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CITATION

Support From School Personnel and In-School Resources Jointly Moderate the Association Between Identity-Based Harassment and Depressive Symptoms Among Sexual and Gender Diverse Youth

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A growing body of research has found that perceptions of social–emotional support from school personnel and lesbian, gay, bisexual, transgender, and queer (LGBTQ) in-school resources (e.g., gender and sexuality alliances, inclusive curricula, inclusive sexual education, presence of affirming adults) contribute to sexual and gender diverse youth's (SGDY) positive development. However, no research has investigated how support from school personnel and LGBTQ in-school resources might jointly modify the associations between SGDY's experiences with sexual orientation and gender identity (identity)-based harassment and mental health outcomes. Thus, the current study examined how school personnel support and LGBTQ in-school resources, together, moderated the association between identity-based harassment, depressive symptoms, and anxiety symptoms among a national sample of SGDY ($N = 13,500$, $M_{age} = 15.50$, $SD = 1.34$). Multigroup path analysis revealed that for SGDY in middle school (i.e., 6–8) and high school grade levels (i.e., 9–12), school personnel support and LGBTQ in-school resources jointly moderated the association between identity-based harassment and depressive symptoms. Among SGDY who reported high levels of harassment, support from school personnel buffered the association between identity-based harassment and depressive symptoms. However, at low levels of harassment, it was a combination of high support from school personnel and LGBTQ in-school resources that was linked to the lowest levels of depressive symptoms. SGDY reported more depressive symptoms when they perceived low levels of support from school personnel, regardless of the concentration of LGBTQ in-school resources.

Educational Impact and Implications Statement
This study investigated how a combination of both lesbian, gay, bisexual, transgender, and queer (LGBTQ) in-school resources and support from school personnel would mitigate LGBTQ youth's symptoms of depression and anxiety tied to discriminatory harassment. Among youth who experienced high levels of harassment, feeling cared for by school personnel was the primary factor linked to the lowest levels of depressive symptoms, regardless of the presence of LGBTQ in-school resources. At lower levels of harassment, both high amounts of LGBTQ in-school resources and feeling cared for by school personnel were associated with the lowest levels of depressive symptoms. As schools continue to work toward reducing harassment and incorporating more LGBTQ in-school resources, they should also strive to simultaneously address LGBTQ students' perceptions of support from teachers and staff.

Keywords: sexual minority, gender diverse, victimization, teacher support, school climate

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Sexual and gender diverse youth (SGDY; e.g., lesbian, gay, bisexual, transgender, and queer [LGBTQ])[1] experience disproportionate levels of harassment relative to their cisgender–heterosexual peers (Myers et al., 2020). SGDY's experiences with harassment based on their sexual orientation and/or gender identity are often first experienced at a developmental period where they also meet the challenges of normative adolescent development (e.g., growing peer sensitivity) and other identity specific stressors (e.g., coming out; Russell & Fish, 2019); thus, SGDY may be particularly vulnerable to poorer mental health. Given the potentially limited availability of social support available to some SGDY from peers and families (Katz-Wise et al., 2016; Marshall et al., 2015), nonparental adult support (e.g., from teachers or school staff) has been identified as a crucial developmental asset to disrupt SGDY's experiences with stigma-based harassment and negative health outcomes (Bishop et al., 2023). A robust body of research has also identified the protective role of LGBTQ-focused in-school resources (e.g., inclusive LGBTQ curricula) in promoting positive mental health outcomes among SGDY (Russell et al., 2021). Despite these two separate bodies of research, few scholars have considered the interactive relations of support from school personnel and LGBTQ in-school resources; furthermore, no research has considered how these two constructs may interact together to mitigate harassment-related experiences among SGDY.

Although perceptions of LGBTQ in-school resources and support from school personnel can contribute to SGDY's well-being, some students may continue to experience ongoing peer harassment in contexts where these resources are present and may even report amplified distress (e.g., the healthy context paradox; Kaufman et al., 2023). Such possibilities underscore recent calls from scholars to examine how various environmental and interpersonal contexts shape the health outcomes of adolescents who experience persistent victimization (Salmivalli et al., 2021). To better understand the importance of interpersonal contexts on mental health outcomes, the current study examined the potential protective role of both LGBTQ in-school resources and school personnel support in SGDY's experiences with identity-based harassment—a form of discriminatory harassment. Specifically, the current study leveraged a contemporary U.S. national sample of SGDY in middle school and high school and used multivariate path analysis to cross-sectionally investigate the extent that the association between identity-based harassment, depressive symptoms, and anxiety symptoms would depend on the joint interaction between school personnel support and the amount of LGBTQ in-school resources SGDY perceive in their school. These investigations can help inform future school-based interventions on the circumstances wherein targeted interpersonal and structural support systems can be implemented to buffer the emotional impacts of SGDY experiencing ongoing victimization.

Theoretically Situating Health Disparities and Identity-Based Harassment

The current study was informed by minority stress and demand-resource theories. Scholars have used minority stress theory to contextualize the development of mental health vulnerabilities of individuals with minoritized sexual and gender identities (Brooks, 1981; Meyer, 2003). The theory posits that in addition to general life stressors young people of all sexual and gender identities may encounter (e.g., stressful school transitions), SGDY experience additional unique stressors specific to their minoritized sexual and gender identities

(e.g., disclosing their identities to others). Unique minority stressors can be characterized along a continuum of distal (e.g., discrimination) and proximal (e.g., internalized stigma) forms and, with chronic exposure, can deplete SGDY's preemptive coping resources and self-regulative capabilities to manage future stressors (Hatzenbuehler, 2009). The resulting and repeated exposure to these compounding stressors directly contributes to SGDY's disproportionate mental health vulnerabilities relative to their cisgender–heterosexual peers (Brooks, 1981; Meyer, 2003).

Similar to minority stress theory, demand-resource models may be useful to understand the experiences of SGDY. Derivatives of demand-resource models are rooted in job demand-resource theory, which explains how employees' job performance and well-being are influenced by various psychosocial and physical aspects of a job, including job demands, job resources, and personal resources (Bakker et al., 2023). Given that many of the processes job demand-resource theory outlines apply across educational settings, scholars have extended the framework to understand how academic and personal resources and demands shape students' psychosocial and academic adjustment (e.g., academic demand-resource theory; Martin et al., 2024). Most relevant to the current study, the academic cultural demand-resource (ACD-R) model shows how cultural demands (i.e., discrimination in educational settings), cultural resources (e.g., environmental strengths and cultural pride), academic resources (e.g., felt teacher support), academic demands (e.g., heavy course loads), personal resources (e.g., academic buoyancy), and personal demands (e.g., self-regulation difficulties) contribute to the school experiences of students with culturally and ethnically minoritized identities (Martin et al., 2024). Like other demand-resource models, ACD-R proposes that resources (e.g., cultural resources) contribute positively to health and academic experiences, whereas demands (e.g., discrimination) contribute negatively to students' health and academic experiences. We focus specifically on cultural demands and cultural resources as previous research informed by ACD-R and minority stress theories have shown these two domains to hold key influential roles in the psychosocial adjustment outcomes of students with marginalized identities (e.g., Kurpiel, 2024; Martin et al., 2024). Thus, to meet the needs of SGDY that are tied to experiences with unique minority stressors (Meyer, 2003), considering the role of various cultural resources could be especially important.

Similar processes outlined by ACD-R are evident in SGDY's health experiences across school settings and mirror the mechanisms in minority stress theory. For example, across both perspectives, SGDY's cultural demands (e.g., minority stressors) and cultural

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[1] Sexual orientation is a multifaceted construct that reflects identity, attraction, and behavior (Sherwood et al., 2024). In the current study, we focus on sexual identity (i.e., how someone identifies). Lesbian is a term that refers to women who experience physical or emotional attraction to other women; gay is a term that refers to someone who experiences psychical or emotional attraction to someone of the same gender; bisexual refers to someone who experiences emotional or physical attraction to more than one gender; queer is a reclaimed identity that some use as an umbrella term to reflect an identity other than heterosexual (e.g., demisexual; Watson et al., 2020) or as an identity label (Dellar, 2022; GLSEN, 2014). Gender identity is distinct from sexual identity and refers to an individual's internal feeling and experience of gender. Cisgender is a term that refers to a person whose current gender identity aligns with their gender assigned at birth, whereas transgender is a term that refers to people whose gender identity does not align with their gender identity assigned at birth (GLSEN, 2014).

resources (e.g., affirming school-based support systems or social–emotional support) directly and interactively contribute to SGDY's health outcomes. More specifically, cultural demands are culturally specific stressors students may encounter in school that are linked to psychosocial costs; in comparison, cultural resources are culturally specific environmental or personal assets that contribute to positive psychosocial outcomes through their facilitation of growth and goal attainment across education settings (Martin et al., 2024). As suggested by both theories, peer harassment that targets marginalized sexual and gender identities could be one salient cultural demand and minority stressor some SGDY are tasked to navigate in school. In comparison, the presence of school resources or assets that affirm LGBTQ identities and SGDY's perception of social–emotional support from school personnel (partially dependent on school culture) may be two salient cultural resources that are linked to positive experiences of growth in educational settings.

Two of the most commonly studied mental health outcomes in relation to minority stress among SGDY are depression and anxiety. Indeed, the average age of onset of depressive symptoms and anxiety symptoms occurs much earlier in adolescence for SGDY than their cisgender–heterosexual peers (e.g., age 11 for depressive symptoms and age 15 for anxiety symptoms; Fish et al., 2023; Pachankis et al., 2022), and disparities in felt symptoms can extend across adolescence and into adulthood (Roberts et al., 2013). Depression and anxiety are often comorbid in adolescents (Garber & Weersing, 2010), yet core features of both mood disorders have been identified. For instance, two features of major depressive disorder may be depressed mood (e.g., feeling down or hopeless) and anhedonia (e.g., loss of interest in activities; Kroenke et al., 2009); in contrast, core features of generalized anxiety disorder may be amplified distress and trouble regulating distress (Kroenke et al., 2009). It is essential to note, however, that the diagnosis and presentation of these mood disorders are complex: some adolescents may experience symptoms of depression and anxiety over 2 weeks but do not meet the threshold of diagnosis of either (Kroenke et al., 2009). As not to conflate with diagnosis, the current study defined and measured the extent to which SGDY reported experiencing two core symptoms of depression and two core symptoms of generalized anxiety disorder over the past 2 weeks.

Identity-based harassment—unwanted physical, verbal, and relational aggression in-person based on real or perceived LGBTQ identity—is one minority stressor and cultural demand that directly contributes to SGDY's symptoms of depression and anxiety (Collier et al., 2013). Identity-based harassment can take multiple forms (e.g., relational, verbal, and physical threats; Kosciw et al., 2022). Compared to other forms of victimization, identity-based harassment is driven by stigma and, as such, is a manifestation of discrimination among SGDY (Earnshaw et al., 2018; Gower, Rider, et al., 2018). With our focus on in-school resources and school personnel support, we examined in-person harassment for a more proximal focus on these relationships (e.g., some adolescents are less likely to seek help from adults when experiencing cyber victimization; Kaiser et al., 2020). Given that adolescence is a developmental period where sexual prejudice, pressure to adhere to and police gender norms (Kornienko et al., 2016), and the perpetration of harassment peak among youth (Poteat & Anderson, 2012; Poteat et al., 2012), SGDY are particularly vulnerable to experiencing harassment based on their sexual orientation and/or gender identities. For example, a national study of 22,298 SGDY found that 76% of adolescents reported experiencing verbal harassment based on their sexual and/or gender diverse identity (e.g., homophobic epithets; Kosciw

et al., 2022). Unsurprisingly, identity-based harassment has been associated with various adverse health outcomes over and above general forms of harassment (Kurpiel, 2024), such as elevated depressive and anxiety symptoms (Moyano & del Mar Sánchez-Fuentes, 2020). Given the prevalence of such harassment among SGDY and the strongly established connection to negative mental health outcomes, scholars must continue investigating how various developmental assets can be leveraged to disrupt these experiences.

An important proposition in both minority stress and demand-resource theories is the presence of buffering effects over and above the main effects of cultural demands and resources (Martin et al., 2024; Meyer, 2003). Under minority stress theory, the presence of community, institutional, and individual support systems may buffer against harmful health outcomes associated with LGBTQ individuals' experiences with minority stressors (Meyer, 2003). Thus, the current study theorized that the presence of structural and interpersonal support systems that reflect meaningful cultural resources would buffer against SGDY's health outcomes tied to their experiences with identity-based harassment. However, research on SGDY's experiences with peer harassment has typically only investigated how support systems independently buffer against minority stressors (i.e., two-way interactions) without considering their joint interaction (i.e., three-way interactions). As such, questions remain, for example, whether the buffering associations for SGDY high in one supportive resource might be amplified or dampened when they are also higher or lower in another supportive resource. Demand-resource models provide flexible frameworks to examine these associations with greater complexity (Bakker et al., 2023), which could potentially shed light on this question.

In the spirit of better understanding these nuanced relationships, the current study considered two culturally relevant forms of support previously documented to contribute to SGDY's positive development and show promising capabilities of buffering mental health outcomes among SGDY who experience peer harassment: LGBTQ in-school resources (i.e., structural and identity-specific) and perceptions of social–emotional support from teachers and staff (i.e., interpersonal and general). See Figure 1 for a visual of the conceptual model.

LGBTQ In-School Resources

Several LGBTQ-specific school-based resources are geared toward promoting school safety and can impact the school climate for SGDY (Russell et al., 2021). In the current study, we define LGBTQ in-school resources as the presence or implementation of supportive structural practices that are tailored to engage and meet the needs of SGDY in schools. These practices may include, for example, the implementation of LGBTQ-tailored extracurriculars (gender–sexuality alliances), inclusive education (e.g., LGBTQ course content delivery; Russell et al., 2021, and the presence of affirming school staff (e.g., the presence of openly LGBTQ educators). In the current study, we draw on four supportive resources that are meaningfully tailored toward SGDY's identities—gender and sexuality alliances, inclusive curricula, inclusive comprehensive sexual education, and open LGBTQ instructors—and use the sum of these resources to determine the degree to which SGDY perceive them in their school.

Gender Sexuality Alliances

Research has documented that, when considered independently, affirming in-school resources contribute positively to SGDY's mental

Figure 1
Visual Depiction of the Conceptual Model
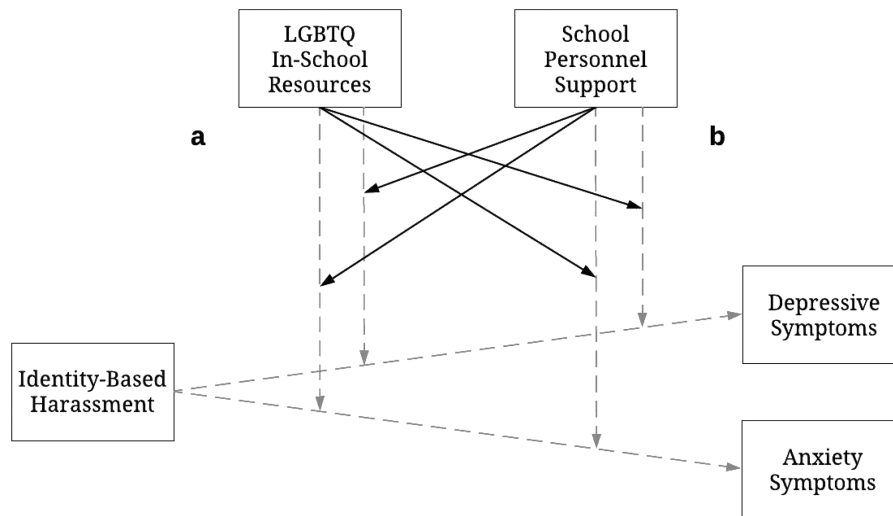
Note. Solid lines indicate primary paths of interest (i.e., three-way interactions): how the two-way moderation of LGBTQ in-school resources varies across support from school personnel (i.e., a) and how the two-way moderation of support from school personnel varies across LGBTQ-in school resources (i.e., b) based on switching the focal moderator during analyses of simple slopes. Some paths are omitted for clarity (i.e., covariates; main effects for and lower order interaction term of LGBTQ in-school resources and school personnel support). LGBTQ = lesbian, gay, bisexual, transgender, and queer.

health outcomes. For example, previous research has shown that SGDY who attend schools with a gender and sexuality alliance—student-led LGBTQ-focused clubs with a mission to promote a positive LGBTQ school climate on school campuses (Russell et al., 2021)—tend to report reduced depressive and anxiety symptoms (Baams & Russell, 2021; through greater participation Poteat et al., 2020), lower average stress levels (Lessard et al., 2020), and improved school engagement compared to their SGDY peers without (Hazel et al., 2019). Critically, the literature is still mixed on the extent to which the presence of a gender sexuality alliance, by itself, can improve SGDY's mental health experiences. Some studies have found no differences in the mental health outcomes between SGDY who report attending schools with and without a gender and sexuality alliance (e.g., Colvin et al., 2019; Ioverno et al., 2016) and have found heterogeneous effects across gender (Parodi et al., 2022) and racial–ethnic identity (Baams & Russell, 2021).

Inclusive Curricula

Inclusive course curricula—when the curriculum integrates positive examples of LGBTQ historical figures, events, and information into course content (Russell et al., 2021)—have demonstrated similar protective qualities as gender and sexuality alliances. SGDY who report receiving instructional lessons that include positive examples of LGBTQ historical events and figures have reported lower levels of depressive symptoms (Kosciw et al., 2022), lower levels of victimization (Snapp et al., 2015), reduced school absences, and higher grade point averages (Kosciw et al., 2013).

Inclusive Comprehensive Sexual Education

Less research has focused on the protective roles of inclusive comprehensive sexual education and open LGBTQ instructors but recent findings suggest they may be crucial resources for SGDY. Comprehensive sexual education in schools broadly consists of a set of evidence-based practices that provide sexual health information to students and reduce sexual risk-related experiences (Pampati et al., 2021). Characteristics of comprehensive programs affirming to LGBTQ student identities may also provide information specific to LGBTQ identities (e.g., information on coming out and navigating minority stressors; Pampati et al., 2021). In one study, bisexual adolescents who reported receiving sexual education that was comprehensive and inclusive of LGBTQ identities were less likely to report depressive symptoms (Proulx et al., 2019).

Open LGBTQ Instructors

Similarly, U.S. states vary in their acceptance of open LGBTQ instructors (e.g., self-disclosure of LGBTQ identity), which can manifest at the school level as structural practices (e.g., refusing to renew teaching contracts) and unsupportive school cultures fostering hostile climates that motivate LGBTQ staff to conceal their identities (Antonelli & Sembiante, 2022). Much like the resources above, the presence of open LGBTQ instructors may signal to SGDY that their broader school environment is affirming to their identities (Antonelli & Sembiante, 2022). Importantly, SGDY's perceptions of open LGBTQ school personnel (e.g., their personal belief that a staff member shares their identity), could be important to consider. Both qualitative (i.e., among LGBTQ high school students; R. Harris et al., 2022) and quantitative (i.e., among undergraduate university students; Busch et al., 2022) research has shown that perceptions of the presence of an LGBTQ staff member or instructor can bolster feelings of belonging, especially among LGBTQ students. Additionally, shared identities and cultural knowledge may facilitate more effective help seeking among SGDY that equips them to navigate minority stressors

that have downstream impacts on mental health (R. Harris et al., 2022; Leung et al., 2022). Given the structural barriers that may impact the ability of LGBTQ school staff in the United States to disclose their identities at school (e.g., Florida's Don't Say Gay Bill), and the potential benefits of perceiving openly LGBTQ staff and teachers on feelings of belonging and safety, we situate student perceptions of openly LGBTQ instructors as an LGBTQ in-school resource that may contribute to SGDY's positive mental health experiences.

Considering the Collective Presence of Resources

Most research examines the protective and stress-buffering role of LGBTQ in-school resources independent of one another (e.g., Kaufman et al., 2023) or examines the unique contributions of multiple supportive resources simultaneously (e.g., Kosciw et al., 2013). There is reason to believe, however, that examining LGBTQ in-school resources together can elucidate further nuance regarding how their presence in school shapes SGDY's peer-related experiences and health outcomes. For example, scholars have drawn on minority stress theory and bioecological models to establish how the collective presence of observable LGBTQ community resources (e.g., the presence of LGBTQ individuals in one setting and affirming religious institutions; Oswald et al., 2010) shapes community climate that contributes to the healthy development of LGBTQ individuals (Gower et al., 2019; Oswald et al., 2010). This could apply to the school context, where an affirming LGBTQ climate depends on the presence of multiple resources rather than the isolated effects of a few (Leung et al., 2022).

Several studies underscore the importance of understanding how the collective presence of LGBTQ in-school resources contributes to SGDY's school experiences. In a study of 31,183 ninth- and eleventhth-grade students from the Minnesota Student Survey, adolescents who attended schools with greater amounts of LGBTQ in-school resources (i.e., the sum of resources present) were less likely to experience general forms of relational victimization and sexuality-based victimization (Gower, Forster, et al., 2018); moreover, this protection was exceptionally robust when comparing students with a greater concentration of LGBTQ resources (i.e., four to six) to students with only one or two in their school. Another study found that among gay, bisexual, and questioning adolescent boys, a greater degree of diversity-related resources in school was associated with a lower likelihood of experiencing sexuality-based bullying (Eisenberg et al., 2022). Using a person-centered approach, a recent study found that students felt safer in schools that incorporated LGBTQ-inclusive strategies comprehensively or through curriculum and pedagogy compared to schools with a more limited inclusive strategy presence (Mann et al., 2024). Taken together, considering the collective presence of LGBTQ in-school resources may have far-reaching impacts on SGDY's harassment-related experiences and felt safety. Yet, how the collective presence of in-school resources shapes SGDY's depressive symptoms and anxiety symptoms in the face of harassment is still unclear. Such gaps are critical to examine, given inclusive findings regarding in-school resources as a modifying factor for SGDY experiencing persistent levels of harassment.

Although previous research has demonstrated the importance of LGBTQ in-school resources in mitigating SGDY's experienced harassment and potential to promote positive mental health outcomes, surprisingly less has examined how the amount of LGBTQ resources present in schools can buffer SGDY's mental health outcomes tied to identity-based harassment. Some studies have shown that gender and

sexuality alliances are important sources of hope for SGDY and can mitigate harmful mental health outcomes associated with identity-based harassment (B. Davis et al., 2014; Wright et al., 2022). One study with a national sample of LGBTQ youth, however, found no evidence of the presence of gender and sexuality alliances moderating the association between sexuality-based harassment and depressive symptoms (Truong & Zongrone, 2022). Although Truong and Zongrone (2022) found null evidence of participation in gender and sexuality alliances buffering depressive symptoms tied to harassment, it may be that the amount of affirming resources SGDY perceive in their school provides more robust advantages (Gower, Forster, et al., 2018). Another study examined the unique contributions of multiple LGBTQ in-school support systems on SGDY's academic outcomes and self-esteem and found that the presence of openly LGBTQ-supportive school staff weakened the association between victimization based on gender identity and elevated school absences (Kosciw et al., 2013). Taken together, the presence of more LGBTQ in-school support systems may provide SGDY with essential coping resources that can weaken the associations between identity-based harassment and various adverse health outcomes. However, more research is needed to confirm these associations when considering their collective presence.

The Healthy Context Paradox

Despite evidence suggesting that positive LGBTQ in-school resources may buffer the health outcomes associated with identity-based harassment, other research in the general and stigma-based bullying literature has found conflicting evidence regarding the buffering role of environmental context (i.e., the healthy context paradox; see Salmivalli et al., 2021 for a review). The healthy context paradox suggests that preventative measures introduced to reduce bullying may inadvertently contribute to poorer health outcomes among adolescents who continue to experience chronic peer victimization in these same contexts (Garandeau & Salmivalli, 2019). The general bullying literature details several cognitive and interpersonal theoretical mechanisms to explain the healthy context paradox. First, rooted in attribution theory (Graham & Juvonen, 2001), adolescents are motivated to understand the causes of their harassment, and the social environments where they experience victimization may influence how they attribute this cause. For example, research in the general population has shown that adolescents who continue to experience victimization in social contexts with lower overall levels of victimization (e.g., at the school level) tend to attribute their harassment to internal stable (e.g., I am bullied because of my identity) rather than external unstable causes (e.g., wrong place at the wrong time; Schacter & Juvonen, 2015), which may amplify the resulting distress. Second, rooted in social comparison theory (Festinger, 1954), adolescents experiencing victimization may be motivated to compare their experiences to other peers to enhance their well-being (e.g., downward social comparisons; cf., Taylor et al., 1983). Adolescents who experience persistent levels of victimization, however, in contexts with fewer similar others may tend to engage in upward comparisons toward peers who report little victimization, which may exacerbate mental distress (Garandeau & Salmivalli, 2019). Third, research in the general population has shown that adolescents who continue to experience harassment in these contexts may have diminished abilities or opportunities to form friendships with their peers (Pan et al., 2021), which may exacerbate future social isolation (Kaufman et al., 2022).

Although substantial research in the general bullying literature has replicated the healthy context paradox (Salmivalli et al., 2021), little work in the stigma-based bullying literature has explored these associations. Given the continued stigmatization of LGBTQ identities in schools, scholars suggest this phenomenon is especially relevant to SGDY experiencing forms of identity-based harassment (Kaufman et al., 2023). For instance, a cross-sectional study with a national sample of 10,588 SGDY from the 2017 National LGBTQ Teen Survey found that the presence of gender and sexuality alliances exacerbated the association between identity-based harassment depressive symptoms, self-esteem, and academic engagement (Kaufman et al., 2023). Another retrospective study among LGBTQ adults found that although participation in gender and sexuality alliances was efficient at buffering against depressive symptoms in young adulthood at less frequent levels of sexuality-based victimization in high school, the buffering effect was dampened at high levels of victimization (i.e., steeper differences in depressive symptoms; Toomey et al., 2011). Only Kaufman et al. (2023) attributed their findings to the healthy context paradox; however, they only used the presence of gender and sexuality alliances to operationalize a healthy context and did not examine anxiety symptoms. Thus, it is unclear whether similar patterns will be replicated using the collective presence of in-school resources. Furthermore, although both literature have demonstrated counterintuitive evidence, extant research has not sufficiently explored other social factors that may contribute to or counteract these associations (Salmivalli et al., 2021)—such as support from teachers and staff, a factor that may be crucial among SGDY experiencing ongoing victimization with amplified risk of strained peer relations (Marshall et al., 2015).

Supportive School Personnel as a Protective Factor

Support from teachers and staff at school has consistently been shown, for all, to be associated with improved peer relations (e.g., reduced harassment; ten Bokkel et al., 2023), and mental health outcomes (Pössel et al., 2018; Zhang et al., 2022). School personnel support can represent several conceptually related yet distinct dimensions (e.g., instrumental vs. emotional; Wentzel, 2016). The current study assessed school personnel support with a measure related to the extent to which SGDY perceived social–emotional support from teachers and staff (i.e., Do you feel that your teachers or staff at school care about you?). As some SGDY might lack social support in other social contexts because of their noncisgender and nonheterosexual identities (Marshall et al., 2015), SGDY who experience harassment may particularly benefit from supportive relationships with adults at school (Bishop et al., 2023; Gastic & Johnson, 2009). Previous research has found that sexual minority youth who felt disconnected from their teachers at school reported higher levels of depressive symptoms than cisgender–heterosexual youth who reported similar levels of disconnection from their teachers (Seil et al., 2014). Another study found that, over and above the effects of family connectedness and peer acceptance, sexual minority youth were less likely to report mental health concerns in young adulthood the more they felt cared for by their teachers (Parmar et al., 2022).

Feeling cared for and supported by teachers and staff could also serve as a protective factor for SGDY experiencing identity-based harassment. The stress-buffering hypothesis suggests that social support can buffer the relationship between stress and health outcomes (Cohen & Wills, 1985). In support of this hypothesis, the general bullying literature (i.e., non-biased-based forms) has demonstrated the potential of support from school personnel to buffer the relation between peer victimization, anxiety symptoms, and depressive symptoms (Sulkowski & Simmons, 2018; Yeung & Leadbeater, 2010). Despite these findings, less work has focused on the modifying relations of school personnel support for SGDY experiencing identity-based harassment. One study found that feeling cared for by teachers and the school community buffered against lesbian, gay, bisexual, and questioning students' depressive symptoms tied to identity-based harassment (Espelage et al., 2008). However, other studies found SGDY's positive student–teacher relationships (e.g., partly assessed through perceptions of teacher care and empathy) were only associated with lower depressive symptoms in the absence of stigma-based bullying (Price et al., 2019). Similar to in-school resources, considering school personnel support in context (i.e., with the surrounding presence of in-school resources) may provide insight into when support from teachers and staff is most effective in buffering against mental distress associated with identity-based harassment.

Considering LGBTQ In-School Resources and Support From School Personnel Together

Collectively, evidence is mixed regarding the buffering capabilities of LGBTQ in-school resources and school personnel support on SGDY's harassment-related outcomes; however, the current study extends the literature by examining their respective moderations in context. It is important to note that we situate school personnel support in the current study as distinct from the presence of LGBTQ in-school resources. This choice was partially guided by minority stress theory in distinguishing identity-specific support from more general forms (Meyer, 2003). Additionally, school personnel support was assessed by how SGDY felt about their support from teachers; in contrast, LGBTQ in-school resources were assessed as the presence of in-school resources and not how SGDY necessarily felt about them. The conceptual and measurement distinction between these two resources allowed us to examine SGDY's nuanced experiences more closely.

Critical to demand-resource models is the flexibility to examine complex pathways that contribute to an individual's health experiences (Bakker et al., 2023). Drawing on these models, we propose that SGDY's cultural resources should jointly interact to boost or compensate their respective modification of SGDY's mental health outcomes tied to identity-based harassment. To illustrate, SGDY who attend schools with a greater degree of LGBTQ in-school resources may not only receive a message that their school community values their identity, but this collective presence may also spill over into greater perceptions of care from the student (Day et al., 2020), wherein teachers or staff may be more likely to intervene in the behalf of SGDY experiencing harassment (Ioverno et al., 2022; Swanson & Gettinger, 2016) and SGDY could more easily identify affirming school personnel to navigate such stressors (McCauley et al., 2024). Put succinctly, a heightened presence of both resources may contribute more robustly to buffering the health outcomes tied to harassment. It is important to note that these associations remain untested, and given mixed evidence in the general and stigma-based bullying literature (e.g., the healthy context paradox), the presence of paradoxical relationships that diminish the joint buffering role remains possible. Alternatively, SGDY who are low in one supportive resource (e.g., in-school resources) may already be vulnerable to heightened adversity and thus may especially benefit from the inclusion of support elsewhere (e.g., from

school personnel). In this case, it may be that a lack of one resource may boost the buffering capabilities of the other resource in the face of harassment relative to youth high or low in both.

Developmental Differences: Considering Grade Level

It is important to note that the current study is focused on the experiences of SGDY in middle school (i.e., Grade levels 6–8) and high school grade levels (i.e., Grade levels 9–12). Adolescence is a period where sexual and gender identity exploration and peer harassment are two salient experiences among SGDY (Russell & Fish, 2019) and, thus, is an optimal time to study the influences of school resources and school personnel support on SGDY's mental health outcomes.

Given unique developmental changes across adolescence, it is likely that the relations between identity-based harassment, LGBTQ in-school resources, school personnel support, and mental health outcomes will vary across grade levels. Sexual and gender prejudice and the perpetration of identity-based harassment tend to peak among adolescents in middle school (e.g., Grade levels 6–8) and decline across middle to late adolescence (e.g., ages 12–18; Poteat & Anderson, 2012). At the same time, SGDY in middle school may encounter this harassment and prejudice at a grade level when the presence of affirming in-school resources is limited (Lessard et al., 2020) and when they start to negotiate identity disclosure across different social contexts (Bishop et al., 2020). Such factors could hinder coping flexibility (Russell & Fish, 2019).

Additionally, due to advances in cognitive development, SGDY in high school may be able to think more abstractly and critically about the ways that LGBTQ in-school resources, school personnel support, and their experiences with identity-based harassment, together, influence their well-being and future outlook (Yu & Deutsch, 2021). Lastly, adolescents entering high school (e.g., the transition from Grade 8 to Grade 9) may encounter shifting social landscapes, with the size of schools and the number of teachers and staff interacted with often increasing, which could create difficulties in forming close relationships with school personnel (Wigfield et al., 2006). Alternatively, a potential increase in school size could afford SGDY in high school more opportunities to form social connections with their teachers and staff. As such, SGDY in high school may be particularly sensitive to positive social–emotional relationships with school personnel (cf., Roorda et al., 2017). Taken together, the joint modifying associations of LGBTQ in-school resources and school personnel support may be amplified or weakened depending on SGDY's grade level.

Current Study

The current study sought to understand the protective nature of LGBTQ in-school resources and school personnel support on SGDY's symptoms of depression and anxiety. Although an important tenant in minority stress theory underscores the potential of supportive resources to buffer SGDY's adverse health outcomes tied to identity-based harassment (Meyer, 2003), research has not sufficiently contextualized such modifying relationships. As seen in our conceptual model (i.e., Figure 1), rather than examine school personnel support and LGBTQ in-school resources as two unique contributing factors, the current study examined their synergistic interaction. Specifically, the current study posed the following

overarching questions: (a) To what extent do LGBTQ resources and support from school personnel, together, moderate the link between SGDY's experiences with identity-based harassment and symptoms of depression and anxiety? and (b) Will similar or distinct patterns be found across SGDY in middle school and high school?

Of interest from these questions was to clarify mixed findings (e.g., buffering vs. counterintuitive associations; Kaufman et al., 2023; Poteat et al., 2021; Price et al., 2019) in the stigma-based harassment literature by contextualizing the modifying associations of LGBTQ in-school resources and school personnel support (i.e., moving beyond two-way interactions to three-way interactions). Drawing on demand-resource theories and findings in the general bullying literature (e.g., cf., Schacter & Juvonen, 2018), we investigated the evidence for compensatory and/or additive modifying associations. That is, when considered together, to what extent do LGBTQ in-school resources and school personnel support show compensatory modifying associations? Or, when considered together, to what extent do LGBTQ in-school resources and school personnel support show additive modifying associations? In support of compensatory modifying associations, we expected to find that the appearance of one supportive domain would strongly buffer the negative associations between identity-based harassment and mental health outcomes when adolescents also lacked in another, even more so than SGDY high in both supportive domains. Comparatively, in support of additive associations, we expected to find that the presence of high levels of LGBTQ in-school resources and school personnel support would show the strongest buffering capabilities in the associations between identity-based harassment and mental health outcomes relative to SGDY who are high in only one supportive domain or low in both.

Method

Procedure and Sample

Data from the LGBTQ National Teen Survey were collected between February and October 2022 in partnership with the Human Rights Campaign. Adolescents between the ages of 13 and 18 who identified as LGBTQ+ and resided in the United States were eligible to complete the survey. Participants who screened eligible first responded to questions on demographics and then completed measures on gender, sexuality, family, school, and health experiences. A waiver of parental consent and all study protocols were approved by the University of Connecticut Institutional Review Board.

Participant recruitment consisted of several strategies. Participants were recruited online and in person via word of mouth, using targeted ads for LGBTQ+ youth, and posts by social media influencers on various social media platforms. The Human Rights Campaign also advertised the study in-person and online to high school gender and sexuality alliances, LGBTQ centers, and youth pride events throughout June of 2022.

The research team took multiple steps to ensure participant eligibility (e.g., screener surveys and not distributing survey links via public channels) and to limit fraudulent responders. A more detailed description of the multistep verification processes the research team enacted is provided elsewhere (Watson et al., 2024). Automatic verification was provided for adolescents with valid kindergarten-12 or college school email addresses (Watson et al., 2024). Adolescents without a school email address were asked to send a verified photo of an identification

(with the option to redact their photo) or video chat with one of two research assistants to verify their identity in a way that kept them anonymous (e.g., their name could be redacted from their meeting room screen name). All validated participants (i.e., with a school email or identification) received a $5 Amazon or Starbucks gift card for their participation.

A total of 17,578 respondents who met the inclusion criteria accessed the survey. For the current study, the sample was restricted to SGDY in Grade levels 6–12 who attended a private, public, or charter school ($N = 13,500$). From this sample, participants were between the ages of 13 and 18 years ($M = 15.50$, $SD = 1.34$) and were primarily in high school grade levels (87.4% in Grades

9–12). See Table 1 for more detailed characteristics (e.g., gender identity, sexual identity, and region) of the full sample and stratified by grade level.

Transparency and Openness

We report how we determined our sample size, all data exclusions, all manipulations, and all measures in the study. The study's design and analysis were not preregistered. Any request for data access can be issued to Ryan J. Watson, who will follow the university protocols for data agreement and sharing. Data were managed and prepared in SPSS Version 28.0 and the primary analysis was

Table 1
Demographic Information for the Full Sample and Stratified by Grade Level

Variable	Total ($N = 13,500$)		Grade levels 6–8 ($n = 1,699$)		Grade levels 9–12 ($n = 11,801$)	
	N	%	N	%	N	%
Sexual orientation						
Gay or lesbian	3,922	29.1	460	27.1	3,462	29.3
Bisexual	3,814	28.3	475	28.0	3,339	28.3
Queer	1,223	9.1	124	7.3	1,099	9.3
Pansexual	2,018	14.9	258	15.2	1,760	14.9
Asexual	1,114	8.3	113	6.7	1,001	8.5
Something else	1,409	10.4	269	15.8	1,140	9.7
Gender identity						
Cis boy	2,383	17.7	172	10.1	2,211	18.7
Cis girl	2,281	16.9	294	17.3	1,987	16.8
Trans girl	862	6.4	64	3.8	798	6.8
Trans boy	2,325	17.2	351	20.7	1,974	16.7
Nonbinary	4,317	32.0	574	33.8	3,743	31.9
Questioning	929	6.9	161	9.5	768	6.5
Something else	309	2.3	60	3.5	249	2.1
Missing	94	0.7	23	1.4	71	0.6
Racial identity						
Asian	612	4.5	71	4.2	541	4.6
Black	907	6.7	106	6.2	801	6.8
White	9,379	69.5	1,128	66.4	8,251	69.9
Native American/other	1,161	8.6	182	10.7	979	8.3
Multiracial	1,382	10.2	194	11.4	1,188	10.1
Missing	59	0.4	18	1.1	41	0.3
Caregiver education						
Less than high school	411	3.0	55	3.2	356	3.0
High school or GED	1,464	10.8	160	9.4	1,304	11.0
Vocational/technical	276	2.0	28	1.6	248	2.1
Some college	1,468	10.9	187	11.0	1,281	10.9
College graduate	4,345	32.2	452	26.6	3,893	33.0
Postgraduate degree	3,255	24.1	345	20.3	2,910	24.7
Missing	1,135	8.4	182	10.7	953	8.1
Do not know	1,088	8.1	276	16.2	812	6.9
No caregivers	58	0.4	14	0.8	44	0.4
Region						
Northeast	1,868	13.8	239	14.1	1,629	13.8
Midwest	2,398	17.8	269	15.8	2,129	18.0
South	3,254	24.1	339	20.0	2,915	24.7
West	2,371	17.6	257	15.1	2,114	17.9
Missing	3,609	26.7	595	35.0	3,014	25.5
Depressive symptoms	$M = 3.07$	$SD = 1.92$	$M = 3.37$	$SD = 1.85$	$M = 3.04$	$SD = 1.93$
Anxiety symptoms	$M = 3.51$	$SD = 1.91$	$M = 3.66$	$SD = 1.89$	$M = 3.49$	$SD = 1.91$
Age	$M = 15.50$	$SD = 1.34$	$M = 13.54$	$SD = 0.96$	$M = 15.78$	$SD = 1.14$
Identity-based harassment	$M = 1.92$	$SD = 1.04$	$M = 2.24$	$SD = 1.18$	$M = 1.88$	$SD = 1.01$
LGBTQ in-school resources	$M = 1.63$	$SD = 1.05$	$M = 1.31$	$SD = 1.08$	$M = 1.68$	$SD = 1.04$
School personnel support	$M = 2.81$	$SD = 0.79$	$M = 2.71$	$SD = 0.85$	$M = 2.82$	$SD = 0.78$

Note. GED = general education development test; LGBTQ = lesbian, gay, bisexual, transgender, and queer.

conducted in Mplus 8.1. The current study's measures, analytic code, and output are available upon reasonable request.

Measures

Demographics

To assess grade level, participants were asked to report what grade they were in, with a range of Grades 5–12 provided. Participants who indicated they were in Grade 5, college/trade school, or not in school were excluded from the analysis. Grade level was split into two groups (i.e., 6–8 and 9–12) given calls from scholars to elucidate the moderating relationships of school contexts among older adolescents (Salmivalli et al., 2021). Specifically, grade level was coded such that adolescents in Grades 6–8 were categorized as middle schoolers and adolescents in Grades 9–12 as high schoolers. Two separate questions were used for participants to report their racial/ethnic identity. To assess ethnicity, participants were asked, "Are you Hispanic or Latina/e/o/x?" The response options were "no" and "yes." To assess racial identity, participants were asked, "What is your race (select all that apply)?" Response options were "American Indian or Alaskan Native," "Asian," "Black or African American," "Hawaiian Native/Pacific Islander," "White", "none of these."

Participants were also asked to report their sexual orientation with the following question: "Which of the following best describes you? Check one." Response options were "gay or lesbian," "bisexual," "straight/heterosexual," "queer," "pansexual," "asexual," "questioning," and "something not listed." Participants who wrote in an identity that matched a category listed were back-coded into that category. For the current analysis, questioning and adolescents identifying as something not listed were combined into one group. To assess gender identity, participants were asked to check all that apply to them with the following options: "cisgender boy," "cisgender girl," "transgender girl," "transgender boy," "gender nonconforming," "genderqueer," "gender fluid," "nonbinary," "questioning," and "different identity not listed." Participants who selected "different identity not listed" were given the option to write in their gender identity, and adolescents who selected multiple options were asked to indicate which identity best described them. For the current study, adolescents who identified as "gender fluid," "gender nonconforming," "genderqueer," or who wrote in "demiboy," "demigirl," and "bigender" were recoded as "nonbinary." These gender identities are often described under the umbrella term nonbinary to capture an experience that deviates from binary conceptions of gender (Hammack et al., 2022); importantly, experiences may differ across these groups (Diamond, 2020) but we were unable to make meaningful comparisons based on small cell sizes.

Identity-Based Harassment

To assess identity-based harassment, participants were asked: "In the past 12 months, how often have you been teased, harassed, or physically threatened IN-PERSON for being LGBTQ?" Response options ranged from $1 = never$ to $5 = very\ often$. This single-item scale—modified to be more inclusive of identities beyond gay, lesbian, and bisexual—has been developed and validated in previous state-wide surveys of adolescents (Espelage et al., 2008) and has been associated with a variety of school and mental health indicators (e.g., depression and self-reported academic grades; Espelage et al., 2008; Poteat et al., 2011).

LGBTQ In-School Resources

Participants reported on the presence of several in-school resources and programs. Participants were asked about the presence of gender and sexuality alliances (i.e., Does your school have a gay/straight alliance, gender/sexuality alliance group, or similar club?), inclusive curricula (i.e., Have any of your history classes ever had a lesson, unit, or chapter on LGBTQ history?), and inclusive comprehensive sex education (i.e., Did your school offer curriculum related to sexual education?) in their schools with yes/no response options. For inclusive comprehensive sex education, an additional response option, "Yes, but it was not LGBTQ inclusive," was provided and was recoded as not having inclusive comprehensive sex education. Participants also reported on the amount of LGBTQ instructors in their school (i.e., How many openly LGBTQ educators [teachers and/or school staff] are at your school?) with responses ranging from 0 to 3 (3 or more). All four indicators of LGBTQ in-school resources were dichotomized, with in-school resources scored as 0 (no)/1 (yes) and openly LGBTQ instructors scored as 0 (none)/1 (at least one). Participants who selected "don't know" were scored as missing and retained in the analysis.

A principal components analysis was conducted in SPSS to examine whether the four LGBTQ in-school resources could explain a meaningful underlying component. Examination of the scree plot indicated a one-factor solution with an eigenvalue of 1.54 that explained 38.47% of the variance in items. The second factor had an eigenvalue of 0.94 and explained an additional 23.60% of the variance. The one-factor solution was retained, which included the presence of gender and sexuality alliances, inclusive curricula, inclusive sex education, and openly LGBTQ educators. The factor loadings were .69 (presence of gender and sexuality alliance), .67 (openly LGBTQ instructors), .62 (inclusive comprehensive sex education), and .49 (inclusive curricula). A sum score was computed with higher scores indicating the presence of more LGBTQ in-school resources.

Support From School Personnel

To assess perceptions of support from school personnel, participants responded to the following item modeled after the National Longitudinal Study of Adolescent Health (Add Health; K. M. Harris, 2018): "Do you agree or disagree that your teachers and/or staff at school really care about you?" Response options ranged from $1 = strongly\ disagree$ to $4 = strongly\ agree$. Participants who selected "not sure" on this item were scored as missing and retained in the analysis. Previous research has used similar versions of this single-item measure modeled from the Add Health survey (e.g., A. L. Davis & McQuillin, 2023). Single-item measures assessing psychosocial constructs have shown to be valid and reliable among adolescent samples (Lukoševičiūtė et al., 2022) and are useful in large time extensive national surveys as one way to manage fatigue among participants (M. S. Allen et al., 2022).

Mental Health

Depressive Symptoms. To assess depressive symptoms, participants responded to the two-item Patient Health Questionnaire subscale (i.e., PHQ-2) from the PHQ-4 (Kroenke et al., 2009). The PHQ-2 is a commonly used and reliable screener for elevated depressive symptoms in both clinical and nonclinical settings (e.g., national surveys; Caro-Fuentes & Sanabria-Mazo, 2024). In clinical settings,

the screener is often used to determine potential positive screens for elevated depressive symptoms that indicate the need for further assessment. The measure has been validated across adolescent and adult samples and has demonstrated good construct and discriminant validity with comparable utility to more extensive measures of depressive symptoms (Bentley et al., 2021). In adolescent samples, the screener has been found to have a sensitivity of 74% and specificity of 75% for detecting major depression according to guidelines in the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition, and a sensitivity of 96% and specificity of 82% in accordance with the PHQ-9 (Richardson et al., 2010). Participants were asked to report how often they had been bothered by various core symptoms of depression in the past 2 weeks. The first item assessed depressed mood: Feeling down, depressed, or hopeless. The second item assessed anhedonia: Little interest or pleasure in doing things. Response options ranged from $0 = not\ at\ all$ to $3 = nearly\ every\ day$, and a sum score was used with scores ranging from 0 to 6. Internal consistency for the depression subscale was good ($\alpha = .80$).

Anxiety Symptoms.   To assess anxiety symptoms, participants responded to the two-item generalized anxiety disorder subscale (i.e., GAD-2) from the PHQ-4 (i.e., Kroenke et al., 2009). Similar to the PHQ-2, the GAD-2 is a commonly used screener to identify elevated anxiety symptoms in both clinical and nonclinical settings. In clinical settings, the screener is used to determine potential positive screens of generalized anxiety disorder that require further assessment. The measure has been widely validated across different samples (e.g., clinical and general population samples), has shown adequate convergent, construct, and discriminant validity across younger samples, and performs comparably to more extensive measures (e.g., GAD-7; Bentley et al., 2021; Byrd-Bredbenner et al., 2021). Participants were asked to report how often they had been bothered by various core symptoms of generalized anxiety in the past 2 weeks. The first item assessed excessive nervousness: Feeling nervous, anxious, or on edge. The second item assessed trouble regulating distress: Not being able to stop or control worrying. Response options ranged from $0 = not\ at\ all$ to $3 = nearly\ every\ day$, and a sum score was used with scores ranging from 0 to 6. Internal consistency for the anxiety subscale was good ($\alpha = .87$).

Analysis Plan

Descriptives were computed in SPSS Version 28 and the primary analysis was conducted in Mplus 8.1. Means and standard deviations were computed for the aggregate sample and across SGDY in Grades 6–8 and 9–12 (see Table 1). Independent samples *t* tests were used to examine mean differences across SGDY in Grade levels 6–8 and 9–12, and bivariate correlations were computed for the aggregate sample.

For the primary analyses, path analysis was used to examine the associations between identity-based harassment, LGBTQ in-school resources, school personnel support, and their product terms with the outcomes of interest. Using the GROUPING command, multivariate path models were estimated for SGDY in middle school and high school in which depressive symptoms and anxiety symptoms were simultaneously regressed on the variables of interest in a single model. Thus, a total of two models were estimated: one for SGDY in middle school and one for SGDY in high school. All predictors were allowed to covary to account for shared variance. Multigroup analyses were used to evaluate differences across grade levels in

the overall model fit. Specifically, we computed a Satorra–Bentler χ^2 difference test (to account for maximum likelihood estimation with robust standard errors) to examine the decrease in overall model fit between an unconstrained model (all paths freely estimated for SGDY in middle school and high school) and a fully constrained model (all paths constrained to be equal for SGDY in middle school and high school). It should be noted that our freely estimated model was saturated (i.e., just identified), and thus, typical model fit indices (e.g., root-mean-square error of approximation) are not interpretable by themselves. Upon the presence of a significant difference between an uncosntrained and constrained model, we used the MODEL TEST command to conduct follow-up Wald χ^2 difference tests to determine whether the magnitude of three-way interactions and main effects significantly varied across SGDY in middle school and high school. The models included age, highest caregiver education, gender identity, sexual identity, racial identity, and country region as covariates. Additionally, all covariates and key study constructs were entered into the model as observed variables. All continuous variables were mean-centered before computing product terms (between variables of interest) and entered into the model as such to facilitate interpretation.

To deconstruct significant interactions, the MODEL CONSTRAINT function in Mplus was used to examine the associations of two-way and three-way moderations at $+1\ SD$ and $-1\ SD$ away from the means of the moderators (i.e., LGBTQ in-school resources and school personnel support). Similar to Schacter and Juvonen (2018), significant three-way interactions were deconstructed in two steps by switching the focal moderator (i.e., LGBTQ in-school resources and school personnel support) on the association between identity-based harassment and the outcomes of interest. Missing data on all modeled variables ranged from 0.4% (racial identity) to 34.7% (anxiety and depressive symptoms) and was addressed using full information maximum likelihood estimation with robust standard errors to correct for nonnormality. Full information maximum likelihood is preferred over listwise deletion for handling missing data (Little et al., 2014).

To examine the robustness of the patterns in three-way interactions, we tested supplemental models with the same specifications as above. In these analyses, each LGBTQ in-school resource was entered into the model as a separate unique construct. Thus, we tested whether which, if any, LGBTQ in-school resource would jointly interact with school personnel support independently from the others. The results for SGDY in middle school are in Table 1 in the online supplemental materials and the results for SGDY in high school are in Table 2 in the online supplemental materials.

Results

Descriptives

In the full sample, SGDY on average reported sometimes experiencing identity-based harassment ($M = 1.92$, $SD = 1.04$), perceiving some positive LGBTQ in-school resources ($M = 1.63$, $SD = 1.05$), and moderate levels of support from school personnel ($M = 2.81$, $SD = 0.79$). SGDY in the full sample also reported moderate levels of depressive ($M = 3.07$, $SD = 1.92$) and anxiety ($M = 3.51$, $SD = 1.91$) symptoms. Pearson correlations revealed that all variables were correlated in the expected directions (see Table 2). Further investigation across grade level revealed that the directionality of correlations was generally consistent across both groups of SGDY; however, there were some differences in significance.

Table 2
Bivariate Correlations Among Continuous Variables

Variable	1	2	3	4	5	6	7
1. Depressive symptoms	—						
2. Anxiety symptoms	.58***	—					
3. Identity-based harassment	.23***	.22***	—				
4. LGBTQ in-school resources	−.10***	−.08***	−.09***	—			
5. School personnel support	−.23***	−.19***	−.22***	.22***	—		
6. Age	−.07***	−.04***	−.12***	.11***	.08***	—	
7. Highest caregiver education	−.05***	.01	−.06***	.07***	.08***	−.02	—

Note. Identity = sexual orientation, gender identity, and gender expression; LGBTQ = lesbian, gay, bisexual, transgender, and queer.
*** $p < .001$.

Independent samples *t* tests showed that SGDY in Grade levels 6–8 reported significantly higher depressive symptoms, $t(8815) = 5.24$, $p < .001$, $d = 0.18$, anxiety symptoms, $t(8820) = 2.60$, $p < .01$, $d = 0.09$, and identity-based harassment, $t(1269.27) = 9.39$, $p < .001$, $d = 0.34$, than SGDY in high school. Additionally, SGDY in grades 6–8 reported significantly lower levels of LGBTQ in-school resources, $t(1309.55) = −10.50$, $p < .001$, $d = −0.36$, and school personnel support, $t(1196.89) = −3.80$, $p < .001$, $d = −0.14$, compared to SGDY in Grade levels 9–12.

Figure 2a shows the presence of individual LGBTQ in-school resources and the collective presence of resources for the full sample and across grade level. The most common resources SGDY in middle school and high school reported perceiving in their school were gender and sexuality alliances (50.5%, 75.0%) and the presence of open LGBTQ instructors (54.0%, 59.3%). In comparison, the presence of inclusive sexual education (19.1%, 19.2%) and LGBTQ-inclusive curricula (8.7%, 14.5%) were less common among both SGDY in middle school and high school. More detailed information on the distribution of the collective presence of these resources is presented in Figure 2b.

Path Analysis

We used multivariate path analyses to explore three-way interactions between identity-based harassment, LGBTQ in-school resources, and school personnel support across SGDY in middle school and high school to answer our primary research question (i.e., To what extent do LGBTQ resources and school personnel support, together, moderate the link between SGDY's experiences with identity-based harassment and symptoms of depression and anxiety?). Multigroup analyses suggested that a constrained model where the paths for SGDY in middle school and high school were set to be equal fit significantly better than an unconstrained model in which all paths were free to vary, $\Delta\chi^2(54) = 71.03$, $p = .06$. As such, the more parsimonious constrained model is presented for the full sample.

Depressive Symptoms

Table 3 displays the constrained multivariate linear regression. Adjusted for demographic variables, more frequent identity-based harassment was associated with elevated depressive symptoms ($\beta = .17$, $p < .001$), whereas greater LGBTQ in-school resources ($\beta = −.04$, $p < .01$) and school personnel support ($\beta = −.16$, $p < .001$) were associated with lower levels of depressive symptoms among SGDY.
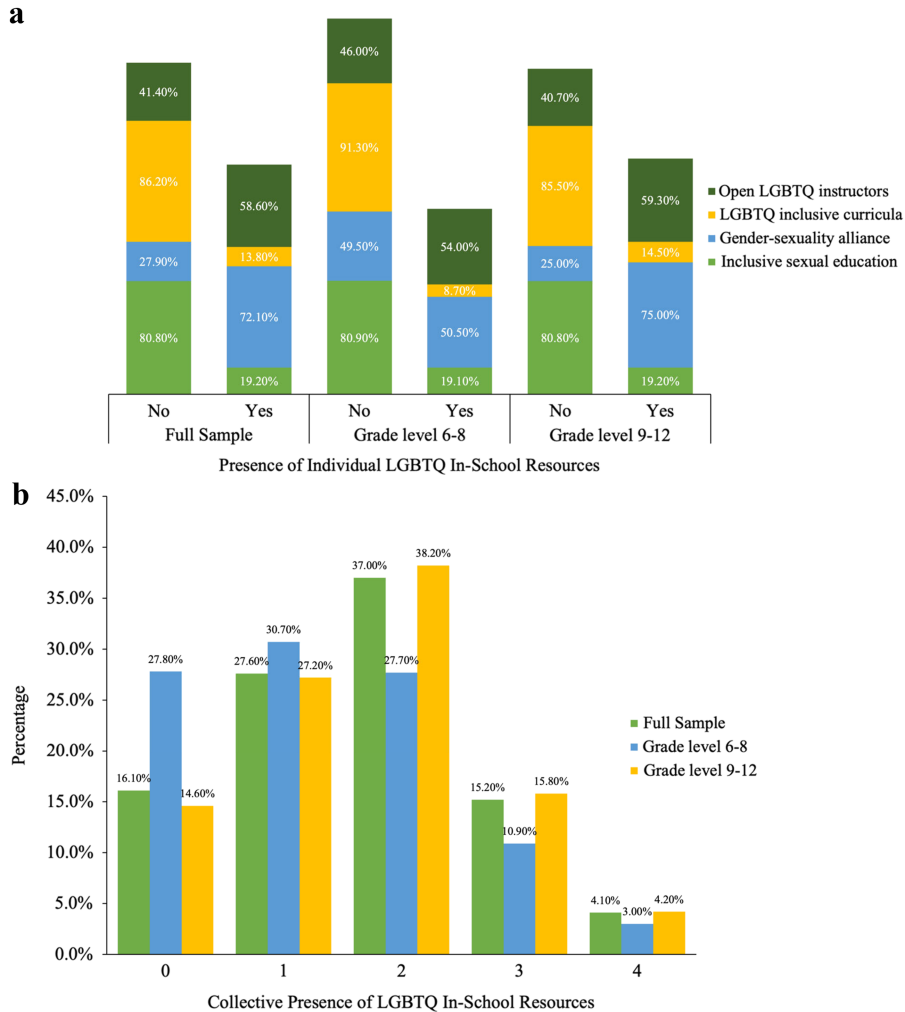
The independent associations were qualified by a three-way interaction between identity-based harassment, LGBTQ in-school resources, and school personnel support (see Figure 3; $\beta = .03$, $p < .01$). The conditional two-way moderation of school personnel support on the association between identity-based harassment and depressive symptoms was significant among SGDY who reported high (+1 *SD* away from mean; $b = 0.11$, $\beta = .05$, $p < .01$) amounts of LGBTQ in-school resources but not low (−1 *SD* away from mean; $b = −0.05$, $\beta = −.02$, $p = .14$). A test of simple slopes indicated that among SGDY reporting high amounts of LGBTQ in-school resources, the association between identity-based harassment and depressive symptoms was weaker at low levels of school personnel support (−1 *SD* away from mean; $b = 0.26$, $\beta = .14$, $p < .001$) yet stronger at high levels of school personnel support (+1 *SD* away from mean; $b = 0.43$, $\beta = .23$, $p < .001$). When LGBTQ in-school resources were the focal moderator, the conditional two-way moderation of LGBTQ in-school resources on the association between identity-based harassment and depressive symptoms was significant among SGDY reporting high (+1 *SD* away from mean; $b = 0.09$, $\beta = .05$, $p < .01$) but not low (−1 *SD* away from mean; $b = −0.03$, $\beta = −.01$, $p = .25$) levels of school personnel support. A test of simple slopes indicated that among SGDY reporting high levels of support from school personnel, the association between identity-based harassment and depressive symptoms was weaker among adolescents who reported lower levels of LGBTQ in-school resources ($b = 0.24$, $\beta = .13$, $p < .001$) yet was stronger among adolescents reporting high amounts of LGBTQ in-school resources ($b = 0.43$, $\beta = .23$, $p < .001$).

More nuance emerged for this interaction when the interaction was visualized. At high levels of harassment, SGDY who reported feeling cared for by school personnel reported the lowest levels of depressive symptoms, regardless of the presence of LGBTQ in-school resources. At low levels of harassment, it was a combination of both feeling supported by school personnel and perceiving high levels of LGBTQ in-school resources that was linked to the lowest levels of depressive symptoms.

Anxiety Symptoms

Adjusted for demographic variables, more frequent identity-based harassment ($\beta = .19$, $p < .001$) was associated with elevated anxiety symptoms among SGDY; however, higher amounts of LGBTQ in-school resources ($\beta = −.03$, $p < .05$) and school personnel support ($\beta = −.13$, $p < .001$) were associated with lower levels of anxiety symptoms. The three-way interaction between identity-based

Figure 2

Graphs of the Frequencies for the Presence of Individual Resources and the Collective Presence of Resources Across the Full Sample and Stratified by Grade Level

Note. Panel (a) represents the perceived presence of individual LGBTQ in-school resources and panel (b) represents the cumulative presence of LGBTQ in-school resources. LGBTQ = lesbian, gay, bisexual, transgender, and queer. See the online article for the color version of this figure.

harassment, LGBTQ in-school resources, and school personnel support was not significant for anxiety symptoms ($\beta = .01$, $p = .21$).

Although not the focus of the current study, one significant interaction emerged: identity-based harassment and support from school personnel ($\beta = .03$, $p < .01$). A test of simple slopes indicated that the relation between identity-based harassment and anxiety symptoms was weaker among adolescents who reported low levels of school personnel support (i.e., -1 SD from mean; $b = 0.29$, $\beta = .16$, $p < .001$) and was strongest among adolescents who reported high levels of school personnel support ($+1$ SD from mean; $b = 0.40$, $\beta = .22$, $p < .001$).

Grade-Level Differences

Given that nested model comparisons revealed no significant differences between an unconstrained and constrained model for

SGDY in middle school and high school, we do not report on follow up comparisons for specific paths.

Discussion

Harassment that targets sexual orientation and/or gender identity is pervasive in schools and is met by SGDY at a time marked with rapid social and cognitive changes (Russell & Fish, 2019). Although LGBTQ in-school resources and support from school personnel have separately been shown to promote SGDY's positive mental health and school experiences (Kosciw et al., 2013; Poteat et al., 2021), much less is known about how these resources jointly modify health outcomes of SGDY experiencing identity-based harassment. To further this line of inquiry, the current study, informed by minority stress (Meyer, 2003) and demand-resource theories (Bakker et al., 2023; Martin et al., 2024), examined the complex interactive relations

Table 3
Multivariate Linear Regression With Symptoms of Depression and Anxiety as Outcomes for SGDY

Variable	Depressive symptoms		Anxiety symptoms	
	b (SE)	β	b (SE)	β
Age	−0.02 (0.02)	−.01	0.02 (0.02)	.01
Highest caregiver education	−0.03 (0.02)	−.02	0.03 (0.02)	.02
Gender identity (cis boy)				
Cisgender girl	0.34 (0.07)***	.06	0.73 (0.08)***	.14
Trans girl	0.69 (0.09)***	.08	0.57 (0.09)***	.07
Trans boy	0.80 (0.07)***	.15	0.87 (0.07)***	.17
Nonbinary	0.63 (0.06)***	.15	0.84 (0.07)***	.20
Questioning	0.76 (0.10)***	.10	0.99 (0.10)***	.13
Something else	0.69 (0.15)***	.05	0.95 (0.15)***	.07
Sexual identity (gay/lesbian)				
Bisexual	0.06 (0.05)	.01	−0.09 (0.05)	−.02
Queer	−0.14 (0.07)	−.02	−0.13 (0.07)	−.02
Pansexual	0.10 (0.06)	.02	−0.04 (0.06)	−.01
Asexual	0.05 (0.07)	.01	0.06 (0.07)	.01
Something else	0.09 (0.07)	.01	−0.04 (0.07)	−.01
Racial identity (white)				
Asian	0.20 (0.10)*	.02	−0.02 (0.10)	−.00
Black	−0.02 (0.09)	−.00	−0.21 (0.09)*	−.03
Native American/other	0.06 (0.08)	.01	−0.14 (0.08)	−.02
Multiracial	0.13 (0.07)*	.02	−0.02 (0.07)	−.00
Region (northeast)				
South	−0.04 (0.07)	−.01	−0.06 (0.07)	−.01
Midwest	−0.01 (0.07)	−.00	0.02 (0.07)	.01
West	0.07 (0.07)	.02	0.01 (0.07)	.00
Main effects				
Identity-based harassment	0.31 (0.02)***	.17	0.35 (0.02)***	.19
School personnel support	−0.39 (0.03)***	−.16	−0.31 (0.03)***	−.13
LGBTQ in-school resources	−0.07 (0.02)**	−.04	−0.05 (0.02)*	−.03
Interactions				
Identity-Based Harassment × School Personnel Support	0.03 (0.03)	.01	0.07 (0.03)**	.03
Identity-Based Harassment × LGBTQ In-School Resources	0.03 (0.02)	.02	−0.02 (0.02)	−.01
School Personnel Support × LGBTQ In-School Resources	−0.00 (0.03)	−.00	−0.03 (0.03)	−.01
Identity-Based Harassment × School Personnel Support × LGBTQ In-School Resources	0.08 (0.02)**	.03	0.03 (0.02)	.01
R^2 Grade level 6−8	.13***		.11***	
R^2 Grade level 9−12	.11***		.10***	

Note. Unstandardized and standardized coefficients are shown from the model in which paths were constrained to be equal across both grade level groups. SGDY = sexual and gender diverse youth; LGBTQ = lesbian, gay, bisexual, transgender, and queer.
* $p < .05$. ** $p < .01$. *** $p < .001$.

of identity-based harassment, LGBTQ in-school resources, and school personnel support with SGDY's symptoms of depression and anxiety. The current research extends scholarship in two critical ways. First, rather than examine the unique and direct contributions of independent and two-way interactive associations, the current study examined how a form of distal and proximal support jointly interacted to modify adverse health outcomes linked to SGDY's experienced identity-based harassment. Second, the current study examined these relations across two salient developmental contexts (i.e., middle and high school). Overall, we found that at high levels of harassment, feeling supported by teachers and staff was linked to the lowest levels of harassment, regardless of LGBTQ in-school resources. At low levels of harassment, the combination of feeling supported by teachers and staff and perceiving more LGBTQ in-school resources was linked to the lowest levels of depressive symptoms. These joint interactions were not present for anxiety symptoms across SGDY in middle school and high school.

For SGDY, the association between identity-based harassment and depressive symptoms was dependent on LGBTQ in-school

resources and support from school personnel, which lends partial support to the hypotheses. Interestingly, multigroup analyses revealed that these patterns did not significantly vary across SGDY in middle school and high school, suggesting that similar processes may be at play across grade levels. A nuanced picture emerged when the differences in depressive symptoms across SGDY with different combinations of LGBTQ in-school resources and school personnel support were visualized. When harassment was high, SGDY tended to have the best outcomes in depressive symptoms when they reported feeling cared for by teachers and staff at their school, regardless of LGBTQ in-school resources. Additionally, at high levels of harassment, the relative difference in depressive symptoms among SGDY who perceived low or high levels of LGBTQ in-school resources was minimal when they reported feeling cared for by staff at their school. These findings conflict with previous studies that have found support from teachers to be insufficient in buffering against SGDY's depressive symptoms at more frequent levels of identity-based harassment (Price et al., 2019). Instead, when considered alongside the social environment of youth, the

current findings suggest that support from teachers and staff could be a key protective factor across various levels of harassment; however, longitudinal work is needed to test and confirm these associations.

The finding that SGDY reported similar levels of depressive symptoms at high levels of harassment when they reported feeling cared for by school personnel, regardless of LGBTQ in-school resources corroborates research in the general bullying literature, highlighting the compensatory protective quality of interpersonal support among adolescents exposed to heightened adversity (Huang et al., 2018; Schacter & Juvonen, 2018). This finding also provides evidence that multiple forms of in-school support systems may interact together to shape the depressive symptoms among SGDY, which extends minority stress and ACD-R theories (Martin et al., 2024; Meyer, 2003).

Critically, future research is still needed to examine the processes by which feeling cared for by teachers and staff may buffer the more chronic emotional impacts of SGDY in high harassment environments. The desired qualities and motives for nonparental adult support, for example, may become more refined across periods of adolescence, with adolescents engaging in a more selective process of which adults they leverage support from and what form of social support they seek when experiencing stress (e.g., instrumental; Yu & Deutsch, 2021). Additionally, some teachers or staff members may witness students experiencing peer harassment and initiate support, whether that be intervening to stop the harassment, offering emotional support to the student, or a combination of both (Marshall et al., 2015). Engaging in these behaviors may also widen SGDY's cognitive flexibility, foster adaptive coping, and grow social resources they can draw on in the future to navigate their experiences with harassment (Fredrickson, 2001). Understanding how and what staff responses contribute to positive emotional experiences among SGDY experiencing more frequent harassment may help inform strategies to promote SGDY's felt support and, in turn, buffer depressive symptoms across schools with varying amounts of LGBTQ in-school resources.

It should be noted that the steepest differences in depressive symptoms across levels of harassment were observed when SGDY reported feeling cared for by school personnel and perceived high versus low amounts of LGBTQ in-school resources. That is, we did not find evidence that a combination of feeling cared for by school personnel and high amounts of LGBTQ in-school resources would additively contribute to buffer the association between frequent identity-based harassment and depressive symptoms. Instead, it appears that LGBTQ in-school resources were not able to confer additional protection beyond what was accounted for by school personnel support at high levels of harassment, highlighting the pernicious nature of this form of harassment. Although the mechanisms were beyond the scope of this study, cognitive processes outlined in the general bullying literature that underpins the healthy context paradox may partially explain the steep differences in depressive symptoms across low and high levels of harassment. For example, an attribution perspective (Graham & Juvonen, 2001) would suggest that SGDY experiencing discriminatory harassment despite the presence of LGBTQ in-school resources and support from school personnel may be more prone to engage in negative social-cognitive evaluations that reflect more internally focused stable and uncontrollable attributes (Kaufman et al., 2023). Additionally, social comparison theory (Festinger, 1954) would suggest that these youth may have less similar others to share or compare their experiences to, thereby amplifying their

distress. Put simply, SGDY who remain frequently harassed may evaluate their circumstances more negatively when comparing themselves to other LGBTQ and cisgender–heterosexual peers who are benefiting more strongly from in-school resources and supportive relationships with school personnel. In turn, these cognitions may dampen the ability of these two constructs to afford additive protection among those reporting high levels of harassment (Kaufman et al., 2023).

Another explanation for this finding could be how we assessed support from school personnel and LGBTQ in-school resources. For example, SGDY may have rated their teachers and staff at school as caring about them, yet at the same time, these school personnel may not have intervened to stop their harassment. SGDY also experience harassment outside of classrooms in locations where teachers and staff members are not readily present (Wright et al., 2022) and may not feel comfortable seeking help from them out of fear of retaliation or unintentional identity disclosure (Kosciw et al., 2022). Furthermore, SGDY may attend schools with high amounts of LGBTQ in-school resources, but they may be of low quality (e.g., LGBTQ course curricula are present but depict stigmatizing information) or not implemented to their full extent (Poteat et al., 2024). LGBTQ in-school resources often serve as important sources of hope and positive affirmation for SGDY that, in turn, can promote positive well-being (B. Davis et al., 2014; Poteat et al., 2020); however, it may be that some SGDY's perceptions of these resources change when experiencing frequent harassment, such that certain resources are perceived as tokenistic, risky, or lacking genuine changes in school culture (R. Harris et al., 2021; Payne & Smith, 2013). In these cases, some SGDY may attend schools with abundant resources that may not help, and where they perceive teachers and staff are caring for students but not about them since they do not intervene, which may have contributed to the steep differences in depressive symptoms we observed across low and high levels of harassment.

Across low levels of harassment, however, the combination of both feeling highly cared for by school personnel and perceiving high amounts of LGBTQ in-school resources was linked to the lowest levels of depressive symptoms. Previous research exploring the modifying roles of in-school resources independently (e.g., Toomey et al., 2011) has found similar patterns of depressive symptoms at lower levels of harassment; however, our findings suggest that the protection from these resources may be contingent on perceiving high levels of support from teachers and staff. Our finding extends previous research that has examined support from school personnel and LGBTQ in-school resources independent of one another and, as outlined by demand-resource perspectives, highlights the importance of examining how multiple forms of support interact together. As schools continue to work on preventing harassment, it may be insufficient to focus only on the implementation of LGBTQ in-school resources without also considering ways to improve SGDY's perceptions of support from teachers and staff concurrently.

This distinct pattern in low harassment contexts warrants further investigation. Such patterns could reflect the key roles of school personnel in implementing LGBTQ in-school resources (Swanson & Gettinger, 2016) and fostering a sense of belonging among students (K. Allen et al., 2018). Recent evidence suggests gender sexuality alliances are more strongly associated with greater school belonging in schools with a stronger alignment between inclusive LGBTQ

Figure 3

Graph of the Three-Way Interaction Between Identity-Based Harassment, Support From School Personnel, and LGBTQ In-School Resources Among SGDY
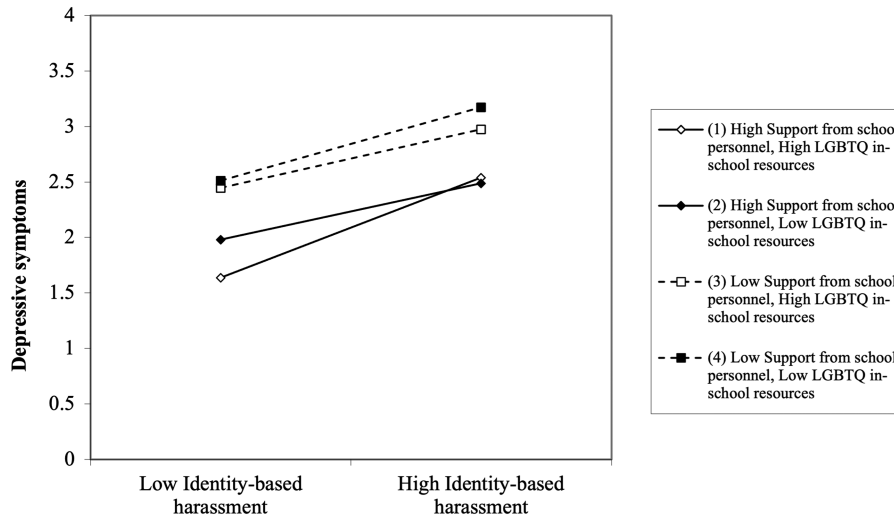
Note. Low and high = −/+1 *SD* away from the mean. LGBTQ = lesbian, gay, bisexual, transgender, and queer; SGDY = sexual and gender diverse youth.

policies, practices, and implementation (Poteat et al., 2024). It could be that SGDY may reflect on this congruence between the presence of multiple LGBTQ in-school resources and clear top-down support in their implementation, which may inform how supportive they view staff in general (Day et al., 2020; McGuire et al., 2010) and, in turn, strengthen the additive protection for SGDY who experience less frequent harassment. In comparison, without clear support from school personnel, it may be that students perceive the inclusion of resources as ingenuine or tokenistic in spaces where the broader hetero- and cis-normative school culture is still not addressed (R. Harris et al., 2021; Payne & Smith, 2013). Such perceptions may limit the extent to which the inclusion of affirming resources can bolster SGDY's sense of belonging and, in turn, dampen their ability to protect against depressive symptoms without also feeling like school personnel care about them. It may be that the alignment SGDY perceive between a greater concentration of LGBTQ in-school resources and feeling supported by school personnel in low harassment contexts signal more meaningful changes in school culture, greater school belonging, and more rewarding social experiences (Murdock & Bolch, 2005) that, when together, are linked to the lowest levels of depressive symptoms.

In supplemental analyses, we found a similar pattern for depressive symptoms when exploring LGBTQ in-school resources independently alongside support from school personnel. That is, the association between identity-based harassment and depressive symptoms was dependent on the joint interaction between support from school personnel and the presence of openly LGBTQ instructors. Figure 1 in the online supplemental materials depicts this interaction: at high levels of harassment, feeling supported by school personnel was linked to the lowest levels of depressive symptoms regardless of the presence of LGBTQ instructors, yet at low levels of harassment, it was a combination of both feeling supported by staff and perceiving the presence of openly LGBTQ instructors

that was linked to the lowest depressive symptoms. This was the only school resource that jointly interacted with school personnel support. Alongside feeling supported by teachers and staff, the cumulative presence of resources, rather than the isolated associations of a few, may matter more (Gower, Forster, et al., 2018; Kaufman et al., 2024; Poteat et al., 2024). It could be that felt support from school personnel and the presence of openly LGBTQ instructors are more closely tied than the other resources. In low harassment contexts, it may be especially impactful for SGDY to see teachers and staff who they feel supported by and share an identity with living authentically and holding key roles of change in their school (R. Harris et al., 2022). This pattern still reflects the critical compensatory and qualifying role of SGDY feeling supported by teachers and staff across various levels of harassment as documented above.

Contrary to the hypotheses, although LGBTQ in-school resources and school personnel support jointly interacted for depressive symptoms among SGDY, these same modifying relations were not present for anxiety symptoms. This conflicts with minority stress (Meyer, 2003) and ACD-R (Martin et al., 2024) theories that hold social support and cultural resources as critical buffering factors on the adverse psychosocial health outcomes of SGDY. To explain this, we point to the specific pathways that may be uniquely implicated in the development of depressive symptoms and anxiety symptoms: lower reward sensitivity for depressive symptoms and heightened sensitivity to threat for anxiety symptoms (cf., Martínez et al., 2024). Specifically, the inclusion of interpersonal support from school personnel or structural resources that affirm LGBTQ identities and connect youth to resources may contribute to more rewarding interactions that can buffer against depressive symptoms in the face of harassment—particularly among SGDY low in one resource who may already be exposed to a heightened risk of adversity. Yet, given that school environments often uphold persistent

cis-heteronormative values (Antonelli & Sembiante, 2022), some SGDY experiencing identity-based harassment may chronically anticipate adverse treatment from their peers regardless of how close they feel to school personnel and the amount of LGBTQ school resources present. This heightened sensitivity, in turn, may diminish the buffering capabilities of LGBTQ in-school resources and school personnel support.

Despite these null findings, the independent associations of support from school personnel and LGBTQ in-school resources, which held after accounting for identity-based harassment and demographic covariates, are promising. SGDY who perceived greater support from staff and teachers tended to report fewer symptoms of depression and anxiety, which aligns with previous research (Bishop et al., 2023; Parmar et al., 2022). Moreover, SGDY who perceived more LGBTQ in-school resources also tended to report lower depressive symptoms and anxiety symptoms, which extends previous research showing that the protection from the cumulative presence of resources may also extend to the mental health experiences of SGDY (Day et al., 2020; Eisenberg et al., 2022; Gower, Forster, et al., 2018; Kaufman et al., 2024; McGuire et al., 2010; Poteat et al., 2024). Furthermore, the strength of this association did not vary across grade levels, suggesting that SGDY in high school and middle school may similarly benefit from perceiving greater support from teachers and staff and abundant LGBTQ in-school resources.

Practical Implications

Collectively, the study findings have implications for researchers, school systems, and school personnel. First, prior research has found evidence regarding the important role of school contexts in modifying the relations between victimization and mental health outcomes (e.g., Garandeau & Salmivalli, 2019; Kaufman et al., 2023), yet limited work has examined other additional school factors, such as perceptions of support from teachers and staff, that may further shape these modifying associations. Although LGBTQ in-school resources were unable to confer additional protection beyond what was accounted for by support from teachers and staff at high levels of harassment, the findings nonetheless suggest that interpersonal relationships and the surrounding context may jointly influence the harassment-related outcomes of SGDY. Scholars should continue examining how various forms of interpersonal support and broader social contexts synergistically interact to buffer the harmful outcomes linked to harassment.

Understanding the potential benefits of forms of support that show clear intolerance to SGDY's harassment alongside the implementation of structural resources offers an important line of future research for the stigma-based harassment literature. For example, research in the general bullying literature has started examining how defending norms and the reception of defending behaviors counteract these relations among general samples of adolescents, and shows that peer-initiated bully-oriented defending behavior attenuates mental health outcomes of adolescents experiencing persistent victimization, even after accounting for factors that contribute to the healthy context paradox (e.g., classroom-level victimization; Yun & Juvonen, 2020). Emerging research has also found that sexual minority youth may tend to ingratiate, or attempt to win back acceptance from their peers to a greater extent than their heterosexual counterparts following rejection (Clark et al., 2024). Thus, it could

be that SGDY who experience frequent harassment in otherwise "healthier" contexts may further benefit from peer and/or support from school personnel in the form of defending behaviors that show clear intolerance to identity-based harassment; indeed, theoretically, these SGDY who experience persistent peer harassment in contexts with multiple in-school support systems may be more socially isolated relative to their other sexual and/or gender diverse and cisgender–heterosexual peers (Garandeau & Salmivalli, 2019; Pan et al., 2021), at a time when peer affiliation is critical (Brown & Larson, 2009). Other scholars have used person-centered approaches to identify unique school profiles based on the integration of multiple LGBTQ in-school resources (Mann et al., 2024). Similar approaches using mixture modeling may be useful for future research to understand mental health experiences tied to harassment across unique school profiles that differ in their implementation of LGBTQ in-school resources, student perceptions of social–emotional school-based support, and teacher and student defending norms.

Moreover, our findings underscore the importance of SGDY feeling supported and cared for by their teachers and staff for their mental health experiences. Perhaps our most novel finding, we showed that feeling supported by teachers and staff could be a potential driving factor linked to lower depressive symptoms across different levels of harassment. School administration, staff, and teachers should strive to incorporate professional development training focused on LGBTQ student issues that work toward fostering positive and supportive staff–student relationships with SGDY. At the same time, however, LGBTQ in-school resources did not appear to confer additional protection alongside support from teachers and staff at high levels of harassment, which may suggest that the inclusion of LGBTQ in-school resources, even alongside the presence of support from school personnel, may not be enough to address the needs of SGDY who experience more severe levels of harassment. It could be that, along with fostering supportive relationships with teachers and staff and implementing resources, increased monitoring of identity-based harassment experiences is needed to identify students who are not being reached by resources. Such surveying could inform how schools redirect more targeted and individualized systems of support to ensure that all students can benefit from the inclusion of broader LGBTQ school-based resources.

Our findings also showed that adolescents reported that their school had, on average, one to two LGBTQ in-school resources. Previous work suggests several in-school support systems are needed to observe robust protective benefits for adolescents when schools work to reduce harassment-related experiences (Gower, Forster, et al., 2018). This signals a need for school systems and administrators to implement a greater number of resources to maximize the potential protective benefits for students, particularly among SGDY in middle school grade levels. For depressive symptoms, the potential protection of these resources at low levels of harassment may be qualified by SGDY feeling supported by teachers and staff. This finding underscores the need for more multicomponent approaches to prevention programs when working to reduce harassment in schools. It may not be enough to only consider the integration of LGBTQ in-school resources without schools also understanding and cultivating supportive staff relationships with SGDY. As such, schools that consider integrating more LGBTQ resources alongside efforts to reduce harassment should concurrently strive to improve students' perceptions of support from school personnel.

Limitations and Future Research

Despite the findings, this study had several limitations. First, this study was cross-sectional and cannot establish causal claims regarding the associations. For example, the current study only assessed the presence of LGBTQ-in-school resources and could not follow how they were accessed (e.g., gender and sexuality alliances) or perceived (e.g., curriculum) by SGDY over time, which could have important implications (e.g., Poteat et al., 2020). Future work should incorporate longitudinal designs to examine these patterns of results to enrich our understanding of how the associations between identity-based harassment and mental health outcomes change over time. Such longitudinal analyses could clarify the cognitive and interpersonal mediators these associations act through, a further limitation that was not accounted for. For example, it is still unclear why positive aspects of SGDY's social environment, even despite high levels of school personnel support in this case, did not confer additional protection for SGDY experiencing more frequent harassment. Future research may then determine whether cognitive (e.g., attributions) or interpersonal (e.g., decreasing social connection) mediators can explain these relationships to inform more targeted interventions to offset unanticipated outcomes. Second, this study used a nonprobability sample of SGDY. Findings may not be generalizable for SGDY without the time, access, or ability to complete a comprehensive survey online.

Third, this study used a single-item measure to assess SGDY's perceptions of support from school personnel. Although previous national surveys have used similar single-item measures to capture school personnel support (e.g., A. L. Davis & McQuillin, 2023), future work may benefit by using multi-item measures that capture distinct dimensions of student–staff relationships and support (e.g., instrumental and emotional support). For example, students may seek out instrumental support from school personnel as a way for them to intervene and mitigate their experiences with stigma-based harassment (McCauley et al., 2024). Furthermore, by only assessing how SGDY perceived their teachers and staff at school cared for them, we could not determine whether this perception resulted from school personnel creating safe spaces at school that affirm and are inclusive of LGBTQ identities. Not assessing the form and quality of support, whether instrumental, emotional, or identity-specific, may have influenced some of the findings. Additionally, the current study used single-item measures of identity-based harassment that assessed in-person experiences and ethnicity. Future research would benefit from taking a more nuanced approach and assessing multiple forms and modalities (e.g., cyber victimization) of harassment among SGDY and continuing to get clearer reports of all social positions. For example, it is possible that other patterns in these buffering associations could be found when the intensity of different forms of harassment is considered (e.g., between violent and nonviolent forms). Likewise, it is unclear whether these patterns will hold when assessing cyber forms of identity-based harassment. Future work would also benefit from examining other forms of harassment SGDY disproportionately experience, such as sexual harassment (Smith et al., 2022).

Moreover, we only assessed whether LGBTQ in-schools were present and not whether SGDY perceived them as effective or of a high quality. Variability in the perceptions of how well these resources are implemented may have influenced some of these findings. Future work should comprehensively evaluate the presence of resources and how SGDY perceive their quality. Lastly, the current sample was predominantly white SGDY. SGDY of color may experience unique and heightened forms of stressors that were not accounted for by this study (Crenshaw, 1991). In fact, previous research suggests heterogeneity in the protective benefits of LGBTQ in-school resources, such that SGDY of color may not be sufficiently reached by them compared to their white peers (Baams & Russell, 2021). Future research should examine these associations with greater nuance across a diverse sample of SGDY.

Conclusion

With a contemporary national sample of SGDY, this study examined how multiple forms of support jointly interacted to shape SGDY's experiences with identity-based harassment. Although previous research has examined LGBTQ in-school resources and support from school personnel as unique contributing factors to disrupt poor health outcomes among SGDY experiencing identity-based harassment, this study is among the first to consider their joint interactive association. Overall, these findings suggest that LGBTQ in-school resources and support from school personnel may synergistically interact in nuanced ways that shape depressive symptoms among SGDY experiencing identity-based harassment.

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