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UNIVERSITY OF CALIFORNIA SAN DIEGO

SAN DIEGO STATE UNIVERSITY

Pre-College and In-College Factors Related to Sexual Violence and Sexual  
Harassment (SVSH) on University Campuses

A dissertation submitted in partial satisfaction of the requirements for the degree  
Doctor of Philosophy

in

Public Health (Global Health)

by

Brittnie Elizabeth Bloom

Committee in Charge:

University of California San Diego

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Professor Jennifer Wagman

San Diego State University

Professor Elizabeth Reed (Chair)  
Professor Susan Kiene  
Professor Emilio Ulloa

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This dissertation of Brittnie Elizabeth Bloom is approved, and it is acceptable in quality and form for publication on microfilm and electronically.

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Chair

University of California San Diego

San Diego State University

2021

## DEDICATION

This work, first and foremost, is dedicated to my family. As the first person in my immediate family to attend and graduate from college, I know my academic journey has sometimes felt never-ending. Nevertheless, my family – Gordon Bloom, Anna Bloom, Heidi Bloom (my parents), Ashlea Bloom (my sister), Lucky Bloom (my sidekick), my grandparents, Kathy Bloom (Nana), Sandra Mansfield-Romero (Nonnie), Linda and Barry Miller, and Albert and Carol Grams – have always supported and encouraged me. I'd like to especially acknowledge my Grandpa Grams who has been my biggest supporter since I was an undergraduate at SDSU.

This work is also dedicated to my best friend, partner and fellow public health and social justice advocate, Nicolas Lopez-Galvez. Thank you for your unwavering support and for your consistent and calm spirit. Eres mi todo, mi amor. We did it!

I could not have completed this journey without my close friends – thank you for reminding me to close my computer and have some fun during this journey: Jessica Abat, Dana Bishop, Amanda Green, Becca Reiser, Jen Bull, Melissa Brody, Alison Milardovich, Jesse Reit, Michele LaPointe, Stephen Lee, Paige Sheridan, Vanessa Ogbu, Stephanie Albert, Hector Alcala, Whitney Riggs, Michael Sparaco, Marissa Salazar, Amanda Miller, Katie Crockett, Cierra Sorin, Purva Jain and Rudy Patrick. I'd also like to thank my IMSD family – we carry each other!

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## ABBREVIATIONS

AAUW	American Association of University Women
AOR	Adjusted Odds Ratio
CDC	Centers for Disease Control and Prevention
CI	Confidence Interval
CSA	Centre for the Study of Adolescence
CSE	Comprehensive Sex Education
DF	Degrees of Freedom
EVOC	End Violence on Campus
LGBTQ+	Lesbian, Gay, Bisexual, Transgender, Queer, and Others
IDI	In-Depth Interview
IPV	Intimate Partner Violence
IRB	Institutional Review Board
IRR	Incident Rate Ratio
OR	Odds Ratio
PTG	Post-Traumatic Growth
SDSU	San Diego State University
SE	Sex education
SHIFT	Sexual Health Initiative to Foster Transformation
STI	Sexually Transmitted Infections
SVSH	Sexual Violence and Sexual Harassment
UC	University of California
UCLA	University of California Los Angeles
UCSB	University of California Santa Barbara

UCSD	University of California San Diego
UN	United Nations
US	United States
WHO	World Health Organization

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Chapter 1, in full, has been submitted for publication of the material as it may appear in the American Journal of Sexuality Education, 2021. Bloom, B.E., Kieu, T.K., Wagman, J.A., Ulloa, E.C., and Reed, E. The dissertation author was the primary investigator and author of this paper.

Chapter 2, in full, has been submitted for publication of the material as it may appear in the Journal of Evidence Based Social Work, 2021. Bloom, B.E., Joseph, R., Ulibarri, M.D., Reed, E., Wagman, J.A., and Ulloa, E.C. The dissertation author was the primary investigator and author of this paper.

Chapter 3, in part, is currently being prepared for submission for publication of the material. Bloom, B.E., Tavrow, P., and Reed, E. The dissertation author was the primary investigator and author of this material.

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**Bloom, B. E.\***, Sorin, C. R.\*, Oaks, L., Wagman, J.A. (2021). Graduate students' knowledge and utilization of campus sexual violence and sexual harassment resources – A Brief Report. *Journal of American College Health*.  
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**Bloom, B. E.**, Sorin, C. R., Wagman, J. A., & Oaks, L. (2021). Employees, advisees, and emerging scholars: A qualitative analysis of graduate students' roles and sexual violence and harassment on college campuses. *Culture and Sexuality*.  
<https://doi.org/10.1007/s12119-021-09841-w>

**Bloom, B. E.**, Hamilton, K., Adeke, B., Atuyumbe, L., & Kiene, S. (2021). “Endure and Excuse”: A mixed-methods effort to understand disclosure of intimate partner violence among women living with HIV in Uganda. *Culture, Sexuality and Health*. DOI: 10.1080/13691058.2020.1861328

**Bloom, B. E.**, Dunkle, K., Wagman, J. A., & Fielding-Miller, R. (2020). Exploring how intimate partner violence among pregnant women seeking antenatal care in Eswatini: How agency and food security impact outcomes related to violence. *Global Public Health*. DOI: 10.1080/17441692.2020.1849347

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ABSTRACT OF THE DISSERTATION

Pre-College and In-College Factors Related to Sexual Violence and Sexual Harassment (SVSH) on University Campuses

by

Brittnie Elizabeth Bloom

Doctor of Philosophy of Public Health (Global Health)

University of California San Diego, 2021  
San Diego State University, 2021

Professor Elizabeth Reed (Chair)

**Background and objective:** The overarching goal of the proposed dissertation is to assess how pre-college and in-college factors are related to students' experiences of sexual violence and sexual harassment (SVSH) while in college. Findings from the proposed work will inform the design and development of violence prevention strategies tailored to educational institutions (K-12, colleges and universities) and to address the needs of students. Diverse student populations were considered, as research shows women (1),

students of color (2), students living with disabilities (3), lesbian, gay, bisexual, transgender, queer and other (LGBTQ+) populations (1, 4) and international students (5) are at increased risk of experiencing SVSH during college. **Methods:** This dissertation utilized three unique data sets. Paper one utilized a sequential explanatory mixed-methods study design to describe differences in pre-college formal and informal sex education content and sources reported between LGBTQ+ and heterosexual undergraduate students at three public universities and assessed the perceived usefulness of sex education and responsiveness to LGBTQ+ needs. Paper two utilized a cross-sectional data set derived from a sexual violence campus climate survey in order to determine the sociodemographic factors associated with engaging in bystander behavior, including gender, race/ethnicity, sexual orientation, students with SVSH histories and those with intersecting identities. Paper three focused on determining the prevalence of SVSH across demographic groups (e.g., gender, sexual orientation, relationship status), what types of SVSH-related help-seeking (e.g., formal, school-based, informal) were most common, and what types of SVSH and demographic factors were associated with help-seeking using cross sectional data derived from a diverse group of Moi University students in Kenya. **Results:** Overall, results highlight the importance of student identity and past experiences (e.g., identifying as a survivor of SVSH) on SVSH experiences, prevention and help-seeking. **Conclusions:** Public health experts and violence prevention researchers have called for SVSH prevention programs, policies and

research that are proactive, socio-culturally relevant and focus both on specific, diverse populations and intersectionality. More work is needed to evaluate and expand SVSH prevention and response on university campuses using these guidelines in the US and abroad.

## INTRODUCTION

Sexual assault and sexual harassment (SVSH) are pervasive and well-documented problems on university campuses in the US and abroad. Sexual violence is defined as any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances against a person using coercion, by any person regardless of their relationship to the victim, in any setting (6). SVSH includes many acts of violence, including sexual assault, rape, relationship violence / intimate partner violence, stalking and harassment. As noted by the United Nations (UN), university campuses create a unique set of risks, especially for vulnerable populations, including exposure to and experiences of SVSH (7). Initiatives to combat violence in university settings is crucial, as universities can act as key institutions to prevent violence by establishing norms that result in broader influence societally (7).

SVSH within US college settings is prevalent, as a recent large scale study found that 48% of all college students experience sexual harassment while enrolled in college (8). However, rates differ by population (i.e., race, gender identity, sexual orientation) (1-5). Briefly, research in the US has documented that 20% of women, 7% of men and 29.4% of ethnic minority students (9) will experience SVSH in college. Additionally, data from the National Intimate Partner and Sexual Violence Survey found that 55% of heterosexual women, 67% of lesbian women and 83% of bisexual women will experience intimate partner violence in their lifetime (10). In US college settings, 35% of heterosexual women



and 38% of bisexual women experience SVSH since matriculating into college (11). Rates of SVSH among gay and bisexual men vary; some studies indicate they experience similar rates of SVSH as their female, heterosexual peers (11, 12), while others have found SVSH rates similar (10) or higher (12, 13) than their male, heterosexual peers. Those who identify as transgender are significantly more likely to experience multiple forms of SVSH while in college, including a nine-fold increase in attempted sexual penetration and nearly a seven-fold increase in experiencing relationship violence (14, 15) compared to their cisgender counterparts. Students with intersecting minority identities (e.g., a black transgender student, a white, queer woman living with a disability) are at even higher risk of experiencing SVSH (12).

Research in the US suggests that SVSH occurs in high proportions in university settings (7, 16), but less research has been conducted on SVSH among university students in low-income and low-resource settings – including in sub-Saharan Africa (17-19). While true prevalence in university settings in this region is unknown, data indicates that Sub-Saharan Africa has the highest prevalence of SVSH globally: 66% of ever-partnered women experience intimate partner violence (IPV), 21% report experiencing non-partner sexual violence (20), and sexual violence perpetrated against men has significantly increased in the last 30 years (21). In university settings in this region, where gender inequitable norms are pervasive and generally accepted (e.g., norms that support the idea that men have the authority to discipline women, women belong in the home and

not the classroom), high rates of SVSH are likely (22, 23). Additional research is needed to fill this gap.

Globally, experiencing SVSH is associated with adverse health effects including, anxiety, depression, substance abuse, sexually transmitted infections (STIs), unintended pregnancies, suicidality and even death (24-26). Experiencing SVSH has significant negative impacts on education and career goals (i.e., reduced grade point average, dropping out of college, lessened ability to solve problems, reduced self-efficacy related to career decisions) (27-29).

Unfortunately, these data often fail to tease apart and reflect the additive complexities of gender, race and class (30). Research has found that gender minority and LGBTQ+ students may experience significantly higher levels of trauma symptoms (31), depression, and substance use issues (32) after experiencing SVSH and are less likely to seek help after SVSH experiences. These negative health outcomes have been attributed to LGBTQ+ populations experiencing higher levels of stigma and discrimination compared to their heterosexual peers, and receiving less emotional, social and societal support to adequately address their mental health and related needs (33, 34).

The growing concern and attention focused on SVSH on college campuses, coupled with the #MeToo movement, has increased pressure on universities to address and decrease SVSH. In the US, such efforts have included placing Title IX and other SVSH resources on campuses (35), implementing policy (36), conducting research on campus climate related to SVSH - including

campus climate surveys (8), training campus police (37), mandating screening among university health center providers (38) and promoting bystander awareness programs (39) and social media campaigns (40). As these efforts continue to be expanded and modified, continued evaluation and analysis of their impact is needed and is essential for success in reducing and preventing SVSH in university settings (41). In sub-Saharan Africa, there are ongoing efforts to prevent SVSH in primary and secondary schools (42, 43); however, programming and related efforts to reduce SVSH are lacking in university settings. Ultimately, SVSH prevention and education programming, both within and outside of the US, must be evidence-based and informed by research. Given the existing gaps in our knowledge on how SVSH occurs within university settings and our lacking data on how SVSH prevention programming can be maximally effective, additional efforts are needed to address SVSH in university settings globally.

While evidence-based programs have shown a reduced likelihood of SVSH victimization and perpetration (example: *Safe Dates* (44) and *Shifting Boundaries* (45)) are available in middle school settings, there are fewer evidence-based programs for college settings. However, *Bringing in the Bystander* (46) and *Green Dot* (47), both bystander intervention programs that have been adapted for college settings and are focused on community engagement and responsibility, have shown promising, albeit mixed results in SVSH prevention. It is notable that bystander intervention programs have not been widely utilized or evaluated outside of high-resource settings, as they

require substantial resources and cultural adaptation before they are implemented in settings such as sub-Saharan Africa (48). This work will inform the development and tailoring of such SVSH prevention programming, both within and outside of the US.

Additional evidence-based interventions are needed in college settings, specifically those that address SVSH behaviors instead of only attitudes (49). According to the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO), innovative approaches geared toward specific university populations that strategically link existing and new prevention efforts are needed in SVSH prevention efforts on university campuses (49, 50). According to the United Nations (UN), little systematic analysis exists of innovations, gaps and applicability of different SVSH prevention and education approaches for universities in low- and lower-middle income countries (7). Further, it is vital to ensure that initiatives and programming to prevent SVSH are reaching student groups equally and consider intersectionality (i.e., those with intersecting minority identities) (7), especially for those who belong to minority or multiple-minority groups who are at increased risk of experiencing SVSH.

This dissertation will add to the field of SVSH prevention efforts by assessing factors pre-college and in-college that are associated with SVSH. In the context of this dissertation, I will assess the following: 1) whether sex education before college is perceived to influence SVSH experiences in college among LGBTQ+ students in the US, 2) sociodemographic characteristics associated with

engaging in bystander behaviors among students in the US, and 3) help-seeking among students with histories of SVSH in a Kenyan university. The proposed dissertation will include three publishable manuscripts and include the following aims:

**Aim 1 (Chapter 1):**

Using data from Let's Talk About Sex [Education], Paper 1 compares the perceptions of heterosexual and LGBTQ+ students regarding the sex education they received before college. The study utilized a sequential explanatory mixed-methods study design, where qualitative in-depth interviews (IDIs) were utilized to supplement the quantitative research. Using quantitative data collected among 300 University of California (UC) students from three campuses (UC Los Angeles, UC San Diego, UC Santa Barbara), and a subset (n=20) of IDIs focused on students who identified as LGBTQ+, this paper aims: 1) to describe differences in pre-college formal and informal sex education content and sources reported between LGBTQ+ and heterosexual undergraduate students at three public universities, and 2) to assess perceived usefulness of sex education and responsiveness to LGBTQ+ needs.

**Aim 2 (Chapter 2):**

Utilizing data from the 2019 San Diego State University campus climate survey (n=4,148 undergraduate and graduate students), the goal of Paper 2 is to determine sociodemographic factors associated with engaging in bystander behaviors (i.e., disrupting a potentially sexually violent or coercive situation,

distracting or confronting a harasser). Specifically, Paper 2 assesses students with histories of SVSH victimization and students of specific gender, race/ethnicity, and sexual orientation backgrounds. In addition, it aims to determine whether intersectional demographic factors (i.e., identifying as LGBTQ+ and as a person of color) were associated with engaging in bystander behaviors.

**Aim 3 (Paper 3):**

Among Moi University students in Kenya with histories of SVSH, the goal of paper 3 will be to 1) determine the prevalence of SVSH across demographic groups (e.g., gender, relationship status) of a diverse group of undergraduate students, and 2) among students with specific experiences of SVSH, determine what types of help-seeking (e.g., formal, school-based, informal) are most common and 3) what demographic factors are associated with help-seeking. Analyses will be conducted using the End Violence on Campus survey, which was administered to Moi University students in the fall of 2018 (n=658).

CHAPTER 1: Responsiveness of sex education to the needs of LGBTQ+ undergraduate students and its influence on sexual violence and harassment experiences

**Abstract**

Exposure to comprehensive sex education shows promise in preventing sexual violence and sexual harassment (SVSH) perpetration and victimization and supporting survivors. Determining if these benefits are also found in communities experiencing high levels of SVSH, such as LGBTQ+ communities, is needed. Utilizing a sequential explanatory mixed-methods study design, we assessed LGBTQ+ undergraduates' exposure to sex education (SE), what SE sources they relied on, and SE's perceived usefulness and responsiveness to LGBTQ+ needs. Compared to their heterosexual peers, LGBTQ+ students perceived SE as less helpful in navigating personal desires ( $t_{294}=2.12$ ,  $p<0.05$ ) and sexual consent ( $t_{95.30}=2.04$ ,  $p<0.05$ ). LGBTQ+ students were more likely to use media (e.g., internet, pornography) as their primary source of SE on topics such as violence in relationships and consent. In-depth interviews substantiated quantitative findings, highlighting the non-responsiveness of SE among LGBTQ+ students and further revealed that having to supplement SE through media increased LGBTQ+ students' vulnerability to SVSH (including online sexual coercion). Via interviews, LGBTQ+ students reported formal SE to be non-inclusive, led to experiences of othering, silencing, erasure, and made them more vulnerable to SVSH and

related outcomes. SE policy and education must be modified to be more inclusive and helpful for LGBTQ+ students, especially relating to SVSH prevention.

Key Words: Sex education, LGBTQ, Sexual harassment, Sexual violence, University

## **Introduction**

Sexual violence and harassment (SVSH) are pervasive public health problems on college and university campuses that impact more than 1 in 10 undergraduate students in the United States (US) (51). Students who identify as lesbian, gay, bisexual, transgender, queer, or other (LGBTQ+) are at increased risk of experiencing SVSH, both before and during college (52). In addition, LGBTQ+ students experience sexual assault, dating violence and stalking at nearly twice the rate of their non-LGBTQ+ peers (53). Two nationwide studies in the US have found that 24% of gay men, 18% of bisexual men and 11% of lesbian women experience SVSH in college (11, 54); and bisexual and transgender students are at highest risk (10, 55).

SVSH is associated with adverse mental and physical health effects (e.g., anxiety, depression, migraine headaches, suicidality) (24, 25) and has significant negative impacts on a student's education and career goals (e.g., reduced grade point average, disenrollment from college, reduced self-efficacy related to career decisions) (27-29). Research focused on LGBTQ+ students found they experience higher levels of trauma symptoms (31), depression, and substance use issues (32) after experiencing SVSH, compared to their non-LGBTQ+ peers.



LGBTQ+ students are also less likely to seek resources or counselling for such experiences (56), likely hindering coping with SVSH and further exacerbating health disparities, as research has found that, even in the absence of SVSH, LGBTQ+ people disproportionately experience poorer mental health outcomes, increased substance use and more lifetime suicide attempts compared to their non-LGBTQ+ peers (57, 58).

Comprehensive sex education (CSE) exposure before college is one type of intervention that has shown promise in preventing SVSH perpetration and victimization among pre-college and college populations and supporting students who experience SVSH. CSE covers the topic of SVSH, including definitions to promote identification of SVSH (e.g., definitions that provide clarity related to the responsibility of obtaining and giving consent), the harms of sexual violence, as well as the various forms of sexual violence (e.g., sexual assault, dating violence, sexual harassment, coercion) (59). Evidence suggests that CSE delivered during early adolescence is associated with reduced SVSH victimization (60, 61) and SVSH perpetration (e.g., searching through a partner's phone, managing their social media) (62). Studies have also found CSE to be associated with reduced acceptance of social norms and attitudes that promote SVSH (63, 64), and improved resource-seeking and coping related to SVSH.

In practice, sex education comes in many forms and varies based on the state in which one lives (65, 66). For example, as of 2020, 30 states and the

District of Columbia require public schools to teach sex education, but only 22 require sex education to be “medically, factually or technically accurate” and have varying definitions of “accurate” (67). This can lead to incorrectly administering formal CSE programming, including the omission of certain topics (e.g., sexual orientation, gender, abortion) or over-focusing on others (e.g., childbirth, puberty), lessening its impact – especially for LGBTQ+ students. For example, non-comprehensive or inclusive sex education may push LGBTQ+ students to seek information from informal sources, such as the internet and pornography (66) or to ask friends, parents or guardians (68). It is noteworthy that some LGBTQ+ students may not be “out” or feel comfortable approaching non-anonymous sources for information about sex, further limiting where they feel safe to access unbiased and factual information.

While CSE aims to deliver comprehensive information on sex, sexuality, gender and SVSH, existing but limited evidence suggests that CSE programs may not be adequately tailored or delivered in ways that support LGBTQ+ communities (68-70) and questions whether it is responsive to their needs (71). For example, in a 2013 national school climate survey of middle and high school students, less than 5% of students reported having positive discussions of LGBTQ+-related topics and LGBTQ+ students who received abstinence-only education were less likely to feel safe at school (72). Additionally, the CDC's 2012 School Health Profiles found that even in states where LGBTQ+-inclusive content is permissible, as few as 8% of secondary schools actually implement it

into their curriculum (73). Thus, evidence suggests that LGBTQ+ students may not receive CSE inclusive of sexual orientation, gender identity and violence in LGBTQ+ relationships, despite these topics being included as part of standard CSE.

More information is needed to understand LGBTQ+ students' experiences related to sex education. Non-inclusiveness of CSE programs to address the needs of LGBTQ+ students is particularly important given the high rates of SVSH they experience (52, 53). Such non-inclusiveness may reduce effectiveness of CSE to address issues of SVSH among LGBTQ+ students and not only contribute to the marginalization, discrimination, and violence experienced by LGBTQ+ students (74), but also, contribute to inadequate resources among LGBTQ+ students to cope with experiences of SVSH.

Overall, more work is needed to assess the sex education LGBTQ+ individuals received before college, their perspectives of how responsive sex education was to their needs, and its influence on SVSH experiences (pre-college or in college), including coping with experiences of SVSH. Utilizing mixed methods, this paper aims: 1) to describe differences in pre-college formal and informal sex education content and sources reported between LGBTQ+ and heterosexual undergraduate students at three public universities, and 2) to assess perceived usefulness of sex education and responsiveness to LGBTQ+ needs.

## **Materials and Methods**

### ***Study Sample and Recruitment***

The cross-sectional study, Let's Talk about Sex [Education], was completed between August and December of 2019. It utilized a sequential explanatory mixed-methods study design, where qualitative in-depth interviews (IDIs) were utilized to supplement the quantitative research. Three hundred (N=300) undergraduate students were recruited from three University of California (UC) campuses, UC San Diego (UCSD), UC Santa Barbara (UCSB) and UC Los Angeles (UCLA), to participate in a quantitative survey. Students were recruited through snowball and convenience sampling, email and social media campaigns, partnering with UC student groups, and placing flyers in high-traffic areas within the participating campuses. Those who were interested in participating were invited to submit an online demographic and background survey. After completing the survey, a subset of students (n=59) was invited to participate in an IDI focused on understanding their exposure to sex education and its impact on their sexual and romantic relationships and experiences of SVSH. In order to obtain a diverse sample, students were purposively selected for IDI participation based on key demographic (e.g., gender, sexual orientation, race/ethnicity) and educational (e.g., where student attended high school, current class standing) characteristics. Eligibility criteria included: a) current enrollment as a UCSD, UCLA or UCSB undergraduate, b) being 18 years or older, c) willingness to complete a demographic form, and d) providing consent to participate in the

study and be audio-recorded for an IDI. The analyses for the current study involve the quantitative data from all students (N=300) and the qualitative data from students who participated in an IDI and self-identified as belonging to the LGBTQ+ community (n=20).

### **Study Procedures**

The Let's Talk about Sex [Education] survey was administered online through Qualtrics and could be taken at a time and location most convenient for the student. The survey took 10-15 minutes to complete. Students interested in being contacted to participate in an IDI were encouraged to leave an email address where they could be contacted, if selected. IDIs were conducted in person, in a mutually agreed upon location that allowed for privacy. Before scheduling an IDI, students were briefed on the study and were told that some questions may be focused on sensitive topics such as sexual violence. Students provided their written informed consent before participation and were told they could stop participating at any time and did not have to answer any question(s) they did not want to.

Interviews were conducted by a small team of research assistants who were trained in qualitative research. The interviews took between 45-90 minutes to complete, were conducted in English and audio-recorded. Upon completion of an IDI, participants were provided a campus-specific SVSH resource guide and compensated \$25 via a gift card. Interviews were transcribed verbatim; a random selection of audio transcriptions (n=10) were reviewed to ensure the

accuracy of transcription. The study protocol was approved by the UCSD Human Research Protection Program, with reliance approval from the institutional review boards (IRB) at UCLA and UCSD; it was also approved by the San Diego State University (SDSU)-UCSD Joint IRB.

## **Measures**

### *Quantitative Measures*

*Demographics.* To characterize the sample of students, the structured Qualtrics survey collected data on the following demographic characteristics: sex assigned at birth, gender identity, sexual orientation, race/ethnicity, and disability status. Students were asked to determine their sexual orientation by selecting that they were either 100% heterosexual or straight, mostly heterosexual (but somewhat attracted to people of the same sex), bisexual, mostly homosexual/lesbian/gay (but somewhat attracted to people of the opposite sex), 100% homosexual/lesbian/gay, not sexually attracted to either males or females, or other (with the opportunity to specify). For the purposes of this study, students who indicated they were 100% heterosexual or mostly heterosexual were labelled as heterosexual; all other students were labelled as LGBTQ+.

In addition, students were asked where they attended high school; they could respond in one of three ways: in California, outside of California, or outside of the US with a follow up question to assess in which country they attended high

school. Related to their current status as a university student, students were asked questions about their class-standing (e.g., first-year, second-year), what campus they were affiliated with, whether they were a transfer student and their current living situation (e.g., dorms, at home with parents, off-campus).

Described below, the Qualtrics survey also asked questions about a student's educational history (e.g., domestic or international student, in- or out-of-state student) and their informal (e.g., at home, media) and formal (e.g., in school, classroom-based) sexual education backgrounds.

*Sex Education History:* Using questions adapted from Columbia University's Sexual Health Initiative to Foster Transformation (SHIFT) study (75, 76) and other exploratory items, students were asked when they first received sex education, with response options including at home, elementary school, junior high school, high school, community college, four-year university, or never received. Students were also asked where they had received instruction on specific educational items related to sex education including a) how to say no to sex, b) types of birth control, c) sexually transmitted infections (STIs), d) preventing HIV/AIDS, e) sexual and reproductive health, f) relationships (e.g., love and commitment), g) religious and cultural views of sex, h) masturbation, i) sexual pleasure, j) violence in relationships, k) healthy relationships, and l) consent. Students indicated whether they had received education on these topics (yes vs. no) and if yes, who provided the education. Students could select from options including

formal in-school education, parents / guardians, friends, or media (e.g., magazines, books, internet, pornography).

Students were also asked how useful key components of their sex education was using a 6-point Likert-type scale ranging from strongly disagree to strongly agree. Questions included: sex education was useful in helping me navigate romantic sexual relationships, non-romantic sexual relationships, personal boundaries related to sexual relationships and activities, personal desires related to sex, and sexual consent.

### *Qualitative Measures*

The semi-structured IDI, loosely adapted from Columbia's SHIFT study (76), delved deeper into a student's life, both before they entered college and their current life as a UC student. Questions on a student's life before college focused on what formal sex education they may have received (e.g., who taught them, what they were taught), what messages they took away from those interactions and teachings, and how it impacted their romantic and sexual relationships. They were also asked about how sex and relationships were perceived in their family and culture, whether their parents or guardians discussed sex and relationships (i.e., informal sex education), and what messages they took from those interactions and teachings. Students were invited to share whether they felt their formal and informal sex education prepared them for sex and sexual relationships, and whether it equipped them with applicable skills related to SVSH, including coping with experiences of SVSH victimization.



All questions were included to understand and explore the multiple and sometimes conflicting messaging students received through formal and informal sex education. The primary focus of the IDI was to decipher whether or not students felt their sex education was responsive to their needs, particularly regarding subsequent experiences of SVSH and coping with experiences of SVSH before and during college.

## **Data Analysis**

### *Quantitative Data Analysis*

Using descriptive analyses (i.e., frequencies and percentages for categorical variables, means and standard deviations for continuous variables), we provided demographic characteristics of students who participated in the Qualtrics survey (N=300), students who identify as LGBTQ+ (n=68), and the LGBTQ+ students who were selected to participate in an IDI (n=20) (Table 1.1). Additional frequencies characterized the sex education content LGBTQ+ and heterosexual students received; depending on cell sizes, either Pearson Chi-Square or Fisher Exact tests (for cell sizes smaller than 5) were utilized to determine if there were differences between the sex education content LGBTQ+ and heterosexual students received and the sources they relied on for that information (Table 2). Finally, independent samples t-tests were used to determine if there were differences between LGBTQ+ and heterosexual students regarding the perceived usefulness of the sex education they received (Table

1.3).

### *Qualitative Analysis*

An initial list of codes was developed *a priori*, based on the study objectives and the literature (i.e., a deductive approach). Further, as outlined by Braun and Clarke (77), inductive thematic analysis methods were employed using Dedoose, a qualitative software package, to accomplish data familiarization and high-level code generation. The codes focused on experiences of sex education, its usefulness and responsiveness to LGBTQ+ students, and how sex education may have affected experiences of SVSH before and during college. Codes were exported to a theme matrix, where theme generation and review occurred between two coders until consensus was reached and themes were defined. Both coders utilized the finalized theme matrix to interpret student responses to the IDIs. In order to maintain the anonymity of the LGBTQ+ participants, campus-level data is not provided and limited demographic information is assigned to the quotes provided within the text.

## **Results**

### ***Demographics***

The vast majority of students who participated in the Qualtrics survey identified as women (n=207, 69%), more than half identified as strictly

heterosexual (n=172, 57.3%) and nearly a quarter identified as lesbian, gay or bisexual (n=68, 23%). While a substantial proportion of students identified as belonging to more than one race or ethnic group (n=42, 14.0%), approximately two-thirds of students identified as White or Asian, one-fourth identified as Latinx, and 3% (n=9) identified as Black. The racial / ethnic proportion of our sample is somewhat comparable to the undergraduate student populations who enrolled in the UC system between 2016 – 2020 (78); though we oversampled students who identified as white and female. Sexual orientation data was not available to determine representation. Students largely attended high school in California (n=216, 72.0%), though 8% (n=24) attended in another state and 20% (n=50) attended outside of the United States from countries such as Mexico, Singapore, Saudi Arabia, Russia, India and China. The proportion of demographic characteristics of all students (N=300) compared to those who identified as LGBTQ+ (n=68) are largely the same, with the LGBTQ+ sample having a higher proportion of students who identify as women, are non-White, living with a disability, and are not international students (Table 1.1).

### ***Pre-College Sex Education Content Received by LGBTQ+ and Heterosexual Students***

When asked where they first received sex education, students had varying experiences, ranging from elementary school (n=109, 36.3%), high school (n=48, 16.0%), and community college or a four-year university (n=7, 2.4%); seven

students (2.3%) indicated they had never received sex education (Table 1.1). No significant differences were identified between LGBTQ+ and heterosexual students' first exposure to sex education (data not shown in tables). Using quantitative survey data, we found that LGBTQ+ students were significantly less likely to report being taught "How to say no to sex" ( $X^2=6.82$ ,  $p=0.009$ ). No other significant differences were uncovered between the content that LGBTQ+ and heterosexual students received in sex education in the quantitative data (e.g., birth control, STIs, HIV, sexual and reproductive health, violence in relationships, consent – see Table 1.2 for an exhaustive list).

### **Sources of Sex Education by LGBTQ+ and Heterosexual Students**

LGBTQ+ students were more likely to indicate they used the media (e.g., internet, pornography, magazines) as their primary source of information for key components of sex education including birth control ( $X^2=4.23$ ,  $p=0.040$ ), relationships ( $X^2=5.46$ ,  $p=0.019$ ), religious and cultural views of sex ( $X^2=4.06$ ,  $p=0.044$ ), masturbation ( $X^2=6.60$ ,  $p=0.01$ ), violence in relationships ( $X^2=5.93$ ,  $p=0.015$ ) and consent ( $X^2=6.97$ ,  $p=0.008$ ). Qualitative data substantiated these quantitative survey findings and are summarized in terms of students' reporting reliance on social media as well as some of the negative consequences resulting from using social media primarily as a source of sex education.

*Use of the Internet as an Informal Source of Sex Education for LGBTQ+ Students:*

*Qualitative Findings*

To further elaborate on quantitative findings, the qualitative data also highlight that LGBTQ+ students often report the internet as their main source of information for sex education and related content. IDIs provided context related to LGBTQ+ students having to use the internet as an informal source of sex education and, subsequently, its potential to increase LGBTQ+ students' vulnerability to SVSH experiences.

LGBTQ+ students shared that seeking sex education online via search engines (e.g., Google), pornography, social media sites (e.g., Tumblr, YouTube, Instagram, Reddit), magazines (e.g., Cosmo) and fanfictions were valuable to them for reasons including: it filled gaps, provided practical knowledge for "real life experiences" compared to formal sex education curriculum, and it provided non-heteronormative spaces to explore sexuality and find community with other LGBTQ+ individuals, especially when the student did not have support at home or was not "out" to their larger community.

"I taught myself and sought answers to things online instead because I didn't have any other outlet – school wasn't doing a whole lot to answer my questions [as a trans student]." – [Transgender male student]

"[Social media] is where I got a lot of my information because it actually gave me the answers to the questions I needed while not being judgmental. It answered a lot of my questions about sex... and my burgeoning questions about my identity and about my attraction to people. I know it's not a great place for information, but I got my introduction to all of this [LGBTQ+ related information] from social media." – [Transgender male student]

"I was like what is transgender - another Google search. Based off this one individual describing their life [on Tumblr], I got this swell of information about the trans community and a lot of that was very closely linked with

the rest of the LGBT community. I learned a vast amount of information about homosexuality, which was basically not talked about at home - other than I have a second cousin, his name is Eric and he is 40 something and he is gay. He basically got kicked out of the family for that. So that is the only example I have in my whole life." - [Transgender student described their first experience of exploring the internet for information related to their identity]

According to multiple students, they relied on the internet to understand the sexual and romantic experiences of LGBTQ+ people and the diverse identities that make up their community, as it was lacking or altogether missing from the sex education they received. Many students reflected on how impactful the internet was in discovering the existence and diversity of the LGBTQ+ community, including how non-cisgender and/or non-heterosexual people engage in sex:

"I think most of the knowledge I gained was from online resources, through random Google browsing and reading fanfiction. Through that, I somehow learned that *this* is how homosexual people have sex, whether they be gay men or lesbian women, or that trans people *actually* exist. I didn't know that was an actual thing because it was never mentioned in front of me, anywhere." – [Cisgender female student who identifies as asexual]

"I got into the fandom subcultures and started accessing [pages] where sex and other types of physical contact occurred. That was where I really first learned how homosexual people have sex. This is how trans people experience sex... it didn't cover everything, it just covered more mechanical things about how [sex] works when you aren't cis-het." – [Cisgender female student who identifies as asexual]

Nevertheless, though many LGBTQ+ students shared how important the internet was in helping them obtain information that their formal sex education did not include, they also qualified their experiences and acknowledged that the internet lacks regulations to ensure accurate information is shared. Even

after identifying certain websites that provided them with the space to explore and learn, students characterized the same websites as unreliable for obtaining sex education.

"...Social media is not a good place to get information. Tumblr specifically is not a good place to get information." – [Transgender male student]

"I guess the only ways that I would learn was through Googling. But then I felt like I was getting different answers on different websites. So, I didn't know if it was accurate. And then you hear all these myths... and so it's like, what's the truth?" – [Cisgender female student who identifies as lesbian]

Students mentioned that needing to utilize the internet for sex education could lead to misinformation, unhealthy standards and stereotypes of LGBTQ+ people, especially as it related to engaging in sex.

"I feel it's important to acknowledge that [the internet] can sometimes be not great because [it] can be a propagator of misinformation and unhealthy standards, both in terms of sexual relationships and beauty standards... It is not something I would advise other people [to do] because of the large risks present." [Transgender male student]

"I was curious and I didn't have an outlet to go to in terms of my family or friends. I think the internet helped me learn more about these things and understand what sex education encompasses, but there were problematic things about it too... Through the internet I learned a lot, but also feel that I developed a lot of unhealthy habits. I learned parts of sex education through porn – things I thought were healthy but [now] I see behaviors today that aren't healthy [i.e., non-consensual sexual interactions, women as subservient, hypermasculinity, lacking condom use, violence] that definitely stem from what I got through the internet." [Cisgender female student who identifies as bisexual]

"There was no specific talk about like, what do lesbian's even do or what do gay guys even do? And you just kind of find it from online and that [perpetuates] stereotypes... guys making jokes: "You gay guys are just doing anal!" I think it should be talked about because there are definitely a lot of gay kids who come into college not knowing anything, or they [learn] online and have a certain idea... because like, lesbian porn online is very geared toward straight men. And then gay porn online for gay men is hyper-masculinized and enforces stereotypes of like twinks and

bears, when not everyone fits into that exact category." - [Transgender male student]

*LGBTQ+ Students' Vulnerability to SVSH, including Online Sexual Coercion, as a result of Using the Internet as a Primary Source of Sex Education: Qualitative Findings*

Students reported that unmonitored internet access and reliance on the internet as an initial source for information related to sex and sexuality made them vulnerable to SVSH, including sexual predation and online sexual coercion. Accessing the internet for information and access to other people who identify as LGBTQ+ led many participants to join online dating apps, such as Tinder or Grindr, or engage in online chatrooms (e.g., chat roulette, AOL) despite being underage. This was best highlighted by a student who shared how online dating apps created opportunities to explore and access more eligible sex partners, ultimately allowing minors to pursue relationships with partners with substantial age differences:

"I was on Grindr when I was 15 and Grindr is an adult app, so I was pretty much just lying to folks about being 18. The thing is, I think I looked so tiny – a little kid. I very much looked like a high school kid and so I just wish I wasn't out there. I really wish I was being healthier. I think that is when I started to really want to do sex all of the time. I would say at one point I fell into an addiction of sex; I just wanted to do it more and it was causing a lot of issues, but it just felt like I could have made safer choices. I just wish I wasn't on Grindr. I was illegal - very illegal." – [Cisgender male student who identifies as gay]

The student continued to describe further regret surrounding his use of Grindr, stating that his relationships through the app were illegal and lacked consent:

"I really wish I didn't do Grindr. I don't remember losing my virginity, I don't remember the face of who. I was just very naive and I really wish someone



had took care of that kid at that time. I wish I was taught earlier how to be responsible and how to be safe and also just learn about sex in general... I feel I didn't learn a lot, I had to learn [through real life experiences] and I felt there were moments when it was really unpleasant. It was kind of hurting. It was really awful and I couldn't get myself out of it. The consenting for sure - I feel like when I was on Grindr I was always pressured or need[ed] to do something quickly, [I] rush[ed] into things and I wish I didn't."

Other students reflected on the risks of utilizing dating sites or online mediums to connect with others romantically or sexually, including uncomfortable or regrettable experiences after engaging with people on the internet:

"We never dated or anything, but we texted each other and we ended up sexting and I eventually sent him topless pictures. I was in eighth grade. It was a bad situation. He was three years older than me; it was terrible. I think that I just try to never remember or think about it because I feel guilty and shameful for it... I have never sexted since then; I do not like it... even today I still feel awkward about it." – [Gender non-binary student who identifies as bisexual]

"One time Freshmen year, I invited this guy off of Tinder to my dorm room when my roommate was gone. He basically slapped his penis against my thighs and put me in a choke hold and said it was cuddling. It was not a good experience." – [Cisgender female student who identifies as bisexual]

Another student described how they would regularly join chat- and video-rooms after school in hopes of accessing information and connection to other members of the LGBTQ+ community. They shared how it ultimately led them to be preyed upon by an adult who was posing as another adolescent.

"I don't really know to call [my experience of] the person [who filmed] me on camera. I don't really know what to call that. I think manipulation of a child is probably the best thing I have. But that is why these things have always been really difficult for me because - was that sexual harassment? I don't really know. I gave my permission. I was a child, but I gave my permission. I don't know who the other person was. Looking back on it, the statement that they were a child around my age who was an artist seems fake. Does that mean that I experienced manipulation, harassment, whatever it was, from an adult? [referring to the person they were

chatting with online]. What does that make me?" – [Transgender male student]

Though the student had a difficult time processing this experience, they concluded that education is needed on the dangers of accessing the internet, such as online predators, coercion and related vulnerabilities to SVSH:

"I just have all of these questions and I feel that if somebody had told me from the beginning there are some adults out there who prey on children and it's entirely unacceptable and here are some ways to avoid them and warning signs... I feel that definitely would have prevented the incident and I wouldn't have this ongoing internal turmoil. Regardless of that individual event -- even if I'm not a victim of sexual harassment from an adult when I was a minor, I'm still a victim of this system on un-education that lends itself to children being easier prey. That is a systemic issue that makes a lot, if not all of us, victims in one way or another. That can only be repaired by systemic overhaul."

### ***Perceived Usefulness of Sex Education for LGBTQ+ Students and its Responsivity to Their Needs***

Survey data revealed that sex education was less useful for LGBTQ+ students in learning how to navigate personal desires related to sex ( $t_{294}=2.12$ ,  $p<0.05$ ) and sexual consent ( $t_{95.30}=2.04$ ,  $p<0.05$ ) compared to their heterosexual peers. The IDIs of many students supported these findings; interviews from LGBTQ+ students revealed that sex education led to experiences of othering, silencing and erasure of their identities. Further, they identified unique consequences of not receiving truly comprehensive sex education.

#### *Othering and Silencing*

Through their sex education, LGBTQ+ students experienced a combination of “othering” (i.e., a term that refers to the process of an individual or group attributing negative or “non-normative” characteristics to other individuals or groups they feel is opposite of them (79) and being “silenced” (i.e., having their ideas, questions and voice intentionally and consciously withheld; (80). For example, othering occurred for one student who raised their hand in class to ask a question about non-heterosexual identities:

“I remember distinctly... I raised my hand and was like, ‘What about non-straight relationships?’ [The teacher responded], ‘Well, those exist, but that’s not most people so we’re not gonna talk about it.’” – [Gender non-binary student who identifies as bisexual]

Similarly, other LGBTQ+ students recalled being silenced while in their sex education classroom with their peers. In one recollection, a participant remembered being asked to anonymously write down questions they had about sex and place them in a box. When the sex education teacher read their question(s) aloud, the student was shut down and silenced - too disheartened or embarrassed to speak up or ask their question again, even privately:

“During the sex education thing, they had a bucket you could put notes in, like questions, but then as the teacher was pulling them out there was a lot that he was like: ‘This is inappropriate’ and he threw it in the trash can. [...] I think the only ones he answered were related to periods and why we have to wait until marriage [to have sex].” – [Transgender male student]

Another student shared a similar experience:

“I wrote down two questions. One of which was the same question I’d asked my friend, ‘Is it possible to feel about a girl the way we feel about guys?’ Meaning to have crushes, to fall for them, to want to be with them. The other one was: ‘This doesn’t feel right. [...] I don’t understand, I don’t like this. What is going on in my body?’ All the people around me were

excited, like - Yes! Boobs! And I was like, 'Oh no.' I just didn't really understand why a lot of these concepts made me feel disgust with my body. [...] They read both of my questions and said, 'Oh we're not going to address that' and put it back in the bag. I felt like whatever I said, that [it] was wrong. I should not have asked that. I toed the line - I crossed something and I did the wrong thing, which lent itself to a lot of self-hatred and uncomfortableness with my conflicts with my body. It was very tumultuous." – [Quote from a transgender, male student, recalling their experience in sex education]

### *Erasure*

In these scenarios, LGBTQ+ students experienced erasure (i.e., a heteronormative cultural practice of removing, dismissing or downplaying queer groups, either intentionally or unintentionally, from public record or view (81). According to the students, additional experiences of erasure included having all of their sex education taught with a heterosexual lens, instead of one that highlighted queer narratives, sexual and reproductive health and related experiences:

"I think that for me, especially since I am a member of the LGBT+ community, the sex ed was very centered around cis-hetero people. I didn't know anything about what trans people experience, how people of the same gender would have sex with each other or about asexuality... I didn't know that existed." – [Cisgender female student who identifies as asexual]

"And then there's no education on trans people at all. I've never gotten any specific training on trans sex education." – [Transgender male student]

"For me, I didn't know anything about women-on-women sex, so that would have been nice to have resources if you're interested in that. Or for males, male-on-male sex. How do you be safe in both situations? Just because it's not penetrative sex doesn't mean that there aren't things you should know to be safe." - [Cisgender female student who identifies as bisexual]

## *The Consequences of Non-Inclusive Sex Education, Including Experiences of SVSH*

Many students reported that the sex education they received was not inclusive, and therefore it was not useful or responsive to their unique needs. In addition to the pitfalls of having to supplement sex education with media and online sources (e.g., receiving false or inconsistent information), LGBTQ+ students also discussed the consequences of non-inclusive sex education, including experiencing shame and other health-related consequences such as increased risk of STIs and SVSH.

*Shame.* LGBTQ+ students reflected on having to unlearn what they were taught through sex education, including experiencing shame related to their personal identities and experiences. This was very common among LGBTQ+ students who received sex education from religious high schools. For example, among LGBTQ+ students who were actively engaging in sexual exploration, especially non-heteronormative sex and sexual activity “outside of the context of marriage”, they felt their sex education was judgmental and led them to feel extreme shame about their bodies, desires and experiences. One student who identified as bisexual and attended a religious high school said “Anything would have been better than having the teacher tell you ‘Don’t [have sex]’ because the church doesn’t condone it. That just felt bad.” Another student recalled having to memorize “all the verses in the Bible that say homosexuality is wrong.” This student responded by searching the internet for counter-arguments to the

Bible verses that said their non-heterosexual identity was a sin. This was further highlighted by another student who also attended a religious school and felt shame when deciding to go on birth control, even though it was for non-sexual reasons:

“The school was very abstinence-only teaching. Since they’re a Catholic school, they are heavily against birth control, and as someone who was considering taking birth control pills for health reasons it was very hurtful because spend your whole life believing these teachings [and thinking] you’re a bad person for using [birth control], even if it’s for health reasons.” - [Cisgender female student who identifies as bisexual]

*Health-related consequences and SVSH.* LGBTQ+ students focused on how important inclusivity is, highlighting that having content that acknowledged their LGBTQ+ identities and experiences was crucial for their safety and well-being as it relates to sex and relationships. The non-inclusivity of sex education was a common criticism, in part because the students acknowledged they are at increased risk of certain health outcomes, including sexual violence:

“[Sex education is] inadequate, very outdated and very apathetic. They don’t really give a shit... it’s not inclusive, because I think most people who are more at sexual health risk are queers and trans people. It’s just a fact. They are way more at risk of STIs and all of these things so it’s like – why are we not educating this group of people who are putting themselves at risk? It’s just very frustrating because I think this is really the key to help [minimize] sexual assault, violence and unwanted [sexual] encounters.” – [Cisgender male student who identifies as gay]

“I didn’t really know that [consent] also applied to me until very recently, and I’m still struggling with turning these concepts into applications to my own life.” – [Transgender male student, reflecting on their past sexual experiences that lacked consent]

In addition to having their LGBTQ+ identities acknowledged, students also discussed the paucity of formal education on SVSH and how this increased their

vulnerability to experiencing SVSH. Specifically, students highlighted the lacking education related to sexual consent and expressed that if they had better education about consent and expressing boundaries, perhaps they would have had fewer experiences of SVSH, STIs and improved skills related to condom negotiation:

"I think the lack of proper sex education hindered me a lot. I think it contributed to a lot of trauma or sexual issues I've had over the past few years. Like I said – if we all knew about consent there would be less cases of sexual misconduct [...] I feel like I've been considerably sexually assaulted [the student has had multiple experiences of SVSH, including partners not respecting boundaries and engaging in nonconsensual sexual activities]." – [Cisgender male student who identifies as gay]

"I really feel like if I knew consent and [had] built a better mindset around [boundaries] and how to control the sex or hookup in that situation, it would have really helped me [...] If I knew at an earlier [age], I would have been stricter about using condoms and that would have made me less at risk for the STIs I've had. Even just sexual pleasure and intimacy and those consent conversations would have really helped me a lot when making decisions on sex because I feel like a lot of queer men or trans people are just looking for sex because they are really going through it and they are really looking for [intimacy] [...] But [education] needs to start when you're a kid. That's when you learn."  
– [Cisgender male student who identifies as gay]

LGBTQ+ students who openly identified as SVSH survivors had unique perspectives on how their lacking comprehensive sex education - specifically around sexual identity and boundaries - related to their experiences of violence:

"I think that a lot of the sex education I received was lacking in a lot of areas that are personal to my life. I feel like if I'd received more comprehensive sex education then I would not have developed a lot of these difficulties and issues in terms of the [SVSH] experiences I've had. I would have a better understanding of my boundaries and would be better able to stand up for myself and feel confident doing so, knowing that I'd been well educated on how I should handle this [SVSH]." – [Transgender male student]

A handful of students concluded that if they had had more information about consent, additional practice on articulating boundaries and how to say no that they may not have been sexually assaulted:

“I feel because I’ve never had people that I could talk to about [sex] and because I had all these [societal] pressures – that I was the weird one. I wasn’t being normal because I didn’t want to have sex like every other couple. It was like I was the odd one out. I was putting all the blame on myself until about a year and a half after it [sexual assault] happened. Whenever I [would] tell somebody, I would phrase it like, ‘One time I had sex and I didn’t want to’ and not ‘He raped me.’ [...] Knowing what I do now, if I were in that situation again, I would hope that I would be more confident and sturdier in my answer of being like, ‘No – I don’t wanna do this.’” – [Cisgender female student who identifies as lesbian]

“Especially in the situation that I experienced with pressure. Just because someone says ‘yes’ – especially if you are trying to coerce someone, that that’s not the same as consent. That is not truly consent. You have to have the situational awareness that consent is more complicated than yes or no. I think that was a really important thing they should have emphasized more than just ‘Oh, she says yes. That’s consent.’” Because that is not true in every situation.” – [Cisgender female student who identifies as bisexual]

“Definitely consent [is lacking from sex education curriculum]. That’s a big one, cause even in my personal history it’s not just understanding how to give consent and in what situations you should [give consent]. There have been times where I just was with a person and allowed things to happen even though I didn’t want it or wasn’t comfortable with it... That was years ago, but now that I’m matured and I look back, I’m like – I definitely should not have done some of those things and I didn’t want to... I feel like it had always been ingrained in us [women] to just say no – like in all instances – but I wanted to see if I liked things... but then [when] I realized that I didn’t like things, I wouldn’t have a way to stop it.” – [Cisgender female student who identifies as lesbian]

These examples highlight how lacking information related to SVSH, including consent, boundary setting and how to say no to sex, has negatively impacted LGBTQ+ student's lives, relationships and potentially made them more vulnerable to experiencing SVSH.



## Discussion

Using a sequential explanatory mixed-methods study design, we assessed differences between LGBTQ+ and heterosexual undergraduate students' exposure to pre-college sex education and what sources they relied on for sex education. We also determined how useful sex education was for LGBTQ+ students and if it was responsive to their needs. LGBTQ+ students reported they did not learn “how to say no to sex” (i.e., boundaries and sexual decision making) in the same way as their heterosexual counterparts and perceived sex education as less helpful in navigating sexual consent and personal desires related to sex. LGBTQ+ students reported needing to supplement the sex education they received through media (e.g., the internet, social media, pornography) or rely on the internet completely for sex education on important topics such as violence in relationships and consent. While there were some positive aspects of utilizing the internet for sex education (e.g., connecting with other LGBTQ+ folks - some for the first time), ultimately, being forced to seek information online because comprehensive and inclusive sex education was not formally offered had negative impacts (e.g., received false and/or conflicting information; increased vulnerability to SVSH, coercion and online predators). Finally, LGBTQ+ students reported that sex education was not responsive to their needs, led to experiences of othering, silencing and erasure and had multiple consequences, including experiencing shame, poor health outcomes (e.g., STIs) and increased vulnerability for experiencing SVSH. In addition to identifying

differences in pre-college sex education received by LGBTQ+ and heterosexual students and its consequences, our work amplifies the need to diversify sex education and adds to the growing body of evidence supporting sex education's potential role in preventing SVSH, especially for vulnerable populations.

Our study highlighted the consequences of exclusionary sex education for LGBTQ+ students. Specifically, LGBTQ+ students felt shame and experienced othering, silencing and erasure related to their exposure to sex education. The consequences we identified in our work builds upon previous qualitative work on sex education and LGBTQ+ students: sex education can make LGBTQ+ students feel "invisible, sexually unprepared and shameful" and contribute to experiences of sexual violence and engaging in risky sexual behaviors (e.g., not utilizing condoms during sexual activity) (68, 69). Non-inclusive and non-comprehensive sex education negatively impacts all students, but may be especially harmful for students who identify as LGBTQ+. All students deserve *truly* comprehensive sex education; however, CSE is linked to better physical, mental and sexual health outcomes for LGBTQ+ students specifically (e.g., decreased substance use, better communication skills, less internalized homophobia) (82-85). Given that those who belong to the LGBTQ+ community disproportionately experience poorer mental health outcomes, increased substance use and more lifetime suicide attempts compared to their non-LGBTQ+ peers (57, 58) and are more vulnerable to experiencing SVSH (86), our findings highlight how important

CSE may be to reducing health disparities in this population and supports reforming how our education system addresses and teaches sex, sexuality, sexual identities and sexual violence.

In our study, LGBTQ+ students were significantly more likely to utilize media and other online sources (e.g., pornography) for sex ed-related information (e.g., relationships, relationship violence, consent) because the information they needed was absent or insufficient in their formal sex education. While our findings add to previous work on how LGBTQ+ students must compensate for lacking and irrelevant sex education that does not meet their unique needs (66, 87-89), it also highlights the potential harms in LGBTQ+ students having to seek information online because it's not offered to them elsewhere – including vulnerability to online sexual exploitation and coercion. For example, one in nine youth experience online solicitation (90), but LGBTQ+ youth experience significantly more pressure than their heterosexual peers to send sexually explicit material to others online (91). Our study supports policy recommendations to teach about internet safety and online-centered activities that address increased possibility of SVSH (e.g., sexting, sending nude photographs) to be included in sex education (91, 92) or related educational curriculum. In our increasingly digital age, sex education must be updated to address the vulnerabilities of students – especially students who are already at increased risk of SVSH, such as LGBTQ+ students.

As part of LGBTQ+ students perceiving their sex education as less responsive to their needs compared to their heterosexual peers, they were also significantly less likely to report sex education taught them “how to say no to sex.” This is aligned with evidence of the exclusionary history of sex education for LGBTQ+ communities in the US (93). For example, as of 2014, less than 25% of states are required to include information related to sexual orientation and LGBTQ+ identities (65, 72, 94, 95). Further, abstinence, condom use and HIV prevention are the most heavily weighted topics in US sex education, and as of 2018 only 11 states and the District of Columbia mention terms such as “consent,” “healthy relationships,” or “sexual assault” in their sex education curriculum (96). While dozens of state-level bills have been introduced for the inclusion of sexual assault, abuse, harassment and consent into public classrooms, few are actually signed into law (97) and resources related to SVSH are often lacking and/or inconsistent in educational settings (98). Evaluation of current teaching practices and additional updated, enacted policies are needed to address these gaps in sex education curriculum.

### **Limitations**

While there are many strengths of mixed-methods research design, there are limitations that should be noted. Our study utilized qualitative data methods and focused on sensitive subjects such as sex, sexuality, sexual experiences and SVSH; therefore, social desirability bias was a risk. While we were concerned students may not want to share their sexual experiences or disclose experiences

of SVSH, we found that students were generally happy to share their experiences. Part of our success may be due to the multiple safeguards we put in place to ensure students felt safe discussing these topics, including training research assistants on the safe and ethical conduct of research on violence and conducting interviews in private locations where privacy could be insured. Future studies should put similar safeguards in place. In addition, our data is cross-sectional. Therefore, we are unable to demonstrate any causal relationships and our ability to generalize our findings is limited. While there is a growing body of research available on the relationship between CSE and SVSH (60, 61, 71, 75, 99-103), future longitudinal studies are needed to provide additional evidence. Further, though our findings provide insight into critical gaps in sex- and health-related education in the US for LGBTQ+ students and how lacking sex education may contribute to SVSH vulnerabilities, care should be taken not to overstate CSE's potential role in preventing SVSH victimization or perpetration. In addition, our data were derived from a non-random convenience sample that is not representative of LGBTQ+ students, students in the UC system or the demographics of California in general. Many of the students we interviewed had never had a relationship. This limited their ability to explicitly discuss how sex education had impacted their romantic relationships or sexual explorations. Nevertheless, we were able to obtain a diverse group of undergraduate students who had a variety of experiences related to sex education, sexual relationships and SVSH. Ultimately, in order to continue to

advocate for better health-related outcomes for LGBTQ+ youth, future research should continue to engage this community in ways that prioritize their voice, experiences and unique needs.

## **Conclusion**

Our study identified differences in content and sources of pre-college sex education for heterosexual and LGBTQ+ students, and highlighted the consequences of receiving non-inclusive sex education for LGBTQ+ students. Ultimately, all students deserve comprehensive sex education and a safe space to learn and explore their identities, sexual preferences and to be protected against SVSH. Continuing to understand how sex education impacts the lives and health outcomes of students is important, especially those who are at increased risk of experiencing harm as a result of bad sex education, such as LGBTQ+ students (104-107). Implementing interventions that help mitigate those who are vulnerable to SVSH and other negative health outcomes should be prioritized in K-12 education. However, the current gap in K-12 implementation of comprehensive sex education reinforces the need for other entities (e.g., colleges and universities) to provide sex education and sexual violence education (108). Colleges and universities may be in the perfect position to implement interventions that are evidence-based, inclusive and comprehensive – ensuring that all students, especially LGBTQ+ students and others who are vulnerable to SVSH and coercion, have a baseline understanding of sex education and SVSH upon entering college. Given that LGBTQ+ students' needs

are largely neglected in sex education and considering the high rates of SVSH among LGBTQ+ students, additional research and analysis focused on improving and overhauling the sex education systems in the US and abroad is needed so it is more useful for vulnerable student populations – including LGBTQ+ students – given the long-term negative consequences that result from experiencing SVSH.

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**Table 1.1: Selection of demographic characteristics and educational histories of survey and IDI participants**

	All students who participated in survey	LGBTQ+ students who participated in the survey	LGBTQ+ Students selected for IDI
	(n=300)	(n=68)	(n=20)
	n (%)	n (%)	n (%)
<b>Age range</b>	18-40	18-29	18 - 22
<b>Gender</b>			
Male	86 (28.7%)	12 (17.6%)	3 (15.0%)
Female	207 (69.0%)	51 (75.0%)	14 (70.0%)
Transgender / Nonbinary / Genderqueer / Other	7 (2.3%)	5 (7.3%)	3 (15.0%)
<b>Sexual Orientation</b>			
Heterosexual	172 (57.3)	N/A	N/A
Mostly Heterosexual	59 (19.7%)	N/A	N/A
Bisexual	44 (14.75)	44 (64.7%)	11 (55.0%)
Homosexual or Mostly Homosexual	22 (7.3%)	24 (17.6%)	9 (45.0%)
<b>Race / Ethnicity</b>			
White	86 (28.7%)	16 (23.5%)	3 (15.0%)
Asian	91 (30.3%)	22 (32.4%)	9 (45.0%)
Latino/a/x	59 (19.7%)	17 (25.0%)	4 (20.0%)
Black	9 (3.0%)	2 (2.9%)	1 (5.0%)
Middle Eastern	7 (2.3%)	1 (1.5%)	1 (5.0%)
More than one	42 (14.0%)	9 (13.2%)	1 (5.0%)
Other	6 (2.0%)	1 (1.5%)	1 (5.0%)
<b>Living with a Disability</b>			
Yes	20 (6.7%)	11 (16.2%)	2 (10.0%)
No	279 (93.0%)	57 (83.8%)	18 (90.0%)
<b>State Student Attended High School in</b>			
California	216 (72.0%)	51 (75.0%)	13 (65.0%)
Outside of California, but in the US	24 (8.0%)	8 (11.8%)	4 (20.0%)
Outside of the US	50 (20.0%)	9 (13.2%)	3 (15.0%)
<b>When did you first receive sex education</b>			
At home with parents	46 (15.3%)	12 (17.6%)	3 (15.0%)
Elementary school	109 (36.3%)	27 (39.7%)	5 (25.0%)
Junior high	81 (27.0%)	17 (25.0%)	7 (35.0%)
High School	48 (16.0%)	9 (13.2%)	4 (20.0%)



<b>Table 1.1</b> (continued)			
	<b>All students who participated in survey</b>	<b>LGBTQ+ students who participated in the survey</b>	<b>LGBTQ+ Students selected for IDI</b>
	<b>(n=300)</b>	<b>(n=68)</b>	<b>(n=20)</b>
Community College	2 (0.7%)	0 (0%)	0 (0.0%)
In the UC system	5 (1.7%)	1 (1.5%)	0 (0.0%)
Never received sex education	7 (2.3%)	2 (3.0%)	1 (5.0%)

<b>Table 1.2: Content of informal and formal sex education received, stratified by sexual orientation</b>				
	<b>Heterosexual Students</b>	<b>LGBTQ+ Students</b>	<b>X<sup>2</sup></b>	<b>p-value</b>
	<b>(n=231)</b>	<b>(n=68)</b>		
	<b>n (%)</b>	<b>n (%)</b>		
<b>Sex education content a student received</b>				
<i>How to say no to sex</i>			<b>6.82</b>	<b>&lt;0.01</b>
No	49 (21.2%)	25 (36.8%)		
Yes	182 (78.8%)	43 (63.2%)		
In school (formal education)	91 (39.4%)	18 (26.5%)	0.93	0.34
Parent/Guardian or other Family Member	48 (20.8%)	10 (14.7%)	0.17	0.68
Friend	9 (3.9%)	5 (7.4%)	2.68	0.15
Media (internet, pornography)	27 (11.7%)	9 (13.2%)	0.97	0.32
Doctor, nurse or healthcare professional	3 (1.3%)	0 (0%)	0.72	0.62
<i>Birth control</i>			<b>3.01</b>	<b>0.08</b>
No	36 (15.6%)	5 (7.4%)		
Yes	195 (84.4%)	63 (92.6%)		
In school (formal education)	114 (49.4%)	33 (48.5%)	0.87	0.35
Parent/Guardian or other Family Member	21 (9.1%)	6 (8.8%)	0.09	0.76
Friend	20 (8.7%)	5 (7.4%)	0.32	0.57
Media (internet, pornography)	16 (6.9%)	11 (16.2%)	<b>4.23</b>	<b>p&lt;0.05</b>
Doctor, nurse or healthcare professional	22 (9.5%)	8 (11.8%)	0.08	0.78
<i>Sexually Transmitted Infections (STIs)</i>			<b>0.43</b>	<b>0.51</b>
No	18 (7.8%)	7 (10.3%)		
Yes	213 (92.2%)	61 (89.7%)		
In school (formal education)	171 (74.0%)	51 (75.0%)	0.34	0.56
Parent/Guardian or other Family Member	8 (3.5%)	3 (4.4%)	0.17	0.71
Friend	14 (6.1%)	2 (2.9%)	0.94	0.38
Media (internet, pornography)	15 (6.5%)	2 (2.9%)	1.15	0.38
Doctor, nurse or healthcare professional	4 (1.7%)	3 (4.4%)	1.76	0.35
<i>HIV/AIDS</i>			<b>2.17</b>	<b>0.14</b>
No	28 (12.1%)	13 (19.1%)		
Yes	203 (87.9%)	61 (89.7%)		
In school (formal education)	163 (70.6%)	42 (61.8%)	1.15	0.28
Parent/Guardian or other Family Member	8 (3.5%)	1 (1.5%)	0.60	0.69
Friend	2 (0.9%)	0 (0%)	0.56	1.00
Media (internet, pornography)	17 (7.4%)	9 (13.2%)	2.81	0.09
Doctor, nurse or healthcare professional	11 (4.8%)	3 (4.4%)	0.01	1.00

<b>Table 1.2 (Continued)</b>				
	<b>Heterosexual Students</b>	<b>LGBTQ+ Students</b>	<b>X<sup>2</sup></b>	<b>p-value</b>
	<b>(n=231)</b>	<b>(n=68)</b>		
	<b>n (%)</b>	<b>n (%)</b>		
<i>Sexual and reproductive health</i>			0.80	0.37
No	13 (5.6%)	2 (2.9%)		
Yes	218 (94.4%)	66 (97.1%)		
In school (formal education)	146 (63.2%)	42 (61.8%)	0.36	0.55
Parent/Guardian or other Family Member	42 (18.2%)	16 (23.5%)	0.71	0.40
Friend	12 (5.2%)	2 (2.9%)	0.68	0.53
Media (internet, pornography)	14 (6.1%)	6 (8.8%)	0.52	0.58
Doctor, nurse or healthcare professional	2 (0.9%)	0 (0%)	0.62	1.00
<i>Relationships (love and commitment)</i>			0.96	0.33
No	42 (18.8%)	16 (23.5%)		
Yes	189 (81.8%)	52 (76.5%)		
In school (formal education)	25 (10.8%)	4 (5.9%)	1.14	0.29
Parent/Guardian or other Family Member	82 (35.9%)	20 (29.4%)	0.44	0.51
Friend	45 (19.5%)	9 (13.2%)	0.94	0.33
Media (internet, pornography)	34 (14.7%)	17 (25.0%)	<b>5.46</b>	<b>p&lt;0.05</b>
Doctor, nurse or healthcare professional	0 (0%)	0 (0%)	-	-
<i>Religious and cultural views of sex</i>			1.33	0.25
No	40 (17.3%)	16 (23.5%)		
Yes	191 (82.7%)	52 (76.5%)		
In school (formal education)	34 (14.7%)	4 (5.9%)	3.49	0.06
Parent/Guardian or other Family Member	101 (43.7%)	30 (44.1%)	0.13	0.72
Friend	15 (6.5%)	2 (2.9%)	1.13	0.38
Media (internet, pornography)	33 (14.3%)	16 (23.5%)	<b>4.06</b>	<b>p&lt;0.05</b>
Doctor, nurse or healthcare professional	1 (0.4%)	0 (0%)	0.28	1.00
<i>Masturbation</i>			0.36	0.55
No	66 (28.6%)	22 (32.4%)		
Yes	165 (71.4%)	46 (67.6%)		
In school (formal education)	17 (7.4%)	3 (4.4%)	0.74	0.43
Parent/Guardian or other Family Member	11 (4.8%)	4 (5.9%)	0.15	0.75
Friend	57 (24.7%)	7 (10.3%)	<b>7.33</b>	<b>p&lt;0.01</b>
Media (internet, pornography)	72 (31.2%)	31 (45.6%)	<b>6.60</b>	<b>p=0.01</b>
Doctor, nurse or healthcare professional	0 (0%)	1 (2.2%)	3.43	0.23
<i>Sexual pleasure</i>			0.01	0.94
No	69 (29.9%)	20 (29.4%)		
Yes	162 (70.1%)	48 (70.6%)		

<b>Table 1.2 (Continued)</b>				
	<b>Heterosexual Students</b>	<b>LGBTQ+ Students</b>	<b><math>\chi^2</math></b>	<b>p-value</b>
	<b>(n=231)</b>	<b>(n=68)</b>		
	<b>n (%)</b>	<b>n (%)</b>		
In school (formal education)	13 (5.6%)	4 (5.9%)	0.00	1.00
Parent/Guardian or other Family Member	13 (5.6%)	2 (2.9%)	1.01	0.37
Friend	45 (19.5%)	10 (14.7%)	1.41	0.24
Media (internet, pornography)	80 (34.6%)	32 (47.1%)	2.92	0.09
Doctor, nurse or healthcare professional	1 (0.4%)	0 (0%)	0.32	1.00
<i>Violence in relationships</i>			<b>0.05</b>	<b>0.82</b>
No	48 (20.8%)	15 (22.1%)		
Yes	183 (79.2%)	53 (77.9%)		
In school (formal education)	69 (29.9%)	17 (25.0%)	0.78	0.38
Parent/Guardian or other Family Member	42 (18.2%)	7 (10.3%)	2.64	0.10
Friend	14 (6.1%)	4 (5.9%)	0.01	1.00
Media (internet, pornography)	52 (22.5%)	25 (36.8%)	<b>5.93</b>	<b>p&lt;0.05</b>
Doctor, nurse or healthcare professional	1 (0.4%)	0 (0%)	0.30	1.00
<i>Healthy relationships</i>			<b>0.06</b>	<b>0.80</b>
No	51 (22.1%)	16 (23.5%)		
Yes	180 (77.9%)	52 (76.5%)		
In school (formal education)	56 (24.2%)	11 (16.2%)	2.27	0.13
Parent/Guardian or other Family Member	54 (23.4%)	16 (23.5%)	0.00	0.99
Friend	28 (12.1%)	9 (13.2%)	0.05	0.82
Media (internet, pornography)	34 (14.7%)	16 (23.5%)	3.00	0.08
Doctor, nurse or healthcare professional	3 (1.3%)	0 (0%)	0.90	0.59
<i>Consent</i>			<b>1.15</b>	<b>0.28</b>
No	44 (19.0%)	17 (25.0%)		
Yes	187 (81.0%)	51 (75.0%)		
In school (formal education)	105 (45.5%)	24 (35.3%)	1.62	0.20
Parent/Guardian or other Family Member	31 (13.4%)	4 (5.9%)	2.55	0.11
Friend	9 (3.9%)	4 (5.9%)	0.67	0.49
Media (internet, pornography)	36 (15.6%)	19 (27.9%)	<b>6.97</b>	<b>p&lt;0.01</b>
Doctor, nurse or healthcare professional	3 (1.3%)	0 (0%)	0.84	0.60
*Fisher's Exact Tests were used for cell sizes <5				

**Table 1.3: Usefulness of sex education on sexual relationships, stratified by sexual orientation**

	Heterosexual Students		LGBTQ+ Students					
	(n=231)		(n=68)					
	M	SD	M	SD	<i>t-test</i>	<i>df</i>	95% CI	<i>p-value</i>
<b>Sex education was useful in helping navigate:</b>								
<i>Romantic sexual relationships</i>	2.73	1.54	2.34	1.75	1.66	99.83	-0.08 – 0.86	0.10
<i>Non-romantic sexual relationships</i>	2.17	1.58	2.04	1.60	0.60	296	-0.30 – 0.56	0.55
<i>Personal desires related to sex</i>	2.57	1.67	2.07	1.76	<b>2.12</b>	<b>294</b>	<b>0.03 – 0.95</b>	<b>p&lt;0.05</b>
<i>Personal boundaries related to sexual relationships and activities</i>	3.00	1.62	2.57	1.90	1.66	97.47	-0.08 – 0.93	0.10
<i>Sexual consent</i>	3.55	1.53	3.04	1.86	<b>2.04</b>	<b>95.30</b>	<b>0.02 – 0.99</b>	<b>p&lt;0.05</b>

NOTE: Response options ranged from (0) strongly disagree to 5 (strongly agree), where lower scores represent less usefulness  
df = degrees of freedom; CI = confidence interval

## CHAPTER 2: Factors associated with engaging in bystander intervention behaviors among college students

### **Abstract**

**Purpose:** To address gaps in bystander intervention programming, this study assessed whether having a history of sexual violence and sexual harassment (SVSH) and specific individual and intersecting sociodemographic identities, such as gender, ethnicity and sexual orientation, are associated with engaging in bystander behaviors among university students. **Methods:** Using cross-sectional data from a large west-coast university, 4,078 students were surveyed about their SVSH-related experiences. Poisson regression models were utilized to determine the relative risk related to engaging in bystander behavior by sociodemographic identities and history of SVSH victimization. **Results:** Experiencing SVSH was associated with engaging in bystander behavior. Belonging to specific minority and multiple-minority groups was negatively associated with engaging in bystander behavior. **Discussion and Conclusion:** Personal histories and identities matter when engaging in bystander behavior. Additional research is needed to create more well-rounded bystander intervention programs that are inclusive of diverse student voices and experiences.

**Keywords:** Campus sexual assault, Sexual violence, College students, Bystander intervention behaviors

## Introduction

Sexual violence and sexual harassment (SVSH), defined as sexual acts, attempts to obtain sexual acts or unwanted sexual comments or advances toward another person (regardless of their relationship to the victim), are well-documented and highly prevalent issues on college and university campuses (109, 110). A recent study found that 48% of all college students experienced sexual harassment while enrolled in college (8). However, rates differ by population (i.e., race / ethnicity, gender identity, sexual orientation) (1-3, 5). Research focused on at-risk populations finds that 20% of women, 7% of men and 30% of ethnic minority students experience SVSH in college (9). Additionally, bisexual women experience SVSH 3 - 7 times more often than their non-bisexual peers (10) and 24% of gay men, 18% of bisexual men and 11% of lesbian women experience SVSH in college (11). Further, students with intersecting minority identities (e.g., a Black transgender student, a queer woman) are at even higher risk of experiencing SVSH compared to their non-minority peers (12, 111).

Many efforts have been made to reduce SVSH on university campuses (41, 112); however, bystander intervention programming has emerged as the chosen prevention strategy for many universities, in part due to bystander intervention's framing as a community issue and its reliance on shared community responsibility (113, 114). Bystander intervention programs involve teaching community members to view themselves as vital to preventing SVSH for their peers (115), promoting skills to disrupt potentially violent situations and

distracting and/or confronting a harasser before, during or after a situation where they see or hear behaviors that threaten, harass or otherwise encourage sexual violence (116). Promoting bystander training and awareness in university settings is required for schools who receive federal funding through Title IX, a law put in place to protect people from discrimination based on sex (117). A handful of evidence-based bystander intervention programs on college campuses (46, 47) have shown promising results for reducing SVSH, including outcomes associated with decreased rape myth acceptance, increased bystander attitudes (46, 47, 115, 118), fewer associations with sexually aggressive peers (119) and intentions to help those at risk (120).

Investigating whether certain groups, such as survivors of SVSH and ethnic and sexual orientation minority university students, are more or less likely to engage in bystander behaviors could be helpful in informing and developing tailored SVSH prevention programming across university campuses. Studies have found that both greater knowledge of SVSH and personally knowing a survivor of SVSH are associated with an increased likelihood of engaging in bystander behaviors (49, 121, 122). Furthermore, studies focused on other forms of violence, such as intimate partner violence, have found that those who have previously experienced such violence are more likely to provide emotional, formal and instrumental support (e.g., informal talk therapy, offering temporary shelter) to others currently experiencing intimate partner violence (123, 124). Thus, people with histories of SVSH may be better able to identify, react and intervene as a



bystander compared to those without histories of SVSH. However, little is known regarding whether having a history of SVSH is associated with engaging in bystander behaviors.

Engaging in bystander behaviors may also vary based on characteristics such as gender, race/ethnicity and sexual orientation (114, 119, 125). A bystander's position in their community may affect how safe they feel engaging in bystander behaviors or whether they fear negative consequences such as retaliation, social isolation or being mistaken for a perpetrator should they decide to engage in bystander behaviors (113). Efforts to understand gender differences in bystander behavior have been inconclusive (126), though some studies have found that women report both greater intent (i.e., likelihood or willingness) to engage in bystander behaviors and feel better equipped to engage as a bystander, relative to men (127-130). While some research has been conducted on whether race/ethnicity impacts someone's intent to intervene (131, 132), few studies have investigated whether race/ethnicity impacts actual engagement in bystander behaviors (133-135). A similar trend is noticeable in studies investigating whether sexual orientation (136) or having multiple minority identities (e.g., a person of color who identifies as LGBTQ+) impacts engaging in bystander behavior (135).

University students who belong to underrepresented groups likely have social norms, roles and expectations that are unique to their cultures, backgrounds and personal experiences which may affect how they interact

with others inside and outside of their communities. While a great deal of work in social psychology has considered how personal characteristics, situational factors and peers impact helping behaviors in various situations (e.g., emergencies, crime, bullying, off-campus social settings) among various populations (e.g., high school students, strangers in public; (137-141) these constructs have not been prioritized in research focused on SVSH prevention on university campuses. Increasingly, researchers in public health and violence prevention have voiced concern about the lack of attention placed on intersectionality and how a person's identities and positions within their community may impact their likelihood of engaging in bystander behavior or other violence prevention measures (114, 142). Therefore, in order to inform university campus bystander interventions to be more effective and inclusive of diverse student populations, more work is needed to understand various student characteristics that may be associated with engagement in bystander behavior in SVSH risk situations.

This study aimed to determine sociodemographic factors associated with engaging in bystander behaviors among students at a large, public university on the west coast. Specifically, we assessed students with histories of SVSH victimization and students of specific gender, race/ethnicity, and sexual orientation backgrounds. In addition, this study aimed to determine whether intersectional demographic factors (i.e., identifying as LGBTQ+ and as a person of color) were associated with engaging in bystander behaviors.

## **Methods**

### ***Study Sample***

Participants were derived from a sexual violence campus climate survey conducted during the 2019 Spring Semester at a large west-coast university to investigate undergraduate and graduate student experiences of SVSH since enrolling as a student. Enrolled student email addresses were used to distribute the survey at six separate timepoints throughout the semester; follow-up email campaigns were only sent to students who had not previously completed the survey. Email addresses were provided by the university's enrolment services, reaching 31,791 students (the entire undergraduate and graduate student population). The survey was publicized multiple ways, including posting flyers, partnering with student organization on campus and email campaigns.

Between April and May of 2019, 4,148 undergraduate and graduate students completed the survey online (overall response rate of 13%). Eligibility criteria were being a current undergraduate or graduate student during the Spring 2019 semester. Students were informed in the participation solicitation emails that they would be entered into a raffle to receive one of several \$50 gift cards to the campus bookstore upon completion of the survey.

### ***Study Procedures***

Before participants took the survey, an informational introduction page was displayed which informed respondents about the purpose of the study,

oriented them to the sensitive content of the study (i.e., sexual violence), highlighted the associated risks and discomfort which could be experienced by participating, and informed the student that their participation was voluntary and they could discontinue at any time they wanted. Students were assured that no identifiable information would be collected from them (i.e., their responses were anonymous). Once the students reviewed this information, they selected a button within the survey to indicate their consent to participate. Upon completing the survey, participants were provided a list of campus SVSH and mental health resources. This study was considered exempt under the university's institutional review board (IRB).

### **Measures**

Survey questions, including sociodemographic questions, knowledge of SVSH policies, procedures and resources and engagement in bystander behaviors were asked of all respondents ( $n = 4,184$ ). However, to reduce the time burden on participants, several sections of the survey related to SVSH (e.g., sexual harassment, dating violence, sexual assault) were randomly assigned to approximately one-third of all respondents. Dating violence questions were asked of students who indicated they had a partner in the last year.

### *Outcome of Interest*

Our primary outcome of interest was engaging in **bystander behaviors**. A modified version of the Bystander Attitudes Scale (143) assessed how often a

student acted as a bystander since enrolling at the university in situations where a friend or stranger may have been at risk for experiencing SVSH. Bystander behaviors included walking a friend who had too much to drink home from a party or social event, talking to the friends of a drunk person to ensure they weren't left behind at a party or social event, distracting someone who was trying to take advantage of a drunk person, and intervening with a friend who was being physically or verbally abusive to another person. Response options included "never," "sometimes," "a few times," "most of the time," and "always." Scores on the bystander behavior scale were summed and ranged from 0-24. Those who responded N/A (i.e., never had the opportunity to intervene) were coded with a "0" on that item. Those who had missing data for more than two questions were removed from the analysis. Items used to measure bystander behaviors had high internal consistency ( $\alpha = 0.96$ ).

### *Independent Variables*

**Past Experiences of SVSH.** Five scales were utilized to assess different types of SVSH, the majority of which were supported by the Administrator Researcher Campus Climate Collaborative (i.e., the ARC3 survey) (144). All scales measured experiencing SVSH since enrolling as an undergraduate or graduate student at the university.

**Sexual Harassment.** A modified version of the Sexual Experiences Questionnaire (145, 146) was utilized to measure sexual harassment. The

survey included nine items, including: how many times another student made offensive sexist remarks to you about your appearance, body or sexual activities; made unwelcome attempts to draw you into a discussion of sexual matters; made unwanted attempts to establish a sexual relationship. Response options were on a 5-point Likert-type scale ranging from “never” to “many times.” Items used to measure sexual harassment had high internal consistency ( $\alpha = 0.92$ ).

**Dating Violence.** Five items from the Partner Victimization Scale (147) and the Women’s Experience with Battering Scale (148) were used to measure dating violence. Sample items included: “Not including horseplay or joking around, how many times has a current or past partner threatened you; hit you; scared you without laying a hand on you?” Response options were on a 5-point Likert-type scale ranging from “never” to “many times.” Items used to measure dating violence had acceptable internal consistency ( $\alpha = 0.72$ ).

**Sexual Assault.** Items on attempted sexual assault and completed sexual assault were derived from the Sexual Experiences Survey Short Form Victimization survey (SES-SFV) (149). Five items were used to measure attempted sexual assault. Sample items included: “How many times did someone try to have oral, anal or vaginal sex by using force; taking advantage while under the influence of alcohol; threatening to harm you.” Twenty items were used to measure completed sexual assault, including:

“How many times has someone had oral or penetrative vaginal or anal sex through using force; taking advantage while under the influence of alcohol; threatening to harm you.” Response options were on a 4-point Likert-type scale ranging from “never” to “3 or more times.” Items used to measure sexual assault had high internal consistency ( $\alpha = 0.91$ ).

Responses to each individual type of SVSH (sexual harassment, dating violence, attempted sexual assault, completed sexual assault) were dichotomized into whether that specific type of SVSH had occurred since enrolling as a student at the university (i.e., yes vs. no). Then, a new composite variable was created, indicating whether a student had experienced any type of SVSH since enrolling as a student at the university (i.e., yes vs. no).

**Demographics.** Demographic variables included gender identity, sexual orientation, and race/ethnicity. Other campus specific data was utilized, including class standing. Because gender identity, sexual orientation and race/ethnicity are also being utilized as independent variables, each were dichotomized into majority vs. non-majority groups (i.e., male vs. all others, heterosexual vs. all others, white vs. all others) for non-descriptive analyses.

## **Analysis**

After completing basic descriptive statistics checks (e.g., running frequencies to determine sociodemographic information and the distribution of key variables), we determined Poisson regression was the most appropriate

statistical analysis method to employ, given our outcome utilized count data and could be considered a “rare event” (i.e., data were positively skewed) (150, 151).

First, we used unadjusted Poisson regression models to assess the relative risk of engaging in bystander behavior by each individual type of SVSH (i.e., sexual harassment, dating violence, attempted sexual assault, completed sexual assault), any SVSH (i.e., the composite SVSH variable), and sociodemographic variables of interest (e.g., gender identity, sexual orientation, race/ethnicity). We then built a fully adjusted Poisson model to assess the role of experiencing each individual type of SVSH and belonging to key sociodemographic groups as predictors of engaging in bystander behavior utilizing variables that were statistically significant in the unadjusted models ( $p < 0.05$ ), except for our created variable “any SVSH”, as it was a composite variable of the other SVSH variables and had high collinearity.

After running the adjusted Poisson models, we created interaction terms between each sociodemographic variable of interest that was significant in the final model ( $p < 0.05$ ; e.g., sexual orientation, race/ethnicity, gender) and experiencing SVSH. We then used unadjusted Poisson regression models to assess the relative risk of engaging in bystander behavior by six interaction terms representing multiple minority identities (e.g., being a SVSH survivor and non-white; being non-male and LGBTQ+). Any significant interaction terms ( $p < 0.05$ ) were then included in an adjusted model with all of the significant variables



from the previous adjusted Poisson model. Finally, any interaction terms that remained significant ( $p < 0.05$ ) were probed for additional associations if they made up at least 5% of the sample, using unadjusted Poisson regression models. Data were analyzed using SPSS version 25.

## **Results**

### ***Sample Characteristics***

A total of 4,148 students participated in the campus climate survey. Sixty-eight students were excluded from the analysis for non-response on questions related to bystander behavior ( $n = 26$ , 0.6% of sample) and sexual orientation ( $n = 39$ , 1.0% of sample). Ultimately 4,078 students were included in the analysis. Sample characteristics are summarized in Table 2.1. Students who participated in the survey primarily identified as women ( $n = 2,883$ , 71.2%); while more students identify as women than men in the general campus population (55.6% vs. 44.4%, respectively), our sample is not representative of the campus' gender demographics (152). The majority of respondents identified as heterosexual ( $n = 3,550$ , 85.6%), and approximately 13% identified as lesbian, gay, bisexual or other. Sexual orientation data was not available at the campus-level to determine campus-level representation. More than half of participants identified as white ( $n = 2,216$ , 54.4%), nearly one-third identified as Hispanic / Latinx ( $n = 1,167$ , 28.7%), one-sixth identified as Asian ( $n = 644$ , 15.8%), and more than 7% selected they identified as more than one race or ethnicity ( $n = 295$ , 7.2%).

Compared to campus demographics, our sample included more white students (36.7% campus-wide) and fewer Hispanic / Latinx (33.3%) and Asian (13.9%) students (152). Participants were evenly split into upper-level (i.e., juniors and seniors) and first- and second-year students, and 12% ( $n = 486$ ) were graduate students (i.e., masters or doctoral-level).

### ***Associations Between SVSH, Sociodemographic Identities and Bystander Behaviors: Findings from Unadjusted Poisson Regression Models***

In unadjusted Poisson regression models, experiencing each individual type of sexual violence (e.g., sexual harassment, dating violence, attempted sexual assault, completed sexual assault) was positively associated with engaging in bystander behavior, as was experiencing any type of SVSH (Table 2.2). Experiencing attempted sexual assault was associated with a 68% higher risk of engaging in bystander behavior compared to those who did not experience attempted sexual assault (Incident Rate Ratio (IRR) = 1.68, 95% Confidence Interval [CI] = 1.72 – 1.81,  $p < 0.001$ ). Similarly, those who experienced a completed sexual assault had a 76% higher risk of engaging in bystander behavior compared to those who did not (IRR = 1.76, 95% CI = 1.72 – 1.81,  $p < 0.001$ ). Identifying as a woman (relative to identifying as a man) was positively associated with engaging in bystander behavior (IRR = 1.1, 95% CI = 1.06 – 1.12,  $p < 0.001$ ). However, identifying as gender non-binary (relative to identifying as a man) was negatively associated with engaging in bystander behavior (IRR = 0.46, 95% CI = 0.38 – 0.56,  $p < 0.001$ ), as was identifying as LGBTQ+

(relative to identifying as heterosexual) or as a student of color (relative to identifying as white) (IRR = 0.83, 95% CI = 0.81 – 0.85,  $p < 0.001$ ; IRR = 0.92, 95% CI = 0.89 – 0.95,  $p < 0.001$ , respectively).

### ***Adjusted Poisson Regression Model***

All variables that were significantly associated with engaging in bystander behavior in the unadjusted Poisson analyses ( $p < 0.05$ ) were included in a fully adjusted Poisson model. Variables included each individual type of SVSH and all sociodemographic factors (Table 2.2). Adjusting for all other variables, those who experienced a completed sexual assault had a 65% increased risk of engaging in bystander behavior (IRR = 1.65, 95% CI = 1.54 – 1.77,  $p < 0.001$ ) compared to those who did not experience a completed sexual assault. Similarly, adjusting for all other variables, those who had experienced an attempted sexual assault had a 14% increased risk of engaging in bystander behavior (IRR = 1.14, 95% CI = 1.06 – 1.23,  $p < 0.001$ ) compared to those who did not. Each sociodemographic factor remained significantly associated with engaging in bystander behavior; however, identifying as a woman became negatively associated with engaging in bystander behavior (IRR = 0.73, 95% CI = 0.69 – 0.78,  $p < 0.001$ ). Identifying as non-binary, LGBTQ+ or as a student of color remained negatively associated with engaging in bystander behavior (IRR = 0.34, 95% CI = 0.23 – 0.50,  $p < 0.001$ ; IRR = 0.90, 95% CI = 0.83 – 0.97,  $p < 0.01$ ; IRR = 0.89, 95% CI = 0.84 – 0.974  $p < 0.001$ , respectively).

### **Testing for Interactions**

We found three statistically significant interaction terms: gender\*SVSH, gender\*race/ethnicity and sexual orientation\*race/ethnicity (Table 2.3).

Participants who were women or gender non-binary and had experienced any type of SVSH had an 21% increased risk of engaging in bystander behavior (IRR = 1.21, 95% CI = 1.15 – 1.28,  $p < 0.001$ ), and those who identified as LGBTQ+ and as a student of color had a 15% increased risk of engaging in bystander behavior (IRR = 1.15, 95% CI = 1.07 – 1.23,  $p < 0.001$ ). However, participants who were women or gender non-binary and identified as a student of color had a 19% decreased risk of engaging in bystander behavior (IRR = 0.81, 95% CI = 0.77 – 0.85,  $p < 0.001$ ).

The significant interaction terms were added into the fully adjusted Poisson model, which included each individual type of SVSH and all sociodemographic factors (Table 2.4). When the three interaction terms were included in the final model, the main effect of race/ethnicity became non-significant, as did the interaction between race/ethnicity and sexual orientation. Each individual type of SVSH remained positively associated with engaging in bystander behavior. Ultimately, the adjusted model produced similar findings to previous analyses (refer to Tables 2.2 – 2.4).

### **Post-Hoc Analyses**

The significant interaction terms were further probed via additional unadjusted Poisson regression analyses with populations that made up at least

5% of the sample. For this reason, we were unable to further examine those who identified as non-binary gender, lesbian, gay or other, or those of Native American, Pacific Islander and Native Hawaiian backgrounds. In the unadjusted Poisson regressions, identifying as bisexual, Black or more than one race/ethnicity were not significantly associated with engaging in bystander behavior. Identifying as Hispanic/Latinx was negatively associated with engaging in bystander behavior (IRR = 0.86, 95% CI = 0.84 – 0.88,  $p < 0.001$ ), as was identifying as of Asian descent (IRR = 0.90, 95% CI = 0.87 – 0.93,  $p < 0.001$ ) and Filipino, specifically (IRR = 0.95, 95% CI = 0.91 – 1.0,  $p < 0.05$ ). However, being white or heterosexual was positively associated with engaging in bystander behavior (IRR = 1.22, 95% CI = 1.19 – 1.25,  $p < 0.001$ ; IRR = 1.09, 95% CI = 1.05 – 1.13,  $p < 0.001$ , respectively).

## **Discussion**

We found that among currently enrolled undergraduate and graduate students in a large, public university on the west coast, engaging in bystander behavior was positively associated with experiencing most types of SVSH. After all other variables were adjusted for, we also found that belonging to certain student groups (i.e., women or identifying as gender non-binary, or belonging to the LGBTQ+ community) was negatively associated with engaging in bystander behavior. Interaction terms were used to highlight how multiple minority identities and SVSH survivorship were differentially associated with engaging in

bystander behavior (i.e., both positive and negative associations were found). Finally, additional exploratory analyses examined some of the nuance related to race/ethnicity and sexual orientation as it related to engaging in bystander behavior.

Our findings fill gaps in the campus sexual assault prevention and bystander intervention literature in multiple ways. First, our findings disrupt previous research that indicates women are more likely to engage in bystander behavior (131), as we found those who identified as female or gender non-binary were significantly less likely to engage in bystander behavior after adjusting for all other variables. To our knowledge, we are the first study to consider both the impact of having a prior history of SVSH on engaging in bystander behavior and its intersection of identifying as a woman or gender non-binary. More work is needed to consider how experiencing SVSH and its combination with sociodemographic identities, such as gender, may impact engaging in bystander behavior.

Our findings also add to previous research that connects having experienced intimate partner violence (123), a form of SVSH, and/or knowing someone who has experienced SVSH to engaging in bystander behavior (41, 118, 122). Based upon the concept of posttraumatic growth (PTG) (153, 154), which supports potential positive outcomes as a result of experiencing trauma, it is possible that engaging in bystander behavior (i.e., acting as an agent of

change) to prevent others from experiencing SVSH may be part of someone's PTG. This is consistent with what Ulloa et al., (2016) found, which highlights the importance of "new possibilities" (i.e., becoming an advocate, reporting violence with more frequency), personal strength (i.e., stronger sense of self), appreciation for life, and relationships with others (i.e., increased empathy) as indicators of PTG (155). Though work has explored how PTG is related to sexual violence, it has not been explored in the context of engaging in bystander behavior. SVSH survivorship may provide perspective – especially after experiencing attempted or completed sexual assault – which may make a survivor more aware of their surroundings and the people in it. In addition, having experienced SVSH themselves, survivors may be better able to identify, react and intervene and to care about the well-being of others related to SVSH. Survivors should be invited to help inform SVSH education and prevention efforts, which has been supported in recent literature (156), especially as research shows that survivors want the opportunity to share their experiences as it contributes to violence prevention for others (157, 158).

In addition, our study adds to the limited amount of research investigating intersecting identities, such as identifying as a woman or gender non-binary and as a student of color, in the decision to engage in bystander behavior. While previous work has focused on whether gender plays a role in engaging in bystander behavior (126), less research has focused on race/ethnicity and sexual orientation (133, 135). Though race/ethnicity alone was not significantly

associated with engaging in bystander behavior after adjusting for all other variables, we found that identifying as a woman or gender non-binary or as LGBTQ+ were negatively associated with engaging in bystander behavior, as was identifying as both non-white and as non-male. We suspect ethnic and sexual orientation minority students may feel less safe or less empowered to intervene due to real or perceived risks of retaliation, further marginalization, or other negative consequences, our ability to further decipher this change in association is limited, as this work is cross-sectional and quantitative. While it is plausible that students who belong to a minority group may perceive intervening as risky to their own safety and decide not to, despite recognizing situations where an intervention is warranted, it is also plausible that students with multiple minority identities feel called to respond given their own cultural norms or personal experiences. Additional research including qualitative questions may produce more detailed information about why these interactions exist and how they uniquely impact those with different minority or multiple minority identities.

Previous research supports that certain groups of people (e.g., women), perceive themselves as more ready to intervene and have more positive attitudes toward engaging in bystander behavior (126, 159); however, positive perceptions and attitudes do not necessarily translate into actual bystander intervention behavior. Future studies should consider the role that environment plays in engaging in bystander behavior – especially in university settings where



minority students are consistently negotiating their power and privilege as compared to the power and privilege that their fellow students, faculty and staff, administrators and policy makers have within the same environment (12, 160). This is also important to consider for graduate students, who unlike undergraduates, are more likely to experience SVSH the longer they remain in their programs (161, 162). Despite graduate students playing an integral role in university settings (e.g., research assistants, teaching assistants, mentors, lab managers), they are not often included or prioritized in SVSH prevention and education work (156, 162, 163). Due to the relatively small number of graduate students in our overall sample, we were unable to conduct an analysis of only graduate students; however, future research should include graduate students and examine what unique and additional support they may need to engage in bystander behavior.

As we have hypothesized, it is possible that when students are outside of the places or communities in which they feel most comfortable and where their identities are innately understood by those around them (i.e., in mixed social settings), that they may be more or less likely to engage in bystander behavior related to SVSH. To understand this further, research methodologies should be expanded to include qualitative (e.g., in-depth interviews, focus group discussions) and mixed methods approaches and focus on intersectionality (114, 142). This study's results indicated that there are differences in bystander behavior related to intersecting gender, sexual orientation, and race/ethnicity

identities; however, we are limited in our ability to decipher the meaning of these differences. Utilizing additional research methodologies would allow for deeper exploration of attitudes and behaviors, encourage detailed discussion and follow-up, and would be crucial in expanding our understanding of who decides to engage in bystander behavior and why. Further, incorporating questions that examine intersecting identities would allow researchers to determine if interventions and prevention efforts are reaching students equally.

### ***Limitations***

Our study was cross-sectional in design; therefore, our ability to suggest causal relationships and understand the nuance of the relationships we uncovered are limited. Additionally, though we were able to include a number of diverse students in the study, limitations in sample size for certain groups (e.g., Native American students, bisexual students, graduate students) disallowed us to probe further into the unique identities of students and how they relate to bystander behavior. This is important to consider, given that the overall response rate to the campus climate survey was relatively low (13%) and those who participated may have already been interested in SVSH. Given that this research was conducted on one university campus, the generalizability of findings may be limited.

## **Conclusions / Future Recommendations**

Little consideration has been given to the power, status or position that a bystander has when deciding whether to intervene and weighing the consequences of their actions (113). Whether a student identifies as a survivor or is part of a minority group, there is a great need to consider intersectionality and non-“majority” experiences in SVSH prevention and education efforts (114, 142). The continued success of bystander intervention education and prevention efforts depends on ensuring that all students and their unique identities and experiences are considered in the planning, implementation and evaluation of this work. Including the voices of those who have experienced sexual violence, for example, may improve effective SVSH education and prevention efforts on campuses. Insights such as these are extremely valuable, especially to those dedicated to violence prevention and student success in university settings.

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Chapter 2, in full, has been submitted for publication of the material as it may appear in the *Journal of Evidence Based Social Work*, 2021. Bloom, B.E., Joseph, R., Ulibarri, M.D., Reed, E., Wagman, J.A., and Ulloa, E.C. The dissertation author was the primary investigator and author of this paper.

**Table 2.1: Characteristics of Students who Participated in the Campus Climate Study (n=4,078)**

<b>Variable</b>	<i>n (%)</i>
<b>Gender</b>	
Men	1166 (28.8%)
Women	2883 (71.2%)
Gender non-binary	29 (0.7%)
<b>Sexual Orientation</b>	
Heterosexual / Straight	3528 (86.4%)
Gay / Lesbian	131 (3.2%)
Bisexual	342 (8.4%)
Other	80 (2.0%)
<b>Race / Ethnicity</b>	
White	2216 (54.4%)
Asian	644 (15.8%)
Hispanic / Latino/a/x	1167 (28.7%)
Black / African American	226 (5.5%)
Filipino	270 (6.6%)
More than one	295 (7.2%)
Other*	246 (6.1%)
<b>Class Standing</b>	
First or Second year	1350 (33.32%)
Junior or Senior	2217 (54.7%)
Graduate Student	486 (12.0%)
<b>Engaged in Bystander Behavior (Scores 0-24)</b> Mean (SD)	7.67 (7.03)
<b>Experienced Sexual Harassment (n = 3,443)</b>	
Yes	1798 (52.2%)
No	1645 (47.8%)
<b>Experienced Dating Violence (n = 1,026)</b>	
Yes	118 (11.5%)
No	908 (88.5%)
<b>Experienced Attempted Sexual Assault (n = 3,230)</b>	
Yes	566 (20.1%)
No	2253 (79.9%)
<b>Experienced Completed Sexual Assault (n = 3,300)</b>	
Yes	943 (28.6%)
No	2357 (71.4%)
<b>Experienced Any Form of SVSH (n = 3,723)</b>	
Yes	2165 (58.2%)
No	1558 (41.8%)
<b>Note.</b> *Includes Pacific Islander, Native Hawaiian and Native American students	

**Table 2.2: Unadjusted and Adjusted Poisson Regression Analyses**

Variable	Unadjusted association between past experiences of SVSH, gender identity, sexual orientation, race/ethnicity and bystander behaviors (n = 4,078)		Adjusted association between past experiences of SVSH, gender identity, sexual orientation, race/ethnicity and bystander behaviors (n = 1,014)	
	IRR (95% CI)	p-value	IRR (95% CI)	p-value
<b>Gender</b>				
Man	ref	ref	ref	ref
Woman	1.08 (1.06 – 1.12)	$p < 0.001$	0.73 (0.69 – 0.78)	$p < 0.001$
<b>Gender Non-Binary</b>	0.46 (0.38 – 0.56)	$p < 0.001$	0.34 (0.23 – 0.50)	$p < 0.001$
<b>Sexual Orientation</b>				
Heterosexual / Straight	ref	ref	ref	ref
LGBTQ	0.83 (0.81 – 0.85)	$p < 0.001$	0.90 (0.83 – 0.97)	$p < 0.01$
<b>Race / Ethnicity</b>				
White	ref	ref	ref	ref
Non-white	0.92 (0.89 – 0.95)	$p < 0.001$	0.89 (0.84 – 0.94)	$p < 0.001$
<b>Sexual Harassment</b>				
No	ref	ref	ref	ref
Yes	1.61 (1.57 – 1.65)	$p < 0.001$	1.19 (1.12 – 1.26)	$p < 0.001$
<b>Dating Violence</b>				
No	ref	ref	ref	ref
Yes	1.44 (1.35 – 1.53)	$p < 0.001$	1.11 (1.04 – 1.08)	$p < 0.01$
<b>Attempted Sexual Assault</b>				
No	ref	ref	ref	ref
Yes	1.68 (1.62 -1.73)	$p < 0.001$	1.14 (1.06 – 1.23)	$p < 0.001$
<b>Completed Sexual Assault</b>				
No	ref	ref	ref	ref
Yes	1.76 (1.72 – 1.81)	$p < 0.001$	1.65 (1.54 – 1.77)	$p < 0.001$
<b>Any Form of SVSH</b>				
No	ref	ref	-	-
Yes	1.58 (1.54 – 1.62)	$p < 0.001$	-	-

**Note.** IRR= Incidence Rate Ratio; CI= Confidence Interval

**Table 2.3: Poisson Regressions Using Interaction Terms and Bystander Behavior (n = 1,014)**

Variable	Unadjusted Poisson Regression models with interaction terms	
	IRR (95% CI)	p-value
<b>Interaction 1: Sexual Orientation * Race / Ethnicity</b>		
Sexual Orientation	0.86 (0.81 – 0.90)	$p < 0.001$
Race Ethnicity	0.82 (0.80 – 0.84)	$p < 0.001$
Sexual Orientation * Race / Ethnicity	1.15 (1.07 – 1.23)	$p < 0.001$
<b>Interaction 2: Sexual Orientation * Any SVSH</b>		
Sexual Orientation	0.87 (0.83– 0.93)	$p < 0.001$
Any SVSH	1.47 (1.44 – 1.51)	$p < 0.001$
Sexual Orientation * Any SVSH	1.01 (0.94 – 1.08)	$p = 0.88$
<b>Interaction 3: Race / Ethnicity * Any SVSH</b>		
Race / Ethnicity	0.85 (0.82 – 0.88)	$p < 0.001$
Any SVSH	1.44 (1.39 – 1.49)	$p < 0.001$
Race / Ethnicity * Any SVSH	1.00 (0.96 – 1.05)	$p = 0.86$
<b>Interaction 4: Gender * Any SVSH</b>		
Gender	0.94 (0.91 – 0.98)	$p < 0.01$
Any SVSH	1.36 (1.30 – 1.43)	$p < 0.001$
Gender * Any SVSH	1.11 (1.05 – 1.17)	$p < 0.001$
<b>Interaction 5: Gender * Sexual Orientation</b>		
Gender	1.08 (1.05 – 1.11)	$p < 0.001$
Sexual Orientation	0.90 (0.83 – 0.97)	$p < 0.01$
Gender * Sexual Orientation	1.02 (0.94 – 1.11)	$p = 0.61$
<b>Interaction 6: Gender * Race / Ethnicity</b>		
Gender	1.21 (1.17 – 1.26)	$p < 0.001$
Race / Ethnicity	0.96 (0.92 – 1.01)	$p = 0.09$
Gender * Race / Ethnicity	0.81 (0.77 – 0.85)	$p < 0.001$

**Table 2.4: Adjusted Poisson Regression Analysis between Past Experiences of Sexual Violence and Sexual Harassment (SVSH), Gender Identity, Sexual Orientation, Race/Ethnicity with Key Interaction Terms and Bystander Behavior (n=1,014)**

Variable	Adjusted association between past experiences of SVSH, gender identity, sexual orientation, race/ethnicity, interaction terms and bystander behaviors	
	IRR (95% CI)	p-value
<b>Gender</b>		
Male	ref	ref
Female / Gender non-binary	0.76 (0.69 – 0.84)	$p < 0.001$
<b>Sexual Orientation</b>		
Heterosexual / Straight	ref	ref
LGBTQ+	0.81 (0.73 – 0.91)	$p < 0.001$
<b>Race / Ethnicity</b>		
White	ref	ref
Non-white	0.98 (0.90 – 1.06)	$p = 0.59$
<b>Race / Ethnicity * Sexual Orientation</b>		
White * Heterosexual	ref	ref
Non-white * LGBTQ+	1.08 (0.93 – 1.24)	$p = 0.32$
<b>Race / Ethnicity * Gender</b>		
White * Male	ref	ref
Non-white * Non-male	0.85 (0.77 – 0.94)	$p < 0.001$
<b>Gender * SVSH</b>		
Male * No SVSH	ref	ref
Non-male * SVSH	1.20 (1.09 – 1.32)	$p < 0.001$
<b>Sexual Harassment</b>		
No	ref	ref
Yes	1.17 (1.10 – 1.25)	$p < 0.01$
<b>Attempted Sexual Assault</b>		
No	ref	ref
Yes	1.10 (1.103– 1.17)	$p < 0.01$
<b>Completed Sexual Assault</b>		
No	ref	ref
Yes	1.10 (1.03 – 1.18)	$p < 0.01$

**Table 2.5: Exploratory Unadjusted Poisson Regression Analysis between Race/Ethnicity Groups, Sexual Orientation and Bystander Behavior (n=4,080)**

Variable	Unadjusted Poisson regression	
	IRR (95% CI)	p-value
<b>Race / Ethnicity</b>		
Black	0.87 (0.95 – 1.05)	$p = 0.87$
Non-Black	ref	ref
Hispanic / Latinx	0.86 (0.84 – 0.88)	$p < 0.001$
Non-Hispanic / Latinx	ref	ref
Asian	0.90 (0.87 – 0.93)	$p < 0.001$
Non-Asian	ref	ref
Filipino	0.95 (0.91 – 1.0)	$p < 0.05$
Non-Filipino	ref	ref
White	1.22 (1.19 – 1.25)	$p < 0.001$
Non-white	ref	ref
More than one race / ethnicity	1.03 (0.99 – 1.07)	$p = 0.20$
Not more than one race / ethnicity	ref	ref
<b>Sexual Orientation</b>		
Bisexual	0.97 (0.93 – 1.01)	$p = 0.11$
Non-bisexual	ref	ref
Heterosexual	1.09 (1.05 – 1.13)	$p < 0.001$
Non-heterosexual	ref	ref



## CHAPTER 3: Factors associated with experiences of SVSH and help-seeking among university students in Kenya

### **Abstract**

Among a diverse group of 649 Moi University students in Kenya, this study aimed to determine: 1) the prevalence of sexual violence and sexual harassment (SVSH) across demographic groups (e.g., gender, relationship status) and 2) types of help-seeking (e.g., formal, school-based, informal) that are most common among students with experiences of SVSH, and 3) demographic factors associated with help-seeking. SVSH was highly prevalent, especially among women. Most students did not seek help; among those who did, informal sources (e.g., friend, family member) were utilized more than school-based (e.g., faculty, staff) and formal (e.g., police) sources. Adjusted logistic regression models revealed that being single was associated with lower rates of school-based help-seeking among those who experienced sexual harassment (AOR=0.27; 95% CI=0.08-0.87), stalking (AOR=0.09, 95% CI=0.03-0.32) and sexual violence (AOR=0.23; 95% CI=0.07-0.75). Women were more likely to seek informal help for stalking (AOR=2.23; 95% CI=1.29-3.85), but less likely to seek school-based help for sexual harassment (AOR=0.18; 95% CI=0.05-0.69). More work is needed to understand possible hesitation for school-based help-seeking, particularly among women and those who are single. Findings also suggest that interventions that support peer-to-peer support within informal networks may be most effective to deliver support related to SVSH in university settings.

Keywords: Sexual violence; Sexual assault; Help-seeking; Disclosure; Campus sexual assault

## **Introduction**

Sexual violence and sexual harassment (SVSH) is a serious public health problem that occurs globally and contributes to significant morbidity and mortality, including substance use, mental and physical health issues, sexually transmitted infections (including HIV), as well as suicidality and death (164, 165). Data from the World Health Organization (WHO) estimates that approximately one in three women (30%) worldwide have experienced either physical and/or sexual intimate partner violence (IPV) and/or non-partner sexual violence in their lifetimes (166). Women and those who belong to the lesbian, gay, transgender, queer, and other (LGBTQ+) community experience SVSH at higher rates than their male and/or heterosexual counterparts (21, 86, 165). Men also experience SVSH - though it is difficult to report general prevalence estimates due to underreporting, cultural norms and stigma (21, 167). Prevalence of SVSH varies by region: Sub-Saharan Africa has the highest prevalence of SVSH globally, as 66% of ever-partnered women report experiencing IPV, 21% report experiencing non-partner sexual violence (20), and a recent worldwide sexual violence prevalence study found that sexual violence perpetrated against men in this region has significantly increased since the 1990s (21). Kenya, a sub-Saharan country in East Africa, also has high rates of SVSH: according to the Kenyan Demographic and Health Survey (2014), 14% of women and 6% of men aged

15-49 report having experienced sexual violence at least once in their lifetimes (168).

SVSH occurs in high proportions within university settings globally and adversely affects students' ability to learn and thrive (169). Though data focused on SVSH in primary and secondary schools exists in Kenya (42), little is known regarding the prevalence and experiences of SVSH in Kenyan university settings (22, 23). As of 2021, only a single case study has been published on SVSH prevalence within a Kenyan university (22). While laws have been enacted (e.g., Sexual Offences Act, the acknowledgement of gender-based violence in Kenya's Bill of Rights), researchers and authorities engaged in SVSH prevention suggest that these may not be well-enforced (23). While some school-based SVSH prevention interventions exist in primary school (i.e., grade school) settings in sub-Saharan Africa (170), they have not been tested within university settings, leaving SVSH unaddressed within university settings and its students vulnerable to SVSH. Additionally, tolerance of norms promoting gender inequity (e.g., norms that support the idea that men have the authority to discipline women, women belong in the home and not the classroom, or that promote acceptance of SVSH) is common in Kenya and Kenyan university settings, and further supports a climate that may contribute to high rates of SVSH. Given the pervasiveness of gender inequitable norms and the lack of enforcement of effective policies to address SVSH within Kenyan public universities and institutions of higher learning, high rates of SVSH are likely (22, 23). However, true prevalence of SVSH is

unknown, including for vulnerable student populations such as women and non-heterosexual university students (23).

In addition to creating anti-SVSH policy and providing training to university faculty and staff, having readily accessible support networks for SVSH survivors is crucial, especially for vulnerable populations (171). Obtaining informal (e.g., family members and friends) and formal (e.g., legal entities, police, medical or healthcare professionals) support for experiences of violence is associated with positive outcomes for SVSH survivors. Positive outcomes include exposure to counselling and support networks that can assist survivors in making choices in their best interest (e.g., leaving a violent relationship, seeking temporary or long-term shelter), increased social support and coping skills, and potentially preventing recurring SVSH incidents (172-174). Despite this evidence, survivors of SVSH experience significant barriers to help-seeking and do not often seek help (175). In many places, when help-seeking does occur, survivors typically utilize their informal networks more often than formal networks (175-177); however, there is limited research focused on help-seeking related to experiences of SVSH in university settings, specifically in sub-Saharan Africa, including in Kenya.

While there are cultural and structural barriers to help-seeking (167, 178, 179), research indicates certain demographic factors (e.g., education, employment, income level) are positively associated with help-seeking (180-182). Thus, research to identify demographic factors associated with help-seeking in university settings could inform the development of tailored

interventions to support SVSH survivors. Demographic factors that may be most relevant to study include those that are intrinsically tied to gender and those that may impede someone's decision to seek help (i.e., identifying as LGBTQ+). Sexual orientation and gender identity are not well-studied in the African context due to cultural and legal implications and stigma associated with identifying as non-cisgender, non-heterosexual or both (183, 184). Additionally, factors, such as relationship status, should be considered in this context given that there are numerous relationship types that are unique to this setting which may affect help-seeking decision-making. For example, young people who are in relationships may be less likely to seek help for SVSH experiences if they are reliant on their partner for basic needs (e.g., shelter, food, income) and those who are single may find themselves in social situations that may increase their risk for experiencing SVSH or lack support to seek help after experiencing SVSH. Ultimately, there are still gaps that need addressing in the literature on help-seeking: studies have not typically included help-seeking behaviors among men or LGBTQ+ individuals who have experienced SVSH and little is known about help-seeking in university settings, where SVSH occurs in high proportions and SVSH-resources are always needed. Universities in low- and lower-middle income countries experience the most challenges in obtaining and maintaining resources for SVSH survivors (185); nevertheless, they still may be in a unique position to reach SVSH survivors, offer resources and provide SVSH-related support. Increasing our understanding of what demographic factors are

associated with experiencing SVSH and related-help seeking could better support SVSH survivors and the development of SVSH-related resources and programming in these settings.

Ultimately, limited research has focused on types and patterns of SVSH and help-seeking among university students in low-income and low-resource settings, specifically within university settings in sub-Saharan Africa, including Kenya. In order to improve reporting and help-seeking channels within and outside of university settings and to better understand which SVSH experiences illicit help-seeking behavior and from who (informal, school-based or formal sources), this study aims: 1) to determine the prevalence of SVSH (e.g., harassment, stalking, sexual violence) across demographic groups (e.g. age, gender, sexual orientation, relationship status) among a diverse group of Moi University students in Kenya, and stratified by type of SVSH 2) to determine what types of help-seeking (e.g., formal, school-based, informal) are most common and 3) to identify if help-seeking varies by demographic factors, including gender, relationships status, and sexual orientation.

## **Methods**

### ***Study Setting***

The End Violence on Campus (EVOG) Project, a joint collaboration between Moi University's main campus, the Centre for the Study of Adolescence (CSA) and the University of California Los Angeles (UCLA), was

launched in June of 2018. Moi University, located in Kenya, serves more than 52,000 undergraduate and graduate students across four campuses. As of 2018, Moi University did not have any systems in place to collect data on SVSH except for information collected by campus police from students who reported SVSH to them directly. One of EVOC's main purposes was in direct response to this deficit: to create a university-level monitoring tool (i.e., a student survey) to track the knowledge, attitudes and experiences of SVSH among Moi University students.

### ***Study Sample and Recruitment***

Students were recruited through two key strategies. The first strategy was for research staff to visit classrooms. Staff members from the CSA and members of the EVOC club approached faculty members responsible for teaching and asked if they could introduce the survey to students and allow them to participate during class time. For the second strategy, CSA and EVOC members set up a table outside of the main library and encouraged students entering and exiting to consider taking the survey. Interested students were provided a brief introduction about the survey's purpose and were invited to participate. Ultimately 658 students participated in the survey. We deleted data from participants missing information on key study variables (demographic variables, SVSH, help seeking). Nine students were missing information on gender identity and were removed from the analysis. Thus, 649 students were included in the analysis for the current study.

### **Study Procedures**

The survey was deployed using a self-administered paper-and-pencil method. Before participating in the survey, students were given a brief background about its purpose and were informed that the survey was voluntary, anonymous and confidential. Students were asked to give written consent before participating; a consent form was located on the front page of the survey. There were no incentives provided to students. The study received ethical clearance from Moi University and the Joint San Diego State University and UC San Diego IRB.

### **Measures**

The Moi University EVOC survey was adapted from a campus climate survey developed by the American Association of University Women (AAUW) (8). The survey included items focused on knowledge and beliefs regarding gender-based violence and campus policies, experiences of SVSH and reporting SVSH, and knowledge and utilization of sexual and reproductive health resources. In addition to the adapted AAUW survey items, additional questions were added, including socio-demographic factors (e.g., sexual orientation, socioeconomic status, access to food, housing stability), rape myth attitudes and student's experience interacting with Moi University health facilities.



### *Demographics*

Demographic variables included age, gender, sexual orientation, and marital status. All responses were categorical, except for age. Gender identity was captured by a single question: Which best describes your gender identity? Response categories included woman, man or decline to state. Sexual orientation was also captured by a single question: What sexual orientation do you consider yourself to be? Response categories included heterosexual or straight, gay or lesbian, bisexual, questioning, not listed or declined to state. Relationship status was split into two categories, single (e.g., no relationship, casual hook-ups) or in a partnered relationship (e.g., cohabitating, in a serious relationship, or having a sponsor).

### *Past Experiences of SVSH*

Three blocks of SVSH questions were utilized to assess specific types of SVSH a student experienced since enrolling at Moi University, including sexual harassment, stalking and sexual violence (i.e., type of SVSH). Response options were dichotomous (yes vs no). A student will be categorized as having experienced a particular type of SVSH by responding "yes" to any of the SVSH questions.

*Sexual harassment.* The construct of sexual harassment included three (n=3) questions. The questions captured in-person and online experiences of sexual harassment: Has someone said crude or gross sexual things to you or tried to get you to talk about sexual matters when you didn't want to; Has someone

emailed, texted, tweeted, phoned or instant messaged offense remarks, jokes, stories, pictures or videos that you didn't want; Has someone repeatedly asked you out to dinner, to get drinks, to have sex with them even though you have told them 'no'? Items used to measure sexual harassment had an acceptable level of reliability ( $\alpha = 0.69$ ).

*Stalking.* The construct of stalking included two ( $n=2$ ) questions that focused on online and in-person experiences that threatened participants' personal safety: Has someone made unwanted phone calls, sent e-mails, voice, text or instant messaged or posted messages, pictures or videos on social networking sites in a way that made you afraid for your personal safety; Has someone showed up somewhere or waited for you when you did not want that person to be there in a way that made you afraid for your personal safety? Items used to measure stalking had an acceptable level of reliability ( $\alpha = 0.67$ ).

*Sexual violence.* The construct of sexual violence included six ( $n=6$ ) questions aimed at capturing non-consensual or unwanted sexual contact that a student experienced from someone they knew (e.g., a partner, family member, co-worker, teacher) or someone they did not know. Questions included whether someone had successfully used physical force or threats to engage in sexual penetration or oral sex, kiss or touch private areas in a sexual way, forced sexual penetration or oral sex while unable to consent or stop what was happening (i.e., passed out, asleep, incapacitated), and forced sexual penetration or oral sex due to feelings of being unable to say no (i.e., threats,

social harm, promised rewards). Items used to measure sexual violence had high reliability ( $\alpha = 0.88$ ).

*Help-Seeking for SVSH.* Students were asked who they contacted (if anyone) about a specific SVSH experience. Response options included the police, campus security, the hospital, the Dean of Students, a Moi University faculty member, an EVOG club member (likely a staff member or fellow student at Moi University), a pastor or counsellor, a family member or a friend. For the purposes of this study, response options were split into three groups: Formal sources (e.g., police, campus security, hospital), school-based sources (e.g., Dean of Students, faculty member, EVOG club member), and informal sources (e.g., pastor or counsellor, family member, friend). As informed by formative work (e.g., consulting with community members), pastors and counsellors are typically regarded as members of someone's direct informal community, and are not necessarily considered entities with legal or otherwise related power; therefore, they were considered informal help-seeking sources.

### **Analytic Plan**

Descriptive statistics (i.e., means for continuous variables and frequencies for categorical variables) were generated for age, gender, sexual orientation and relationship status, and were stratified by type of SVSH (e.g., sexual harassment, stalking, sexual violence), to determine the prevalence of SVSH among Moi University students. Chi-square tests were used on categorical variables (e.g., gender) and independent sample t-tests were used on

continuous variables (e.g., age) to determine if demographic characteristics were associated with having experienced specific types of SVSH (Table 3.1).

In order to determine what types of help-seeking (e.g., formal, school-based, informal) were most common among those who experienced specific types of SVSH, frequencies were run focusing on students with specific SVSH histories (Table 3.2). In addition, crude logistic regression models were used to determine associations between demographic factors and each type of help-seeking for specific types of SVSH. All demographic variables significantly associated with any type of help-seeking ( $p < 0.05$ ) were included in adjusted logistic regression models (Table 3.3). All analysis were conducted using SPSS version 26.

## **Results**

### ***Sample Characteristics***

In general, the Moi University students who participated in the survey were young (mean age of men = 21.66; mean age of women = 20.97) and heterosexual (Table 3.1). The majority of participants were women (60.1%), which is not representative of Moi University as a whole (enrolment statistics indicate a gender distribution of 50% men and 50% women in 2018). Finally, the majority of participants were single (72.7%), and approximately 1/3<sup>rd</sup> were in partnered relationships (i.e., married, cohabitating, serious relationship).

### ***SVSH and Help-Seeking***

Experiencing one or more types of SVSH was highly prevalent among Moi University students: 487 of 649 students (75.0% of all students) reported experiencing sexual harassment, stalking and/or sexual violence. Since matriculating into Moi University, 305 women (78.2%) experienced one or more types of SVSH, as did 182 men (70.3%), though women were significantly more likely to experience SVSH overall ( $X^2 = 5.23$ ,  $p=0.02$ ). The most common form of SVSH experienced by all students was sexual harassment (445 of 649 students, or 68.6% of all students). Women ( $n=281$ , 72.1%) were significantly more likely than men ( $n=164$ , 63.3%) to experience sexual harassment ( $X^2 = 9.04$ ,  $p=0.003$ ). The same gender patterns emerged among those who experienced stalking, where women ( $n=183$ , 46.9%) were more likely than men ( $n=100$ , 38.6%) to report having been stalked ( $X^2 = 4.37$ ,  $p=0.04$ ). Further, those who identified as single ( $n=194$ , 41.1%) were less likely than those in a partnered relationship ( $n=89$ , 50.3%) to experience stalking ( $X^2 = 4.41$ ,  $p=0.04$ ) and sexual violence (single:  $n=90$ , 19.1%; partnered:  $n=63$ , 35.6%;  $X^2 = 6.91$ ,  $p<0.01$ ). Sexual orientation was not significantly associated with any type of SVSH, but approached significance ( $p=0.058$ ) for experiences of sexual harassment (Table 3.1).

Among students who experienced sexual harassment and sexual violence, the majority (>50%) did not engage in help-seeking. Among those who engaged in help-seeking, the most common type was informal (e.g., friends, family) for each form of SVSH (i.e., sexual harassment, stalking, sexual violence).

The second most common type of help-seeking was formal help-seeking (e.g., police, hospital) (Table 3.2).

### ***Demographic Factors and Help-Seeking: Findings from Crude and Adjusted Logistic Regression Models***

Among those who experienced sexual harassment, women were 81% less likely to utilize school-based help-seeking relative to men (Odds Ratio [OR]=0.19, 95% Confidence Interval [CI]=0.05-0.70) and those who identified as single were 72% less likely to utilize school-based help-seeking (OR=0.28, 95% CI=0.09-0.89) compared to their peers in relationships. Among those who experienced stalking, women were 65% less likely to utilize school-based help-seeking (OR=0.35, 95% CI=0.13-0.96), but were 2.26 times more likely to seek informal help-seeking (OR=2.26, 95% CI=1.26-3.77) relative to men. In addition, those who identified as single were 91% less likely to seek help from school-based entities for experiences of stalking (OR=0.09, 95% CI=0.03-0.32) compared to their peers in relationships. Among those who experienced sexual violence, those who identified as single were 78% less likely to seek help from school-based entities (OR=0.22, 95% CI=0.07-0.73) compared to their partnered peers.

All the significant associations in the crude logistic regression models were maintained in adjusted models with one exception: being a woman was no longer associated with reduced school-based help-seeking among those who had experienced stalking (OR=0.37, 95% CI=0.13-1.07; Table 3.3).

## Discussion

In our cross-sectional study of 649 Moi University students, we found that nearly 7 in 10 students experienced sexual harassment, nearly half experienced stalking and one-fourth experienced sexual violence; we also found that women experienced higher rates of each type of violence compared to their male counterparts and those who are single experience higher rates of stalking and sexual violence compared to their peers in partnered relationships. While help-seeking varied based on the type of SVSH a student experienced, the majority of students did not seek help after experiences of SVSH. Among students who decided to seek help after experiencing SVSH, the most prevalent type of help-seeking was informal help-seeking (i.e., seeking help from a friend or family member) and the least prevalent type was school-based help-seeking (i.e., faculty member, EVOG club member). Relationship status was significantly associated with help-seeking across all types of SVSH, where students who identified as single were significantly less likely to seek-help. Finally, while women were significantly more likely to engage in informal help-seeking, they were significantly less likely to engage in school-based help-seeking. This study builds upon previous research in key ways, especially in its focus on university students where there is lacking data on prevalence of SVSH and information on help-seeking among this population and in its findings related to school-based help-seeking, which has not previously been considered in research focused on help-seeking behaviors but which may be very relevant to inform interventions.

While more is known about prevalence of SVSH within adolescent and primary school (i.e., grade school) populations in Kenya (42, 43), this study begins to fill a gap in understanding the prevalence and experiences of SVSH in Kenyan university settings (22, 23). Our findings add to the small body of research on SVSH in university settings in sub-Saharan Africa and in Kenyan university settings specifically. While prevalence data on sexual harassment and stalking is limited within the general community in Kenya, our findings indicate that more than 70% of female Moi University students experienced sexual harassment, nearly half (47%) experienced stalking and 25% experienced sexual violence. We also found that nearly two-thirds of male Moi University students experienced sexual harassment (63%), 39% experienced stalking and 22% experienced sexual violence. For both genders, this is significantly higher than the prevalence of sexual violence among the general population (14% of women, 6% of men) reported by the 2014 Kenyan Demographic and Health Survey. The prevalence of SVSH in our study is also slightly higher than Sang et al.'s 2014 study on University of Eldoret students (n=100), which found that 50% of students experienced sexual harassment. These differences may be due to differing sample sizes and/or the items used to measure sexual harassment between studies. Our study contributes to understanding the types of SVSH students experience in university settings. It also adds to knowledge in the field regarding men's experiences of SVSH, as little is known about this population, especially in low- and low-middle income settings where there are prevalent



cultural and social norms that may not acknowledge that men can also experience SVSH (186, 187). More work is needed to assess prevalence and specific SVSH experiences among university students in a way that may address under-reporting and assess variations by diverse groups.

Globally, studies focused on barriers to help-seeking reflect a clear pattern: those who experience SVSH in low-income countries and in countries with larger gender inequalities and inflexible gender norms experience higher rates of SVSH and seek help less often than their counterparts in high-income countries with more equitable gender norms (188-191). Our study findings are aligned with these previous studies, as the majority of students – men and women alike in this university setting in Kenya – did not seek help for their experiences of SVSH. We also found that the type of help-seeking (e.g., formal, school-based, informal) did not differ by type of SVSH; informal help-seeking was the most common regardless of type of SVSH. This pattern is also supported by previous studies among populations in sub-Saharan Africa in non-university settings (189, 192, 193), where SVSH survivors often decided not to seek help and among those who did, the utilization of informal help-seeking entities (e.g., family, friends) was most common. Given the paucity of research conducted on SVSH help-seeking in university settings, our study is among the first to differentiate between formal and school-based help-seeking practices in a university setting, documenting school-based help-seeking to be least commonly reported. Additional research is needed to better understand why

school-based help-seeking is not utilized more, which would help inform university SVSH prevention and resource programming.

Though we did not find any associations between age or sexual orientation and SVSH or help-seeking, we did find significant associations between gender and relationship status with SVSH and help-seeking. Our finding that women were more likely than men to seek informal help is supported in the help-seeking literature among non-university settings in sub-Saharan Africa (194-196), though research on violence against men and subsequent help-seeking behaviors is limited. While women were more likely to seek informal help, they were significantly less likely to seek school-based help for experiences of sexual harassment and stalking. While studies are limited, it is possible that women are less likely to seek help in school-based settings because this is where they are experiencing SVSH. If those working within the school, who are often the perpetrators of SVSH – as reported by university women, then female students may perceive the school setting as an unsafe or unsupportive place to seek help (23). While we did not ascertain who perpetrated SVSH against the students in this study, research in similar settings have documented incidents of male teachers sexually harassing and/or coercing female students to engage in sexual activities under threat of harm, promise of good grades, passing a class and/or money (23, 197-199). This has led to terms such as “sexually transmitted degrees” and “sexually acquired degrees” being popularized in Kenya specifically (23). Such inappropriate behavior from teachers has led to young

women becoming pregnant, dropping out and/or getting expelled (199). Unfortunately, as Tavrow et al., 2013 found in her study of Kenyan youth, perpetrators often escape consequences and community disapprobation for their actions – especially in a societal context when coerced sex between acquaintances is not always considered rape (200). Thus, it is imperative that future work focuses on ensuring school and university settings alike are safe places for young people, particularly young women.

Previous study findings on relationship status and its association with SVSH vulnerability and help-seeking is mixed (201-203). In Linos et al's., 2014 study of 5,553 Nigerian women exposed to physical and sexual violence, those who were formerly married or never married were more likely to seek help than those currently in relationships (181), which contradicts our findings. This may, in part, be the result of differences in sample population, as our overall sample was limited to university students. In addition, our study focused on a broader array of SVSH experiences, whereas this previous study was solely focused on help-seeking behaviors related to IPV experiences of only women. In our study, those in relationships were more likely to engage in SVSH help-seeking; it is possible that students in partnered relationships received support from their significant others, whereas single students lacked such support. More work is needed to understand the support systems that non-partnered (e.g., single) students *do* utilize after experiencing SVSH in order to better support them and their healing. Unfortunately, our study lacked some relationship-specific context (e.g.,

perpetrator identity and characteristics) that would be helpful in making conclusions. Additional research (e.g., qualitative and/or mixed methods research) is needed to better understand how relationship status and associated characteristics may impact SVSH and help-seeking, especially among university student populations in low-income and low-resource settings.

### ***Limitations***

Our study was cross-sectional and utilized a small, non-randomized convenience sample from a single campus in Kenya; therefore, we are unable to suggest causal relationships and the generalizability our findings is limited. Further, the survey was adapted from the AAUW, a tool that has been historically utilized in high-income and high-resource Westernized settings, such as the US, and is focused specifically on the SVSH experiences of women. Additional reliability and cultural testing and adaptation should be considered before utilizing the AAUW in Kenya for future studies. In addition, the items we used to measure sexual harassment and stalking had low, but acceptable, Cronbach alpha scores. Specifically, the two items used to measure stalking may not have been worded with enough specificity to capture experiences of online stalking and may have inadvertently measured another form of online sexual harassment. Future studies may be needed that ensure the use of measures with high internal consistency and face validity (i.e., psychometric properties) for this population. Further, the data were collected using a paper-

and-pencil survey, which was self-administered. While there are strengths in allowing students to self-administer their survey (e.g., less response bias on questions related to sensitive topics, such as SVSH and sexual orientation), there are also some limitations including students experiencing survey fatigue and not accurately following skip patterns (e.g., a student responding in one section they did not experience sexual harassment, but later indicating they sought help for sexual harassment). In addition, we hoped to achieve a more diverse group of students in terms of gender orientation and sexual orientation. Unfortunately, our sample did not include a large enough sample to probe further into the SVSH experiences and help-seeking behaviors of students who are gender and sexual minorities. In geographic locations where social norms and laws criminalise and disenfranchise those who identify as non-heterosexual or non-cisgender, future work should take caution in ensuring survey questions are adapted to be culturally appropriate and validated. As such, future studies should prioritize LGBTQ+ and gender minorities to determine how sexual orientation and gender beyond the male / female dyad impact experiences of violence and help-seeking in the Kenyan setting. Finally, given that the majority of students did not engage in help-seeking for SVSH experiences, the sample size for Aim 3 was limited to the few who sought help; therefore, despite the consistent help-seeking patterns identified across each type of SVSH, caution should be taken when interpreting these results.

## **Future Directions and Conclusion**

Our study contributed to the violence prevention literature by providing the prevalence of SVSH and help-seeking in Kenyan university settings, where there is a dearth of information. In addition, this work focused on university students inclusive of men and those who identify as non-heterosexual, populations that have been understudied in previous research. Despite SVSH being highly prevalent among both women and men at Moi University, the majority did not seek help related to their experiences of SVSH. Interventions to support help-seeking may be most effective if focused on peer-to-peer support, given that most help-seeking occurred with informal sources. Additional research is also needed to understand why school-based help-seeking is not better utilized, which would also inform university SVSH programming and the creation of SVSH policies to best support SVSH survivors (171).

## **Acknowledgements:**

Chapter 3, in part, is currently being prepared for submission for publication of the material. Bloom, B.E., Tavrow, P., and Reed, E. The dissertation author was the primary investigator and author of this material.

**Table 3.1: Summary of Demographic Information and Demographic Differences Based on Type of Sexual Violence and Sexual Harassment Experienced by Moi University Students**

	All Students (n=649)		Sexual Harassment (n=445)		Stalking (n=283)		Sexual Violence (n=153)			Any SVSH (n=487)			
	n (%)	n (%)	X <sup>2</sup>	p-value	n (%)	X <sup>2</sup>	p-value	n (%)	X <sup>2</sup>	p-value	n (%)	X <sup>2</sup>	p-value
<b>Age</b> <sup>a</sup> (range, mean)	18-26, 21.24	18-26, 21.28	-1.70	0.099	18-26, 21.25	-0.16	0.876	18-26, 21.32	-0.74	0.458	18-26, 21.25	-0.27	0.429
<b>Gender</b>													
Male	259 (39.9%)	164 (63.3%)	<b>9.04</b>	<b>0.003**</b>	100 (38.6%)	<b>4.37</b>	<b>0.036*</b>	56 (21.6%)	0.81	0.368	182 (70.3%)	<b>5.23</b>	<b>0.022*</b>
Female	390 (60.1%)	281 (72.1%)			183 (46.9%)			97 (24.9%)			305 (78.2%)		
<b>Sexual Orientation</b> <sup>b</sup>													
Heterosexual	590 (90.9%)	398 (67.5%)	3.60	0.058	253 (42.9%)	1.38	0.239	134 (22.7%)	1.84	0.175	437 (74.1%)	3.27	0.071
LGBTQ+	59 (9.1%)	47 (79.7%)			30 (50.8%)			19 (32.2%)			50 (84.7%)		
<b>Relationship Status</b>													
Single	472 (72.7%)	317 (67.2%)	4.32	0.511	194 (41.1%)	<b>4.41</b>	<b>0.036*</b>	90 (19.1%)	<b>6.91</b>	<b>0.009**</b>	348 (73.7%)	1.59	0.208
In a relationship	177 (27.3%)	128 (72.3%)			89 (50.3%)			63 (35.6%)			139 (78.5%)		

NOTE: SD = Standard Deviation, X<sup>2</sup> = chi-square  
\*significant at p<0.05; \*\*significant at p<0.01; \*\*\*significant at p<0.001  
<sup>a</sup>For age, a continuous variable, independent samples t-tests were run instead of chi-square tests  
<sup>b</sup>Nine students identified as transgender or did not respond to the gender identity question and were removed from the analysis

**Table 3.2: Types of Help-Seeking among Moi University Students Who Experienced Specific Types of SVSH**

	<b>Sexual Harassment (n=445)</b>	<b>Stalking (n=283)</b>	<b>Sexual Violence (n=153)</b>	<b>Any SVSH (n=487)</b>
<b>Type of Help-Seeking</b>	n (%)	n (%)	n (%)	n (%)
<b>Formal</b>	<b>35 (7.9%)</b>	<b>34 (12.0%)</b>	<b>23 (15.0%)</b>	<b>55 (11.3%)</b>
Police	8 (1.8%)	4 (1.4%)	5 (3.3%)	14 (3.0%)
Campus Security	19 (4.3%)	22 (7.8%)	9 (5.9%)	38 (8.4%)
Hospital / Health Facility	8 (1.8%)	8 (2.8%)	9 (5.9%)	21 (4.3%)
<b>School-Based</b>	<b>13 (2.9%)</b>	<b>22 (7.8%)</b>	<b>20 (13.1%)</b>	<b>31 (6.4%)</b>
Dean of Students	9 (2.0%)	10 (3.5%)	9 (5.9%)	21 (4.3%)
Faculty Member	1 (0.2%)	5 (1.8%)	7 (4.6%)	12 (2.5%)
EVOC Member	3 (0.7%)	7 (2.5%)	4 (2.6%)	11 (2.3%)
<b>Informal</b>	<b>137 (30.8%)</b>	<b>129 (45.6%)</b>	<b>47 (30.7%)</b>	<b>202 (41.5%)</b>
Pastor / Counsellor	15 (3.4%)	6 (2.1%)	1 (0.7%)	16 (3.3%)
Family Member / Friend	122 (53.1%)	123 (43.6%)	46 (30.1%)	193 (39.6%)
<b>Other</b>	<b>40 (9.0%)</b>	<b>30 (10.6%)</b>	<b>20 (13.1%)</b>	<b>77 (15.8%)</b>
<b>Did not seek help</b>	<b>279 (62.7%)</b>	<b>118 (41.7%)</b>	<b>84 (54.9%)</b>	<b>255 (52.4%)</b>



**Table 3.3: Unadjusted and Adjusted Logistic Regression Findings: Factors associated with Help-Seeking among Students with Experiences of SVSH**

	Formal Help-Seeking (n=35)			School-Based Help-Seeking (n=13)			Informal Help-Seeking (n=137)			
	n (%)	OR (95% CI)	AOR (95% CI)	n (%)	OR (95% CI)	AOR (95% CI)	n (%)	OR (95% CI)	AOR (95% CI)	
<b>Age <sup>a</sup></b>										
	19-26 (21.75)	1.29 (0.99-1.66)	-	20-22 (21.00)	0.84 (0.49-1.44)	-	18-26 (21.30)	1.02 (0.87-1.20)	-	
<b>Gender</b>										
Female	20 (60.6%)	0.89 (0.43-1.84)	0.89 (0.43-1.84)	3 (25.0%)	<b>0.19 (0.05-0.70)*</b>	<b>0.18 (0.05-0.69)*</b>	89 (68.5%)	1.39 (0.90-2.15)	1.39 (0.90-2.15)	
Male	13 (39.4%)	ref	ref	9 (75.0%)	ref	ref	41 (31.5%)	ref	ref	
<b>Sexual Orientation</b>										
LGBTQ+	5 (15.2%)	2.53 (0.63-10.17)	-	3 (25.0%)	2.95 (0.77-11.29)	-	14 (10.8%)	1.57 (0.58-4.29)	-	
Heterosexual	28 (84.8%)	ref	-	9 (75.0%)	ref	-	116 (89.2%)	ref	-	
<b>Relationship Status</b>										
Single	19 (57.6%)	0.52 (0.25-1.07)	0.52 (0.25-1.07)	5 (41.7%)	<b>0.28 (0.09-0.89)*</b>	<b>0.27 (0.08-0.87)*</b>	85 (65.4%)	0.68 (0.44-1.05)	0.68 (0.44-1.05)	
In a relationship	14 (42.4%)	ref	ref	7 (58.3%)	ref	ref	45 (34.6%)	ref	ref	
				<b>Stalking (n=283)</b>						
<b>Age <sup>a</sup></b>										
	18-26 (21.30)	1.03 (0.77-1.37)	-	18-25 (21.69)	1.25 (0.86-1.80)	-	18-26 (21.16)	0.92 (0.77-1.01)	-	
<b>Gender</b>										
Female	17 (58.6%)	0.74 (0.34-1.63)	0.80 (0.36-1.81)	7 (41.2%)	<b>0.35 (0.13-0.96)*</b>	0.37 (0.13-1.07)	95 (74.8%)	<b>2.26 (1.26-3.77)**</b>	<b>2.23 (1.29-3.85)**</b>	
Male	12 (41.4%)	ref	ref	10 (58.8%)	ref	ref	32 (25.2%)	ref	ref	
<b>Sexual Orientation</b>										
LGBTQ+	6 (20.7%)	2.49 (0.92-6.71)	-	4 (23.5%)	2.83 (0.86-9.31)	-	11 (8.7%)	0.68 (0.31-1.49)	-	
Heterosexual	23 (79.3%)	ref	-	13 (76.5%)	ref	-	116 (91.3%)	ref	-	

Table 3.3 (Continued)

		Formal Help-Seeking (n=34)			School-Based Help-Seeking (n=22)			Stalking (n=283)			Informal Help-Seeking (n=129)		
		n (%)	OR (95% CI)	AOR (95% CI)	n (%)	OR (95% CI)	AOR (95% CI)	n (%)	OR (95% CI)	AOR (95% CI)	n (%)	OR (95% CI)	
<b>Relationship Status</b>													
Single		17 (58.6%)	0.62 (0.28-1.36)	0.60 (0.27-1.33)	3 (17.6%)	<b>0.09 (0.02-0.30)***</b>	<b>0.09 (0.03-0.32)***</b>	80 (63.0%)	0.63 (0.38-1.05)	0.63 (0.37-1.09)			
In a relationship		12 (41.4%)	ref	ref	14 (82.4%)	ref	ref	47 (37.0%)	ref	ref		ref	
<b>Sexual Violence (n=153)</b>													
		<b>Formal Help-Seeking (n=23)</b>			<b>School-Based Help-Seeking (n=20)</b>			<b>Informal Help-Seeking (n=47)</b>					
<b>Age<sup>a</sup></b>		18-25 (21.67)	1.17 (0.84-1.62)	-	18-25 (21.36)	1.02 (0.69-1.51)	-	18-24 (21.02)	0.83 (0.65-1.07)	-			
<b>Gender</b>													
Female		10 (52.6%)	0.60 (0.23-1.58)	0.63 (0.24-1.67)	8 (53.3%)	0.63 (0.22-1.84)	0.73 (0.24-2.19)	30 (65.2%)	1.12 (0.54-2.31)	1.06 (0.51-2.20)			
Male		9 (47.4%)	ref	ref	7 (46.7%)	ref	ref	16 (34.8%)	ref	ref		ref	
<b>Sexual Orientation</b>													
LGBTQ+		1 (5.3%)	0.36 (0.05-2.85)	-	3 (20.0%)	1.91 (0.49-7.49)	-	5 (10.9%)	0.81 (0.27-2.40)	-			
Heterosexual		18 (94.7%)	ref	ref	12 (80.0%)	ref	-	41 (89.1%)	ref	-			
<b>Relationship Status</b>													
Single		9 (47.4%)	0.60 (0.22-1.54)	0.62 (0.23-1.63)	4 (26.7%)	<b>0.22 (0.07-0.73)*</b>	<b>0.23 (0.07-0.75)*</b>	31 (67.4%)	1.68 (0.82-3.47)	1.68 (0.81-3.46)			
In a relationship		10 (52.6%)	ref	ref	11 (73.3%)	ref	ref	15 (32.6%)	ref	ref		ref	

NOTE: OR=Odds Ratio; AOR= Adjusted Odds Ratio; CI=Confidence Interval; NOTE: OR=Odds Ratio; AOR= Adjusted Odds Ratio; CI=Confidence Interval; Any variable significantly associated with any form of help-seeking in unadjusted models were included in the adjusted models

<sup>a</sup> For age, a continuous variable, means and standard deviations were run instead of frequencies

\*significant at p<0.05; \*\*significant at p<0.01; \*\*\*significant at p<0.001

## CONCLUSION

Sexual violence and sexual harassment (SVSH) occurs on college and university campuses globally. As nearly 50% of all college students experience SVSH while enrolled in college, initiatives to stop violence before it begins and to mitigate the long-term health and economic impact SVSH has on survivors (e.g., anxiety, depression, suicidality, decreased lifetime earning potential) is crucial. Though we know rates of SVSH vary by different student populations (e.g., students of color, students who belong to the LGBTQ+ community), data on SVSH experiences, prevention and evaluation efforts do not often tease apart or reflect the individual or additive complexities of gender, race, class or other related factors (30). Public health experts and violence prevention researchers, including major public health authorities from the WHO and CDC, have called for SVSH programs, policies and research that are proactive, socio-culturally relevant and focus both on specific, diverse populations and intersectionality (49, 114). This dissertation is in response to this call: the overarching goal of this work was to assess how pre-college and in-college factors are related to students' experiences of SVSH while in college. Specifically, we focused on identifying ways to prevent SVSH and understand help-seeking decision-making for experiences of SVSH in the US and in Kenya in sub-Saharan Africa where rates of SVSH in the general population are high (14% of women and 6% of men aged 15-49 report having experienced sexual violence at least once in their lifetimes) and much is unknown about prevalence of SVSH in university settings (23, 168).

Chapter one utilized a sequential explanatory mixed-methods study design to describe differences in pre-college formal and informal sex education content and sources reported between LGBTQ+ and heterosexual undergraduate students at three public universities and assessed the perceived usefulness of sex education and responsiveness to LGBTQ+ needs. Our quantitative findings highlighted that LGBTQ+ students reported being significantly less likely to report being taught “how to say no to sex” and having to supplement their sex education with the internet (e.g., social media, pornography) as their primary source of information for key components of sex education – including those related to SVSH outcomes: relationships, violence in relationships, and consent, among others. Qualitative findings substantiated this and highlighted vulnerability to SVSH, including online sexual coercion, as a result of relying on the internet for sex education. Other quantitative findings included that LGBTQ+ students felt their sex education was less useful in terms of learning how to navigate personal desires related to sex and sexual consent compared to their heterosexual counterparts. Qualitative interviews supported this, highlighting that consent was not taught in ways that were useful for LGBTQ+ students. Interviews also revealed that LGBTQ+ students experienced othering, silencing and erasure through their sex education, and highlighted the unique consequences of receiving non-inclusive sex education (e.g., experiencing shame, contracting sexually transmitted infections, increased vulnerability to SVSH). Given that there is a growing body of research on the relationship

between comprehensive sex education and SVSH prevention (60, 61, 71, 75, 99-103), sex education policy and education must be modified to be more inclusive and helpful for those at increased risk of experiencing SVSH – including LGBTQ+ students.

Chapter two included results from a sexual violence campus climate survey derived from undergraduate and graduate students enrolled in a large, public campus on the west coast. The goal of the paper was to determine the sociodemographic factors associated with engaging in bystander behavior. Specifically, we assessed students with histories of SVSH victimization (e.g., sexual harassment, dating violence, physical violence from a partner, attempted sexual assault, completed sexual assault) and students of specific gender, race/ethnicity, and sexual orientation backgrounds. In addition, this study determined whether intersectional demographic factors (i.e., identifying as LGBTQ+ and as a person of color) were associated with engaging in bystander behaviors. After running sets of unadjusted and adjusted Poisson regression analyses and testing for interaction terms, our final, fully adjusted model revealed that all SVSH-related variables were significantly and positively associated with engaging in bystander behaviors. We also found that gender and race/ethnicity alone were not significantly associated with engaging in bystander behaviors, but when intersectionality was considered (i.e., identifying as female *and* as a student of color; identifying as a student of color *and* as LGBTQ+), there were both positive and negative significant associations with

engaging in bystander behavior. Though we are limited in our ability to provide concrete recommendations for SVSH bystander behavior intervention programming, we can conclude that students' identities and experiences matter in their decision-making to engage in bystander behavior. Additional consideration must be given to the power, status or position that a bystander has when deciding whether to intervene and research is needed to better understand intersectional and non-majority experiences in SVSH prevention and education efforts.

Finally, chapter three focused on determining the prevalence of SVSH (e.g., sexual harassment, stalking, sexual violence) across demographic groups (e.g., gender, sexual orientation, relationship status) among a diverse group of Moi University students in Kenya. In addition, among students with histories of SVSH, we determined what types of help-seeking (e.g., formal, school-based, informal) were most common and what types of SVSH and demographic factors were associated with help-seeking. Data on SVSH prevalence is lacking in low-income and low-resource countries, including in university settings in Kenya. We found that SVSH was highly prevalent among both male and female Moi University students. Sexual harassment was most commonly experienced among both genders, but women experienced all types of SVSH more frequently than their male counterparts and those in partnered relationships were more likely to experience stalking and sexual violence. Overall, help-seeking did not occur often; however, among students who sought help, they most often utilized

informal sources and least often utilized school-based sources. Adjusted logistic regression models revealed that being single was associated with lower rates of school-based help-seeking among those who experienced sexual harassment, stalking and sexual violence. Women were more likely to seek informal help for stalking, but less likely to seek school-based help for sexual harassment compared to their male counterparts. More work is needed to understand possible hesitation for school-based help-seeking, particularly among women and those who are single. This work also supports interventions that encourage peer-to-peer support within informal networks, given they are the most utilized and may be most effective to deliver support related to SVSH in university settings.

Though each paper in this dissertation is derived from a different data set and setting, taken together these three papers highlight the importance of student identity and experience on SVSH experiences, prevention and help-seeking. In unique ways, each paper also highlights students' preference in utilizing informal education, prevention and help-seeking sources, whether it be relying on the internet for sex education and related information (Paper 1), intervening in SVSH-risk situations as a bystander (Paper 2), or preferring to utilize informal help-seeking entities after experiencing SVSH (Paper 3). As universities continue to experience pressure to reduce and prevent SVSH on their campuses, many of their efforts have focused on formal SVSH prevention and education efforts (204, 205). In light of the findings of this dissertation, and the

changing expectations and demographics of undergraduate and graduate students in university settings, more work is needed to understand students' preference and reliance on informal sources to meet their needs. This may include making formal resources feel less formal (e.g., Safe Space training, faculty and staff undergoing survivor-centered trainings) and helping decrease barriers and fear around SVSH reporting, help-seeking and accessing resources and care (38, 156, 204-211).

This research was limited by the use of cross-sectional data and limited sample sizes for certain student populations (e.g., men, transgender or LGBTQ+ students), limiting the generalizability of the findings. Specifically, the students who participated in each study do not represent the campus-level or system-level (e.g., UC system) demographics. In addition, care should be taken to ensure that the surveys and scales that are used in increasingly diverse student populations, including those outside of the US, undergo rigorous reliability testing, validation and adaptation to ensure that they remain both valid and reliable methods to capture SVSH and related student experiences.

Despite these limitations, ultimately this dissertation provides support to those in public health research and violence prevention who are pushing for updated and evidence-based SVSH education, prevention and care that considers diverse student populations and intersectionality. SVSH prevention can be complex; as the demographics of university students globally continue to change and become more diverse, so must our efforts to combat SVSH.



Whether these efforts begin before college, such as providing comprehensive sex education that is inclusive and useful for *all* students; during college, such as efforts to create communities that protect each other from SVSH and related harms (e.g., bystander behavior programming); or after experiencing SVSH, such as improving help-seeking options, resources and care. Each of these components are crucial in the arch of SVSH prevention, education and service provision. Ultimately, in order to make college and university campuses safer for all who live, work and learn there, campus SVSH must be addressed globally with comprehensive, gender-centered, norm-challenging and evidence-based prevention programming (41, 49, 212). Ultimately, initiatives to prevent and address SVSH in university settings are crucial, as universities are key societal institutions that have the ability to establish norms that promote equity and safety for current and future students, especially those who are at increased risk of experiencing SVSH (7).

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