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Membership Experiences in Gender-Sexuality Alliances (GSAs) Predict Increased Hope and Attenuate the Effects of Victimization

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Abstract

We examined whether students' experiences in their Gender-Sexuality Alliances (GSAs) over the school year predicted positive development or thriving in the form of higher relative levels of hope at the end of the school year and whether GSA experiences also promoted resilience by attenuating the link between victimization and lower relative levels of hope among 366 student members of 38 GSAs (M_{age} = 15.53 years; 85% sexual minority; 55% cisgender female; 72% White). Our findings indicated that, when considered one at a time, students' perceptions of receiving more social-emotional support, receiving more information and resources, and undertaking more advocacy in their GSA throughout the school year predicted higher relative levels of hope at the end of that school year (adjusted for students' initial hope at the beginning of the year). When considering all three GSA-based experiences concurrently, receiving more information and resources in their GSA had a unique predictive association with hope and it reduced the extent to which reported experiences of victimization at school predicted diminished hope at the end of the year. There was a similar, though statistically non-significant, moderating trend for advocacy.

Keywords

Hope; GSA; Victimization; Extracurricular programs; Peer support; Advocacy; LGBTQ youth

Many sexual and gender minority (SGM; e.g., lesbian, gay, bisexual, transgender) students experience victimization at school at rates that are often higher than their heterosexual peers and cisgender peers (i.e., youth whose gender identity aligns with their sex assigned at birth; Martin-Storey & Fish, 2019; Rivers, 2011; Russell & Fish, 2016). There is robust evidence

that these higher rates of victimization and discrimination among SGM youth are associated with a range of health and school-related concerns including greater depressive symptoms, a lower sense of school belonging, and higher rates of truancy (Kosciw, Greytak, Zongrone, Clark, & Truong, 2018; Russell & Fish, 2016). As such, scholars have called for greater attention to be paid to school-based policies and resources for SGM students that could reduce victimization, promote resilience, and increase well-being (Gower et al., 2018; Kull, Greytak, Kosciw, & Villenas, 2016; Russell, Horn, Kosciw, & Saewyc, 2010). Recommendations have ranged from the introduction of enumerated anti-bullying policies, SGM-inclusive curricula, professional development for teachers and school staff, to affirming extracurricular groups such as Gender-Sexuality Alliances (GSAs; also referred to as Gay-Straight Alliances). In the current study, we focus on GSAs, now in a median of 37% of high schools across states in the U.S. (CDC, 2019).

GSAs serve as spaces for SGM students and their peer allies (i.e., heterosexual cisgender students) to receive support and engage in advocacy on SGM issues (Griffin, Lee, Waugh, & Beyer, 2004). Support can include social-emotional support (e.g., encouraging or comforting members) as well as informational and instrumental support (e.g., learning more about SGM issues or SGM-affirming resources; Griffin et al., 2004; Poteat, Yoshikawa, Calzo, Russell, & Horn, 2017). These are major forms of support reflected in Tardy's (1985) broader model of social support—which includes emotional, informational, instrumental, and appraisal or evaluative support—and they relate to myriad indicators of healthy development (Smith, Fernengel, Holcroft, Gerald, & Marien, 1994). In addition, advocacy can include awareness-raising campaigns or lobbying for SGM-inclusive policies (GLSEN, n.d.; Miceli, 2005; Poteat et al., 2017). Aligning with these aims, meeting time may include providing emotional support to members, discussing specific topics (e.g., healthy relationships), or planning advocacy or awareness-raising efforts (Griffin et al., 2004; Miceli, 2005; Poteat et al., 2017). GSAs often meet weekly for up to one hour during or after school. As with other clubs, membership is open to students who elect to join (Miceli, 2005; Schaefer, Simpkins, Vest, & Price, 2011). Indeed, a key feature of GSAs is their inclusion of SGM and heterosexual cisgender students. GSAs tend to be youth-led and supported by adult advisors (e.g., teachers, nurses, or school counselors; Griffin et al., 2004; Watson, Varjas, Meyers, & Graybill, 2010).

GSAs share common aspirations (i.e., support and advocacy), even while they and individual members may vary in the activities they do in relation to these aims (Poteat et al., 2017). As such, as extracurricular clubs, GSAs are not themselves standardized programs or interventions. However, their aims and structure align with recommendations for successful youth programs, which include providing a safe setting for youth to interact, placing youth in leadership positions, and including adult mentors (Eccles & Gootman, 2002; Lerner, Phelps, Forman, & Bowers, 2009). This setup suggests that GSAs could promote youth's well-being.

There is empirical evidence affirming the potential benefits of GSA presence in schools. Cross-sectional comparisons suggest that SGM *and* heterosexual cisgender students in schools with GSAs report greater perceptions of safety and well-being than students in schools without GSAs (Davis, Stafford, & Pullig, 2014; Marx & Kettrey, 2016; Poteat,

Sinclair, DiGiovanni, Koenig, & Russell, 2013; Walls, Kane, & Wisneski, 2010). Similar benefits related to GSA presence have been reported in a longitudinal population-study design (Li et al., 2019). However, it should also be noted that some studies have found no differences across schools in their rates of victimization based on GSA presence (Poteat et al., 2013; Walls et al., 2010). As we go on to note, other studies have thus begun to focus on GSA members themselves and variability in their experiences being a part of GSAs.

GSA Involvement, Thriving, and Resilience in the Form of Hope

Some recent studies have documented cross-sectional associations between the types of experiences that students have in their GSAs—particularly in relation to the main aims of GSAs around providing social-emotional support, resources, and opportunities for advocacy—and their well-being. For instance, GSA members who perceive more support from their peers, feel more connected to their peers, and engage in more advocacy in their GSAs report greater self-esteem (Poteat, Yoshikawa, et al., 2015). Similarly, GSA leaders report a sense of empowerment from their work (Mayberry, 2013; Russell, Muraco, Subramaniam, & Laub, 2009). Still, the cross-sectional nature of nearly all GSA studies has prevented them from ruling out certain selection effects. For example, we do not know if more active members of GSAs already are faring better than other members.

In this study, we pose two questions that have been left unanswered. First, do certain experiences in GSAs predict greater well-being for members over time? Here, we focus on how GSA experiences of receiving social-emotional support, resources, and engaging in advocacy may promote thriving, which can be understood as a process by which youth flourish and experience optimal positive and healthy development (Lerner et al., 2009). Second, do GSA experiences mitigate any negative effects of victimization? To answer this question, we focus on how these three core GSA experiences may promote resilience, which can be understood as an interactive process between youth and their environments whereby youth are empowered with a capacity to adapt and experience positive development even in the face of adversity (Lerner et al., 2009; Masten, 2001).

When considering these questions, we give focus to the index of hope, which is an important indicator of well-being and positive development for youth (Callina, Johnson, Buckingham, & Lerner, 2014; Schmid, Phelps, & Lerner, 2011). Hope can be defined as a belief in one's ability to identify and engage in sustained efforts to achieve future goals (Snyder et al., 1996). Such a positive future-orientation reflects an aspect of thriving and is important for youth as they face major impending academic, personal, and social transitions into adulthood (Schmid et al., 2011; Viner et al., 2012). Hope is important to consider among youth who face marginalization. There has been robust documentation of associations between victimization, discrimination, and health risks among SGM youth (for a review, see Russell & Fish, 2016), and specifically risks in the form of hopelessness and suicidality (Nickels, Walls, Laser, & Wisneski, 2012; Rivers, Gonzalez, Nodin, Peel, & Tyler, 2018). It has been documented among SGM adults that the effects of discrimination on health risks can occur as a consequence of hopelessness (Hatzenbuehler, 2009). In contrast, there has been limited research on factors that promote thriving among SGM youth, such as in the form of hope (McConnell, Birkett, & Mustanski, 2015), or to factors that promote their

resilience by attenuating the effects of victimization. Given the significant association between victimization and lower hope among youth in general (You et al., 2008), there is a need to identify factors that promote hope among SGM youth and that may dampen the otherwise negative effects of victimization on hope. Therefore, we consider whether youth's experiences in GSAs over the year promote hope and attenuate any association that may exist between victimization and diminished hope.

Potential GSA Experiences Associated with Hope

We expect that certain experiences that youth have in their GSA over the school year will predict thriving among youth, as reflected by higher relative levels of hope at the year's end (i.e., adjusting for their initial levels of hope). Also, we expect that these experiences may promote resilience, in that they may attenuate the extent to which victimization predicts lower relative levels of hope. In this manner, GSA experiences could be especially important for members who have experienced victimization, relative to those who have not. We consider the potential for GSA experiences to predict hope as applicable to SGM and heterosexual cisgender members as existing evidence suggests that GSA presence and involvement is associated with well-being for students in general (Marx & Kettrey, 2016; Poteat et al., 2013; Walls et al., 2010).

Social-emotional support.

Peers are a primary source of social-emotional support in adolescence (Bukowski, Laursen, & Rubin, 2018). Such support in the GSA could be important for SGM students because this context deliberately affirms their SGM identities (Mayberry, 2006). Social-emotional support in GSAs also could benefit heterosexual cisgender members due to the central role of peers during adolescence (Bukowski et al., 2018). Indeed, there is a strong association between perceives social support and hope among youth (Esteves, Scoloveno, Mahat, Yarcheski, & Scoloveno, 2013). Thus, GSA members who report greater social-emotional support in their GSA over the year may feel greater hope at the year's end. Also, GSAs could be crucial spaces of support for youth who experience victimization (Davis et al., 2014). GSA meetings include time for group discussions, which often focus on victimization (Griffin et al., 2004; Watson et al., 2010). SGM students may see GSAs as settings where they can access social-emotional support when they have experienced discrimination (Griffin et al., 2004). Likewise, heterosexual cisgender members may access support in GSAs when they are victimized, as they too experience homophobic and gender-based harassment (DeLay, Hanish, Zhang, & Martin, 2017; Rivers, 2011). Consequently, greater perceived social-emotional support may diminish the extent to which victimization may predict lower hope among GSA members.

Informational and instrumental support.

In addition to social-emotional support, peers can offer informational and instrumental support (Malecki & Demaray, 2003; Tardy, 1985). We expect that receiving information and resources to address various SGM-related needs and concerns could predict hope among GSA members. Among youth in general, having greater knowledge of available resources and coping skills is related to better health (Bröder et al., 2017). In addition, the perception

of having sufficient resources to address particular challenges is related to greater hope (Seginer, 2008). For instance, among youth from low socioeconomic backgrounds, receiving instrumental support and using coping strategies such as planning and problem solving are associated with greater hope (Roesch, Duangado, Vaughn, Aldridge, & Villodas, 2010). In some GSAs, students learn ways to cope with stressors in ways that are inclusive of the experiences of SGM youth (e.g., by acknowledging the role of discrimination in relation to their health and the importance of identity affirmation; Lapointe & Crooks, 2018). Members also learn about SGM-affirming agencies in the community (e.g., mental health practitioners or agencies affirming of SGM individuals; Poteat et al., 2017; Watson et al., 2010). Thus, youth who receive more informational and instrumental support in the GSA (e.g., learning coping skills, accessing resources) could come to feel greater hope. We expect that heterosexual cisgender members could benefit in a similar manner, given findings that youth who have greater knowledge of resources or perceive having more available resources report better health and greater hope (Bröder et al., 2017; Seginer, 2008). In addition, SGM youth with a greater knowledge of resources and who have learned coping skills fair better against victimization (Chaudoir, Wang, & Pachankis, 2017; Kuper, Coleman, & Mustanski, 2014). As such, we also expect that informational and instrumental support in GSAs will diminish the association between victimization and hope.

Advocacy opportunities.

Finally, we expect that opportunities to engage in advocacy may be an important way in which GSAs foster hope and promote resilience against victimization. Some advocacy efforts include awareness-raising campaigns (e.g., Day of Silence, Ally Week, Transgender Awareness Week), while other efforts aim to promote inclusive school policies or practices (e.g., enumerated anti-bullying policies or gender-neutral graduation gowns; GLSEN, n.d.; Poteat, Scheer, Marx, Calzo, & Yoshikawa, 2015). Advocacy efforts may elevate hope among SGM students by giving them a voice and a means to act to improve conditions in their school (Russell et al., 2009). In qualitative interviews, SGM and heterosexual cisgender GSA student leaders have reported that they feel empowered through their work in the GSA (Mayberry, 2013; Russell et al., 2009). Also, because advocacy provides opportunities for marginalized youth to take action against stressors that underlie health risks and disparities (e.g., discrimination; Ginwright & James, 2002), engaging in more advocacy may attenuate the strength with which victimization predicts diminished hope.

The Current Study

Although recent findings on GSAs are encouraging, in the majority of cases they have been limited by their reliance on cross-sectional data. Additionally, many studies have tended to focus on broadly comparing schools based on GSA presence or absence or comparing students based on past or present GSA membership status (Davis et al., 2014; Marx & Kettrey, 2016; Poteat et al., 2013; Walls et al., 2010). Attending to variability among GSA members themselves and identifying specific GSA experiences associated with improved social-emotional outcomes could inform GSA-based efforts to promote thriving and resilience. We address these limitations with a direct focus on how GSA experiences may

predict higher relative hope over the school year and attenuate the association between victimization and diminished hope among members.

Our first research question considers whether specific GSA experiences predict thriving in the form of greater hope over the school year. We hypothesize that, while statistically adjusting for members' reported levels of hope at the beginning of the school year, members who perceive greater social-emotional support, receiving more information and resources (as informational and instrumental support), and engaging in more advocacy in the GSA over the school year will report higher relative levels of hope (i.e., residualized increases) at the year's end. We base these hypotheses on other documented associations between social-emotional support, resources, advocacy, and hope (Esteves et al., 2013; Russell et al., 2009; Seginer, 2008). We first examined whether each of these three major GSA experiences predicted higher relative levels of hope in their own right within separate models for each predictor. We then tested a comprehensive model with all three included in order to assess the unique predictive ability of each variable. Our second research question considers whether these specific GSA experiences predict resilience against victimization. We hypothesize that, while statistically adjusting for members' reported levels of hope at the beginning of the school year, these three GSA-based experiences will attenuate the extent to which reports of experiencing victimization predict lower relative levels of hope (i.e., residualized decreases) at the year's end. We base these hypotheses on the fact that GSAs are intended to support youth and to counteract discrimination and its otherwise pernicious effects on youth (Griffin et al., 2004; Poteat et al., 2017). In all our models, we adjust for variability across GSAs in their number of meetings over the year and their number of advisors, which could have potential associations with hope apart from a youth's own experience in the GSA (e.g., having more meetings or advisors to offer support could be associated with greater hope). Similarly, we adjusted for a youth's membership duration to account in part for the potential that some youth may feel more hopeful from a longer history of GSA involvement as opposed to their experiences during the present school year.

Method

Participants

Students who were current GSA members of 38 GSAs across Massachusetts completed surveys (M = 15 students per GSA, SD = 6.54) at the beginning of the school year (Wave 1) and again toward the end of the school year (Wave 2). Of the 580 youth who completed Wave 1 surveys, at least 85 youth (14.7% of the original sample) discontinued their GSA involvement (as reported by advisors; advisors of eight GSAs did not provide this information). The remaining 129 youth who did not complete Wave 2 surveys (22.2% of the original sample) were not present during data collection, did not complete the survey that was left for them prior to the end of the school year, or were in GSAs where advisors did not provide feedback on whether they had discontinued their involvement. Based on these data, 73.9% of the original sample who were potentially still active GSA members at the end of the year completed Wave 2 surveys (n = 366, M_{age} = 15.53 years, SD = 1.38 years; range = 10 to 20 years). Table 1 contains full demographic information for the final student participant sample.

We found that there was no differential attrition based on gender ($\chi^2 = 0.48$, $p = .79$), but there was greater attrition for heterosexual than sexual minority youth ($\chi^2 = 13.72$, $p < .001$; 43% vs 24%) and for racial/ethnic minority youth than White youth ($\chi^2 = 11.49$, $p = .001$; 43% vs 23%). We conducted a MANOVA to test for attrition-based differences on measures that were completed at Wave 1 (hope and GSA membership duration). The MANOVA was significant, Wilks' $\Lambda = .99$, $F(2, 488) = 3.70$, $p = .03$,$\eta_p^2 = .01$. Follow-up ANOVAs indicated that, with a small effect size, students retained at both waves reported, on average, slightly higher levels of hope at Wave 1, $F(1, 489) = 6.92$, $p = .01$,$\eta_p^2 = .01$. Our models adjusted for these demographic factors and constructs related to missingness due to attrition. There was minimal missing data for students who participated at both time points (0% to 1.9% across measures).

Procedures

The lead author and a team of researchers consulted with the Massachusetts Safe Schools Program for LGBTQ Students to identify a diverse representation of GSAs throughout the state of Massachusetts. Specifically, GSAs were purposively sampled across Massachusetts to ensure that they would be located across various geographic regions of the state and located in communities with different population densities (i.e., rural, suburban, and urban areas), as well as variability in the size and racial and socioeconomic composition of the schools in which they were situated. The GSAs were located in traditional public schools, charter public schools, and vocational public schools. GSA advisors and principals granted permission to involve their school's GSA. As our inclusion criteria, all students who considered themselves to be current members of their school's GSA were allowed to participate. Participants were informed that the project would ask about their GSA experiences, that their responses would be confidential, and that individual responses would not be shared with anyone. Advisors consented for all student members to participate; 100% of the GSA members assented. Advisor adult consent was approved over parent consent to avoid risks of inadvertently outing SGM youth to their parents. This consent method is common in research with SGM youth to protect their safety (Mustanski, 2011). Procedures were approved by the primary institution's IRB and each school.

The project was completed over a two-year period, wherein 19 GSAs participated in one year and a separate set of 19 GSAs participated in another year. This was done for feasibility; it ensured that all of the GSAs participating in a given year could be visited within a close time frame at each wave, given that GSAs were located across the state and many met on the same days of the week. At Wave 1, surveys were collected during a GSA meeting between mid-September and late-October. Proctors, including the principal investigator, graduate research assistants, and project coordinator, answered questions and collected surveys. Participants received a $10 gift card. At Wave 2, which occurred between late-April and late-May, surveys were collected in the same manner as for Wave 1. Participants received a $20 gift card.

Measures

Demographic information and covariates.—Students reported their sexual orientation, gender identity, and race/ethnicity with response options as shown in Table 1. Because of the small number of students within some of the specific sexual minority, racial/ethnic minority, and gender minority subgroups, we used binary indicators of sexual orientation (heterosexual or sexual minority), race/ethnicity (White or racial/ethnic minority) and three categories for gender identity (cisgender female, cisgender male, and gender expansive in order to include youth who identified as transgender, non-binary, genderqueer, gender fluid, and other written-in responses that reflected identities that expanded beyond cisgender) in our analyses. Written-in responses for demographic variables were confirmed to reflect sexual, racial, or gender minority identities and were coded as such. In addition, at Wave 1 students were asked to report how many years and/or months they had been a member of their GSA. We used their reports to calculate their duration of GSA membership as a function of years. We also recorded the number of GSA advisors in each GSA (one advisor or more than one advisor) and the year in which the GSA had participated (i.e., Year 1 or Year 2 of the project). At Wave 2 we asked GSA advisors to share with us the total number of meetings they had held since November (i.e., approximately following our initial visit).

GSA experiences.—Students completed the GSA Involvement scale (Poteat, Calzo, & Yoshikawa, 2016) at Wave 2 to describe their GSA experiences over the course of the academic year. The scale items were preceded by the stem, ―From November until now, how much do you personally feel *you experienced* in your GSA.‖ In the original development of the scale, three correlated but distinct factors emerged from an exploratory factor analysis, each of which aligned with a primary aim of GSAs (Poteat et al., 2016). The first factor assesses youth's perceptions of receiving social-emotional support in the GSA (7 items; e.g., "a place of safety" or "emotional support"). The second factor assesses perceptions of receiving information and resources in the GSA (3 items; e.g., "received resources on services available" or "learned ways to deal with stress"). The third factor assesses reports of participating in advocacy and awareness-raising efforts in the GSA (7 items; e.g., "organized school events to raise awareness of LGBTQ issues" or "spoke out for LGBTQ issues"). Response options range from 0 (*not at all*) to 4 (*a lot*). Higher average subscale scores represent greater perceptions of social-emotional support received, information or resources received, and advocacy done in the GSA. Prior coefficient alpha reliability estimates ranged from α = .84 to .90 (Poteat et al., 2016), and the reliability estimates were similar for the current study, with α = .87, .76, and .88 for the social-emotional support, information and resources, and advocacy subscales, respectively.

Victimization.—Students completed the 4-item University of Illinois Victimization Scale (Espelage & Holt, 2001) at Wave 2 to self-report their experiences of peer victimization over the past 30 days (e.g., "I got hit or pushed by other students" or "Other students called me names"). Response options are *never, 1 or 2 times, 3 or 4 times, 5 or 6 times,* and *7 or more times* (scored 0 to 4). Higher average scale scores represent greater peer victimization. The scale has been used extensively in peer victimization research, including longitudinal

correlational studies, and it has convergence with peer-nominated victimization (Davis et al., 2019; Espelage & Holt, 2001). The coefficient alpha reliability estimate was α = .89.

Hope.—At both waves, students completed the 6-item State Hope Scale (Snyder et al., 1996) to assess their sense of hope (e.g., "I can think of many ways to reach my current goals"). Response options range from 1 (*definitely false*) to 8 (*definitely true*). Higher average scale scores represent greater hope. At Wave 1, students were asked to respond to the items based on how they currently felt about themselves. At Wave 2, students were asked to respond to the items based on how they had felt about themselves over the past month. We asked youth to report their hope over the one-month period at Wave 2 in order to better assess whether GSA involvement over a six-month period predicted youth's hope as it may have been felt more consistently (e.g., a one-month period) than momentarily. The coefficient alpha reliability estimate was α = .92 at both waves.

Analytic Approach

We used multilevel modeling with maximum likelihood estimation in Mplus 8.1 (Muthén & Muthén, 2017) to test our main hypotheses due to the interdependence of students nested within GSAs. Our first set of models tested our hypotheses that students' perceived social-emotional support received (Model 1), information and resources received (Model 2), and advocacy done (Model 3) over the school year would predict residualized increases in hope. In these models, the dependent variable was hope at Wave 2. Model 1 is presented below as an example (social-emotional support was replaced with information and resources in Model 2, and with advocacy in Model 3):

$$Hope\mathrm{W2_{ij}} = \beta_{0\mathrm{j}} + \beta_{1j}\left(\text{ membership duration }_{\mathrm{ij}}\right) + \beta_{2j}\left(\text{ sexual minority }_{\mathrm{ij}}\right) + \beta_{3j}(\text{racial minority}_{\mathrm{ij}}) + \beta_{4j}\left(\text{ cisgender male }_{ij}\right) + \beta_{5j}(\text{ gender expansive}_{\mathrm{ij}}) + \beta_{6j}\left(\text{ hope } W1_{ij}\right) + \beta_{7j}\left(\text{ victimization }_{ij}\right) + \beta_{8j}\left(\text{ GSA social-emotional support }_{ij}\right) + r_{ij}$$

$$\beta_{0j} = \gamma_{00} + \gamma_{01}\left(\text{ number of advisors}\right)_{j} + \gamma_{02}\,(\text{number of GSA meetings})_{j} + \gamma_{03}\,(\text{year in project})_{j} + u_{0j}$$

At Level 1, sexual orientation and race/ethnicity were binary variables (0 = heterosexual, 1 = sexual minority; 0 = White, 1 = racial/ethnic minority) and two dummy variables indicated whether students identified as cisgender male or gender expansive, making cisgender females the referent group. The continuous variables of membership duration, hope at Wave 1, victimization, and the three GSA experiences were grand-mean centered. Centering is recommended for variables in multilevel modeling to give scores of zero an interpretable meaning; in the case of grand-mean centering, scores represent the deviation of an individual from the overall sample's mean (Raudenbush & Bryk, 2002). At Level 2, the number of GSA advisors and the year in which the GSA participated in the project were binary (1 = more than one advisor, 1 = Year 2, respectively), while the number of GSA meetings was continuous.

After testing these three models to consider the predictive effect for each GSA experience separately, we tested a model with all three GSA experiences included simultaneously. This

model (Model 4) considered the unique ability of each experience to predict residualized increases in hope.

To test our hypotheses that the three GSA experiences would attenuate the extent to which victimization predicted residualized decreases in hope, we built on Model 4 (i.e., the combined model) to include an interaction term between victimization and each GSA experience (i.e., *victimization* × *social-emotional support*, *victimization* × *information/resources*, and *victimization* × *advocacy*). We tested each interaction in a separate model. The model for the moderating effect of GSA social-emotional support is presented below as an example:

$$\begin{aligned}\text{Hope W2}_{ij} = {} & \beta_{0j} + \beta_{1j}(\text{membership duration}_{ij}) + \beta_{2j}(\text{sexual minority}_{ij}) + \beta_{3j}(\text{racial minority}_{ij}) + \\ & \beta_{4j}(\text{cisgender male}_{ij}) + \beta_{5j}(\text{gender expansive}_{ij}) + \beta_{6j}(\text{hope W1}_{ij}) + \beta_{7j}(\text{victimization}_{ij}) \\ & + \beta_{8j}(\text{GSA social-emotional support}_{ij}) + \beta_{9j}(\text{GSA information, resources}_{ij}) + \\ & \beta_{10j}(\text{GSA advocacy}_{ij}) + \beta_{11j}(\text{victimization} \times \text{GSA social-emotional support}_{ij}) + r_{ij}\end{aligned}$$

$$\beta_{0j} = \gamma_{00} + \gamma_{01}(\text{number of advisors})_j + \gamma_{02}(\text{number of GSA meetings})_j + \gamma_{03}(\text{year in project})_j + u_{0j}$$

Because moderation analyses generally are underpowered relative to those for main effects, we used Monte Carlo simulation to conduct diagnostics of coverage (the proportion of replications for which the 95% confidence interval contains the parameter value that we attained) and statistical power for our interaction terms. We found that our coverage was strong but that the statistical power was low for the social-emotional and advocacy interaction terms. Thus, for these two interaction terms we gave more attention to the direction and size of the parameter estimates than their statistical significance.

Results

Preliminary Bivariate Associations and Comparisons

We report the simple bivariate associations among our measures in Table 2, along with descriptive statistics for each measure. As expected, students who reported stronger perceptions of social-emotional support, information and resources received, and advocacy done throughout the year in their GSA also reported a greater sense of hope at Wave 1 and Wave 2 (r = .12 through .29). Also as expected, students who reported experiencing more frequent victimization reported lower levels of hope at Wave 1 and Wave 2 (r = −.15 and −.21, respectively).

We report sexual orientation- and gender identity-based differences in Table 3. The MANOVA for sexual orientation was significant, Wilks' Λ = .94, $F(6, 353) = 3.89$, p = .001, η_p^2 = .06. As noted in Table 3, follow-up ANOVAs indicated that heterosexual members reported greater hope at Wave 1 and Wave 2, greater perceptions of social-emotional support, and more information and resources received than sexual minority members. The effect sizes for these differences, however, were small. The MANOVA for gender identity also was significant, Wilks' Λ = .85, $F(12, 708) = 3.89$, $p < .001$, η_p^2 = .08,

while follow-up ANOVAs indicated that gender differences were significant for hope at Wave 1, hope at Wave 2, perceived social-emotional support, and victimization (see Table 3). Bonferroni post-hoc comparisons further indicated that gender expansive students reported lower hope at Wave 1 and Wave 2 than cisgender female students ($p < .001$, $d = 0.52$ at Wave 1; $p < .001$, $d = 0.50$ at Wave 2) and cisgender male students ($p < .001$, $d = 0.67$ at Wave 1; $p < .001$, $d = 0.62$ at Wave 2); cisgender female students reported greater perceptions of social-emotional support than cisgender male students ($p = .01$, $d = 0.37$); and gender expansive students reported experiencing more frequent peer victimization than cisgender female students ($p = .004$, $d = 0.38$).

Models of GSA Experiences Predicting Hope

The results of our first four models are presented in Table 4. As hypothesized, greater perceptions of social-emotional support (b = 0.467, $p < .001$; Model 1), information and resources received (b = 0.333, $p < .001$; Model 2), and advocacy done (b = 0.354, $p < .001$; Model 3) throughout the school year each predicted residualized increases in hope at the end of the school year (i.e., while statistically adjusting for individuals' hope at Wave 1). In the combined model with all three GSA experiences included, only perceptions of more information and resources received throughout the school year had a unique predictive effect on hope (b = 0.190, $p = .04$; Table 4, Model 4). Across all models, reports of experiencing more frequent victimization predicted residualized decreases in hope (b = −0.211 to −0.222, $p = .005$ to .007).

Models of Interactions between Victimization and GSA Experiences

The results of our final set of models are presented in Table 5. These models tested whether GSA experiences attenuated the extent to which victimization predicted residualized decreases in hope. The interaction between victimization and information and resources was statistically significant (b = 0.191, $p < .001$), showing that perceptions of receiving more information and resources in the GSA throughout the year, as an indication of informational and instrumental support, attenuated the strength with which victimization predicted residualized decreases in hope (Figure 1). The interaction between victimization and advocacy was not statistically significant, but given that the statistical power associated with this interaction term was more limited than for information and resources, we noted that the size of the parameter estimate did suggest a relative degree of importance (b = 0.097, $p = .15$). As with information and resources, doing more advocacy throughout the year attenuated the strength with which victimization predicted residualized decreases in hope (Figure 2). The interaction between victimization and social-emotional support was not statistically significant and the parameter estimate was quite small in size (b = 0.019, $p = .77$).

We conducted follow-up simple slopes analyses for students whose scores were among the highest on information and resources received in their GSA and for students whose scores were among the lowest on information and resources received in their GSA (based on scores that were one standard deviation above or below the mean, respectively). We followed analogous procedures for follow-up simple slopes analyses based on advocacy done in the GSA. Among students who had reported relatively low levels of information and resources

received in their GSA, higher levels of victimization predicted decreased hope at the end of the school year (b = −0.535, $p < .001$). In contrast, among students who had reported relatively high levels of information and resources received in their GSA, higher levels of victimization did not predict residualized change in hope at the end of the school year (b = 0.139, $p = .07$). Similarly, among students who had reported doing relatively low levels of advocacy in their GSA, higher levels of victimization predicted residualized decreases in hope at the end of the school year (b = −0.534, $p = .001$). However, among students who had reported doing relatively high levels of advocacy in their GSA, higher levels of victimization did not predict residualized change in hope at the end of the school year (b = −0.155, $p = .38$).

Finally, as an alternative way to explore the interaction between victimization and the two GSA experiences of receiving information and resources and engaging in advocacy, we considered the simple slopes for students who (a) had not experienced any victimization or (b) had experienced victimization. In doing so, we compared the relative strength with which greater information and resources and greater advocacy predicted residualized change in hope for these two groups (Figures 3 and 4, respectively). Receiving more information and resources was a stronger predictor of residualized increases in hope for students who had experienced victimization (b = 0.467, $p = .001$) than for students who had not experienced victimization (b = 0.181, $p = .09$). There was essentially no difference in how strongly advocacy predicted residualized increases in hope for students who had experienced victimization (b = 0.332, $p = .001$) or who had not experienced victimization (b = 0.344, $p = .006$).

Discussion

The results of our study indicated that students' perceptions of receiving more social-emotional support, receiving more information and resources (as an indication of informational and instrumental support), and undertaking more advocacy activities in the GSA throughout the school year predicted higher relative levels of hope at the end of that school year. Receiving more information and resources had the most notable predictive effect on higher relative levels of hope. Further, interactions between GSA experiences and victimization indicated that students' reports of receiving more information and resources, and to a marginal extent engaging in more advocacy, reduced the extent to which victimization predicted lower relative levels of hope at the year's end. These interactions also indicated that receiving more information and resources more strongly predicted higher relative levels of hope for GSA members who had experienced victimization than for members who had not experienced victimization. Overall, these findings suggest that GSAs may be important school settings to promote thriving and resilience among students.

Group Differences in Hope and GSA Experiences

SGM youth reported lower levels of hope at both waves than their heterosexual and cisgender peers in the GSA. In part, this may be due to the marginalization that SGM students face, whether in school or more broadly in society that is associated with health risks (Nickels et al., 2012; Rivers et al., 2018; Russell & Fish, 2016). Indeed, gender

minority GSA members reported experiencing greater victimization than their cisgender peers. Sexual minority students did not report significant differences in victimization from their heterosexual peers, possibly because heterosexual GSA members also might be the target of homophobic bullying (DeLay et al., 2017; Rivers, 2011). Still, they may experience other stressors related to coming out, parent rejection, or hypervigilance against discrimination (Baams, Grossman, & Russell, 2015; Cox, Dewaele, Van Houtte, & Vincke, 2010). Thus, while GSAs can be seen as settings that empower students and equip them to counteract discrimination (Mayberry, 2013; Russell et al., 2009), it remains important to recognize that SGM members still face and are affected by societal stigma.

Certain GSA Experiences Predict Thriving in the Form of Hope

In support of our hypotheses, students who reported receiving more information and resources over the school year reported greater thriving in the form of higher relative levels of hope at the year's end. Receiving more information and resources also had a unique predictive association with higher relative levels of hope in the combined model which also included students' perceived social-emotional support and advocacy. This aspect of GSA involvement has received less attention than GSA social-emotional support or advocacy (Mayberry, 2013; Poteat, Scheer et al., 2015; Russell et al., 2009). Yet, in addition to social-emotional support, GSAs provide informational and instrumental support (Lapointe & Crooks, 2018). Further, other studies have found that having sufficient resources and receiving instrumental support are associated with greater hope (Roesch et al., 2010; Seginer, 2008). In GSA meetings, some students may have learned about SGM-affirming resources or coping skills, thereby promoting their relative level of hope and overall ability to thrive. Also, hope is characterized by certain cognitive attributes (e.g., beliefs, knowledge, efficacy; Snyder et al., 1996), which informational and instrumental support may be especially suited to promote. The significance of this GSA function points to the potential for GSAs to connect students to other resources and services in their school or community. In some ways, this could mirror the wraparound approach used in schools to ensure more comprehensive student support (Hess, Pearrow, Hazel, Sander, & Wille, 2017).

When modeled independently, but not in the combined model, students who perceived receiving more social-emotional support and who engaged in more advocacy over the school year reported higher relative levels of hope at the year's end. These results build on cross-sectional quantitative findings and qualitative reports from GSA members that their GSA involvement is connected to their sense of well-being (Mayberry, 2013; Poteat et al., 2015; Russell et al., 2009). The current findings strengthen the case that GSAs may promote thriving (i.e., experiencing positive and healthy development; Lerner et al., 2009), at least in the form of hope, by adjusting for students' initial reports of hope. Our finding for social-emotional support aligns with what is known about effective youth programs, namely that they should provide prosocial settings for youth to support one another (Eccles & Gootman, 2002; Lerner et al., 2009). Although advocacy has not received as much attention in the general extracurricular or youth program literature, it may have elevated students' hope by providing them with avenues to improve social conditions in their school (GLSEN, n.d.; Poteat, Scheer, et al., 2015). This would align with prior studies which have shown that students have felt empowered through their work in GSAs (Mayberry, 2013; Russell et al.,

2009). For SGM students, advocacy may have enabled them to counteract sources of stress (e.g., oppressive school policies) and elevated their relative level of hope. For heterosexual cisgender members, many who also experience homophobic bullying and pressure to conform to restrictive gender norms (Meyer, 2015; Rivers, 2011), advocacy may have promoted their hope as a result of being a part of these same efforts.

In the combined model, unlike for information and resources, perceived social-emotional support and advocacy did not have unique predictive associations with higher relative levels of hope. Several factors may explain this pattern. The potentially tailored provision of information and resources may have been able to address a specific student's immediate needs (e.g., an instance of victimization), whereas advocacy tends to focus on more systemic, global issues (e.g., the invisibility of SGM issues in course curricula). Also, social-emotional support may have offered immediate comfort to youth, but it may not have necessarily equipped them with ongoing strategies to use in the future in order to address a particular stressor in the way that information and resources may have done. These circumstances could partly explain why social-emotional support and advocacy no longer had a unique predictive association with higher relative levels of hope in the combined model with students' reports of receiving information and resources. Still, future research should consider the interplay among these GSA function more closely and how they may build on one another to promote hope and other indicators of thriving.

Certain GSA Experiences Predict Resilience against Victimization

In addition to considering whether GSA experiences predicted overall thriving, we considered whether they promoted resilience by attenuating the association between victimization and lower relative levels of hope. In support of our hypotheses, the moderating effect was significant for GSA information and resources. This converges with other findings that resource knowledge can diminish the effects of victimization among sexual minority youth (Chaudoir et al., 2017; Kuper et al., 2014). GSA members may have benefited from identifying tangible, clear, and healthy coping strategies or courses of action in the face of victimization. This knowledge may have helped to strengthen their resilience against victimization that they were experiencing. Similarly, students may have received direct referrals to community agencies that could address their experiences of victimization (e.g., by offering mental health services) or to adults at school who could assist them (e.g., to formally report a bullying incident). Informational and instrumental support may have been a unique and important feature of GSAs that gave students a clearer sense of control over their circumstances and a path forward and, in this respect, hope in the face of victimization.

As another way to consider the significant interaction between victimization and receiving GSA information and resources, this interaction also indicated that receiving more information and resources was especially predictive of higher relative levels of hope for members who experienced victimization, compared to members who had not experienced victimization. It appears that this major provision of GSAs may be particularly beneficial for members who may be most in need. This further suggests the potential for GSAs to serve as a supportive school-based setting for students to address concerns which students often face (e.g., bullying; Griffin et al., 2004; Miceli, 2005).

We found mixed support for moderating effects related to advocacy. To a lesser extent, greater involvement in advocacy attenuated the association between victimization and lower relative levels of hope at the year's end. Advocacy tends to have a broad focus (e.g., Day of Silence to raise awareness of discrimination against SGM youth in general; GLSEN, n.d.) and therefore might not have had as large or as immediate a buffering effect on victimization for a single student. The benefits of advocacy for an individual student facing victimization might be weaker or take longer to produce. We interpret this result for advocacy based more on the size of the effect, as the statistical power for this particular analysis was low and the parameter was not statistically significant. Similarly, this interaction did not indicate that the predictive effect of advocacy on higher relative levels of hope differed much for students who had or who had not experienced victimization. Future research should continue to examine advocacy with a larger sample and with additional nuance. For example, the amount of advocacy that students do may be less important than the quality of the experience or its results. Future research might consider whether students' perceptions of a successful outcome of their advocacy—of any amount—acts as a buffer against the effects of victimization.

Social-emotional support in the GSA did not attenuate the association between victimization and lower relative levels of hope to a practical degree. Some findings in the general bullying literature have documented moderating effects of peer support on well-being (Davidson & Demaray, 2007; Hodges, Boivin, Vitaro, & Bukowski, 1999). However, evidence of moderating effects of peer support among sexual minority youth has been mixed (Doty, Willoughby, Lindahl, & Malik, 2010; Mustanski et al., 2011). Notably, our findings among a predominantly SGM youth sample align more closely with studies among sexual minority youth. Social-emotional support in GSAs may have been valued by members, but it may not have been sufficient to bolster resilience against victimization. This may be due to the fact that GSAs do not meet daily; in most cases they meet weekly and only for up to one hour (Griffin et al., 2004; Poteat et al., 2017). Our finding suggests that it may be important for GSAs to connect students with other complementary sources of social-emotional support (e.g., other teachers, peers, counseling services). Alternatively, it may be that youth who reported less social-emotional support in their GSA were soliciting such support from other sources (e.g., other peers or adults outside of the GSA). In either case, these multiple and complementary sources of social-emotional support may collectively moderate the effects of victimization on hope to a much larger degree.

Limitations, Strengths, and Future Directions

The current study carries several limitations. First, collecting more waves of data over the year could minimize any potential recall bias. Second, our measure of peer victimization assessed experiences over the past month, a common period used in measures of victimization (Vessey, Strout, DiFazio, & Walker, 2014). Although there tends to be relative stability in victimization over a school year (Pouwels, Souren, Lansu, & Cillessen, 2016), it would have been informative to have data on students' levels of victimization across the entire year and to consider potential buffering effects of GSA experiences in closer temporal proximity to students' experiences of victimization (e.g., at a weekly level). Similarly, although state (versus trait) levels of hope typically have been considered "in the moment,"

at Wave 2 we asked youth to report their hope over a one-month period to determine if GSA experiences over six months would relate to a slightly more enduring sense of hope beyond youth's momentary experience. Future research should consider both possibilities: how might weekly variation in GSA experiences be associated with youth's momentary sense of hope as well as with more enduring changes? Third, although we included students from a number of GSAs, they were all in Massachusetts, which is considered more progressive, on average, than other states. The types of support or advocacy in GSAs could vary according to the broader social context (e.g., based on the political climate of the community or state, or the resources available to SGM populations in the state). Future research should aim to include students from a larger national sample to test the generalizability of our findings. In this same manner, studies with more robust representations of students across sexual orientations and gender identities might consider whether associations between certain GSA experiences and thriving or resilience vary for these specific groups of GSA members. Finally, our moderation analyses for social-emotional support and advocacy were underpowered. Research with even larger samples will permit more robust consideration of these and other nuanced questions about the possible ways in which GSAs could promote youth's well-being.

There are also several strengths to the current study. It is one of only a few to move beyond the use of cross-sectional data in GSA research, to look at specific GSA experiences associated with thriving among members, and to test whether such experiences may promote resilience by attenuating associations between victimization and hope, all for a more rigorous test of the potential role of GSAs in promoting well-being. In addition, we recruited students in GSAs (and thus schools) that were purposively sampled for school size, type of school (e.g., traditional public, charter, or vocational), population density (e.g., rural to urban), SES, and race/ethnicity. Also, by visiting schools and taking steps to include members who were not as active in the GSA, we increased the likelihood of including a broader representation of students than only those who already may have been among the most active, thriving, or resilient.

Our findings point to the utility of examining variability among GSA members in their experiences and considering specific GSA experiences that could underlie the benefits that members could derive. Future work should aim to identify additional GSA functions that could promote overall thriving as well as resilience in the face of adversity. This focus could include attention to group-level factors (e.g., to consider benefits associated with attending GSAs whose advisors have received professional development for their advising role or education on mental health issues). Beyond the GSA, such work should also consider how GSAs and their members could be affected by broader school or community norms, policies, or practices. For instance, the level of support from school or district administrators or the location of GSAs in schools or districts with enumerated anti-bullying policies could affect the extent to which GSAs are able to foster hope among their members or address issues of discrimination and victimization faced by members. As an additional longitudinal approach, it would be ideal to consider students' school experiences and well-being prior to and after joining their GSA. This, coupled with comparisons to similar students who do not join GSAs, could provide even more rigorous tests of the possible benefits that GSA involvement may carry for students.

Our findings also could inform future practical efforts among school-based practitioners (e.g., school psychologists or counselors) to support the efforts of GSAs in their schools. For instance, based on these findings, psychological and educational programming could be beneficial in GSAs. Practitioners could play a valuable role in providing such SGM-inclusive programming, given their training in mental health assessment and service provision. They could serve as guest facilitators for this work in GSAs, or they could provide training or support to student leaders and adult advisors of the GSA (in those GSAs where they are not already serving as the advisor). Given that mental health issues often are raised in GSA meetings, practitioners could provide ongoing consultation to GSA student leaders and adult advisors on how to provide the most effective support to members who may be facing a range of adverse experiences. Further, practitioners could work with the GSA to provide referrals to SGM-affirming agencies or service providers in the community for students with questions or concerns related to coming out, sexual orientation or gender identity development, or family or peer rejection. In addition, practitioners could assist with GSA awareness-raising efforts, many which tend to address factors that impact youth's mental health (e.g., Day of Silence, National Coming Out Day, Transgender Awareness Week, No Name-Calling Week; GLSEN, n.d.). More broadly, they could advocate on behalf of GSAs and their members and support their GSA's efforts to secure SGM-inclusive school policies and practices. Finally, given that hope not only includes a positive future-orientation but also a sense of direction and perceived ability to achieve such positive outcomes, practitioners could work with students in GSAs on identifying and planning ways to achieve their future aspirations. All of these efforts would be in keeping with the roles of school psychologists and counselors to support SGM students in schools (American Psychological Association and National Association of School Psychologists, 2015). These practices and other ongoing research efforts related to GSAs could elevate the impact that GSAs could have in their schools as part of efforts to prevent bullying, improve school climate, and promote well-being among students.

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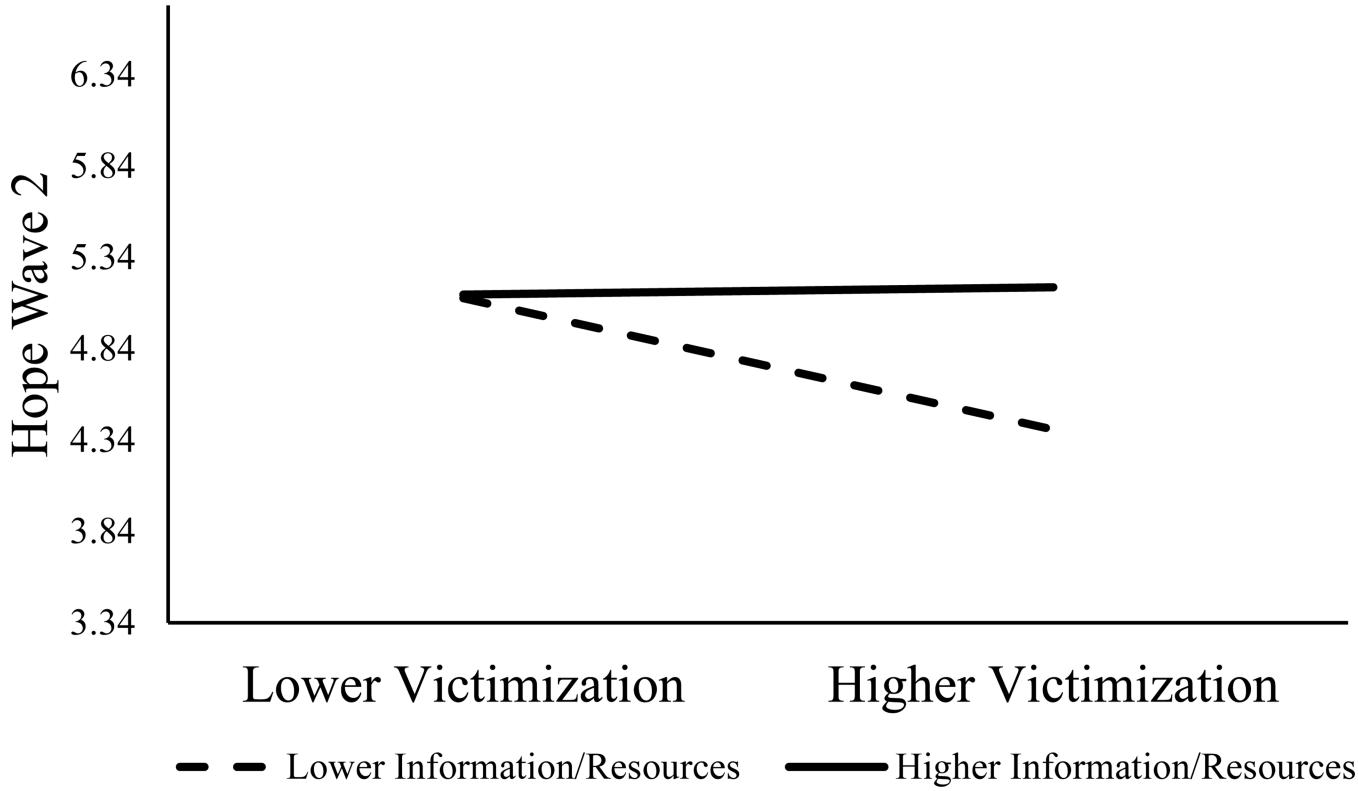

Figure 1.

The association between peer victimization and hope, moderated by a student's reported level of information and resources received in their GSA over the school year.

Note. The range of the y-axis for hope spans ± 1 standard deviation from the mean.

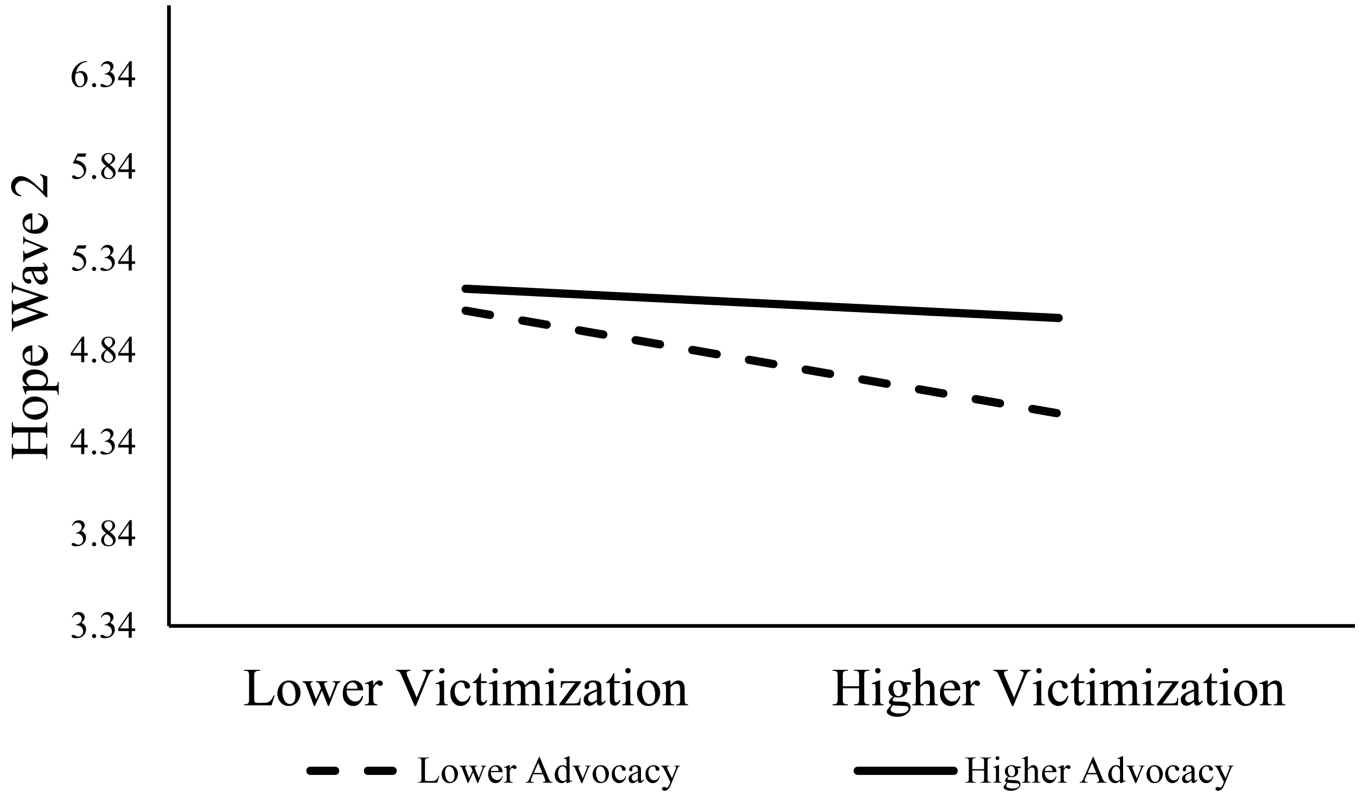

Figure 2.

The association between peer victimization and hope, moderated by a student's reported level of advocacy in their GSA over the school year.

Note. The range of the y-axis for hope spans ± 1 standard deviation from the mean.

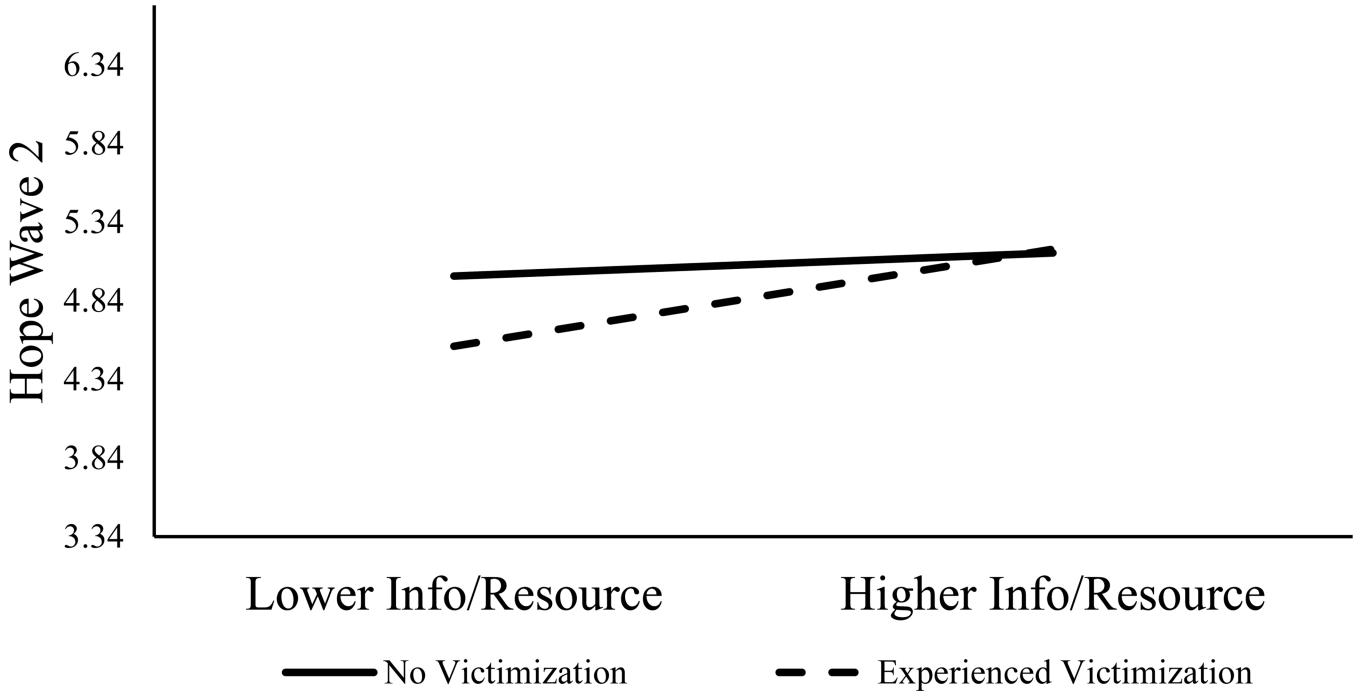

Figure 3.

The association between students' reports of receiving more information and resources in their GSA and hope, moderated by whether students experienced victimization.

Note. The range of the y-axis for hope spans ± 1 standard deviation from the mean.

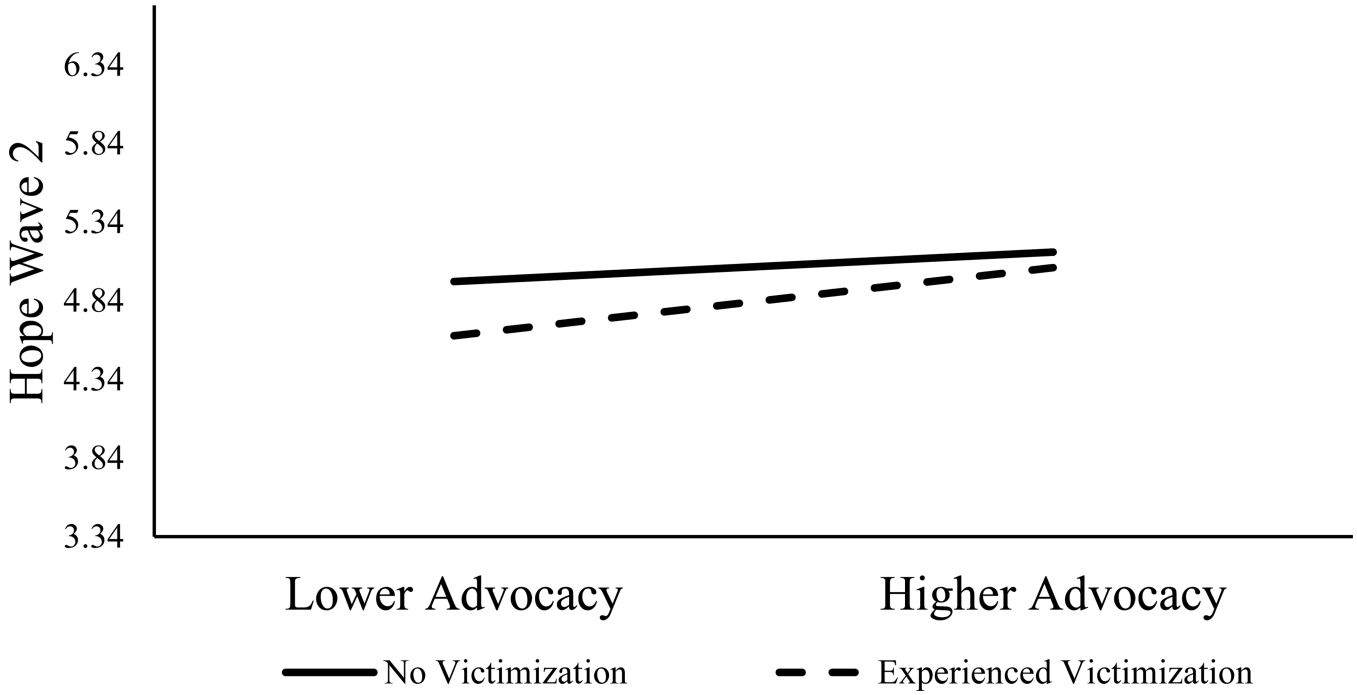

Figure 4.

The association between students' reported level of advocacy done in the GSA and hope, moderated by whether students experienced victimization.

Note. The range of the y-axis for hope spans ± 1 standard deviation from the mean.

Table 1

Youth Demographic Information of Final Sample

Demographic Indicator	*N* (%)
Sexual orientation	
Bisexual	81 (22.1)
Pansexual	79 (21.6)
Heterosexual	52 (14.2)
Gay or Lesbian	61 (16.7)
Questioning	26 (7.1)
Queer	18 (4.9)
Asexual	14 (3.8)
Other written-in response	32 (8.7)
Not reported	3 (0.8)
Gender identity	
Cisgender Female	202 (55.2)
Cisgender Male	59 (16.1)
Non-Binary	22 (6.0)
Transgender	31 (8.5)
Genderqueer	8 (2.2)
Gender Fluid	7 (1.9)
Other written-in response	36 (9.8)
Not reported	1 (0.3)
Race or ethnicity	
White, non-Hispanic	264 (72.1)
Biracial or Multiracial	40 (10.9)
Latino/a	39 (10.7)
Asian or Asian American	10 (2.7)
Black or African American	8 (2.2)
Middle Eastern, Arab, or Arab American	1 (0.3)
Other written-in response	4 (1.1)

Note. Demographic information is provided for the final sample of students who participated at Waves 1 and 2 ($n = 366$).

Table 2

Bivariate Correlations and Descriptive Information for Included Measures

	Hope W1	Hope W2	Support	Info/Res.	Advocacy	Victim
Hope W1	—					
Hope W2	.59***	—				
Support	.18***	.28***	—			
Info/Res.	.12*	.29***	.47***	—		
Advocacy	.14**	.28***	.52***	.65***	—	
Victim	−.15**	−.21***	−.05	−.05	−.02	—
M (SD)	4.69 (1.78)	5.03 (1.69)	3.35 (0.68)	2.04 (1.12)	2.24 (1.02)	0.57 (0.85)
Skewness , Kurtosis	0.04 , −0.75	−0.13, −0.79	−1.58, 3.51	−0.10, −0.86	−0.30, −0.79	2.01, 3.94

Note. Info/Res. = information and resources; W1 = Wave 1; W2 = Wave 2.

*** $p < .001$.

** $p < .01$.

* $p < .05$.

Table 3

Sexual Orientation and Gender Identity Differences on Measures

	Sexual Orientation				Gender Identity					
	Sexual Min.	**Heterosexual**	***F***	η_p^2	**Female**	**Male**	**Gender expansive**	η_p^2	***F***	
Hope W1	4.53 (1.73)	5.43 (1.75)	11.69***	.03	4.87 (1.66)	5.20 (1.84)	3.99 (1.75)	12.51***	.07	F, M > GE
Hope W2	4.92 (1.69)	5.61 (1.48)	7.50**	.02	5.21 (1.55)	5.48 (1.82)	4.40 (1.68)	11.36***	.06	F, M > GE
Support	3.32 (0.70)	3.53 (0.56)	4.07*	.01	3.43 (0.63)	3.13 (0.93)	3.34 (0.58)	4.36*	.02	F > M
Info/Res.	1.98 (1.09)	2.46 (1.18)	8.34**	.02	2.09 (1.12)	2.11 (1.28)	1.94 (1.00)	0.77		
Advocacy	2.23 (1.00)	2.32 (1.11)	0.31		2.28 (1.07)	2.07 (1.11)	2.27 (0.84)	1.04		
Victim	0.59 (0.84)	0.47 (0.92)	0.84		0.44 (0.75)	0.65 (0.87)	0.77 (0.97)	5.60**	.03	GE > F

Note. Values represent the means and standard deviations (in parentheses) of scores for each demographic group. Sexual min. = sexual minorities; W1 = Wave 1; W2 = Wave 2; Info/Res. = information and resources. Statistically significant mean differences between the three gender groups are based on Bonferroni post-hoc comparisons and are indicated in the final column (F = female, M = male, GE = gender expansive).

*** $p < .001$.

** $p < .01$.

* $p < .05$.

Table 4

Multilevel Models Predicting Residualized Change in Hope

	Model 1: GSA Support		Model 2: GSA Info/Resources		Model 3: GSA Advocacy		Model 4: Combined GSA Experiences	
Level 1	**Estimate (SE)**	**95% CI**	**Estimate (SE)**	**95% CI**	**Estimate (SE)**	**95% CI**	**Estimate (SE)**	**95% CI**
M. duration	0.129 * (0.053)	[0.024, 0.234]	0.124 * (0.052)	[0.023, 0.225]	0.088 (0.062)	[−0.033, 0.209]	0.101 (0.060)	[−0.016, 0.218]
S. minority	−0.045 (0.201)	[−0.438, 0.348]	0.001 (0.207)	[−0.404, 0.406]	−0.071 (0.194)	[−0.451, 0.309]	0.001 (0.196)	[−0.383, 0.385]
R. minority	0.254 (0.154)	[−0.048, 0.555]	0.174 (0.154)	[−0.128, 0.477]	0.184 (0.158)	[−0.126, 0.494]	0.182 (0.150)	[−0.113, 0.476]
C. male	0.337 (0.186)	[−0.029, 0.702]	0.179 (0.178)	[−0.170, 0.528]	0.261 (0.182)	[−0.095, 0.617]	0.282 (0.173)	[−0.057, 0.621]
G. expansive	−0.320 (0.173)	[−0.658, 0.019]	−0.298 (0.157)	[−0.605, 0.010]	−0.335 * (0.166)	[−0.660, −0.011]	−0.308 (0.161)	[−0.623, 0.007]
Hope W1	0.451 *** (0.052)	[0.348, 0.554]	0.459 *** (0.051)	[0.360, 0.559]	0.455 *** (0.052)	[0.353, 0.558]	0.447 *** (0.053)	[0.343, 0.551]
Victimization	−0.217 ** (0.081)	[−0.375, −0.059]	−0.211 ** (0.077)	[−0.363, −0.059]	−0.222 ** (0.079)	[−0.376, −0.068]	−0.216 ** (0.078)	[−0.369, −0.063]
GSA support	0.467 *** (0.112)	[0.248, 0.686]	—	—	—	—	0.211 (0.145)	[−0.073, 0.495]
GSA info/res.	—	—	0.333 *** (0.068)	[0.201, 0.466]	—	—	0.190 * (0.093)	[0.007, 0.373]
GSA advocate	—	—	—	—	0.354 *** (0.090)	[0.177, 0.530]	0.143 (0.121)	[−0.094, 0.380]
Level 2								
N. advisors	−0.074 (0.143)	[−0.354, 0.206]	0.008 (0.127)	[−0.240, 0.256]	−0.083 (0.142)	[−0.361, 0.196]	−0.027 (0.133)	[−0.289, 0.234]
N. meetings	0.003 (0.011)	[−0.019, 0.024]	0.005 (0.011)	[−0.016, 0.026]	−0.001 (0.010)	[−0.021, 0.019]	0.001 (0.010)	[−0.019, 0.021]
Year	−0.022 (0.155)	[−0.324, 0.281]	−0.042 (0.143)	[−0.322, 0.238]	−0.010 (0.139)	[−0.283, 0.262]	0.000 (0.139)	[−0.272, 0.273]
Pseudo-R^2	.40		.41		.41		.42	
AIC	1187.810		1180.080		1183.370		1177.241	
BIC	1241.661		1233.931		1237.220		1238.784	

Note. Values are unstandardized coefficient estimates, their standard errors (SE), and 95% confidence intervals (CI). M. duration = membership duration; S. minority = sexual minority; R. minority = racial/ethnic minority; C. male = cisgender male; G. expansive = gender expansive; Hope W1 = initial hope at Wave 1; Victimization = reported experiences of peer victimization; GSA support = perceived support from GSA; GSA info/res. = information and resources received from GSA; GSA advocate = advocacy done in GSA; N. advisors = whether there was more than one advisor in the GSA; N. meetings = number of GSA meetings held since November/Wave 1; Year = year of participation in project.

*** $p < .001$.

** $p < .01$.

* $p < .05$.

Table 5

Multilevel Models of GSA Experiences Moderating the Association between Victimization and Hope

	Model 1: GSA Support		Model 2: GSA Info/Resources		Model 3: GSA Advocacy	
Level 1	**Estimate (SE)**	**95% CI**	**Estimate (SE)**	**95% CI**	**Estimate (SE)**	**95% CI**
M. duration	0.100 (0.060)	[−0.016, 0.217]	0.096 (0.058)	[−0.018, 0.209]	0.098 (0.060)	[−0.019, 0.215]
S. minority	0.003 (0.196)	[−0.381, 0.386]	−0.001 (0.192)	[−0.378, 0.376]	−0.001 (0.194)	[−0.381, 0.379]
R. minority	0.184 (0.151)	[−0.112, 0.480]	0.186 (0.151)	[−0.110, 0.481]	0.185 (0.151)	[−0.111, 0.481]
C. male	0.287 (0.172)	[−0.051, 0.625]	0.270 (0.173)	[−0.070, 0.610]	0.300 (0.173)	[−0.038, 0.638]
G. expansive	−0.311 (0.164)	[−0.632, 0.011]	−0.299 (0.159)	[−0.611, 0.013]	−0.311 (0.160)	[−0.625, 0.003]
Hope W1	0.447*** (0.053)	[0.344, 0.550]	0.444*** (0.050)	[0.346, 0.543]	0.446*** (0.052)	[0.344, 0.548]
Victimization	−0.186** (0.067)	[−0.317, −0.054]	−0.172* (0.067)	[−0.303, −0.042]	−0.184** (0.063)	[−0.307, −0.061]
GSA support	0.140 (0.100)	[−0.056, 0.335]	0.182 (0.137)	[−0.086, 0.450]	0.202 (0.147)	[−0.086, 0.489]
GSA info/res.	0.188* (0.094)	[0.005, 0.372]	0.204* (0.102)	[0.003, 0.404]	0.185 (0.094)	[0.000, 0.369]
GSA advocate	0.146 (0.121)	[−0.092, 0.383]	0.163 (0.121)	[−0.074, 0.400]	0.161 (0.123)	[−0.079, 0.402]
Victim × support	0.019 (0.066)	[−0.110, 0.148]	—	—	—	—
Victim × info/res.	—	—	0.191*** (0.045)	[0.104, 0.278]	—	—
Victim × advocate	—	—	—	—	0.097 (0.067)	[−0.034, 0.229]
Level 2						
N. advisors	−0.033 (0.136)	[−0.301, 0.234]	−0.057 (0.133)	[−0.317, 0.203]	−0.040 (0.134)	[−0.302, 0.223]
N. meetings	0.001 (0.010)	[−0.020, 0.021]	0.000 (0.010)	[−0.020, 0.019]	−0.001 (0.010)	[−0.022, 0.019]
Year	0.002 (0.139)	[−0.271, 0.274]	0.014 (0.133)	[−0.247, 0.275]	0.027 (0.139)	[−0.245, 0.299]
Pseudo-R^2	.42		.44		.43	
AIC	1179.150		1170.580		1177.660	
BIC	1244.539		1235.969		1243.050	

Note. Values are unstandardized coefficient estimates, their standard errors (SE), and 95% confidence intervals (CI). M. duration = membership duration; S. minority = sexual minority; R. minority = racial/ethnic minority; C. male = cisgender male; G. expansive = gender expansive; Hope W1 = initial hope at Wave 1; Victimization = reported experiences of peer victimization; GSA support = perceived support from GSA; GSA info/res. = information and resources received from GSA; GSA advocate = advocacy done in GSA; Victim × support = interaction between victimization and GSA support to predict hope at Wave 2; Victim × info/res. = interaction between victimization and GSA information and resources to predict hope at Wave 2; Victim × advocate = interaction between victimization and GSA advocacy to predict hope at Wave 2; N. advisors = whether there was more than one advisor in the GSA; N. meetings = number of GSA meetings held since November/Wave 1; Year = year of participation in project.

*** $p < .001$.

** $p < .01$.

* $p < .05$.