



Published in final edited form as:

J Stud Aff Res Pract. 2024 ; 61(2): 251–265. doi:10.1080/19496591.2023.2186241.

Impact of Living Arrangements of LGBTQ College Students During COVID-19

Karina A. Gattamorta¹, Gisela Vega², Vanessa Kania²

¹School of Nursing and Health Studies, University of Miami

²LGBTQ Student Center, University of Miami

Abstract

This study examines the relationships between living arrangements and educational outcomes, access to LGBTQ affirming care, sexual and gender minority (SGM) stressors, and mental health. Bivariate analyses were implemented to examine relationships between living arrangements and academic outcomes, SGM stressors, access to care, and alcohol and substance use. Differences between undergraduate and graduate students are also reported. Students who continued living on campus were less likely to report increased family rejection, transphobia, and identity concealment.

Introduction

For many sexual and gender minority (SGM) students, college is a complex time of sexual and gender identity development (D'Augelli, 1990; Rankin et al., 2010; Wall & Evans, 2000) and exploration (Evans et al., 2017; Renn, 2010; Vega, 2016), processes which could be uniquely complex. SGM college students face the identity-related challenges of coping with alienation, isolation, discrimination, low self-esteem, disclosure, and establishing non-heteronormative relationships (Dugan & Yurman, 2011; Nicolazzo, 2017; Rankin et al., 2010; Sanlo, 2004). Historically, the lack of response from colleges and universities when addressing the issues impacting these marginalized groups has created hostile environments that negatively impact the SGM students' abilities to learn, as well as their personal well-being and development (Rankin et al., 2010; Renn, 2010; Greathouse et al., 2018).

Within the past two decades, this narrative on college campuses has begun to change. With over 220 LGBTQ specific centers and offices (www.lgbtcampus.org) on college campuses nationwide, campus environments are beginning to provide an opportunity for SGM students to explore their sexual orientation and gender identity while finding support networks often not found at home (Hill et al., 2020). While many campuses still do not have LGBTQ specific centers, according to the Campus Pride Index, more than 400 do provide inclusive policies, student organizations, career and counseling centers, health services, and academic programs to support the LGBTQ community (Campus Pride 2019; Harris, 2014; Hood, at

Correspondence concerning this article should be addressed to Karina A. Gattamorta, University of Miami School of Nursing and Health Studies, 5030 Brunson Drive, Coral Gables, FL 33146. kgattamorta@miami.edu.

We have no conflicts of interest to disclose.

al., 2019). Current research concerning SGM students indicates that environmental factors such as a positive psychological climate and behavioral climate, as well as having campus support systems positively impact student identity development and success in higher education (Campus Pride 2019; Vega, 2016).

Beginning in March 2020, when the COVID-19 pandemic first impacted the United States (U.S.), most SGM college students were forced to leave university campuses to slow the spread of COVID-19 (Smalley, 2020). Most university campuses remained fully (i.e., fully online instruction) or partially (i.e., hybrid format in-person and online instruction) closed in the Fall 2020 and Spring 2021 semesters (Smalley, 2021). In addition to pandemic-related mental health disparities (e.g., anxiety, depression, PTSD) among SGM people since the start of COVID-19 (Fish et al., 2021; Flentje et al., 2020; Kamal et al., 2021; Moore et al., 2021; Rodriguez-Seijas et al., 2020; Salerno, Williams, & Gattamorta, 2020b), the physical closure of schools between spring 2020 and summer 2021 likely forced many SGM students to move to potentially unsafe or unaccepting environments (e.g., their parents' homes). In these unaffirming environments, SGM students could face increased risk for family rejection of their sexual orientation and/or gender identities (Fish et al., 2020; Salerno, Devadas, Pease, Nketia, & Fish, 2020a). For SGM students living on campus, the campus environment can provide a safe haven, including affirming LGBTQ mental health care, non-discrimination, equity, and other LGBTQ supportive policies, affirming LGBTQ social and emotional support resources, offices of diversity and inclusion, and LGBTQ student centers (Hill et al., 2020; Ngyuen et al., 2018; Pitcher et al., 2018; Woodford et al., 2018a). The interruption of such affirming resources between spring 2020 and summer 2021 could have been detrimental to SGM students' physical and mental health (Gato et al., 2021; Salerno et al., 2020b). For instance, a change in living arrangements at the start of COVID-19 due to public safety mitigations may have resulted in increased negative social interactions, particularly if the home environment during this time was unsupportive and had decreased positive interactions (mentioned above) critical to supporting SGM students' academic performance and identity development (Fish et al., 2020; Salerno, et al., 2020c).

Amid this ongoing global pandemic, it is imperative to understand the most salient risks vulnerable SGM students face. In general, SGM young people face mental health disparities such as depression, anxiety, suicidality, psychological distress, when compared to their heterosexual and cisgender counterparts (Fish et al., 2019; Gattamorta, Salerno, & Castro, 2019; Russell & Fish, 2016). These disparities are linked to cultural, political, institutional, and interpersonal practices (Kulick et al., 2017). According to the Minority Stress Theory (Meyer, 2003; Testa et al., 2015), distal (e.g., prejudice and discrimination-related events perpetrated against SGM persons) and proximal (e.g., negative self-experiences associated with SGM identities) minority stressors serve as important mechanisms in pathways to mental health burdens among SGM persons. Distal stressors like family rejection, and proximal stressors like internalized homophobia and transphobia are known to have powerful impacts on mental health among SGM young people (Fish, Baams, & McGuire, 2020a; Newcomb et al., 2019; Newcomb & Mustanski, 2010; Pachankis et al., 2020). SGM college students have reported experiences of minority stress in the university context, and links between such experiences and negative mental health and academic outcomes have been documented (Seelman, Woodford, & Nicolazzo, 2017; Woodford et al., 2018). In

the context of the COVID-19 pandemic, SGM college students specifically have reported increased levels of psychological distress, anxiety, depression, and alcohol use (Gonzales et al., 2020; Salerno et al., 2020c; Salerno et al., 2021).

In this study, we examined the relationships between living arrangements and academic and mental health outcomes among SGM college students during the start of the COVID-19 pandemic (summer 2020). Participants were SGM college students who either never lived on campus during the start of the pandemic, who were living on campus but returned home as a result of the pandemic (spring-summer 2020), or who remained living on campus during the start of the pandemic. We examined differences among these groups in academic performance outcomes (i.e., grades suffering, dropped classes, dropped out of school, or failing a class), access to LGBTQ affirming mental health care, SGM-related stressors (i.e., LGBTQ-related family rejection, victimization, identity concealment, internalized transphobia, and internalized homophobia) and mental and behavioral health outcomes (i.e., psychological distress, and alcohol and other substance use). We hypothesized that students who were able to remain on campus (spring-summer 2020) would experience better academic performance, SGM-related stressor, and mental and behavioral health outcomes, and have greater access to LGBTQ affirming care.

Methods

Participants and Procedures

We conducted an analysis of nonprobability cross-sectional data collected from a sample of SGM students ($N = 565$) to explore the effect of the early stages of the pandemic (spring and summer 2020) on SGM college students. Eligibility criteria included being at least 18 years of age, identifying as an SGM person, and being a college student. Data were collected between May 27th and August 14th in 2020 via online questionnaire. All measures were self-reported. Participants were incentivized with a raffle for a \$50 Amazon gift card. The University of Maryland Institutional Review Board granted approval for the study.

Participants were recruited using an electronic recruitment flyer with a link to an online Qualtrics survey. The recruitment flyer was distributed via multiple social media platforms (i.e., Facebook, LinkedIn, and Twitter). We also recruited through email campaigns within our internal and external professional networks, and at historically Black colleges and universities, Hispanic-serving institutions, and lesbian, gay, bisexual, transgender, and queer or questioning (LGBTQ) student centers across the U.S. The research team distributed over 2,000 emails during study recruitment (not including forwarded emails). Available data from the survey URL link management platform reveals that the survey link was opened (clicked) over 1,400 times; 71% of clicks were from emails, and 23% were from social media platforms (with 60% from Twitter and 29% from Facebook).

Upon clicking the link to the survey, participants immediately underwent a self-administered electronic informed consent process. Those who opted to participate provided implied informed consent by clicking an arrow at the end of the informed consent process to proceed and begin the survey. To take the full survey, participants had to meet the study eligibility criteria, which was assessed at the beginning of the survey with four questions to confirm

that participants were full-time graduate or undergraduate students in the U.S., identified as an SGM person, and were at least 18 years old.

Survey duration was approximately 20–25 minutes, with a total of 87 questions (including single and multi-item questions). Study participants had the right to skip or not answer any question in the survey. Upon completion of the survey, participants were provided with a listing of mental health and crisis management resources and contact information for the study principal investigator in case they had any questions.

Measures

Sexual Orientation, Sex Assigned at Birth, and Gender Identity—Participants' gender identity, sex assigned at birth, and sexual orientation were collected using the gold standard 3-step question process (Cahill et al., 2014; Cahill et al., 2016; Deutsch et al., 2013), in which participants are asked their sex assigned at birth (male, female, or intersex), gender identity (cisgender, nonbinary, transgender, etc.), and sexual identity (gay, lesbian, bisexual, etc.) in three separate questions. The three questions were single answer, multiple choice questions to facilitate data analysis.

Living Arrangements during COVID-19—Students were classified into three groups: those who never lived on campus, those who lived on campus prior to the pandemic but had to move off campus as a result of the pandemic, and those who lived on campus prior to the pandemic and were able to remain on campus during the pandemic.

Academic Performance Outcomes—Students were asked whether they experienced any of the following as a result of the COVID-19 pandemic: grades suffered, dropped classes, dropped out, or failed a class.

Access to Mental Health Care—Students were asked whether they had trouble accessing mental health care during the COVID-19 pandemic.

SGM-related Stressors—LGBTQ-related family rejection was measured using 10 items from the Sexual Minority Adolescent Sexual Minority Stress Inventory (SMASI; Schrage, Goldbach, & Mamey, 2018) and 7 items from the Daily Heterosexist Experiences Questionnaire (DHEQ; Balsam, Beadness, & Molina, 2013). To capture increased frequency of family rejection during the COVID-19 pandemic, students were asked to indicate whether they experienced each item more often since the start of the pandemic. A composite score was calculated by summing responses across the 17 items. Due to the positive skew of the distribution, scores were dichotomized to reflect no change in family rejection as a since the start of the pandemic or any increase in family rejection since the start of the pandemic.

LGBTQ Identity-Related Victimization was measured using 4 items from the Daily DHEQ (Balsam, Beadness, & Molina, 2013) and 2 items from the LSM (Outland 2016). To capture increased frequency of victimization during the COVID-19 pandemic, students were asked to indicate whether they experienced each item more often since the start of the pandemic. A composite score was calculated by summing responses across the 6 items. Due to the positive skew of the distribution, scores were dichotomized to reflect no change in

victimization since the start of the pandemic or any increase in victimization since the start of the pandemic.

Internalized Transphobia was measured using 10 items from the Gender Minority Stress and Resilience Scale (Testa, 2015). This construct was only assessed among participants with a non-cisgender identity. A composite score was calculated by summing responses across the 10 items. Due to the positive skew of the distribution, scores were dichotomized to reflect no change in internalized transphobia since the start of the pandemic or any increase in internalized transphobia since the start of the pandemic.

Internalized Homophobia was measured using 7 items from the LGBT Minority Stress Measure (LMSM; Outland, 2016). To capture increased frequency of internalized homophobia during the COVID-19 pandemic, students were asked to indicate whether they experienced each item more often since the start of the pandemic. A composite score was calculated by summing responses across the 7 items. Due to the positive skew of the distribution, scores were dichotomized to reflect no change in internalized homophobia since the start of the pandemic or any increase in internalized homophobia since the start of the pandemic.

LGBTQ-related identity concealment was measured using 3 items from the LMSM (Outland, 2016) and 4 items from the DHEQ (Balsam, Beadnell, & Molina, 2013). A composite score was calculated by summing responses across the 7 items. Due to the positive skew of the distribution, scores were dichotomized to reflect no change in identity concealment since the start of the pandemic or any increase in identity concealment since the start of the pandemic.

Mental and Behavioral Health Outcomes—Psychological distress was assessed using the Kessler-10 (K10; Kessler et al., 2002). The 10-item scale includes measures of depression and anxiety within the past 30 days and codes item responses on a 5-point Likert-type scale from none of the time (1) to all of the time (5). A composite score was calculated for all 10-items ranging from 10–50.

Students were asked about change in their alcohol, tobacco, medicinal cannabis, and recreational cannabis use since the start of the COVID-19 pandemic. For each type of substance, they were asked whether use decreased, increased, or did not change, or if they had never used the substance before. For analysis purposes, responses were dichotomized to reflect an increase or not since the start of the pandemic.

Data Analysis

Descriptive statistics were used to examine the distribution of demographic and educational outcomes. Frequencies and percentages were used for categorical variables. For continuous variables, distributions were examined using histograms and values for skewness and kurtosis. Significantly skewed variables were dichotomized. For normally distributed variables, means and standard deviations were reported.

To examine the role of living arrangement during the early stages of the COVID-19 pandemic, a series of Chi-square analyses were used. Specifically, differences based on living arrangement were examined for all academic performance outcomes, LGBTQ-related stressors, access to care, and alcohol and other substance use. A One-Way ANOVA was used to determine the extent to which psychological distress differed based on living arrangement. Finally, to determine the extent to which findings related to living arrangements and outcomes differed between undergraduate and graduate students, a stratified analysis was completed for these two populations separately using the same statistical tests described above.

Results

Sample Demographics

Responses were obtained from 565 college students enrolled in schools across 37 different states. Table 1 shows a summary of the demographic characteristics for the total sample and for the three living arrangements during the early stages of the COVID-19 pandemic. Most of the students were enrolled in undergraduate programs (70%), with 2.5% earning their Associates Degree and 64% earning a Bachelor's degree. While most identified as White (75%), 14% of the sample were Hispanic or Latina/o/x, 7% another race or ethnicity, 14% Asian, and 11% Black or African American. Additionally, 54% of respondents identified as cisgender women, 15% as cisgender men, 10% as transgender, 12% as non-binary, and 6% as genderqueer. With regards to sexual orientation, 32% of the sample identified as bisexual, 14% as gay, 18% as lesbian, 16% as queer, 7% as asexual, and 9% as pansexual. When further examining the group of students who were living on campus and had to move, it should be noted that the overwhelming majority (<90%) of these students returned to their parents' homes.

Academic Performance Outcomes

When asked about the impact of the pandemic on their grades, about a quarter indicated that their grades suffered (24.7%), with 5% of students failing classes. Regarding academic progression, some students reported having to drop a class (10%) or drop out of school (1.4%).

Associations with Living Arrangement

A series of Chi-square tests of association were used to determine whether living arrangements during the early stages of the COVID-19 pandemic were associated with academic performance outcomes and LGBTQ-related stressors.

When examining academic performance outcomes, no significant differences based on living arrangements were found related to grades suffering ($\chi^2 (N=479) = 2.97, p = .227$, Cramer's $V = .079$), failing classes ($\chi^2 (N=485) = 1.72, p = .423$, Cramer's $V = .060$), having to drop a class ($\chi^2 (N=490) = 1.04, p = .595$, Cramer's $V = .046$), or having to drop out of school ($\chi^2 (N=496) = 1.29, p = .524$, Cramer's $V = .051$).

On LGBTQ-related stressors, significant differences based on living arrangements were found related to LGBTQ-related family rejection ($\chi^2 (N= 509) = 10.49, p = .005$, Cramer's $V = .144$), internalized transphobia ($\chi^2 (N= 153) = 8.26, p = .016$, Cramer's $V = .232$), and LGBTQ-related identity concealment ($\chi^2 (N= 501) = 7.19, p = .027$, Cramer's $V = .120$), with students that remained living on campus being less likely to experience these stressors compared to their peers with other living arrangements. No significant differences were found based on living arrangements and LGBTQ victimization ($\chi^2 (N= 509) = 0.54, p = .765$, Cramer's $V = .032$), and internalized homophobia ($\chi^2 (N= 509) = 0.59, p = .748$, Cramer's $V = .034$).

When examining access to care, students who never lived on campus were more likely to report difficulty accessing mental health care ($\chi^2 (N= 509) = 6.73, p = .035$, Cramer's $V = .115$).

No significant differences were found based on living arrangements and psychological distress ($F(2, 506) = 0.37, p = .691, \eta^2 = .001$). When examining differences on increased alcohol and substance use since the start of the COVID-19 pandemic, students who never lived on campus were more likely to report increased alcohol use ($\chi^2 (N= 509) = 12.63, p = .002$, Cramer's $V = .158$) and increased tobacco use ($\chi^2 (N= 509) = 7.78, p = .020$, Cramer's $V = .124$). Additionally, students that never lived on campus or who stayed on campus were more likely to report an increase in recreational cannabis use ($\chi^2 (N= 509) = 12.48, p = .002$, Cramer's $V = .157$).

Stratified Analysis - Undergraduate vs. Graduate Students

Table 2 provides a summary of results disaggregated by type of program. There were significant differences in the proportion of students who never lived on campus, lived on campus but had to move back home, or remained living on campus after the start of the pandemic between undergrad and graduate students ($\chi^2 (N= 509) = 88.79, p < .001$, Cramer's $V = .418$). To examine the extent to which results for undergraduate and graduate students yielded consistent findings, the analyses were stratified by educational program.

For undergraduate students, no academic performance outcomes were found to differ by living arrangements. For graduate students, academic performance outcomes that were found to differ by living arrangements included grades suffering ($\chi^2 (N= 131) = 6.65, p = .036$, Cramer's $V = .225$) and failing classes ($\chi^2 (N= 135) = 9.39, p = .009$, Cramer's $V = .264$). Graduate students who were living on campus and had to move were more likely to report that their grades suffered compared to those who never lived on campus. While only graduate students reported failing classes during the Spring 2020 semester, these students either lived on campus and had to move or remained on campus.

Among undergraduate students, significant differences based on living arrangements were found related to racism ($\chi^2 (N= 154) = 6.74, p = .034$, Cramer's $V = .209$). Among graduate students, no significant differences based on living arrangements were found related to any LGBTQ stressor.

There were no differences between undergraduate and graduate students in-terms of their reported access to mental health care.

Lastly, when examining differences on increased alcohol and substance use among undergraduate students, significant differences based on living arrangements were found related to recreational marijuana ($\chi^2 (N= 358) = 9.45, p = .009$, Cramer's $V = .162$), alcohol ($\chi^2 (N= 358) = 6.52, p = .038$, Cramer's $V = .135$), and tobacco ($\chi^2 (N= 358) = 6.59, p = .037$, Cramer's $V = .136$), with undergraduate students who remained on campus and those who never lived on campus reporting higher rates of increased recreational marijuana, alcohol, and tobacco compared to undergraduate students who lived on campus and had to move. Among graduate students, significant differences based on living arrangements were found related to increased alcohol use ($\chi^2 (N= 151) = 6.81, p = .033$, Cramer's $V = .212$), with graduate students who never lived on campus reporting the highest rates of increased alcohol use.

Discussion

The purpose of this study was to examine the impact of living arrangements on academic performance and mental health outcomes among LGBTQ college students during first months of the COVID-19 pandemic. Among graduate students, those who remained living on campus or had to move back home were more likely to report grades suffering or failing classes. Students who continued living on campus also were less likely to report increased LGBTQ-related family rejection and identity concealment, as well as internalized transphobia since the start of the pandemic. When examining patterns of alcohol and other substance use, we found that generally, students who continued living on campus during the first months of the pandemic were more likely to report an increase in recreational cannabis use, and those who never lived on campus were more likely to report increased alcohol and tobacco use. Among undergraduate students, those who remained living on campus and who never lived on campus were more likely to report increases in alcohol, recreational cannabis, and tobacco use. Among graduate students, those who never lived on campus reported greater rates of increased alcohol use. Our findings also uncovered that generally, students who never lived on campus were more likely to report difficulty accessing mental health care.

Our findings emphasize that college campuses may provide a protective environment against SGM-related stressors, such as family rejection, internalized transphobia, and identity concealment. We also found that campuses may protect against increases in alcohol and tobacco-use, and lack of access to affirming mental health care, particularly in the time of COVID-19. Study findings are consistent with previous research, which has documented that a positive psychological and behavioral climate, campus support systems, affirming LGBTQ social and emotional support resources, offices of diversity and inclusion, and LGBTQ student centers positively impact LGBTQ college students' mental health, well-being, and academic performance (Campus Pride 2019; Vega, 2016; Hill et al., 2020; Ngyuen et al., 2018; Pitcher et al., 2018; Woodford et al., 2018). Findings are also consistent with recent COVID-19 related research, which suggests that returning home because of COVID-19 can negatively impact LGBTQ students' physical and mental health as a result

of unsupportive home environments and reduced access to resources that support LGBTQ college students (Gato et al., 2021; Salerno et al., 2020b; Fish et al., 2020; Salerno et al., 2020c). These findings are concerning given the well-documented impacts of SGM-stressors (Fish, Baams, & McGuire, 2020a; Newcomb et al., 2019; Newcomb & Mustanski, 2010; Pachankis et al., 2020) and substance use (Fish & Exten, 2020) on the mental health of LGBTQ young people.

Recent research found that LGBTQ recreational cannabis users were more likely to report depression and anxiety compared to non-users during COVID-19 (Gattamorta, et al., 2021), and that increased alcohol use during COVID-19 was associated with greater psychological distress among LGBTQ college students (Salerno et al., 2021). Given that LGBTQ undergraduate students who remained living on campus were more likely to report increased recreational cannabis, alcohol, and tobacco use, college campuses need to consider the potential negative impacts of substance use and how to prevent these mental health risk behaviors, especially among SGM college students and during the time of COVID-19. Considering the evolving and longitudinal nature of the pandemic, it is important for student affairs practitioners to consider how to leverage the campus environment to protect SGM college students against negative SGM-related stressors and substance use that could impact their mental wellbeing. It is also important to consider increasing access to affirming mental health care on campuses that can reach SGM students regardless of their campus living arrangements, but especially among those who are living off-campus.

Approximately a quarter of the entire sample reported that their grades suffered during the spring 2020 term as a result of the pandemic, with 10% reporting dropping classes, and 5% reporting class failures. Our findings did not reveal a statistically significant negative impact of campus compared to off campus living arrangements during the start of the pandemic on academic performance outcomes for SGM students. However, SGM graduate students who remained living on campus or had to move back home were more likely to report grades suffering or failing classes, which emphasizes the different experiences and needs of graduate compared to undergraduate students during the pandemic. It is important for student affairs practitioners to leverage various affirming campus resources (Campus Pride 2019; Vega, 2016; Hill et al., 2020; Ngyuen et al., 2018; Pitcher et al., 2018; Woodford et al., 2018a) to encourage academic performance outcomes during COVID-19. Given the evolving nature of the COVID-19 pandemic and its lasting impacts on colleges and universities, it is important for student affairs practitioners to consider our findings, which suggest some harmful effects on academic performance associated with campus and off-campus living arrangements, particularly among graduate students.

Limitations

The findings of this study should be interpreted in light of several limitations, including the electronic nature of the study. The research team used data collection methods that yielded an anonymous survey from which data could not be validated, and the possibility of duplicate responses could not be excluded (though protections against duplicate survey entries were implemented), particularly given that the survey was incentivized. Selection bias is a consideration based on the survey distribution methods. The fact that survey

completion required internet access presents another possible selection bias, but not a probable one given that the college students targeted by this study are likely to have regular internet access. Another limitation is that data were self-reported and retrospective, possibly resulting in recall bias or social desirability bias. We did not collect institution name or city-level location (to protect participant anonymity) or the level of available resources at each institution, which limited our ability to analyze regional distribution of the sample and the available resources at each institution based on whether students remained on campus or not. Sexual orientation and gender identity questions allowed for single answers only, possibly impacting young peoples' ability to reveal their full identities if they identified with multiple sexual orientations and/or gender identities. We implemented the gold standard 3-step question process (Cahill et al., 2014; Cahill et al., 2016; Deutsch et al., 2013), which minimizes the probability of this occurrence. Also related to sexual orientation and gender identity, we did not disaggregate the analyses by sexual orientation and gender identity because we were statistically underpowered to do so. In addition, some analyses of subgroups may have been underpowered resulting in Type II error and, therefore, an inability to detect significant effects.

Future studies should examine the role of sexual orientation and gender identity. We acknowledge that the experiences of these subgroups are not identical and, as a result, the outcomes are not all the same. Lastly, as a result of the cross-sectional nature of the study, temporality and therefore causality cannot be established. For example, SGM students' academic performance, SGM stress experiences, and mental health now likely differ (and will in the future) compared to summer 2020. Despite this limitation, the study still provides important findings and implications relevant for student affairs practitioners and the academic performance and mental wellbeing of SGM students. Longitudinal studies will be able to address this study limitation to examine the impact of the COVID-19 pandemic over time.

Implications for Public Health, Higher Education, and Student Affairs Practice

Our findings have important implications for higher education institutions and public health in the context of SGM college students in the time of COVID-19 and beyond. It is imperative for higher education institutions and public health systems to recognize and address SGM young people and college students as vulnerable health disparity populations with unique concerns and needs. Given the ongoing nature of the COVID-19 pandemic (Johns Hopkins University, 2021), higher education institutions in the U.S. must address the changing needs of SGM students since the start of COVID-19. Thus, higher education institutions should take steps to prevent and address highly relevant SGM-stressors that could be impacting the mental health, well-being, and academic success of SGM college students, especially given the endemic and long-lasting effects of COVID-19. Recommendations include implementation and expansion of access to LGBTQ affirming mental health care (Williams & Fish, 2020) on and off-campus, including provision of remote or online services and supports (Fish et al., 2020b), as well as dissemination of online or remote resources for SGM college students and their parents and families that are useful for the prevention of SGM stressors (e.g., family rejection, internalized transphobia,

identity concealment) (Cohen, Mannarino, Wilson, & Zinny, 2018; Diamond & Shpigel, 2014; Ryan, 2009; SAMHSA, 2014).

Potential interventions include offering more remote and in-person support groups specifically for SGM students (including specifically for SGM students with multiple marginalized identities [Latinx, Black, immigrant, etc.]) that address mental health, identity-related stress, and academic-related concerns (Duran, 2020; Algarin, Salerno, Shrader, Lee, & Fish, 2022). Higher education institutions may also offer (online or remote) trainings that provide education and skills building for students, professors, and administration toward supporting students who are struggling with their mental health and academic performance in the context of COVID-19 (Gato et al., 2021). Student Affairs practitioners can become strong advocates for SGM student success and wellbeing by being leaders in offering on-line office hours and creating various programs and initiatives. Another recommendation would be to establish a mentorship program for students to meet with positive role models that can be facilitated either in person or virtual (Csaposs, B., 2022; Hogan et al., 2020; Sarna et al., 2021). Student Affairs practitioners can also work collaboratively with their campuses academic support programs and health centers to establish much needed resources for LGBTQ students (Conron, 2021). Lastly it would be recommended that campuses counseling centers be sought out for additional support and to identify possible liaisons to work with to best meet the mental health needs of the SGM student populations. University stakeholders are advised to work with campus LGBTQ student centers, offices of diversity and inclusion, health and mental health stakeholders, and expert faculty on such initiatives.

Conclusion

This study has shared important insights into the academic, minority stress, and mental health experiences of SGM college students during the early months of the COVID-19 pandemic. Our findings have highlighted the importance of providing LGBTQ affirming mental health care to SGM students on college and university campuses. The study reinforces the ways in which college and university campuses continue to serve as safe spaces for marginalized SGM populations. Future scholarship in this area is needed to provide further insights into the impact of the COVID pandemic on SGM college students in relation their academic, mental health, minority stress, and behavioral outcomes. This study can serve as an important starting point for mental health care providers and college practitioners as they find ways to meet the needs of SGM college students.

Acknowledgments

This work was supported by the National Institute of Mental Health (PI: John P. Salerno; Award Number 1R36MH123043) of the National Institutes of Health (NIH), and the University of Maryland Prevention Research Center Cooperative Agreement Number U48DP006382 (PI: Bradley O. Boekeloo) from the Centers for Disease Control and Prevention (CDC). The content is solely the responsibility of the authors and does not necessarily represent the official view of the NIH or CDC. The authors thank the study PI (Dr. John P. Salerno) for providing access to the dataset, contributing to the initial concept for this manuscript, and providing review and feedback.

References

Algarin AB, Salerno JP, Shrader CH, Lee JY, & Fish JN (2022). Associations between living arrangements and sexual and gender minority stressors among university students

since the start of the COVID-19 pandemic. *Journal of American College Health*. <http://doi.10.1080/07448481.2022.2076560>

- Cahill SR, Baker K, Deutsch MB, Keatley J, & Makadon HJ (2016). Inclusion of sexual orientation and gender identity in stage 3 meaningful use guidelines: a huge step forward for LGBT health. *LGBT health*, 3(2), 100–102. <https://doi.10.1089/lgbt.2015.0136> [PubMed: 26698386]
- Cahill S, & Makadon H (2014). Sexual orientation and gender identity data collection in clinical settings and in electronic health records: a key to ending LGBT health disparities. *LGBT health*, 1(1), 34–41. <https://doi.1089/lgbt.2013.0001> [PubMed: 26789508]
- Campus Pride. (2019). Campus pride in partnership with best colleges releases the “best colleges for LGBTQ students.” <https://www.campuspride.org/for-pride-month-campus-pride-in-partnership-with-bestcolleges-releases-the-best-colleges-for-lgbtq-students/>
- Cohen J, Mannarino A, Wilson K, & Ziny A (2018). Trauma-focused cognitive behavioral therapy LGBTQ implementation manual. Pittsburg, PA: Allegheny Health Network. https://familyproject.sfsu.edu/sites/default/files/TF-CBT LGBTQ Implementation Manual_v1.pdf
- Collins PH (2019). Intersectionality as critical social theory. Duke University Press.
- Conron KJ, O’Neill K (co-first authors), & Sears B (2021). COVID-19 and Students in Higher Education: A 2021 Study of the Impact of the COVID-10 Pandemic on the Educational Experiences of LGBTQ and non-LGBTQ U.S. Adults Aged 18–40. The Williams Institute, UCLA, Los Angeles, CA.
- Csapos BC (2022). Making Meaning of the Shared Experience of Participants in an Undergraduate LGBTQ+ Mentorship Program. Graduate Theses and Dissertations Retrieved from <https://scholarworks.uark.edu/etd/4558>
- D’Augelli AR (1990). Homophobia in a university community: Attitudes and experiences of heterosexual freshman. *Journal of College Student Development*, 31, 484–491.
- Deutsch MB, Green J, Keatley J, et al. (2013). Electronic medical records and the transgender patient: recommendations from the World Professional Association for Transgender Health EMR Working Group. *Journal of the American Medical Informatics Association*, 20, 700–703. [PubMed: 23631835]
- Diamond G, & Shpigel M (2014). Attachment-based family therapy for lesbian and gay young adults and their persistently nonaccepting parents. *Professional Psychology: Research and Practice*, 45(4), 258. [10.1037/a0035394](https://doi.org/10.1037/a0035394)
- Dugan JP, & Yurman L (2011). Commonalities and differences among lesbian, gay, and bisexual college students: Considerations for research and practice. *Journal of College Student Development*, 52(2), 201–216. [10.1353/csd.2011.0027](https://doi.org/10.1353/csd.2011.0027)
- Duran A (2020). The experiences of queer students of color at historically White institutions: Navigating intersectional identities on campus. Routledge.
- Evans R, Nagoshi JL, Nagoshi C, Wheeler J, & Henderson J (2017). Voices from the stories untold: Lesbian, gay, bisexual, trans, and queer college students’ experiences with campus climate. *Journal of Gay & Lesbian Social Services*, 29(4), 426–444. [10.1080/10538720.2018.1378144](https://doi.org/10.1080/10538720.2018.1378144)
- Flentje A, Obedin-Maliver J, Lubensky ME, Dastur Z, Neilands T, & Lunn MR (2020). Depression and anxiety changes among sexual and gender minority people coinciding with onset of COVID-19 pandemic. *Journal of General Internal Medicine*, 35(9), 2788–2790. [10.1007/s11606-020-05970-4](https://doi.org/10.1007/s11606-020-05970-4) [PubMed: 32556877]
- Fish JN, Baams L, & McGuire JK (2020a). Sexual and gender minority mental health among children and youth. *The Oxford Handbook of Sexual and Gender Minority Mental Health*, 229. [10.1093/oxfordhb/9780190067991.013.21](https://doi.org/10.1093/oxfordhb/9780190067991.013.21)
- Fish JN, & Exten C (2020). Sexual Orientation Differences in Alcohol Use Disorder Across the Adult Life Course. *American Journal of Preventive Medicine*, 59(3), 428–436. [10.1016/j.amepre.2020.04.012](https://doi.org/10.1016/j.amepre.2020.04.012) [PubMed: 32713615]
- Fish JN, McInroy LB, Pacey MS, Williams ND, Henderson S, Levine DS, & Edsall RN (2020b). “I’m kinda stuck at home with unsupportive parents right now”: LGBTQ youths’ experiences with COVID-19 and the importance of online support. *Journal of Adolescent Health*, 67, 450–452. [10.1016/j.jadohealth.2020.06.002](https://doi.org/10.1016/j.jadohealth.2020.06.002)

- Fish JN, Rice CE, Lanza ST, Russell ST (2019). Is young adulthood a critical period for suicidal behavior among sexual minorities? Results from a US national sample. *Prevention Science*, 20(3), 353–365. 10.1007/s11121-018-0878-5 [PubMed: 29594980]
- Gattamorta KA, Salerno JP, & Castro AJ (2019). Intersectionality and health behaviors among US high school students: Examining race/ethnicity, sexual identity, and sex. *Journal of School Health*, 89(10), 800–808. 10.1111/josh.12817 [PubMed: 31353476]
- Gattamorta KA, Salerno JP, Islam JY, Vidot DC (2021). Mental Health Among LGBTQ Cannabis Users During the COVID-19 Pandemic: Analysis of the COVID-19 Cannabis Health Study. *Psychology of Sexual Orientation and Gender Diversity*. 10.1037/sgd0000491
- Gato J, Barrientos J, Tasker F, Miscioscia M, Cerqueira-Santos E, Malmquist A, Seabra D, Leal D, Houghton M, Poli M, Gubello A, de Miranda Ramos M, Guzmán M, Urzúa A, Ulloa F & Wurm M (2021). Psychosocial effects of the COVID-19 pandemic and mental health among LGBTQ+ young adults: A cross-cultural comparison across six nations. *Journal of Homosexuality*, 68(4), 612–630. 10.1080/00918369.2020.1868186 [PubMed: 33480823]
- Gonzales G, Loret de Mola E Gavulic KA, McKay T, & Purcell (2020.) Mental health needs among lesbian, gay, bisexual, and transgender college students during the COVID-19 Pandemic. *Journal of Adolescent Health*, 67, 645–648. 10.1016/j.jadohealth.2020.08.006
- Greathouse M, Brckalorenz A, Hoban M, Huesman R, Rankin S, & Stolzenberg EB (2018). Queer-spectrum and trans-spectrum student experiences in American higher education: The analyses of national survey findings. <https://doi.org/doi:10.7282/t3-44fh-3b16>
- Harris LN (2014). Black, queer, and looking for a job: An exploratory study of career decision making among self-identified sexual minorities at an urban historically Black college/university. *Journal of Homosexuality*, 61(10), 1393–1419. 10.1080/00918369.2014.928170 [PubMed: 24885738]
- Hill RL, Nguyen DJ, Kilgo CA, Lange AC, Shea HD, Renn KA, & Woodford MR (2020). How LGBTQ+ students thrive in college. *Journal of Student Affairs Research and Practice*, 1–15. 10.1080/19496591.2020.1738241
- Hogan L, Lemus GR, Lynn Z, Murphy B, & Scherzer R (2020). Queer students navigating the academy: LGBTQ+ mentoring practices at IUPUI. *Journal of the Student Personnel Association at Indiana University*, 9–25.
- Hood L, Sherrell D, Pfeffer CA, & Mann ES (2019). LGBTQ college students' experiences with university health services: An exploratory study. *Journal of Homosexuality*, 66(6), 797–814. 10.1080/00918369.2018.1484234 [PubMed: 29893640]
- Johns Hopkins University (2021). Rethinking herd immunity and the Covid-19 response end game. <https://publichealth.jhu.edu/2021/what-is-herd-immunity-and-how-can-we-achieve-it-with-covid-19>
- Kamal K, Li JJ, Hahn HC, & Liu CH (2021). Psychological Impacts of the COVID-19 Global Pandemic on US Sexual and Gender Minority Young Adults. *Psychiatry Research*, 113855. 10.1016/j.psychres.2021.113855 [PubMed: 33721788]
- Kessler RC, Andrews G, Colpe LJ, Hiripi E, Mroczek DK, Normand SLT, ... Zaslavsky AM (2002). Short screening scales to monitor population prevalences and trends in non-specific psychological distress. *Psychological Medicine*, 32(6), 959–976. 10.1017/s0033291702006074 [PubMed: 12214795]
- Kulick A, Wernick LJ, Woodford MR, & Renn K (2017). Heterosexism, depression, and campus engagement among LGBTQ college students: Intersectional differences and opportunities for healing. *Journal of Homosexuality*, 64(8), 1125–1141. 10.1080/00918369.2016.1242333 [PubMed: 27680491]
- Meyer IH (2003). Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin*, 129(5), 674–97. 10.1037/0033-2909.129.5.674 [PubMed: 12956539]
- Moore SE, Wierenga KL, Prince DM, Gillani B & Mintz LJ (2021). Disproportionate impact of the COVID-19 pandemic on perceived social support, mental health and somatic symptoms in sexual and gender minority populations. *Journal of Homosexuality*, (68)4, 577–591. 10.1080/00918369.2020.1868184

- Newcomb ME, LaSala MC, Bouris A, Mustanski B, Prado G, Schrager SM, & Huebner DM (2019). The influence of families on LGBTQ youth health: A call to action for innovation in research and intervention development. *LGBT Health*, 6(4), 139–45. 10.1089/lgbt.2018.0157 [PubMed: 30844341]
- Newcomb ME, & Mustanski B (2010). Internalized homophobia and internalizing mental health problems: A meta-analytic review. *Clinical Psychology Review*, 30(8), 1019–29. 10.1016/j.cpr.2010.07.003 [PubMed: 20708315]
- Nguyen DJ, Brazelton GB, Renn KA, & Woodford MR (2018). Exploring the availability and influence of LGBTQ+ student services resources on student success at community colleges: A mixed methods analysis. *Community College Journal of Research and Practice*, 42(11), 783–796. 10.1080/10668926.2018.1444522
- Nicolazzo Z (2017). Trans* in college: Transgender students' strategies for navigating campus life and the institutional politics of inclusion. *Stylus*. <https://styluspub.presswarehouse.com/browse/book/9781620364567/Trans-in-College>
- Pachankis JE, Mahon CP, Jackson SD, Fetzner BK, & Bränström R (2020). Sexual orientation concealment and mental health: A conceptual and meta-analytic review. *Psychological Bulletin*, 146(10), 831–871. 10.1037/bul0000271 [PubMed: 32700941]
- Pitcher EN, Camacho TP, Renn KA, & Woodford MR (2018). Affirming policies, programs, and supportive services: Using an organizational perspective to understand LGBTQ+ college student success. *Journal of Diversity in Higher Education*, 11(2), 117. 10.1037/dhe0000048
- Rankin S, Weber GN, Blumenfeld WJ, & Frazer S (2010). 2010 state of higher education for LGBT people. *Campus Pride*. <https://www.campuspride.org/wp-content/uploads/campuspride2010lgbtreportsummary.pdf>
- Renn KA (2010). LGBT and queer research in higher education: The state and status of the field. *Educational Researcher*, 39(2), 132–141. 10.3102/0013189X10362579
- Rodriguez-Seijas C, Fields EC, Bottary R, Kark SM, Goldstein MR, Kensinger EA, ... & Cunningham TJ (2020). Comparing the impact of COVID-19-related social distancing on mood and psychiatric indicators in sexual and gender minority (SGM) and non-SGM individuals. *Frontiers in Psychiatry*, 11. 10.3389/fpsy.2020.590318
- Russell ST, & Fish JN (2016). Mental health in lesbian, gay, bisexual, and transgender (LGBT) youth. *Annual Review of Clinical Psychology*, 12, 465–487. 10.1146/annurev-clinpsy-021815-093153
- Ryan C (2009). *Supportive families, healthy children: Helping families with lesbian, gay, bisexual & transgender children*. San Francisco, CA: Family Acceptance Project, Marian Wright Edelman Institute, San Francisco State University. https://familyproject.sfsu.edu/sites/default/files/FAP_English_Booklet_pst.pdf
- Salerno JP, Devadas J, Pease M, Nketia B, Fish JN (2020a). Sexual and gender minority stress amid the COVID-19 pandemic: Implications for LGBTQ young persons' mental health and well-being. *Public Health Reports*, 135(6), 721–727. 10.1177/0033354920954511 [PubMed: 33026972]
- Salerno JP, Williams ND, & Gattamorta KA (2020b). LGBTQ populations: Psychologically vulnerable communities in the COVID-19 pandemic. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(S1), S239–S242. 10.1037/tra0000837 [PubMed: 32551761]
- Salerno JP, Pease M, Devadas J, Nketia B, & Fish JN (2020c). COVID-19-related stress among LGBTQ+ university students: Results of a US national survey. *University of Maryland Prevention Research Center*. 10.13016/zug9-xtmi
- Salerno JP, Shrader CH, Algarin AB, Lee JY, & Fish JN (2021). Changes in alcohol use since the onset of COVID-19 are associated with psychological distress among sexual and gender minority university students in the US. *Drug and Alcohol Dependence*, 221, 108594. 10.1016/j.drugalcdep.2021.108594 [PubMed: 33689965]
- SAMHSA. (2014). *A practitioner's resource guide: Helping families to support their LGBT children*. HHS publication no. PEP14-LGBTKIDS. Substance Abuse and Mental Health Services Administration. <https://store.samhsa.gov/sites/default/files/d7/priv/pep14-lgbtkids.pdf>
- Sanlo R (2004). Lesbian, gay, and bisexual college students: Risk, resiliency, and retention. *Journal of College Student Retention Research Theory and Practice*, 6(1), 97–110. 10.2190/FH61-VE7V-HHCX-0PUR

- Sarna V, Dentato MP, DiClemente CM, & Richards MH (2021). The importance of mentors and mentoring programs for LGBT+ undergraduate students. *College Student Affairs Journal*, 39(2), 180–199.
- Seelman KL, Woodford MR, & Nicolazzo Z (2017). Victimization and microaggressions targeting LGBTQ college students: Gender identity as a moderator of psychological distress. *Journal of Ethnic & Cultural Diversity in Social Work*, 26(1–2), 112–125. 10.1080/15313204.2016.1263816
- Smalley A (2021). Higher education responses to Coronavirus (COVID-19). National Conference of State Legislatures. <https://www.ncsl.org/research/education/higher-education-responses-to-coronavirus-covid-19.aspx>
- Testa RJ, Habarth J, Peta J, Balsam K, & Bockting W (2015). Development of the gender minority stress and resilience measure. *Psychology of Sexual Orientation and Gender Diversity*, 2(1), 65–77. 10.1037/sgd0000081
- Vega GP (2016). Latina lesbian students: Understanding their experiences and perceived sexual identity development at a Hispanic-serving institution. (Publication No. 2722) [Doctoral dissertation, Florida International University]. Higher Education Commons. 10.25148/etd.FIDC001234
- Wall VA, & Evans NJ (2000). Towards acceptance sexual orientation issues on campus. University Press of America.
- Williams ND, & Fish JN (2020). The availability of LGBT-specific mental health and substance abuse treatment in the United States. *Health Services Research*, 55(6), 932–943. 10.1111/1475-6773.13559 [PubMed: 32970327]
- Woodford MR, Kulick A, Garvey JC, Sinco BR, & Hong JS (2018a). LGBTQ policies and resources on campus and the experiences and psychological well-being of sexual minority college students: Advancing research on structural inclusion. *Psychology of Sexual Orientation and Gender Diversity*, 5(4), 445. <https://psycnet.apa.org/doi/10.1037/sgd0000289>
- Woodford MR, Weber G, Nicolazzo Z, Hunt R, Kulick A, Coleman T, Coulombe S, & Renn KA (2018b). Depression and attempted suicide among LGBTQ college students: Fostering resilience to the effects of heterosexism and cisgenderism on campus. *Journal of College Student Development*, 59(4), 421–438. 10.1353/csd.2018.0040

Table 1.

Demographic Characteristics Among LGBTQ College Students by Living Arrangements

Characteristic	Lived on Campus during COVID (N = 31)		Lived on campus and Moved (N = 209)		Never Lived on Campus (N = 269)		Total Sample (N = 565)	
	N	%	N	%	N	%	N	%
Educational Program								
Associate's	0	0	4	1.9	8	3.0	14	2.6
Bachelor's	21	67.7	190	90.9	135	50.2	361	67.7
Master's	6	19.4	10	4.8	56	20.8	77	14.4
Doctorate	4	12.9	5	2.4	70	26.0	81	15.2
Sex								
Male	10	32.3	37	17.7	63	23.6	117	21.5
Female	21	67.7	172	82.3	204	76.4	428	78.5
Race/Ethnicity								
White	24	77.4	151	72.2	210	78.1	422	74.7
Asian	3	9.7	40	19.1	29	10.8	79	14.0
Black	4	12.9	22	10.5	26	9.7	61	10.8
Hispanic	6	19.4	28	13.4	42	15.6	80	14.3
Other	5	16.2	8	3.9	24	9.0	70	7.0
Sexual Orientation								
Bisexual	6	19.4	82	39.2	79	29.4	181	32.0
Gay	7	22.6	28	13.4	37	13.8	77	13.6
Lesbian	5	16.1	33	15.8	51	19.0	102	18.1
Queer	4	12.9	28	13.4	44	16.4	89	15.8
Asexual	6	19.4	13	6.2	21	7.8	41	7.3
Pansexual	3	9.7	19	9.1	21	7.8	49	8.7
Gender Identity								
Cis-woman	11	35.5	127	60.8	134	49.8	302	53.5
Cis-man	5	16.1	33	15.8	43	16.0	86	15.2
Transgender	4	12.9	13	6.2	28	33.8	53	9.5
Non-binary	5	16.1	20	9.6	37	13.8	67	11.9
Genderqueer	2	6.5	11	5.3	14	5.2	31	5.5
Gender fluid	2	6.5	2	1.0	6	2.2	12	2.1
Agender	3	9.7	3	1.4	5	1.9	11	1.9
Two-spirit	0	0	2	0.7	0	0	3	0.5

Table 2.

Summary of Results Disaggregated by Type of Program

Outcome	Undergraduate Students (N = 375)				Graduate Students (N = 158)			
	Lived on campus (N, %)	Lived on campus but moved (N, %)	Never lived on campus (N, %)	p – value	Lived on campus (N, %)	Lived on campus but moved (N, %)	Never lived on campus (N, %)	p – value
Academic Outcomes								
Attended school remotely	21, 100	192, 99	137, 97	.213	9, 100	15, 100	116, 98	.814
Classes cancelled	6, 29	24, 12	20, 14	.130	0, 0	2, 13	13, 11	.511
Accept pass/fail	10, 48	99, 52	60, 44	.362	0, 0	6, 40	26, 24	.104
Grades suffered	10, 48	50, 27	40, 29	.134	0, 0	5, 33	13, 12	.036
Dropped classes	3, 14	17, 9	24, 17	.077	1, 10	1, 7	4, 4	.586
Drop out of school	0, 0	2, 1	4, 3	.370	0, 0	0, 0	1, 1	.896
Fail class(es)	2, 10	8, 4	13, 9	.134	1, 10	1, 7	0, 0	.009
Access of Mental Health Care	4, 19	28, 14	31, 22	.222	0, 0	1, 7	30, 24	.075
SGM Stressors								
+ family rejection	15, 72	132, 68	88, 62	.392	5, 50	6, 40	51, 41	.837
+ LGBTQ victimization	3, 14	12, 6	10, 7	.384	0, 0	1, 7	9, 7	.682
+ Homophobia	11, 52	64, 33	53, 37	.194	1, 10	5, 33	33, 26	.415
+ Transphobia	5, 50	36, 80	30, 63	.075	2, 50	2, 67	21, 49	.837
+ Identity concealment	16, 84	119, 62	80, 56	.057	1, 10	6, 40	49, 40	.176
+ Racism	11, 100	50, 60	39, 65	.034	1, 25	5, 71	30, 67	.228
Substance Use								
+ Medical cannabis	2, 10	3, 2	3, 2	.063	0, 0	0, 0	4, 3	.665
+ Recreational cannabis	8, 38	28, 14	34, 24	.009	3, 30	3, 20	37, 30	.745
+ Alcohol	8, 38	48, 25	53, 37	.038	3, 30	1, 7	51, 41	.033
+ Tobacco	3, 14	8, 4	15, 11	.037	2, 20	1, 7	11, 9	.465