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Mental Health Service Utilization Among Lesbian, Gay, Bisexual, and Questioning or Queer College Students

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A B S T R A C T

Purpose: College students are at high risk for mental health problems, yet many do not receive treatment even when services are available. Treatment needs may be even higher among sexual minority students, but little is known about how these students differ from heterosexual peers in terms of mental health needs and service utilization.

Methods: A total of 33,220 California college students completed an online survey on mental health needs (e.g., current serious psychological distress and mental health–related academic impairment) and service utilization. Using logistic regressions, we examined differences in student characteristics, mental health service use, and perceived barriers to using on-campus services by sexual minority status.

Results: Approximately 7% of students self-identified as sexual minorities. Compared with heterosexual students, sexual minority students endorsed higher rates of psychological distress (18% vs. 26%, $p < .001$) and mental health–related academic impairment (11% vs. 17%, $p < .001$) but were 1.87 (95% confidence interval: 1.50–2.34) times more likely to use any mental health services. Sexual minority students were also more likely to report using off-campus services and to endorse barriers to on-campus service use (e.g., embarrassed to use services and uncertainty over eligibility for services).

Conclusions: Sexual minority individuals represent a sizeable minority of college students; these students use mental health services at higher rates than heterosexual peers but have high rates of unmet treatment need. Efforts to address commonly reported barriers to on-campus service use, foster sexual minority-affirmative campus environments, and promote awareness of campus services may help reduce unmet treatment need in this population.

IMPLICATIONS AND CONTRIBUTION

Nearly two thirds of sexual minority–identifying college students with serious psychological distress did not use mental health services, indicating high rates of unmet treatment need. Sexual minority students endorse more barriers to using on-campus mental health services than heterosexual peers and may preferentially seek off-campus services.

An estimated 17% or more of college students suffer from serious psychological distress [1,2]. Although most college campuses provide low-cost mental health (MH) services, most students with MH issues go untreated [3,4]. If unaddressed, psychological problems often persist [5]—with consequences including greater substance misuse [6] and social impairment [7], lower academic achievement, graduation rates [8], and lower postgraduation workforce participation and income [9].

Lesbian, gay, bisexual, queer, or questioning (LGBQQ) college students may be at higher risk for MH problems relative to non–LGBQQ-identifying peers. LGBQQ individuals in the general

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population are more likely to experience depression and other MH problems and report greater perceived need for MH treatment than heterosexual peers [10], in part due to experiencing unique stressors [11] (e.g., stigma, discrimination, and victimization) [12–15]. LGBQQ youth may be at greater risk for MH problems prior to college [16] and may also find typical developmental processes (e.g., identity development and burgeoning independence) [17] more stressful [12,13] than heterosexual peers during college. Many LGBQQ college students cope with these stressors and challenges by seeking out identity-affirming support systems (e.g., peer networks and gay and lesbian organizations) [18,19]. LGBQQ individuals also experience unique barriers to accessing health care, such as discomfort discussing sexual orientation with providers, mistrusting providers due to expectations of discrimination, and fear of being "outed" [20–22]. Such concerns may be heightened on college campuses, as many LGBQQ students report hostile campus climates [23,24]. These factors could lead some LGBQQ college students to abstain from accessing MH services, including on-campus services, when distressed.

Unfortunately, little is known about LGBQQ college students' MH needs. National studies of U.S. college students suggest that LGBQQ students experience higher levels of stress [25]. Individual and cross-campus studies also find that LGBQQ students experience greater perceived discrimination [26,27] and report a higher perceived unmet need for MH services [22] and higher rates of service utilization compared with heterosexual peers [3,28]. However, few studies have examined ways that LGBQQ college students differ from non-LGBQQ students on factors such as MH status, perceived barriers to MH service use, and use of on-campus versus off-campus services, that may influence accessing needed MH treatment. We are unaware of studies assessing factors correlated with MH treatment use among LGBQQ students. Better understanding these issues will inform efforts to enhance LGBQQ students' receipt of appropriate care, subsequently improving their psychological health and likelihood of positive academic outcomes, such as graduation. This study increases our understanding by examining factors associated with MH and service utilization in a large sample of LGBQQ and non-LGBQQ students across various California institutions of higher education.

Methods

Undergraduate and graduate students in three California higher education systems—the University of California (UC), California State University (CSU), and California Community Colleges (CCC)—completed an online survey during 2013 Spring and Fall semesters as part of the California Mental Health Services Authority Student Mental Health initiative's evaluation [29,30]. The UC, CSU, and CCC systems are California's public higher education system, serving the largest and most demographically diverse college student populations in the country. The three systems differ with respect to admission requirements, degrees awarded, and availability of on-campus MH services (i.e., all UC and CSU campuses provide on-campus services; CCC campuses vary with respect to provision of on-campus services). The UC chancellor's office invited all 10 UC campuses to participate; eight chose to participate. The CSU chancellor's office invited all 23 CSU campuses to participate; nine chose to participate. The CCC president's office invited all 30 CCC campuses receiving California Mental Health Services Authority–supported grants and 30 randomly selected CCC campuses not receiving such grants to participate; 14 of the former and eight of the latter agreed to participate. The most common reasons for not participating were competing demands and insufficient staff and resources. Compared with participating campuses, nonparticipating campuses generally were smaller, had fewer students, and had higher percentages of Latino and African-American students. Staff representatives at participating campuses were responsible for distributing survey invitations and information via email. The RAND Corporation Institutional Review Board approved the study.

Respondents

The final sample included students from nine UC campuses, nine CSU campuses, and 15 CCC campuses; we excluded students from seven additional CCC campuses with no formal on-campus MH services. Analyses included 33,220 students (UC: n = 14,722; CSU: n = 6,842; and CCC: n = 11,656). Because transgender individuals may experience unique MH treatment issues distinct from LGBQQ students that could influence service utilization (e.g., for individuals who are considering sexual reassignment surgery, diagnosis of gender dysphoria and counseling may be required) [31], we excluded 176 transgender identifying students (n = 154 in the LGBQQ group and n = 22 in the heterosexual group) from our final sample.

Measures

Student characteristics. Students identified themselves as lesbian, gay, bisexual, transgender, queer, or questioning in response to the question: "Do you identify [as]: lesbian, gay, bisexual, transgender, queer, or questioning?" Students did not provide information on specific sexual orientation (e.g., lesbian vs. bisexual). Current gender identity (male, female, and transgender/other) was assessed separately. Students also reported on age, race/ethnicity (white, black/African-American, Asian, American Indian/Native American/Pacific Islander, other; Hispanic, or Latino), undergraduate versus graduate status, and full-time versus part-time status.

Mental health service utilization. Students reported whether they had ever used on-campus MH services while attending their current college campus ("Did you end up receiving psychological or mental health services on campus?" [coded no = 0; yes = 1]); individuals who responded "no" were subsequently asked if they had ever used any MH services off-campus (e.g., through a community-based provider) while enrolled in college.

Barriers to on-campus mental health service utilization. Individuals who did not use on-campus MH services were asked additional yes/no questions about reasons for not utilizing on-campus services (i.e., "I got help off campus" and "I didn't feel I needed services"). These students also reported on a range of barriers to on-campus service use ("Check all that apply:"), as shown in Table 1. Barriers were dummy coded as 1 ("yes") if checked and 0 ("no") if not checked.

Psychological health. We assessed students' current psychological distress using the Kessler Psychological Distress Scale (K6), a reliable, valid six-item Likert measure [32]. The K6 assesses the frequency with which students experienced symptoms such as

Table 1
Barriers to utilizing on-campus mental health services

Barriers to using on-campus services: Item text
"I did not know how to access [on-campus services]"[a]
"I had never heard of [on-campus services]"
"I did not know what was offered"
"I had concerns about possible lack of confidentiality"[a]
"I was embarrassed to use [on-campus services]"[a]
"I had concerns about possible costs"[a]
"The location is inconvenient"
"The wait for an appointment was too long"
"The hours are inconvenient"[a]
"I did not have enough time"
"[On-campus services have] a poor reputation"[a]
"I did not think it would help"
"I did not know if I was eligible [for services]"[a]

Students who reported that they did not use on-campus mental health services were asked about a range of potential barriers to accessing on-campus services. Respondents were asked to check all barriers that applied to them.

[a] Indicates barriers examined in group comparison recycled prediction analyses.

hopelessness and worthlessness during the prior 30 days. Students with a total score of 13 or higher were categorized as having current serious psychological distress [33]. Students also reported on their subjective overall level of stress over the past 12 months on a five-point Likert scale, with responses ranging from "no stress" to "tremendous stress." Students provided information on current alcohol use and heavy drinking ("Over the last 2 weeks, how many times have you had five or more drinks of alcohol at a sitting?") [34]. A six-item Likert scale, modified from the California Healthy Kids Survey [35], assessed the extent to which students tended to use active coping strategies (e.g., "When I need help, I find someone to talk with.") to deal with stressors. Due to positive skew in the response distribution, individuals scoring at or above the scale's mean (2.5) were categorized as "active copers"; those scoring below were categorized as "nonactive copers."

Mental health–related academic impairment. Participants completed items modified from the National College Health Assessment II survey, assessing the extent to which emotional or behavioral issues affected academic functioning in the previous year ("Within the last 12 months, have any of the following affected your academic performance?": anxiety; stress; depression; eating disorders; alcohol use; death of a friend or family member) [34]. Response options included "this did not happen to me," "Experienced this, but my academic performance was not affected," "Received lower grade in an exam," "Received lower grade in a course," "Received incomplete/dropped course," and "Significant disruption/took a leave of absence." Past-year MH-related academic impairment was defined as having dropped a course, received an incomplete, taken a leave of absence from school, or had similar substantial academic disruption resulting from emotional or behavioral problems identified by the student.

Need for mental health treatment. Need for MH treatment was defined as having current serious psychological distress based on the K6 scale (total score $\geq$ 13).

Awareness of campus mental health services. Students rated their awareness of how to access campus MH services by responding to the statement, "I am aware of where to go on campus if I need mental health or other similar supportive services." Due to skew in the response distribution, responses were dichotomized as low awareness ("not true at all" or "a little true") and high awareness ("pretty much true" or "very much true").

Campus mental health climate. We assessed students' perceptions of whether their campus was supportive of MH issues using a summary score from an eight-item instrument, with response option ranging from strongly agree to strongly disagree on a five-point Likert scale (alpha = .91) [28]. Due to a skewed distribution, individuals with scores above the mean of the scale (.5) were categorized as having a "supportive" perceived campus MH climate; students with scores below the mean were categorized as having an "unsupportive" perceived campus MH climate.

Data analysis

As in our previous papers [28], we adjusted for potential differences between survey responders and each campus's student body by using campus administrative data on students' gender, race/ethnicity, and full-time versus part-time status. Data were weighted using response propensity weights for each campus, equal to one divided by the estimated probability of survey response for each college campus, assuming all students could participate, allowing the responses for each campus to more accurately reflect responses that would be obtained if all students on that campus had responded to the survey. We also controlled for characteristics of the community in which the campus was located and nested students within campuses, using an iteratively reweighted least squares approach to produce more accurate estimates and standard errors [36].

Chi-square analyses assessed differences in student characteristics, MH service utilization, behavioral health and coping, awareness of campus MH services, and perceptions of campus climate toward MH across LGBQQ and non-LGBQQ students (Table 2). Multiple logistic regressions assessed the association between LGBQQ status and likelihood of service utilization among individuals with need for MH treatment, adjusting for student gender, race/ethnicity, school system, undergraduate status, and full-time status. Limiting to LGBQQ students with need for treatment, we used two separate multiple logistic regression models to examine student and campus factors associated with likelihood of (1) any MH service utilization and (2) on-campus service utilization (Table 3). Separate analyses were conducted limiting to students with need for MH treatment. Multiple logistic regression models were assessed for multicollinearity; variance inflation factors ranged from 1.02 to 1.46, suggesting that collinearity did not significantly bias coefficient estimates.

We examined a subset of barriers to on-campus service utilization related to stigma, knowledge, ability to access services, and perceptions of service quality (see Table 1) among students with need for treatment who did not use on-campus MH services. We used recycled predictions [37] to examine marginal effects of LGBQQ status on likelihood of endorsing different reasons for not using on-campus services, adjusting for student characteristics (gender, race/ethnicity, school system, undergraduate/graduate student status, and full-time/part-time status). We implemented Poisson regression analyses, controlling for student characteristics, to examine differences in the number (count) of different barriers endorsed by LGBQQ compared with non-LGBQQ students. Finally, we performed post hoc factor analyses of barrier

Table 2
Student and campus factors associated with LGBQQ status

	LGBQQ (N = 2,377)	Non-LGBQQ (N = 30,843)
Mental health treatment		
Any service use (yes)	30.83	18.38
On-campus service use (yes)	15.78	9.42
Off-campus service use (yes)	18.03	13.01
Behavioral health and coping		
Current serious psychological distress (K6 > 13)	25.56	18.40
High overall stress (yes)	62.61	54.76
Consumed five or more drinks in one sitting in past 2 weeks		
Does not drink	23.87	30.55
1 time[a]	16.94	14.90
2–3 times[a]	12.94	11.85
4–5 times[a]	3.58	3.52
6 or more times[a]	2.55	2.00
Coping style		
Active	69.29	70.60
Nonactive	30.71	29.40
Mental health–related academic impairment	17.31	11.05
Aware of where to go on campus for mental health or similar supportive services (high awareness)	56.87	55.70
Perceived campus climate supportive of student mental health (yes)	34.03	37.88
Student and campus characteristics		
Gender (female)	50.06	54.47
Race/ethnicity		
Latino	36.28	30.37
Asian, non-Latino	13.56	24.97
African-American, non-Latino[a]	5.83	4.39
Other, non-Latino[a]	5.80	3.76
Caucasian, non-Latino[a]	38.52	36.51
Higher education system		
CCC	51.63	42.03
UC	26.06	37.17
CSU	22.31	20.80
Full-time status (yes)	64.43	70.66
Student status (undergraduate)	79.78	83.21

Unless otherwise noted, all group differences assessed via separate weighted chi-square tests were significant at $p < .001$.
CCC = California Community College system; CSU = California State University system; LGBQQ = lesbian, gay, bisexual, queer, or questioning; UC = University of California system.
[a] Group difference was not significant ($p > .05$).

items for LGBQQ and non-LGBQQ students with need for MH treatment to determine if endorsed barriers to on-campus service use varied between the two groups.

Results

Differences between LGBQQ and non-LGBQQ students

Approximately 7% of students (N = 2,377) identified as LGBQQ. Because of the large sample size (N = 33,220), even small differences between LGBQQ and non-LGBQQ individuals were statistically significant ($p < .001$, unless otherwise noted; see Table 2). LGBQQ students were more likely than their non-LGBQQ peers to be male (50% vs. 46%), Latino (36% vs. 30%), attending a CCC campus (52% vs. 42%), and a part-time student (36% vs. 29%), and less likely to be Asian (14% vs. 25%).

LGBQQ students were more likely than non-LGBQQ peers to report current severe psychological distress (i.e., need for MH treatment; 26% vs. 18%), MH-related academic impairment (17% vs. 11%), and high overall stress within the past 12 months (63% vs. 55%). Fewer LGBQQ students reported abstaining from alcohol (24% vs. 31%); there was no difference between groups with respect to heavy drinking.

LGBQQ students were more likely than non-LGBQQ peers to use any MH service (31% vs. 18%), on-campus services (16% vs. 9%), and off-campus services (18% vs. 13%). However, nearly two thirds of LGBQQ students (61%) and 74% of non-LGBQQ students needing treatment did not utilize any MH services.

Mental health service utilization among students with need for treatment

Adjusting for other student and campus characteristics, LGBQQ students with need for treatment were more likely than non-LGBQQ peers to access any MH services (39% vs. 25%; odds ratio [OR] = 1.94, 95% confidence interval [CI]: 1.56–2.41) and on-campus MH services (23% vs. 17%; OR = 1.70, 95% CI: 1.33–2.19). Among students with need for treatment who did not utilize on-campus services, LGBQQ students were more likely than non-LGBQQ peers to report not using on-campus services because they "got help off-campus" (OR = 1.62, 95% CI: 1.52–1.73), and were less likely to endorse "I didn't feel I needed services" (OR = .81, 95% CI: .77–.86).

Factors associated with mental health service utilization among LGBQQ students with need for treatment

Table 3 shows adjusted ORs for factors associated with MH service utilization among LGBQQ students with need for treatment. Among LGBQQ students with need for treatment, MH-related academic impairment, high awareness of where to go for MH services, and active coping were associated with higher likelihood of any MH service utilization. In contrast, LGBQQ students who were Asian or "other" ethnicity (relative to white peers) were less likely to utilize any MH services, as were those who attended a CCC campus (compared with a UC campus). In addition, LGBQQ students with a supportive perceived campus MH climate and those who reported high stress were more likely to use on-campus services. Finally, LGBQQ students with an active coping style were less likely to use on-campus services.

Barriers to on-campus mental health service use among students with need for treatment

Figure 1 shows differences in predicted percentages of endorsing specific barriers to using on-campus services between LGBQQ and non-LGBQQ students with need for treatment who did not use on-campus services. Compared with non-LGBQQ students, LGBQQ students were significantly more likely to endorse all of the barriers (all $p < .001$) to on-campus MH service use examined: lack of confidentiality, embarrassment, knowledge about access to/availability of services, eligibility concerns, costs, inconvenient hours, and poor reputation of these services. LGBQQ students were also more likely to endorse more (i.e., multiple different) barriers to using on-campus services (incidence rate ratio = 1.18, 95% CI: 1.16–1.19).

To examine the possibility that LGBQQ students endorsed barriers systematically differently from non-LGBQQ students, we conducted post hoc factor analyses to determine whether barrier

Table 3
Factors associated with mental health service utilization among LGBQQ students with psychological distress–related need for mental health treatment

	Likelihood of any mental health service utilization		Likelihood of on-campus mental health service utilization	
	Adjusted odds ratio	95% CI	Adjusted odds ratio	95% CI
Behavioral health and coping				
Mental health–related academic impairment				
Yes	**2.80**	**1.39–5.64**	**3.29**	**1.63–6.62**
No	–	–	–	–
High overall stress				
Yes	1.42	.51–3.94	**4.67**	**1.07–20.45**
No	–	–	–	–
Number of times consumed five or more drinks of alcohol at a sitting in the past 2 weeks				
None	1.00	.51–1.96	1.39	.50–3.87
1 time	.87	.31–2.42	2.281	.81–6.4
2–3 times	1.52	.66–3.49	**3.264**	**1.22–8.73**
4–5 times	.71	.18–2.79	1.006	.16–6.22
6 or more times	1.22	.18–8.18	.469	.07–3.07
Do not drink	–	–	–	–
Coping style				
Active	**1.82**	**1.20–2.76**	**.44**	**.21–.94**
Nonactive	–	–	–	–
Aware of where to go on campus for mental health or similar supportive services				
High awareness	**3.72**	**2.09–6.64**	**9.62**	**4.13–22.41**
Low awareness	–	–	–	–
Overall campus climate supportive of student mental health				
Supportive	1.52	.96–2.42	**2.82**	**1.46–5.45**
Unsupportive	–	–	–	–
Student and campus characteristics				
Gender				
Female	.90	.58–1.39	1.43	.79–2.57
Male	–	–	–	–
Race/ethnicity				
Latino	.71	.38–1.32	.66	.30–1.45
Asian, non-Latino	**.33**	**.13–.85**	.32	.08–1.25
African-American, non-Latino	1.17	.31–4.40	.59	.19–1.87
Other, non-Latino	**.25**	**.08–.80**	.43	.08–2.34
Caucasian, non-Latino	–	–	–	–
Higher education system				
CCC	**.44**	**.24–.82**	**.10**	**.04–.22**
CSU	.79	.50–1.26	**.39**	**.19–.82**
UC	–	–	–	–
Full-time status				
Full time	.56	.28–1.11	.50	.17–1.45
Part time	–	–	–	–
Student status				
Graduate	1.81	.81–4.04	1.31	.42–4.09
Undergraduate	–	–	–	–

Analyses were limited to the subset of lesbian, gay, bisexual, queer, or questioning students with psychological distress–related need for mental health treatment (n = 608), which was defined as K6 score ≥ 13. Mental health–related academic impairment was defined as self-reporting any academic problems in the past year due to emotional or behavioral issues.
Bolded values significant at $p < .05$.
CCC = California Community College system; CI = confidence interval; CSU = California State University system; LGBQQ = lesbian, gay, bisexual, queer, or questioning; UC = University of California system.

items clustered differently (e.g., single vs. multiple factor) for LGBQQ versus non-LGBQQ students. Eigenvalues and scree plots indicated similar single-factor structures for both LGBQQ and non-LGBQQ students. Correlation coefficients among barriers ranged from −.11 to .56 (LGBQQ) and −.15 to .53 (non-LGBQQ), suggesting that no two barrier items were so highly correlated that they were capturing the same construct. These findings provide reassurance that either group of respondents did not endorse barriers in a systematically different way, and suggest that the items captured the same general constructs in both groups.

Discussion

This study reports on one of the largest samples of LGBQQ college students ever examined (N = 2,377) and is the first to our knowledge to examine factors associated with campus MH service utilization among LGBQQ and non-LGBQQ college students. A substantial number of students—approximately one in 15—identified as LGBQQ. Although data on the prevalence of LGBQQ students in higher education is scarce, this is similar to the 6% of lesbian, gay, bisexual, transgender, queer, or questioning college students reported in a study of 47 U.S. colleges [38].

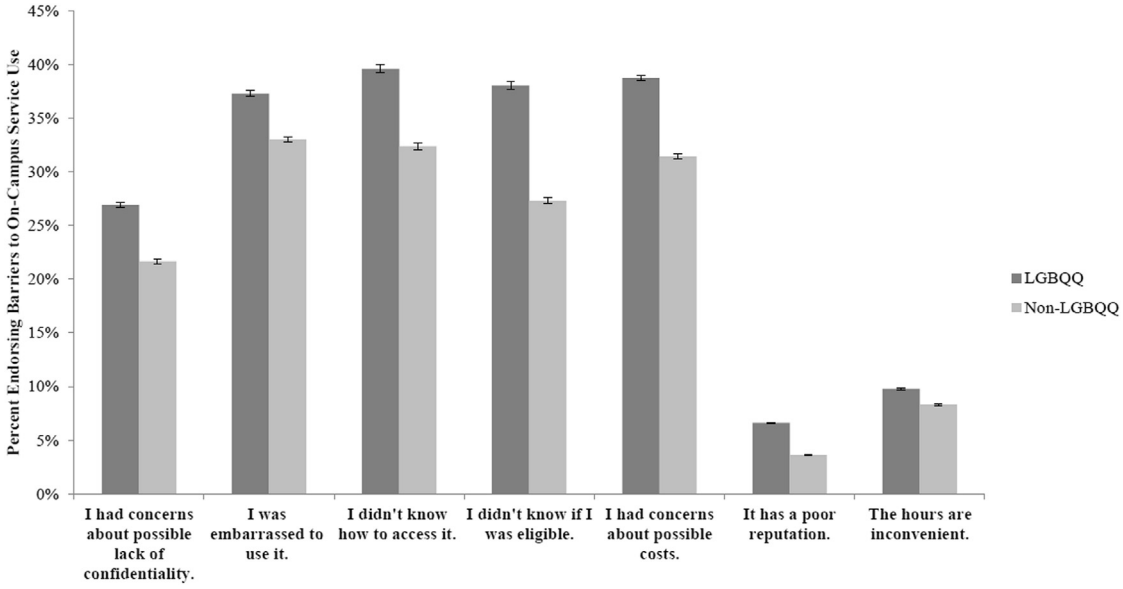

Figure 1. This figure shows the percent of LGBQQ and non-LGBQQ students who endorsed a range of barriers to using on-campus mental health services. The sample is limited to individuals with current serious psychological distress who did not utilize on-campus mental health services. Values are mean adjusted percentages obtained from recycled prediction models. Error bars show upper and lower 95% confidence intervals for the mean adjusted percentage. All models controlled for gender, race/ethnicity, school system, undergraduate/graduate status, and part-time/full-time status. Paired *t* tests examined the difference in marginal effects of LGBQQ status on likelihood of endorsing each barrier. All group differences were significant at $p < .001$. LGBQQ = lesbian, gay, bisexual, queer, or questioning.

LGBQQ-identifying individuals represent a sizeable minority of college students. Given the increased risk of MH problems for LGBQQ young people [16], it is important to consider this group in higher education institutions' decision-making surrounding campus MH policies and interventions.

LGBQQ students were more likely than non-LGBQQ peers to have current serious psychological distress, high stress, and MH-related academic impairment, consistent with other studies [3,10,11,25–28]. Despite advances with respect to LGBQQ rights and acceptance in the United States, LGBQQ students continue to face higher rates of discrimination and harassment and report more negative perceptions of campus climate than heterosexual peers [23–27], potentially contributing to psychological distress and MH problems [11,13–16]. If untreated, such problems may negatively impact student functioning in a number of ways (e.g., attentional problems/trouble concentrating, avoidance/skipping classes or assignments, decreased motivation, and so forth) that could lead to poorer outcomes [25–27]. Improving campus visibility and acceptance of LGBQQ individuals (e.g., by establishing gay and lesbian student groups on campus) may help to mitigate the impact of discrimination on such students.

LGBQQ students were more likely than non-LGBQQ peers to use MH services, consistent with previous studies among college students [3,28], suggesting that LGBQQ individuals with MH concerns are more likely than heterosexual peers to engage in MH treatment. In some respects, this finding is encouraging for efforts to reduce MH disparities between LGBQQ and non-LGBQQ individuals, as it suggests that LGBQQ students as a group may be more willing to engage in mental health care given access to appropriate services when in need. This may be attributable to several factors. Coming out to oneself and others can be distressing and may motivate LGBQQ students in the process of coming out to seek services. LGBQQ individuals may also have better access to MH resources through engagement with LGBQQ organizations. Future studies should examine potential factors such as MH stigma, perceived norms of MH treatment seeking, and engagement in LGBQQ campus or community organizations, that may contribute to higher rates of service use among LGBQQ students, potentially informing the development of interventions to reduce unmet treatment need for all students.

Among individuals in need of MH treatment, LGBQQ students were more likely than non-LGBQQ peers to report not using on-campus services because they "got help off-campus." Among LGBQQ students, individuals with "active" versus "nonactive" coping styles were also more likely to use any MH services, but less likely to utilize on-campus services. Some LGBQQ students may preferentially seek services off-campus, despite convenient, low cost, and accessible services on-campus, possibly because LGBQQ individuals benefit from and may prefer LGBQQ-affirmative MH services and other supports [20,39], which may not be available or advertised on-campus. Increasing campus MH providers' competency in working with LGBQQ clients (e.g., by implementing training requirements for providers) and raising awareness of LGBQQ-affirmative services on campus may help to reduce unmet treatment need among LGBQQ college students. This may be especially important for campuses located outside major metropolitan areas, for which LGBQQ-tailored off-campus services may be less common [40].

Although our findings are generally encouraging, we note that many LGBQQ (61%) and non-LGBQQ (74%) students with probable need for treatment did not utilize any services, indicating high rates of unmet MH treatment need. This underscores the need for additional actions to increase access to and utilization of MH services among all college students. Addressing barriers to using existing on-campus services may help to reduce unmet treatment need. We found that both LGBQQ and non-LGBQQ

students endorsed a range of barriers to utilizing on-campus MH services, with similar patterns for endorsing specific barriers in both groups. However, LGBQQ students endorsed all barriers at higher rates and were more likely to endorse multiple different barriers. The most frequently endorsed barriers in both groups were uncertainty over how to access services, concerns about costs, uncertainty over eligibility for services, and embarrassment. Coordinated efforts to address commonly endorsed barriers, such as educational campaigns to increase awareness of campus MH services (e.g., emphasizing how to access services, low costs, and eligibility for services) in conjunction with campaigns to reduce MH treatment stigma, may help reduce unmet treatment need for all students.

The current investigation was limited by several factors. Although we attempted to address selection bias at the student level, in part by weighting the sample to more closely resemble each campus' student body, not all campuses invited all students to participate, and we have no information on any ways that invited and noninvited students differed on variables of interest. Rates of MH problems in the weighted sample were comparable to rates in random sample studies of college students, suggesting that respondents were unlikely to have higher rates of MH problems than the general student body. However, we did not have information on nonresponders; these individuals could differ from students in our sample in ways that may affect MH service use. Furthermore, not all campuses invited to participate did so; we do not have systematic information about why campuses chose not to participate. We do not know how our findings might generalize to nonparticipating or other campuses in the systems. Although all campuses included in this study were public institutions that provided on-campus MH services, many campuses—especially community colleges—do not offer on-campus MH services to students. As such, these findings may represent an underestimate of unmet treatment need among LGBQQ students, particularly those attending community colleges. Future research should examine MH service offerings, coverage, quality, and utilization across diverse campus settings (including private institutions). Also, since individuals who endorsed on-campus MH service use were not asked about additional off-campus service use, we may have underestimated differences in off-campus MH service use between LGBQQ students and heterosexual peers (e.g., LGBQQ students may utilize off-campus resources as complementary to on-campus services). Students did not provide information on their specific sexual orientation, which precluded analyses by subgroups, nor did they provide information on other factors (e.g., duration of time since coming out, past experiences with victimization, socioeconomic status, financial aid status, and so forth) that may influence MH and service utilization. Furthermore, our analysis excluded students who identified as transgender, as factors related to MH service use and treatment needs likely differ for LGBQQ students and transgender students [31], and the relatively small number of transgender students identified in our study is insufficient for a separate analysis. Future studies are needed to better understand MH treatment need, service use, and barriers to seeking on-campus MH services among transgender students.

Despite these limitations, this study contributes to the literature on LGBQQ young adults. Although LGBQQ students with need for treatment were more likely to access care, rates of unmet need were still high. LGBQQ students endorsed higher rates of perceived barriers to using on-campus MH services and may preferentially seek off-campus services. Given that LGBQQ students have higher rates of psychological distress and MH-related impairment than non-LGBQQ peers, and on-campus MH services may be more convenient and accessible for many students, administrators need to better understand and address barriers that may limit LGBQQ students' use of on-campus MH services. Efforts to promote LGBQQ-affirmative campus environments by enhancing the presence of LGBQQ resources on campus, and ensuring that on-campus MH providers are appropriately trained to work with LGBQQ clients, may help increase LGBQQ students' appropriate use of MH care throughout college. Moreover, since LGBQQ and non-LGBQQ students appear to endorse similar barriers to on-campus service use, addressing commonly reported barriers has the potential to reduce unmet MH treatment needs among all students. This may represent a feasible first step for campuses with limited resources who wish to address the MH needs of LGBQQ students. It is imperative that institutions promote the availability of MH services—particularly among groups who may be at greater risk for MH problems and related impairments—to ensure that all students are able to address MH needs and maximize their educational attainment and quality of life.

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