race-ethnicity and school ethnic diversity in predicting bystander behaviors.

The models testing interactions between the climate subscales, race, and gender suggested that higher levels of Academic Engagement were positively associated with defending behaviors more strongly in girls than in boys; however, it was associated with passive behaviors more strongly in boys as compared to girls. Future research should examine factors related to the stronger associations between Academic Engagement and defending and passive behaviors for boys and girls, respectively. This information could be used to improve both academic engagement and positive bystander behaviors for all genders.

Moreover, student perceptions of a more aggressive climate in their school (Aggression subscale of the Safety scale) were positively associated with defending behaviors, this association was stronger in girls as compared to boys. Perceptions of a more aggressive climate were associated with passive behaviors more strongly in boys and high school students than in girls and middle school students. These findings suggest that the climate of a school, and specifically how the students of different genders and grades perceive it, is differentially associated with behaviors. Perhaps the risk associated with defending is driving the students' reports of whether they would positively intervene or passively stand by. Future studies could

examine the perceived risks and/or rewards for bystander behaviors, and these perceptions could vary by the type of bullying witnessed. For example, boys, and high school youth might feel that defending puts them at a higher risk if the bullying is more physical in nature and instead, a more passive response keeps them safe. The subtle differences in climate and bullying scenarios, coupled with individual characteristics should be the focus of a more in-depth study of bystander behaviors. Using peer-report or qualitative data would assist in teasing apart these factors.

Finally, academic engagement was negatively associated with assisting behaviors to a lesser extent in Black youth than in other racial-ethnic groups. This is consistent with prior studies that suggest that academically achieving Black students are likely being bullied or excluded by peers for violating race-based academic stereotypes (i.e., Black students have poor and limited academic capabilities; Copping et al., 2013; Williams & Peguero, 2013). Perhaps, because of possible experiences of more social costs with academic success in Black youth than in White and other less marginalized peers, the positive role of academic engagement climate in the school in lessening assisting behaviors is less pronounced in Black students. This finding may indeed reflect another vulnerability in Black youth that is attributed to the racialized context that shapes the K-12 school environment (e.g., being disciplined as a function of their race; see Gage et al., 2021) and more specifically, academic-related social norms and differentiated learning opportunities and resources (Heard-Garris et al., 2018). Our study adds to the literature by showing that the racialized experiences among Black youth likely impair not only their academic engagement and achievement but also, its role in shaping how they respond to other peers' bullying experiences (more assisting than other racial-ethnic groups despite the school academic climate being similar).

On the other hand, greater teacher connectedness and parent involvement were associated with fewer assisting and more defending behaviors, respectively, adding to the current literature replicating what was found in prior studies regarding connectedness with staff (Konishi et al., 2021) and extending research showing the importance of parental involvement in this large sample of middle and high school-aged youth (Mulvey et al., 2019). Further adding to the literature, this study showed that these two associations were stronger in Black and Latinx youth than White and other minoritized youth. These findings highlight the importance of strengthening student-teacher and parent-teacher bonding in encouraging positive bystander behaviors, which is particularly salient for Black and Latinx youth. Considering that youth in the two groups are disproportionately impacted by racialized school experiences and systemic oppression within the education system (Bell, 2020; Gage et al., 2021), these findings may hold promise for future, culturally sensitive bystander interventions by engaging varied stakeholders rather than solely focusing on youth's peer relationships. As discussed above, not all aspects of school climate are cost-effective to shift considering that Black and Latinx students are significantly more likely to attend under-resourced schools. Yet it might be most promising to enhance student-parent-teacher relationships that could lead to an increase in positive bystander behaviors which would ultimately reduce school-wide peer bullying and improve minoritized youth's school experiences.

Limitations

There are some limitations of the current study, such as the reliance on self-report and the cross-sectional design. Moreover, scholars have warned that the examination of bystander behavior is subjective and captures overall tendencies of behavior rather than behavior to specific incidents or most recent incident (Datta et al., 2016), the methods used in this study (i.e.,

a yes/no response) precluded variation in responses such as would be found using a frequency scale, moreover, the use of peer nominations of bystander behaviors can be used in concert with self-report to gain a more accurate picture of bystander behaviors. Taken together, future studies should use additional informants (such as school staff reports), and/or additional methods (such as qualitative or more objective data for climate and modeled at the school-level, across time. These methods could be used to gather bystander behaviors (e.g., peer nominations) allowing for the examination of outcomes measured by different informants. Notably, while school climate factors are associated with bystander responses, other constructs should also be considered, such as peer group dynamics, which could also influence bystander behavior norms (e.g., Oldenburg et al., 2018; van Rijsewijk et al., 2016). For example, in a situation where the perpetrator is viewed as popular or the victim is considered a friend bystanders' responses can be impacted (Frey et al., 2015; Huitsing & Veenstra, 2012; Waasdorp, Pas, et al., 2011). Future studies should include contextual details related to peer group dynamics along with school climate constructs to gain a more comprehensive understanding of bystander behaviors.

Strengths of the study include the large, representative sample from Maryland State which allows for the comparison of a sizable number of schools, increasing our ability to see differences of school-level factors of school climate. We were able to identify specific aspects of school climate that may be the most relevant to “upstander” behavior, and thus provide insights to potential targets for intervention. Although we were able to examine gender, race/ethnicity, and grade-level differences, several other constructs could be examined in more detail in future studies, such as the form of bullying witnessed. For example, the findings of the current study, especially as it relates to gender, could have varied if the form of bullying and victimization was examined (e.g., physical, relational) with boys more likely to display physically aggressive

behaviors and therefore, girls might be less likely to intervene when this form is witnessed. Moreover, gender was assessed in its binary, which precluded any examination of children who do not identify this way, such as transgendered students, these youth view the school climate in distinct ways (Pampati et al., 2020) and are more likely to be involved as a victim of bullying (Domínguez-Martínez & Robles, 2019; Earnshaw et al., 2017) thereby making their experiences as bullying witnesses likely unique and warrant further exploration. While structural racism may play a role in some of the racial/equity-related findings, we regret that we did not have data on specific indicators to explore this issue more directly.

Practical Implications and Conclusions

Taken together, these findings suggest that programming to increase positive bystander behaviors and decrease negative bystander behaviors, similar to typical bullying prevention, will likely need to have a tiered approach that includes both broad programming for all youth and targeted programming as well. For example, all high school youth would need additional supports to increase positive bystander behavior; however, boys in both middle and high school might require additional guidance regarding how to be a positive bystander and decrease the more negative bystander behaviors. It would be helpful for those ‘on the front lines’, such as school staff, to gain insight into characteristics of the bullying, such as what types of bullying behaviors are most common, where bullying is most likely to occur; this information, while not available in this study, is important for helping to target appropriate responses. Studies have found increasing empathy helps increase positive bystander responses (Deng et al., 2021); however, the results from the current study suggest that improving feelings of connectedness with adults may help to increase positive bystander behaviors and decrease negative bystander behaviors. It will also be important for schools that are focusing on increasing positive bystander

behavior to target their approaches on boys, who are less likely to use positive bystander behaviors. Our findings also suggested that trying to increase positive bystander behaviors may be very advantageous in high school, where the youth had lower odds of defender behaviors. The meta-analysis of bystander programming by Polanin et al. (2012) found that programs had larger effect sizes on improving bystander behaviors in high school as compared to younger grade levels.

Taken with the findings from this study, implementing bystander programming in high school should target more individuals in need of increasing these behaviors, and given this, could be more cost-effective at this school level. Future studies could examine this possibility, however, programming aimed at high school youth, such as the recently adapted STAC program show promise. The STAC program specifically trains students to act as defenders, this brief program has shown promise in both elementary and middle school students for increasing knowledge and confidence to intervene (Midgett, Dumas, & Johnston, 2017) as well as reported positive bystander intervention behaviors in middle schools (Midgett, Dumas, Trull, et al., 2017). This program has been adapted for use in high schools, and given meta-analyses show that programming to reduce bullying and aggression either has no effect or iatrogenic effects in high schools (Yeager et al., 2015), a targeted program focusing on increasing positive bystander behaviors would be beneficial. Programming aimed at specifically improving bystander intervention are still in their infancy, and more studies are needed to examine the impact on bystander behaviors in broader anti-bullying programming given the most recent review of literature ended with studies published in 2010. The current study also highlights the importance of building connectedness/relationships as a crucial starting point, especially between adults at a school, this can be done outside of any specific anti-bullying or bystander programming these

results suggest that bolstering connections and relationships should be a central focus of programming.

Given the large and relatively diverse sample used in this study, we were able to explore some racial/ethnic differences that might highlight youth in need of greater support. For example, Black and Latinx students might need more supports for using positive bystander behaviors, whereas White and Asian students might need more guidance as to how not to be a passive bystander. A focus on how decreasing assistor behaviors by increasing student perceived academic engagement would be helpful yet one needs to be careful that this benefit is not equal across all racial-ethnic groups. Some minoritized groups that are more historically marginalized (Black youth in the present study) may need more attention in addressing academic-related stereotypes prior to leveraging the benefit of positive school climate on academic engagement. In the meantime, it is important to keep in mind that focusing on cost-effective, malleable factors as opposed to subgroups of individuals would likely be a better strategy. For example, this study showed that perceptions of child-parent-teacher relationships could improve positive bystander behaviors more strongly in Black and Latinx youth than in other racial-ethnic groups. As such, programming aimed at bystander behaviors has shown promise (Midgett & Doumas, 2019; Polanin et al., 2012), and a focus on school climate while accounting for racial-ethnic differences will likely have an impact on decreasing bullying through improved bystander behaviors (Waasdorp et al., 2012).

In conclusion, these findings highlight the importance of addressing both school climate and norms about how youth respond to witnessing bullying. These efforts may be most impactful if acted on in concert with each other. The growing recognition of the power of peer responses to

bullying and the critical role of bystanders as “upstanders” further illustrate the significance of this study and the association between these behaviors and school climate.

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Table 1*Ranked Order Frequencies of Bystander Responses*

Type of Bystander Response	<i>N</i> (%)
Try to make others stop the bullying	15725 (23.4)
Stay out of the bullying	14576 (21.7)
Comfort the person being bullied	13799 (20.5)
Tell an adult about the bullying	11372 (16.9)
Encourage the person being bullied to tell an adult at the school	11318 (16.9)
Ignore the bullying	7350 (10.9)
Watch the bullying but do nothing to stop it	4736 (7.1)
Laugh at the bullying	2435 (3.6)
Join in on the bullying	1331 (2.0)

Note. Bystander behaviors are multi-response, as such subsamples will not add up to the total sample.

Table 2*Frequency of Bystander Responses by Grade Level and Gender*

Bystander Response Behavior	<i>Middle School</i>	<i>High School</i>	<i>OR</i>
Watch the bullying but do nothing to stop it	1925 (6.6)	2807 (8.0)	1.23**
Join in on the bullying	406 (1.4)	924 (2.6)	1.91***
Stay out of the bullying	7036 (24.3)	7530 (21.6)	0.86***
Try to make others stop the bullying	7908 (27.3)	7800 (22.3)	0.77***
Ignore the bullying	3062 (10.6)	4283 (12.3)	1.18**
Laugh at the bullying	835 (2.9)	1600 (4.6)	1.62***
Comfort the person being bullied	7437 (25.7)	6348 (18.2)	0.64***
Encourage the person being bullied to tell an adult at the school	6751 (23.3)	4557 (13.0)	0.49***
Tell an adult about the bullying	7178 (24.8)	4185 (12.0)	0.41***
	<i>Female</i>	<i>Male</i>	<i>OR</i>
Watch the bullying but do nothing to stop it	2239 (7.0)	2489 (7.8)	1.11*
Join in on the bullying	400 (1.3)	929 (2.9)	2.34***
Stay out of the bullying	8506 (26.8)	6051 (18.9)	0.64***
Try to make others stop the bullying	9079 (28.6)	6617 (20.6)	0.65***
Ignore the bullying	3604 (11.3)	3732 (11.6)	1.03
Laugh at the bullying	960 (3.0)	1469 (4.6)	1.54***

Comfort the person being bullied	9113 (28.7)	4660 (14.5)	0.42***
Encourage the person being bullied to tell a teacher	7187 (22.6)	4108 (12.8)	0.50***
Tell an adult about the bullying	6839 (21.5)	4513 (14.1)	0.60***

Note. Percentages will not add up to 100% due to the multiple response option. OR = Odds ratio.

Middle school and female are the reference groups, respectively. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3

Frequency of Bystander Responses by Race-Ethnicity

Bystander Response Behavior	White	Black	Latinx	Asian	Bi-/Multi-racial				
	<i>Endorsed</i>	<i>%</i>	<i>OR</i>	<i>%</i>	<i>OR</i>				
Watch the bullying but do nothing to stop it	6.3	8.7	1.42	7.6	1.22	9.4	1.54	8.2	1.33
Join in on the bullying	1.5	2.6	1.68	2.2	1.43	2.5	1.65	3.1	2.06
Stay out of the bullying	23.9	21.4	0.87	20.9	0.84	24.9	1.06	21.8	0.89
Try to make others stop the bullying	25.8	22.2	0.82	23.7	0.89	23.9	0.90	26.0	1.01
Ignore the bullying	11.5	11.5	1.00	11.2	0.97	13.0	1.16	11.2	0.97
Laugh at the bullying	2.6	5.8	2.31	3.4	1.35	3.4	1.32	5.3	2.11
Comfort the person being bullied	23.5	18	0.71	20.0	0.81	22.9	0.96	22.0	0.92
Encourage the person being bullied to tell an adult at the school	18.9	14.3	0.72	18.7	0.98	19.7	1.05	18.3	0.96
Tell an adult about the bullying	18.7	14.1	0.71	21.1	1.16	18.4	0.98	18.8	1.01

Note. OR = odds ratio; White is the reference group. Bolded numbers were not significant at $p < .05$.

Table 4

Multilevel Models Examining School- and Individual-Level Characteristics for Bystander Behaviors

Predictors	Defender			Passive			Assistor		
	β	<i>B (SE)</i>	OR	β	<i>B (SE)</i>	OR	β	<i>B (SE)</i>	OR
School Level/Level 2									
Enrollment	-.03	-.01(.06)	.99	.12	.03(.03)	1.03	-.04	-.02(.07)	.98
%Suspension	-.16	-.38(.31)	.68	.07	.08(.13)	1.08	.13	.22(.19)	1.25
Ethnic diversity	.12	.16(.10)	1.17	-.13	-.09(.09)	.91	-.37	-.39(.15)**	.68
Safety	.65	.54(.16)**	1.71	.90	.41(.12)***	1.51	.18	.20(.29)	1.22
Engagement	.71	.97(.34)**	2.64	.18	.18(.20)	1.2	-.02	-.02(.36)	.98
Environment	-.19	-.27(.23)	.76	-.98	-.65(.16)***	.52	-.53	-.51(.21)*	.60
Individual Level/Level 1									
High School	-.06	-.07(.03)*	.93	.06	.24(.05)***	1.27	.07	.31(.07)***	1.36
Male	-.15	-.61(.02)***	.54	-.05	-.21(.02)***	.81	.07	.29(.04)***	1.34
Latinx	-.02	-.12(.05)*	.89	-.02	-.12(.04)**	.88	.03	.24(.06)***	1.27
Asian	.00	-.03(.04)	.97	.00	.02(.04)	1.02	.06	.50(.07)***	1.66
Black	-.03	-.15(.03)***	.87	-.03	-.16(.03)***	.86	.09	.45(.05)***	1.56
Bi-/Multi-racial	-.00	-.00(.03)	.99	-.03	-.17(.04)***	.85	.04	.32(.05)***	1.37
Engagement									
Teacher connectedness	-.01	-.02(.03)	.98	.00	.01(.03)	1.01	-.06	-.18(.04)***	.83
Student connectedness	-.02	-.06(.04)	.94	-.02	-.06(.02)**	.94	.03	.10(.03)**	1.11
Academic engagement	.07	.25(.03)***	1.28	.05	.16(.03)***	1.17	-.06	-.23(.04)***	.79
Whole school connectedness	.10	.26(.02)***	1.30	.00	.01(.02)	1.01	.01	.02(.04)	1.02
Culture of equity & fairness	.03	.07(.02)**	.94	.00	.00(.02)	1.00	.01	.02(.03)	1.02

Environment	Parent involvement	.02	.07(.03)**	1.08	-.03	-.11(.03)***	.90	-.06	-.20(.04)***	.82
	Rules & consequences	.02	.06(.02)**	1.07	.01	.04(.02)	1.05	-.01	-.04(.04)	.96
	Physical comfort	.03	.10(.02)***	1.10	.02	.05(.03)	1.05	.01	.04(.03)	1.04
	Support	.05	.15(.02)***	1.16	-.03	-.08(.02)***	.92	-.04	-.12(.04)**	.89
	Disorder	.03	.09(.02)***	1.10	.01	.05(.02)	1.05	.03	.11(.03)**	1.12
Safety	Physical Safety	.02	.06(.03)*	1.06	.06	.23(.03)***	1.26	.03	.11(.05)	1.12
	Aggression	.35	.89(.02)***	2.43	.43	1.09(.02)***	2.99	.35	.95(.03)***	2.58
	General drug use	-.02	-.03(.01)*	.97	-.04	-.08(.01)***	.92	.00	.01(.02)	1.01

Note. OR = odds ratio.
 * $p < .05$. ** $p < .01$. *** $p < .001$.