College aspirations, gender sexuality alliances, and teacher support among diverse LGBTQ youth

Steven Feldman , Ryan J. Watson & Connor Gallik

Published online: 17 Sep 2020.

Submit your article to this journal 🖉

View related articles 🗗

View Crossmark data 🗗

Routledge
Taylor & Francis Group

Check for updates

College aspirations, gender sexuality alliances, and teacher support among diverse LGBTQ youth

Steven Feldman[a], Ryan J. Watson[b] and Connor Gallik[c]

[a]Department of Higher Education & Student Affairs, University of Connecticut, Storrs, CT, USA; [b]Department of Human Development and Family Sciences, University of Connecticut, Storrs, CT, USA; [c]Department of Psychological Sciences, University of Connecticut, Storrs, CT, USA

ABSTRACT

Lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) youth report hostile school climates and sexuality-based harassment, but scholarship has not clearly documented how these climates might be associated with college aspirations among this population. Given college has become a common aspiration for many high school youths, we sought to explore subgroup differences in college aspirations among LGBTQ youth, and whether or not LGBTQ-specific community factors, such as Gender Sexuality Alliances (GSA) presence and teacher support, were related to college aspirations. To do this, we analysed a large sample (N = 11,327, Mage = 15.57) of LGBTQ youth from across the United States. We compared college aspirations across subgroups of youth via bivariate and multivariable logistic regression models to explore how school factors (i.e., presence of GSAs and LGBTQ-specific teacher supportiveness) were associated with college aspirations among LGBTQ youth. We found that transgender youth were less likely to aspire to go to college compared to cisgender counterparts. Additionally, more common sexual minority subgroups (e.g., gay/lesbian) were less likely to aspire to go to college compared to their counterparts with more emergent identity labels (e.g., asexual, queer). The presence of GSAs and higher reports of LGBTQ-supportive teachers were associated with increased odds of aspiring to go to college across all LGBTQ youth in our sample. These findings have implications for how schools and teachers prepare sexual and gender minorities for college. The findings imply that LGBTQ populations should not be treated as monolithic in their college readiness, preparation, and aspirations.

While in high school, students face the decision of choosing whether or not to pursue postsecondary education. However, a great deal of scholarship that is focused on college access treats young people as a homogenous population; yet it is reasonable to expect there may be nuances in college aspirations based on differences in lived experiences. Observable academic disparities are often documented among sexual and gender minority (i.e., lesbian, gay, bisexual, transgender, and queer; LGBTQ) youth, such as lower grades and greater expectations not to finish high school than their heterosexual/cisgender peers (Aragon et al., 2014). College has become a common aspiration for many high

CONTACT Ryan J. Watson ✉ ryanwatson@uconn.edu 🖹 Department of Human Development and Family Studies, University of Connecticut, Storrs, CT 06269, USA

school youths, and it is reasonable to expect there might be differences in college aspirations among LGTBQ youth, given the documented school-based disparities among this population (Aragon et al., 2014; Schneider & Dimito, 2010). There are programmes in place to foster safer school environments for LGBTQ youth; for example, Gender Sexuality Alliances (GSAs) and supportive teachers have been associated with safer school environments (Beck et al., 2016; Hatzenbuehler et al., 2014; Poteat et al., 2013). Might these same experiences foster safer environments that encourage all youth – including LGBTQ youth – to equally aspire to attend college? To explore these questions, we situate our research questions in critical race and intersectionality theory to better understand college aspirations among LGBTQ youth.

Intersectionality, critical race theory, and college aspirations

Critical race theory states that marginalised groups of people often hold different sets of knowledge, skills, abilities, and contacts that simply are not valued or recognised in the upper social strata of society among those with privileged identities (Yosso, 2005). Practically, this oftentimes manifests as fewer youth of marginalised backgrounds attending college as compared to their privileged counterparts. This is not because they do not hold the capital to do so, but rather, that collegiate environments often are not built or structured in ways that value the forms of capital that marginalised students do hold and similarly, that high school environments often do not adequately provide marginalised students with the capital needed to apply to college. For example, McCardle (2020) shows that when schools utilise tracking systems, white students often overpopulate the advanced academic tracks, while Black students disproportionately overpopulate the lower academic track classes (Kohli, 2014). This structured segregation oftentimes prevents students in lower academic track courses from obtaining vital information that can help them foster and achieve their aspirations (McCardle, 2020). Extending to sexual and gender minorities, who may also be racial/ethnic minorities, school environments are oftentimes structured by heteronormative practices (e.g., gendered dormitories) that may be unappealing or dangerous for some LGBTQ youth (Kosciw et al., 2018), further preventing them from attaining the capital needed to aspire to and attend college.

A term coined by Crenshaw (1991), intersectionality refers to the ways that individuals with multiple marginalised identities experience and navigate systems of privilege and oppression in unique ways based on the culminating effect of their identities. Crenshaw centres their work on the experiences of Black women to argue that they experience oppression because they hold both racial- and gender-minoritized identities. Because students may face various barriers in school based on their identities, the only way to understand how the students aspire to attend college is to take an intersectional approach, taking into account not only the identities the students hold, but how their capital is shaped by those identities.

In this study, we situate our research question – whether college aspirations among LGBTQ youth might differ based on the various identities they hold – in intersectionality and critical race theories. Although in this paper we do not have the available data to disaggregate multiple minority statuses (e.g., African American non-binary assigned male at birth youth), the framework is important in situating our larger investigation. In utilising these theories, we are better positioned to understand why college aspirations might vary

among diverse, vulnerable students. Multiple marginalised identities oftentimes lead individuals to experience society in different ways, and intersections in oppressed identities may be related to aspirations to attend college.

Disparities in college experiences based on social identities

To address known challenges faced by college students, scholarship should begin by addressing potential barriers to student success that begin prior to college, attuned to intersectionality. Disparities in student success are often linked to discrepancies in college access – this access is unevenly distributed across race, gender, and sexual orientation (Beattie, 2002; Mare, 1980; Roscigno & Ainsworth-Darnell, 1999).

College access, race/ethnicity, and gender

Pertaining to race and ethnicity, college enrolment rates and graduation rates among Black men are disproportionately low. In 2002, Black men comprised only 4.3% of students enrolled in college, the same number as 1976 (Harper, 2006; Strayhorn, 2010). And further highlighting the intersection between race and gender, Garibaldi (2007) found a gender discrepancy in college enrolment among Black individuals: more Black women enrol and graduate from college compared to Black men. Though enrolment rates for Hispanic and Latinx students have increased drastically over the past two decades, Dache-Gerbino et al. (2018) found that Latina students preferred staying closer to their home and family and consequently, became target markets for proprietary institutions, more commonly referred to as for-profit colleges and universities. In sum, the current body of literature illustrates gender differences in college aspirations within and across racial groups.

College experiences and sexual orientation/gender identity

In addition to their racial/ethnic minority counterparts, sexual and gender minorities (of colour and not of colour) report compromised school experiences (Beemyn, 2005; Kosciw et al., 2018; Marine, 2017). For example, in a study of 11,447 high school students from Wisconsin, Aragon et al. (2014) found that when compared to their non-LGBTQ counterparts, LGBTQ students reported greater expectations not to finish high school and lower expectations to attend a four-year college. These disparities are oftentimes attributed to school-based victimisation, which has consistently been attributed to lower educational aspirations among LGBTQ youth (Aragon et al., 2014; Beck et al., 2016; Cisneros, 2018; Heck et al., 2014; Johns et al., 2018; Kosciw et al., 2018). In a nationwide Gay Lesbian Straight Education Network (GLSEN) School Climate Survey, Kosciw et al. (2018) found that throughout the past two decades, LGBTQ students continually report high levels of bullying, discrimination, and physical assault. More specifically, the authors found that the majority of LGBTQ students reported experiencing harassment or assault based explicitly on their sexual orientation, gender identity or expression, race, ethnicity, religion, and/or disability (Kosciw et al., 2018).

This victimisation at school may impact educational aspirations among LGBTQ youth through a variety of pathways. For example, research has shown that school victimisation can contribute to negative educational outcomes such as compromised grades and GPAs, low levels of school belonging, and high rates of absenteeism (Aragon et al., 2014; Heck et al., 2014; Kosciw et al., 2018). In a sample of 145 LGBTQ young adults across 59 different

college/university organisations, Heck et al. (2014) found that higher levels of school victimisation were associated with lower levels of school belonging. Furthermore, the authors found that higher levels of school belonging were associated with lower levels of depression and psychological distress. Despite trends indicating a more positive societal environment for LGBTQ populations, these studies within the past five years are still finding disparities in educational environments and outcomes for LGBTQ youth (Goodenow et al., 2016; Russell, 2019).

Limitations in current LGBTQ academic literature

The body of research that has examined LGBTQ youth and their school experiences and college aspirations tends to consider the community as a whole (i.e., LGBTQ as a homogenous group), rather than examining subgroup differences based on sexual orientation or gender identity. For example, studies aimed at investigating school counsellor competency have oftentimes grouped all LGBTQ students in the same large category of sexual and gender minority students (Beck et al., 2016; Shi & Doud, 2017). This practice creates the problematic ideology that supporting gay and lesbian students looks the same as supporting transgender students. In addition, this practice assumes that various sexual minority groups face the same difficulties and have the same needs. However, research has demonstrated disparities exist between bisexual, lesbian, and gay individuals (Kann et al., 2018; Taggart et al., 2019; Watson et al., 2019a), suggesting a need to examine subgroup differences. Furthermore, the studies that group LGBTQ individuals into one category often do not look at intersecting identities such as race, ethnicity, or disability.

Recently, there has been an increase in scholarship surrounding binary and non-binary transgender identities, distinguishing their experiences as separate from LGBQ identities (Beemyn, 2012; Nicolazzo, 2017; Seelman, 2014). Scholarship has highlighted that the transgender and non-binary experience has been overlooked in education research (Glavinic, 2010; Goldberg & Kuvalanka, 2018; Marine, 2017). Transgender youth often face additional barriers to educational success such as bullying and harassment. As a result, these students often receive lower grades and are less likely to pursue higher education (Glavinic, 2010). Additionally, Marine (2017) examined genderist practices relating to college access and retention that directly and negatively impact transgender students. Marine argued that genderism occurs at three critical junctures in the path to college. First, high school guidance counsellors do not have training to allow them to better advocate for, affirm, and support transgender students. Similarly, the shift to social-work-oriented school counselling, which focuses on identifying and serving "troubled" youth, may lead counsellors to try to "reform" transgender youth, as opposed to affirm and validate them. Second, genderism permeates the college application process, as students are required to self-identify their gender with limited choices such as "male", "female", and at best, "other". The third juncture occurs in the transition to and engagement in college. College still contains gendered practices such as institutional forms, intercollegiate athletics, residence life, and health insurance forms. These practices pose challenges that other members of the LGBQ community may not directly face in college and further highlights the importance of recognising and researching subgroup differences among sexual and gender minority individuals. By further examining the nuances

within the LGBTQ community, we can better learn how specific populations of students make meaning of the college search and application process and provide more accurate recommendations for improving the lives and school experiences of LGBTQ young people and supporting their educational pursuits.

Current study

Within the past decade or so, scholars have begun to make strides in considering the intersections between some social identities as they relate specifically to college aspirations (Cisneros, 2018; Strayhorn et al., 2008). However, a gap still exists for considering college aspirations among LGBTQ youth (Johns et al., 2019). Understanding the impact of various LGBTQ identities on educational aspirations has a great deal of practical utility, especially for high school personnel whose job it is to help students navigate the college search and application process. Additionally, identifying students less likely to aspire to college may help create better support systems to address disparities in educational aspirations. However, studies examining how different sexual and gender minority identities impact college aspirations are rare. LGBTQ youth are an incredibly heterogenous population. Presently, no research has examined specific differences in educational aspirations between subgroups of this population, despite research indicating that these are distinct groups with unique experiences (e.g., Beemyn, 2012; Kann et al., 2018; Nicolazzo, 2017; Seelman, 2014; Taggart et al., 2019; Watson et al., 2019b). Using data collected in the *LGBTQ+ National Teen Survey*, we sought to examine the impact of sexual orientation and gender identity on college aspirations for LGBTQ+ youth. We sought to determine if one's sexual orientation (e.g., pansexual, asexual, gay) and/or gender identity (e.g., transgender female, cisgender female, non-binary) differently impact their intention to attend college after graduating from high school. The size and diversity of our sample allowed for the opportunity to examine subgroup differences in college aspirations of LGBTQ youth based on demographic information such as sexual orientation and gender identity.

Additionally, we assessed school environment factors associated with increased likelihood of college aspirations in LGBTQ youth. Because negative school experiences, such as bullying and victimisation, have been associated with adverse educational outcomes, we hypothesised that positive experiences, such as feeling supported and affirmed at school would be associated with fewer adverse educational outcomes, and would increase the likelihood of LGBTQ youth aspiring to attend college. A great deal of research exists to support the idea that GSA presence and teacher support do lead to more positive experiences at school (Beck et al., 2016; Hatzenbuehler et al., 2014; Poteat et al., 2013). These contextual variables help provide students with additional capital in navigating their high school environments, thus, as we anticipate, increasing their educational aspirations. Because we expect that college aspirations differ by age, location, and race, we adjusted our models for these characteristics. To summarise, this study will explore subgroup differences in college aspirations among LGBTQ youth, and whether or not LGBTQ-specific community factors, such as GSA presence and teacher support, were related to college aspirations.

Methods

Study design and participant recruitment

For this study, we utilised data from the *LGBTQ National Teen Survey*, the largest-of-its-kind survey which sought to examine victimisation and bullying, school experiences, health behaviours, and family relationships of LGBTQ+ youth. Data were collected in a partnership between researchers at the University of Connecticut and the Human Rights Campaign (HRC) between April and December of 2017. All respondents identified as LGBTQ+, between 13–17 years of age, were English-speaking, and resided in the United States at the time they completed the survey. LGBTQ+ adolescents were recruited through various social media platforms and LGBTQ community partners and were invited to participate in an online, anonymous, and self-reported survey through Qualtrics.com, a global survey website. The survey was designed to prevent ineligible responders and bots from completing the survey through a multistep consent and sorting process. Qualtrics provided information about duplicate responses from the same person – these responses were deleted. The survey also employed a response tree protocol which excluded ineligible participants. After data was collected, a sensitivity analysis was conducted on the data from eligible responders to identify and delete problematic cases. Researchers also analysed open-ended responses and deleted suspicious entries not previously captured by the screening process.

Participants were offered remuneration for their participation and the University of Connecticut's Institutional Review Board approved all study protocols. In total, 17,112 participants across the US answered at least the demographics section of the survey. For the purposes of this paper, we utilised data from participants who were not missing on all of our study variables (N = 11,327). Further details regarding data collection, screening procedures, recruitment, and sample composition can be found elsewhere (Watson et al., 2019b).

Measures

Sexual orientation

Participants were asked "How do you describe your sexual identity?" and could choose one of the following: "gay or lesbian", "bisexual", "straight, that is, not gay" or "something else". In total, 37.4% identified as gay or lesbian (*n* = 6,401), 34.9% identified as bisexual (*n* = 5,970), 1.6% identified as straight (n = 279), and 26.1% identified as something else (*n* = 4,462). If a participant selected "something else", they were then presented a separate question with additional options. These responses included pansexual (*n* = 2,256, 13.2% of the total sample), queer (*n* = 699), asexual (*n* = 725), questioning (*n* = 424), and other (*n* = 358). If in this second question a participant selected "other", they were presented with a new open-ended response item where they could describe their identity. Examples of write-in responses included demisexual, gender fluid, and omnisexual. Participants whose written responses corresponded with aforementioned identities were then back-coded and appropriately categorised.

Gender identity

Participants were asked "What sex were you assigned at birth?" (male/female) and were then asked, "What is your current gender identity?" They could then choose between the following options: male, female, trans male/trans boy, trans female/trans girl, non-binary, genderqueer/gender non-conforming, or "different identity". If participants selected "different identity", they were prompted to type in their specific gender identity. If the write-in response corresponded with aforementioned gender identities, the participant's identity was back-coded and appropriately categorised. Participants could check all applicable boxes.

Individuals whose gender identities matched their sex assigned at birth were classified as cisgender, while individuals whose gender identities did not match their sex assigned at birth were classified as transgender. Non-binary identities (e.g., non-binary, genderqueer, gender non-conforming) were further broken down into assigned female at birth (AFAB) non-binary and assigned male at birth (AMAB) non-binary.

In total, 33.2% (n = 5,643) of the teens indicated that they were transgender – when participants selected a gender identity other than male/female, or when they selected male/female and indicated a different sex than they were assigned at birth. About 28% (n = 4,740) of the final sample were assigned male at birth and 72% (n = 12,372) were assigned female at birth. In addition, 14% (n = 2,396) identified their gender identity as "non-binary".

College aspirations

To measure college aspirations, we used one item that asked, "What are your plans after high school?" Response options were, "I have dropped out of high school", "I plan to drop out of high school before I finish", "I plan to finish high school but have no plans after I graduate", "I plan to finish high school and get a job", "I plan to finish high school and join the military", and "I plan to apply or have applied to college or university". In our logistic regressions, all response options except "I plan to apply or have applied to a college or university" were coded as 0.

GSAs

Participants were asked "Has your school had (or currently have) a Gender Sexuality Alliance Group or similar club?" and could choose between "Yes", "No" and "Don't Know".

Teacher support

To measure teacher support, participants were asked "How many of the teachers and staff at your school do you think are supportive of LGBTQ people?" Response options included, "None of them", "Some of them", "Most of them", "All of them" and "I don't know". For the purposes of our study, we recoded teacher support into two categories to separate individuals who felt none or some (0) of their teachers and staff are supportive of LGBTQ people from individuals who felt most or all (1) of their teachers and staff are supportive of LGBTQ people.

Covariates

We adjusted our models for a number of demographic variables that were significantly related to our outcome in bivariate models. Covariates not included (e.g., parent education) were not statistically related to college aspirations. First, we measured location by asking

which state participants lived in. Next, we measured ethnoracial identity by a question that asked "How would you describe yourself? (select all that apply)". Responses included: "White, non-Hispanic, non-Latino", "Black or African American", "American Indian or Alaska Native", "Asian or Pacific Islander", "Latino, Hispanic, or Mexican-American" and "Other". When participants selected two or more boxes, they were later coded as "bi/multiracial". We measured participant age by the number of reported years of age.

Plan of analysis

We examined only youth who provided valid data on our study variables ($n = 11,321$). First, we conducted one-way ANOVAs separately for sexual identity and gender identity to test whether there were differences across college aspirations across these identities. We analysed Tukey post hoc analyses to interpret significant ANOVA models. Given significant differences, we used bivariate and multivariate logistic regressions adjusted for a number of covariates to understand which school factors may be associated with the college aspirations among LGBTQ youth.

Results

Table 1 displays the demographic characteristics from the study sample. Participants were mostly white (62%), but we had large numbers of ethnoracial minority youth. The majority of students indicated that they planned to apply or had applied to college or university ($n = 9,332$, 82.4%). About 6% ($n = 633$) planned to finish high school and get a job, 5% ($n = 577$) planned to finish high school but had no plans after they graduated, 2% ($n = 227$) planned to finish high school and join the military, 0.6% ($n = 67$) planned to drop out of high school before they finished, and 0.4% ($n = 45$) had already dropped out of high school at the time they completed the survey.

Comparing academic aspirations by demographic variables

Table 2 presents a contingency table of reports of college aspirations by gender and sexual identity groups. A one-way ANOVA was conducted to compare college aspirations by sexual and gender identity: we found statistically significant differences in the likelihood of having college aspirations based on both gender identity, $F (5, 11,321) = 53.45$, $p < .001$ and sexual orientation, $F (5, 11,321) = 10.351$, $p < .001$.

We then conducted Tukey post-hoc analyses to determine which groups were statistically significant across academic aspiration reports. For sexual orientation comparisons, we found that gay, lesbian, bisexual, and queer individuals were statistically more likely to aspire to go to college than pansexual or questioning individuals, or participants who chose something else as their identity. There were no statistically significant differences between asexual individuals and LGBQP+ and straight individuals. There were also no statistically significant differences between straight individuals and LGBQPA+ individuals. Note that straight students did not identify as cisgender in this study.

For gender identity comparisons, analyses indicated cisgender boys were statistically more likely to aspire to go to college compared to transgender boys and non-binary females assigned at birth. Cisgender girls were significantly more likely to aspire to go to

Table 1. Participant characteristics of sample.

	N/Mean	%/SD
Age (range = 13–17)	15.57	1.27
Gender		
Cis Male	4,079	23.8
Cis Female	7,396	43.2
Trans male	1,404	8.2
Trans female	185	1.1
AFAB non-binary	3,573	20.9
AMAB non-binary	475	2.8
Sexual Orientation		
Gay or Lesbian	6,401	37.4
Bisexual	5,970	34.9
Straight	279	1.6
Queer	699	4.1
Pansexual	2,256	13.2
Asexual	725	4.2
Questioning	424	2.5
Other	358	2.1
Location		
Northeast	3,081	18.0
Midwest	3,889	22.7
South	6,343	37.1
West	3,799	22.2
Race		
White	10,225	61.9
Black	952	5.8
Native American	95	0.6
Asian	677	4.1
Hispanic/Latino	1,877	11.4
Biracial or Multiracial	2,360	14.3
Other	342	2.1
College Aspirations		
Yes	9,332	82.4
No	1,995	17.6
Gender Sexuality Alliance Group		
Yes	6,719	63.5
No	3,869	36.5
School Teacher Support		
None or some	4,957	48.8
Most or all	5,211	51.2

Table 2. Reports of college aspirations disaggregated by sexual and gender identities.

	College Aspirations		
Demographic Variable	Yes (n/%)	No (n/%)	Total
Sexual Identity			
Gay or Lesbian	3517 (84.2)	659 (15.8)	4176
Bisexual	3209 (83.7)	623 (16.3)	3832
Straight	136 (76.0)	43 (24.0)	179
Queer	425 (84.5)	78 (15.5)	503
Pansexual	1206 (77.2)	357 (22.8)	1563
Asexual	454 (81.2)	105 (18.8)	559
Questioning	199 (75.7)	64 (14.3)	263
Other	186 (73.8)	66 (26.2)	252
Gender Identity			
Cisgender male	2053 (84.2)	385 (15.8)	2438
Cisgender female	4309 (87.1)	640 (12.9)	4949
Trans boy	656 (68.1)	307 (31.9)	963
Trans girl	97 (75.8)	31 (24.2)	128
AFAB Non-binary	2001 (77.6)	578 (22.4)	2579
AMAB Non-binary	216 (80.0)	54 (20.0)	270

college than all other gender identities. Transgender boys were statistically less likely to aspire to go to college than all other gender identities, except for transgender girls, where no significant difference was found. Non-binary individuals assigned female at birth were statistically less likely to aspire to go to college than their cisgender counterparts. There was no statistically significant difference between non-binary individuals assigned female at birth and either transgender girls or non-binary individuals assigned male at birth.

Multivariate associations between school factors and college aspirations

Given the significant differences in college aspirations across sexual and gender minority youth, we were interested in which factors were associated with odds in indicating college aspirations. In order to assess school environment factors related to college aspirations, we conducted bivariate and multivariable logistic regression analyses to understand whether two school factors (i.e., having a GSA; reporting teacher support) were associated with the likelihood of aspiring to attend college. In the bivariate model, we found that when participants indicated they believed most or all of their teachers and staff to be supportive of the LGBTQ community at their school, they were 1.67x higher the odds to indicate a desire to go to college. Likewise, the presence of a GSA organisation was related to 1.26x higher the odds of indicating a desire to go to college (see Table 3). Social identities were differently related to the odds of college aspirations. Compared to white LGBTQ youth, Black, Native American, Hispanic/Latino and bi/multiracial youth all demonstrated lower odds of aspiring to attend college. Most notable, Native American youth had lower odds (OR = 0.46) of desiring to attend college compared to their white counterparts. Related to sexual orientation, in the bivariate models, queer and asexual youth demonstrated higher odds of indicating an aspiration for college compared to their gay/lesbian counterparts, whereas questioning youth were

Table 3. Bivariate and multivariate logistic regression results of college aspirations, predicted by supportive teachers, presence of a GSA organisation, and ethnoracial/sexual identity.

	Bivariate Model	Multivariable Model
	OR (95% CI)	aOR (95% CI)
Supportive Teacher (ref: no)	1.67 (1.43, 1.94)***	1.65 (1.40, 1.94)***
GSA Club (ref: no)	1.26 (1.16, 1.38)***	1.21 (1.10, 1.32)***
Ethnoracial Identity (ref: White)		
Black	0.71 (0.62, 0.90)***	0.84 (0.68, 1.03)
Native American	0.46 (0.30, 0.71)***	0.37 (0.20, 0.68)**
Asian American	1.20 (1.03, 1.40)*	1.24 (0.97,1.58)
Hispanic/Latino	0.87 (0.79, 0.95)**	0.80 (0.70, 0.93)**
Bi/multiracial	0.80 (0.82, 0.98)*	0.76 (0.67, 0.87)***
Sexual orientation (ref: Gay/lesbian)		
Bisexual	0.95 (0.89, 1.02)	0.99 (0.89, 1.10)
Straight	0.79 (0.62, 1.00)	0.73 (0.52, 1.03)
Queer	1.31 (1.12, 1.53)**	1.17 (0.93, 1.47)
Pansexual	0.95 (0.87, 1.04)	0.82 (0.72, 0.94)**
Asexual	1.42 (1.22, 1.65)***	1.08 (0.87, 1.34)
Questioning	0.73 (0.60, 0.89)*	0.67 (0.50, 0.88)**
Other	0.50 (0.28, 0.90)*	0.63 (0.26, 1.51)
Gender identity (ref: cisgender)	0.90 (0.84, 0.96)**	0.91 (0.85, 0.98)**

OR = Odds Ratio; aOR = Adjusted Odds Ratio; CI = confidence intervals; Dependent variable = college aspirations; models also adjusted for age and location of participant.
* p < 0.05, ** p < 0.01, ***p < 0.001.

significantly less likely to aspire to go to college as compared to their gay/lesbian counterparts. Most of these associations remained significant in the multivariable model, which indicates that sexual orientation – above and beyond a number of other demographic variables – was associated with college aspirations.

Discussion

We documented that sexual orientation (e.g., pansexual, asexual, gay) and/or gender identity (e.g., transgender female, cisgender female, non-binary) were significantly related to youths' intention to attend college after graduating from high school. Overall, cisgender youth were more likely to aspire to go to college than transgender and non-binary youth. Our finding that cisgender girls in particular were more likely to want to go to college than any other gender identity is in alignment with previous research that show females are generally more likely to want to pursue higher education than males (Ross et al., 2012).

Research suggests that students who experience higher levels of victimisation based on gender expression are less likely to plan to go to college (Kosciw et al., 2018). In our study we found gender-based differences in college aspirations in LGBTQ+ youth. This finding may indicate that the link between gender-based victimisation and college aspirations differs in its impact based on gender identity. Additionally, our findings are in line with previous work suggesting that students who experience higher levels of victimisation are less likely to plan to attend college (Kosciw et al., 2018). While we did not examine victimisation factors in our study, we found that transgender and non-binary youth were less likely to aspire to attend college than the cisgender youth in the sample, which fits previous work linking highly victimised groups with decreased college aspirations. In particular, Kosciw et al. (2018) and his team found that transgender boys were more likely than other transgender students to feel unsafe at school based on their gender, more likely to be harassed or assaulted at school based on their gender, more likely to avoid bathrooms and gym/physical education class, more likely to report missing school because of feeling unsafe, and more likely to experience gender-related discrimination concerning bathroom and locker room access (Kosciw et al., 2018). Along similar lines, in our study, transgender boys were less likely to go to college than nearly every other group.

We found no statistical difference between college aspirations among transgender boys and transgender girls. Given the observed health differences between these two groups as well as findings demonstrating that transgender boys and transgender girls report experiencing school-based victimisation at differential rates, differences in college aspirations between these two groups were expected (Veale et al., 2017). The lack of significant differences in our study could be because we had such low numbers of transgender girls and therefore did not have enough power to detect differences between the two populations. It may also indicate that while victimisation rates may differ between these groups, there is more impacting college aspirations for LGBTQ+ youth than just victimisation. Additionally, it may be that once you reach a certain level of victimisation, increased levels no longer further reduce college aspirations. Finally, the vast majority of the sample had aspirations to attend college, limiting power to detect effects. Future research with a larger sample of transgender girls and more youth who do

not have plans to attend college will want to look at whether or not there are differences, given health disparities and differential experience of gender identity-based school-based victimisation are documented throughout the literature.

Both non-binary individuals assigned male at birth and non-binary individuals assigned female at birth were more likely to want to go to college than transgender boys. Also, somewhat surprisingly, there was no statistical difference found between non-binary individuals assigned male at birth and non-binary individuals assigned female at birth. It may be that non-binary individuals are facing similar barriers and negative educational outcomes influencing college aspirations, regardless of sex assigned at birth. However, future research should examine non-binary subgroups more closely as well.

Examining the role that gender identity plays on the effects that school-based victimisation has on youth is a critical future direction for this research. Previous studies have demonstrated that youth face differential amounts of school based-victimisation based on gender identity; however, these differences did not translate to gender-identity based differences within the present study. Previous work has supported an association between higher levels of victimisation based on gender expression and plans to go to college (Kosciw et al., 2018). It may be possible though that the impact that victimisation has varies based on gender-identity.

In addition, youth who identified as gay, lesbian, bisexual, or queer were more likely to aspire to attend college than questioning individuals. However, queer and asexual youth had higher odds of reporting their desire to go to college than their gay/lesbian counterparts. These findings were surprising and future work should explore these differences and what may explain them, such as differential levels of sexual orientation-related victimisation at school, feeling less supported in the school environment, mental health disparities, or something else. Research has demonstrated that some asexual students have reported viewing their asexual identity as an advantage for their schooling – without the distraction of looking for a relationship (sexual or romantic), they can focus more on their academics (Rothblum et al., 2019). However, it is important to note that the asexual community is not a homogenous community and that based on the different identities represented, students' experiences and perceptions do vary (Bogaert, 2015; Chasin, 2011). Further research should continue to explore behavioural and perceptual differences among queer and asexual students in relation to their gay, lesbian and bisexual counterparts. By exploring factors that contribute to differential college aspirations, teachers and school counsellors can better understand how to support vulnerable students in their academic pursuits.

School environments need to also be able to support rather than stifle sexual orientation exploration. Students who are questioning their sexual orientation face additional challenges that may affect their experiences at school and conversely, their desire to go to college (Johnson et al., 2014). Birkett et al. (2009) found that questioning youth actually report higher rates of truancy, depression/suicidality feelings, and alcohol/marijuana use than lesbian, gay, and bisexual youth in addition to heterosexual youth. This highlights the importance of creating school environments where youth can explore sexuality in a safe and supportive way. Lapointe (2017) also discusses the necessity for schools to recognise the diversity and fluidity of sexuality. Doing so may help pansexual individuals as well as students with more fluid identities.

With regard to racial identity, our findings indicate that compared to white LGBTQ youth, Black, Native American, Hispanic/Latino and bi/multiracial youth all reported lower

odds of aspiring to attend college, findings which are not surprising and are in alignment with previous research on racial disparities among college access and college aspirations (Beattie, 2002; McCardle, 2020; Roscigno & Ainsworth-Darnell, 1999). This highlights the need for future research to consider the intersectional relationship between college aspirations and racial, gender, and sexual-minoritized students.

We also found that LGBTQ youth were more likely to want to attend college when their school had a gay-straight alliance and when their teachers/staff are supportive of LGBTQ people. These findings corroborate previous research on the impact of GSAs and supportive faculty on LGBTQ students' success in school (Beck et al., 2016; Heck et al., 2014; Seelman et al., 2015). These findings suggest that when LGBTQ youth receive more support and when their identities become more normalised, their experiences in school improve and their odds of wanting to go to college increase.

Limitations

Our findings offer a glimpse into the subgroup differences and shed light into an area of study as of yet, untouched by research. Further research should continue to explore the trends in college aspirations among transgender and gender non-conforming youth. However, our work is not without limitations. Due to the utilisation of social media in the recruitment process for a web-based survey, our sample may not include individuals without access to internet as well as individuals disproportionately affected by systems of oppression, including but not limited to specific ethno-racial and socioeconomic backgrounds. The intersection of these identities likely has immense impact on not only the level of gender identity or sexual orientation related victimisation, but also on the negative educational impacts these students may face as a result of it. Additionally, there are likely factors unrelated to sexual orientation or gender identity for these students that are impacting their post high school plans and college aspirations. The question that asked about plans for after high school did not address factors that might influence college aspirations, nor did it address how LGBTQ+ students perceive college. Asking these follow-up questions in regard to college aspirations may have explained some of the differences we found across sexual and gender minority youth. In general, analysing the measure of college aspirations with a single question is insufficient for thoroughly studying the nuances of the concept. The survey was not designed with a nuanced understanding or analysis of college aspirations in mind, so we are limited by this measure. However, we believe that the findings of this study can be viewed as a preliminary investigation in this area and still highlight the need for future research to address this more critically.

With respect to our variable regarding having had or having a GSA, we acknowledge that there may be a difference for students at schools that had a GSA versus students at schools that currently have a GSA. The question in our study does have the potential of conflating those different populations of students. With that said, we also acknowledge that there is some nuance surrounding the effects of a GSA. For example, if a school recently disbanded their GSA, this does not necessarily undo the progress the GSA made at the school in terms of improving students' health and wellbeing. Future research should be more explicit and conscientious in their definition of the variable.

Last, we utilised logistic regressions which required us to dichotomise our measures, meaning that variance in our variables was limited. To address this, future research questions might address *how* supportive teachers are, and whether differences in the level of support impacts school outcomes.

Conclusions

This study found differences in college aspirations for LGBTQ+ youth by gender identity and sexual orientation. Additionally, we found a significant effect of GSAs and supportive teachers on LGBTQ+ youths' aspirations to attend college. Our study has implications for how school administrators prepare vulnerable youth in their schools for college. Because gender- and sexual-minority students are less likely to aspire to attend college, school administrators should work to address the different issues impacting students' experiences while in high school. By increasing students' capital, administrators can help students not only succeed in school, but also set them up for future success in college. School counsellors in particular can work to find ways of providing additional levels of support to LGBTQ+ students throughout the college search and application process. Future research should assess specific factors that drive these differences in LGBTQ+ students' college aspirations. Is it possible that students who have had school-based victimisation experiences do not feel college would be a safe place for them? Do students want to go to college but have done poorly in high school and feel they would be unable to attend? Do students feel as if there are other directions they would like to go that do not require a college education? There are still many unanswered questions about how gender identity and sexual orientation may impact a student's desire to pursue college. Understanding that there are differences in this group, we should now explore what creates these differences in order to gain insight on how to best support LGBTQ+ students.

Acknowledgments

Disclosure statement

Funding

References

Aragon, S. R., Poteat, V. P., Espelage, D. L., & Koenig, B. W. (2014). The influence of peer victimization on educational outcomes for LGBTQ and non-LGBTQ high school students. *Journal of LGBT Youth*, *11*(1), 1–19. https://doi.org/10.1080/19361653.2014.840761

Beattie, I. R. (2002). Are all "Adolescent econometricians" Created equal? Racial, class, and gender differences in college enrollment. *Sociology of Education*, *75*(1), 19–43. https://doi.org/10.2307/3090252

Beck, M. J., Rausch, M. A., Lane, E. M. D., & Wood, S. M. (2016). College, career, and lifestyle development with students who are LGBQQ: Strategies for school counselors. *Journal of LGBT Issues in Counseling*, *10*(4), 197–210. https://doi.org/10.1080/15538605.2016.1233838

Beemyn, G. (2005). Making campuses more inclusive of transgender students. *Journal of Gay & Lesbian Issues in Education*, *3*(1), 77–87. https://doi.org/10.1300/J367v03n01_08

Beemyn, G. (2012). The experiences and needs of transgender community college students. *Community College Journal of Research and Practice*, *36*(7), 504–510. https://doi.org/10.1080/10668926.2012.664089

Birkett, M., Espelage, D., & Koenig, L. (2009). LGB and questioning students in schools: The moderating effects of homophobic bullying and school climate on negative outcomes. *Journal of Youth and Adolescence*, *38*(7), 989–1000. https://doi.org/10.1007/s10964-008-9389-1

Bogaert, A. F. (2015). Asexuality: What it is and why it matters. *Journal of Sex Research*, *52*(4), 362–379. https://doi.org/10.1080/00224499.2015.1015713

Chasin, C. D. (2011). Theoretical issues in the study of asexuality. *Archives of Sexual Behavior*, *40*(4), 713–723. https://doi.org/10.1007/s10508-011-9757-x

Cisneros, J. (2018). College as the great liberator: Undocuqueer immigrants' meaning making in and out of higher education. *Journal of Diversity in Higher Education*, *12*(1), 74–84. https://doi.org/10.1037/dhe0000075

Crenshaw, K. (1991). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Review*, *43*(6), 1241–1299. https://doi.org/10.2307/1229039

Dache-Gerbino, A., Kiyama, J. M., & Sapp, V. T. (2018). The dangling carrot: Proprietary institutions and the mirage of college choice for Latina students. *The Review of Higher Education*, *42*(1), 29–60. https://doi.org/10.1353/rhe.2018.0033

Garibaldi, A. M. (2007). The educational status of African American males in the 21st century. *The Journal of Negro Education*, *76* (3), 324–333. Retrieved from www.jstor.org/stable/40034575

Glavinic, T. (2010). Research shows lack of support for transgender and gender-nonconforming youth in U.S. school systems. *Inquiries Journal*, *2*(1). http://www.inquiriesjournal.com/articles/135/research-shows-lack-of-support-for-transgender-and-gender-nonconforming-youth-in-us-school-systems

Goldberg, A. E., & Kuvalanka, K. A. (2018). Navigating identity development and community belonging when "there are only two boxes to check": An exploratory study of nonbinary, trans college students. *Journal of LGBT Youth*, *15*(2), 106–131. https://doi.org/10.1080/19361653.2018.1429979

Goodenow, C., Watson, R. J., Adjei, J., Homma, Y., & Saewyc, E. (2016). Sexual orientation trends and disparities in school bullying and violence-related experiences, 1999–2013. *Psychology of Sexual Orientation and Gender Diversity*, *3*(4), 386–396. https://doi.org/http://doi.10.1037/sgd0000188

Harper, S. R. (2006). *Black male students at public universities in the U.S.: Status, trends and implications for policy and practice*. Joint Center for Political and Economic Studies.

Hatzenbuehler, M. L., Birkett, M., Van Wagenen, A., & Meyer, I. H. (2014). Protective school climates and reduced risk for suicide ideation in sexual minority youths. *American Journal of Public Health*, *104*(2), 279–286. https://doi.org/10.2105/AJPH.2013.301508

Heck, N. C., Lindquist, L. M., Machek, G. R., & Cochran, B. N. (2014). School belonging, school victimization, and the mental health of LGBT young adults: Implications for school psychologists. *School Psychology Forum*, *8*(1), 28–37. https://www.researchgate.net/publication/262837227_School_Belonging_School_Victimization_and_the_Mental_Health_of_LGBT_Young_Adults_Implications_for_School_Psychologists

Johns, M. M., Lowry, R., Rasberry, C. N., Dunville, R., Robin, L., Pampati, S., Stone, D. M., & Mercer Kollar, L. M. (2018). Violence victimization, substance use, and suicide risk among sexual minority high school students - United States, 2015-2017. *MMWR. Morbidity and Mortality Weekly Report*, *67*(43), 1211–1215. https://doi.org/10.15585/mmwr.mm6743a4

Johns, M. M., Poteat, V. P., Horn, S. S., & Kosciw, J. (2019). Strengthening our schools to promote resilience and health among LGBTQ youth: Emerging evidence and research priorities from *the state of LGBTQ youth health and wellbeing* symposium. *LGBT Health*, *6*(4), 146–155. https://doi.org/10.1089/lgbt.2018.0109

Johnson, C. W., Singh, A. A., & Gonzalez, M. (2014). "It's complicated": Collective memories of transgender, queer, and questioning youth in high school. *Journal of Homosexuality*, *61*(3), 419–434. https://doi.org/10.1080/00918369.2013.842436

Kann, L., McManus, T., Harris, W. A., Shanklin, S. L., Flint, K. H., Queen, B., Lowry, R., Chyen, D., Whittle, L., Thornton, J., Lim, C., Bradford, D., Yamakawa, Y., Leon, M., Brener, N., & Ethier, K. A. (2018). Youth risk behavior surveillance - United States, 2017. *Morbidity and mortality weekly report*. *Surveillance Summaries (Washington, D.C.: 2002)*, *67*(8), 1–114. https://doi.org/10.15585/mmwr.ss6708a1

Kohli, S. (2014, November 18). Modern-day segregation in public schools. *The Atlantic*. http://www.theatlantic.com/education/archive/2014/11/modern-day-segregation-in-public-schools/382846/

Kosciw, J. G., Greytak, E. A., Zongrone, A. D., Clark, C. M., & Truong, N. L. (2018). *The 2017 national school climate survey: The experiences of lesbian, gay, bisexual, transgender, and queer youth in our nation's schools*. GLSEN. https://www.glsen.org/sites/default/files/GLSEN%202017%20National%20School%20Climate%20Survey%20%28NSCS%29%20-%20Full%20Report.pdf

Lapointe, A. A. (2017). "It's not Pans, it's people": Student and teacher perspectives on bisexuality and pansexuality. *Journal of Bisexuality*, *17*(1), 88–107. https://doi.org/10.1080/15299716.2016.1196157

Mare, R. D. (1980). Social background and school continuation decisions. *Journal of the American Statistical Association*, *75*(370), 295–305. https://doi.org/10.2307/2287448

Marine, S. B. (2017). Changing the frame: Queering access to higher education for trans* students. *International Journal of Qualitative Studies in Education*, *30*(3), 217–233. https://doi.org/10.1080/09518398.2016.1268279

McCardle, T. (2020). Race tracks: Career aspirations and feelings of isolation in the mainstream classroom. *Education and Urban Society*, *52*(2), 284–311. https://doi.org/10.1177/0013124519846277

Nicolazzo, Z. (2017). *Trans* in college: Transgender students' strategies for navigating campus life and the institutional politics of inclusion*. Stylus.

Poteat, V., Sinclair, K., DiGiovanni, C., Koenig, B., & Russell, S. (2013). Gay–straight alliances are associated with student health: A multischool comparison of LGBTQ and heterosexual youth. *Journal of Research on Adolescence*, *23*(2), 319–330. https://doi.org/10.1111/j.1532-7795.2012.00832.x

Roscigno, V. J., & Ainsworth-Darnell, J. W. (1999). Race, cultural capital, and educational resources: Persistent inequalities and achievement returns. *Sociology of Education*, *72*(3), 158–178. https://doi.org/10.2307/2673227

Ross, T., Kena, G., Rathbun, A., KewalRamani, A., Zhang, J., Kristapovich, P., & Manning, E. (2012). *Higher education: Gaps in access and persistence study* (NCES 2012-046). Government Printing Office, U.S. Department of Education, National Center for Education Statistics.

Rothblum, E. D., Heimann, K., & Carpenter, K. (2019). The lives of asexual individuals outside of sexual and romantic relationships: Education, occupation, religion and community. *Psychology & Sexuality*, *10*(1), 83–93. https://doi.org/10.1080/19419899.2018.1552186

Russell, S. T. (2019, March). *LGBTQ youth today: (Why) aren't things better?* Lecture presented at the out to lunch lecture series at the University of Connecticut's Rainbow Center, Storrs, CT.

Schneider, M. S., & Dimito, A. (2010). Factors influencing the career and academic choices of Lesbian, Gay, Bisexual, and Transgender people. *Journal of Homosexuality*, *57*(10), 1355–1369. https://doi.org/10.1080/00918369.2010.517080

Seelman, K. (2014). Transgender individuals' access to college housing and bathrooms: Findings from the national transgender discrimination survey. *Journal of Gay & Lesbian Social Services*, *26* (2), 186–206. https://doi.org/10.1080/10538720.2014.891091

Seelman, K. L., Forge, N., Walls, N. E., & Bridges, N. (2015). School engagement among LGBTQ high school students: The roles of safe adults and gay–straight alliance characteristics. *Children and Youth Services Review*, *57*, 19–29. https://doi.org/10.1016/j.childyouth.2015.07.021

Shi, Q., & Doud, S. (2017). An examination of school counselors' competency working with lesbian, gay and bisexual and transgender (LGBT) students. *Journal of LGBT Issues in Counseling*, *11*(1), 2–17. https://doi.org/10.1080/15538605.2017.1273165

Strayhorn, T. L. (2010). When race and gender collide: Social and cultural capital's influence on the academic achievement of African American and Latino males. *The Review of Higher Education*, *33* (3), 307–332. https://doi.org/10.1353/rhe.0.0147

Strayhorn, T. L., Blakewood, A. M., & DeVita, J. M. (2008). Factors affecting the college choice of African American gay male undergraduates: Implications for retention. *NASPA Journal*, *11*(1), 88–108. https://www.semanticscholar.org/paper/Factors-Affecting-the-College-Choice-of-African-Gay-Strayhorn-Blakewood/2b7b171d178b3b90023f1abd942a5524bbc83df7?p2df

Taggart, T. C., Rodriguez-Seijas, C., Dyar, C., Elliott, J. C., Thompson, R. G., Hasin, D. S., & Eaton, N. R. (2019). Sexual orientation and sex-related substance use: The unexplored role of bisexuality. *Behaviour Research and Therapy*, *115*, 55–63. https://doi.org/10.1016/j.brat.2018.12.012

Veale, J., Watson, R. J., Peter, T., & Saewyc, E. (2017). Mental health disparities among Canadian transgender youth. *Journal of Adolescent Health*, *60*(1), 44–49. http://doi.org/10.1016/j.jadohealth.2016.09.014

Watson, R. J., Allen, A., Pollitt, A. M., & Eaton, L. A. (2019a). Risk and protective factors for sexual health outcomes among black bisexual men in the U.S.: Internalized heterosexism, sexual orientation disclosure, and religiosity. *Archives of Sexual Behavior*, *48*(1), 243–253. https://doi.org/10.1007/s10508-018-1216-5

Watson, R. J., Wheldon, C. W., & Puhl, R. M. (2019b). Evidence of diverse identities in a large national sample of sexual and gender minority adolescents. *Journal of Research on Adolescence, 30*(2), 431–442. https://doi.org/10.1111/jora.12488

Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race Ethnicity and Education*, *8*(1), 69–91. https://doi.org/10.1080/1361332052000341006