



# Factors of Institutional Betrayal Associated with PTSD Symptoms and Barriers to Service Use Among Campus Sexual Assault Survivors

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## Abstract

Sexual violence is prevalent on college and university campuses, constituting one of the most urgent issues faced by institutions of higher education. Most students who have experienced sexual violence avoid seeking support from their institutions, despite the availability of resources. Institutional betrayal, which occurs when institutions betray those who depend on them by failing to prevent harm or respond supportively to reports of harm, may play a role in discouraging students from using campus services. The purpose of the current study was to bridge parallel literatures on institutional betrayal and students' barriers to reporting and service use. Associations between institutional betrayal, barriers to campus service use, and symptoms of posttraumatic stress disorder (PTSD) among sexual assault survivors were investigated. A two-factor model of institutional betrayal—Institutional Climate and Institutional Response—was used for analyses. Results from a sample of 178 undergraduates who experienced campus sexual assault revealed both factors of institutional betrayal were associated with PTSD symptoms and service use barriers. Multiple regression analyses indicated that Institutional Climate, but not Institutional Response, was uniquely related to PTSD symptoms after controlling for sexual assault history. Multiple regression also identified Institutional Climate as a significant predictor of barriers related to fear of negative treatment. These findings emphasize the connection between institutions' rape-supportive climate and sexual assault survivors' distress and suggest that institutional responses could play a part in service use barriers. Addressing both factors of institutional betrayal through campus policies and practices is essential in combating high rates of sexual violence in higher education.

**Keywords** Campus Sexual Violence · Institutional Betrayal · PTSD · Barriers to Reporting

College and university campuses face an ongoing sexual violence crisis. Sexual violence describes a range of unwanted sexual experiences such as rape, attempted rape, unwanted sexual touching, and sexual harassment. Its presence within institutions of higher education poses a considerable threat to students' access to education, wellbeing, and fundamental human rights. Sexual offenses are the most prevalent

crime on college and university campuses, making up 43% of all on-campus crime reports (NCES, 2022). An extensive campus sexual violence study issued by the Association of American Universities (AAU), which surveyed 108,221 undergraduates attending 33 institutions of higher education, revealed that 26% of undergraduate women, 6.8% of undergraduate men, and 22.8% of transgender, non-binary, queer, or gender questioning undergraduates experienced nonconsensual sexual contact since starting college (Cantor et al., 2020). A recent meta-analysis of 50 studies evaluating the prevalence of sexual assault on campus (defined as rape, attempted rape, forced sexual touching, or sexual coercion) identified an overall victimization rate of 17.5% for women, 7.8% for men, and 18.1% for transgender and gender diverse students (Steele et al., 2024).

The consequences of sexual violence are numerous and steep. Individuals who have experienced sexual violence face an increased risk of developing serious psychological difficulties, including posttraumatic stress disorder (PTSD),

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depressive disorders, anxiety disorders, substance use disorders, and suicidal ideation (Campbell et al., 2009; Carey et al., 2018; Dworkin, 2020; MacGregor et al., 2019). In the first month following a sexual assault, nearly three-quarters (74.58%) of people develop posttraumatic symptoms severe enough to meet diagnostic criteria for PTSD (Dworkin et al., 2023). Sexual violence victimization is also associated with both immediate and long-term physical health concerns (Black et al., 2011; Jakubowski et al., 2021; Jina & Thomas, 2013), as well as personal economic costs (Peterson et al., 2017). On college and university campuses, students who have been sexually assaulted are more likely to face academic difficulties (Potter et al., 2022; Stermac et al., 2020), have lower GPAs (Jordan et al., 2014) and drop out altogether (Mengo & Black, 2016).

Support services for college and university students who have experienced sexual violence typically consist of an institution's student counseling center, health care office, rape crisis center, and campus police (Krebs et al., 2016; Stoner & Cramer, 2019). In the USA, federal law requires all institutions of higher education receiving federal funds to have a Title IX coordinator who is responsible for receiving and processing reports of sexual violence. Students wishing to formally disclose sexual violence victimization to their campus are likely to come into contact with their institution's Title IX coordinator or office, making Title IX an integral part of higher education's support system for sexual assault survivors.

## Barriers to Reporting and Seeking Support

Although some research suggests that most students are aware of campus sexual violence resources (Pinchevsky & Hayes, 2023) and typically endorse hypothetical use of these resources (Stoner & Cramer, 2019), a minority of students seek them out following experiences of sexual violence. A survey of 6472 undergraduates' experiences of sexual violence and subsequent disclosure behaviors found that 7% of students who experienced unwanted sexual contact and 12% who experienced unwanted sexual intercourse had informed campus authorities or disclosed to campus support resources (Demers et al., 2018). A study of 362 undergraduate women who had been sexually assaulted on campus revealed that approximately 73% of the students surveyed did not use campus resources after being assaulted (Graham et al., 2021a). A similar survey of 317 campus sexual assault survivors identified smaller rates of support seeking: 9.8% sought support from university counseling services, 7.3% disclosed the assault to university housing, and only 1.6% made a report to the Title IX office (McGraw & Tyler, 2022).

Research exploring why students choose not to use campus support resources following experiences of sexual

violence has revealed many barriers to formal support seeking. Holland and colleagues (2021b) categorized barriers preventing sexual assault survivors from obtaining support from campus resources into three groups: socioemotional barriers, minimization barriers, and negative treatment barriers. Feelings of self-blame, shame, and fear (e.g., fear of retaliation from perpetrator, fear of loss of confidentiality following reporting procedures, fear of losing friends) are examples of socioemotional barriers. Minimization barriers are beliefs held by survivors that minimize the severity and impact of the sexual violence experienced, which can consequently lead survivors to perceive they do not deserve or warrant support. The third category, negative treatment barriers, describes the anticipation of being mistreated by support services (e.g., shamed, made to feel responsible for the assault) or the expectation that support services will not be helpful.

Studies have found consistent support for the prevalence of these barriers (Holland et al., 2021a, b; Walsh et al., 2010). For instance, a systematic review of 22 studies examining campus sexual violence concluded that socioemotional and minimization barriers were the most frequently cited reasons for not seeking health services (Stoner & Cramer, 2019). Another systematic review highlighted shame and embarrassment as significant barriers to using campus support resources and minimization as a barrier to reporting to authorities (Sabina & Ho, 2014). Qualitative research with campus sexual assault survivors reveals that the anticipation of negative experiences poses a barrier for reporting to the Title IX office, with fears specifically centering on the office failing to take effective action and receiving negative treatment (e.g., shamed, judged, or doubted) by office staff (Holland & Cipriano, 2021).

Sexual assault survivors' concerns about potentially experiencing mistreatment when interacting with campus resources are not unfounded. Title IX offices in particular have been scrutinized for their handling of sexual violence cases, and student complainants who have been subjected to their institutions' Title IX procedures often describe their experience unfavorably (Lorenz et al., 2022, 2023; Nightingale, 2021; Roskin-Fraze, 2023; Webermann et al., 2024). Some sexual assault survivors describe the lack of support and drawn-out investigative process to be retraumatizing (Roskin-Fraze, 2023; Webermann et al., 2024), while others express frustration with the lack of communication from administrative officials and their university's failure to hold perpetrators accountable (Nightingale, 2021). These procedures can create additional harms for students who have already endured trauma; instead of receiving the anticipated protection and support, students are met with betrayal from their institutions (Lorenz et al., 2023). The injustice experienced by students who have made Title IX reports sometimes attracts the attention of federal authorities. As of July

2024, 179 colleges and universities are being investigated by the U.S. Department of Education for potentially mishandling sexual violence cases (U.S. Department of Education, 2024).

## Institutional Betrayal

When describing the mistreatment experienced by campus sexual assault survivors seeking redress from universities, campus sexual violence researchers (e.g., Cipriano et al., 2022; Holland, 2020) have invoked the theory of *institutional betrayal* (Smith & Freyd, 2014). Institutional betrayal refers to harm perpetrated by an institution against individuals who depend upon it. The term—first studied by Smith and Freyd (2013) in an analysis of campus sexual violence—describes wrongdoings committed by institutions that betray the trust of their members (Smith & Freyd, 2014). Institutional betrayal can occur in two ways: (1) failing to prevent wrongdoing from occurring and (2) failing to respond supportively after wrongdoings do occur. Smith and Freyd (2014) outlined specific inactions and actions taken by institutions that correspond to these two levels of institutional betrayal. First, failing to prevent abuse may reflect ineffective or absent policies that seek to prevent and reduce harms (like sexual violence). Institutional policies that permit violent people to join an institution or those that do not prioritize prevention and risk reduction training put its members at a greater risk of experiencing harm. Moreover, institutions may fail to prevent harm by fostering environments in which abusive or inappropriate behavior is normalized. Campuses with unchecked drinking cultures, for instance, may normalize both reckless and assaultive conduct among their students, leading to more experiences of harm within the college or university. An institution's failure to respond supportively to incidents of wrongdoing can also manifest in several ways. Reporting procedures that are unclear, absent, or punitive make it risky or impossible to adequately disclose wrongdoing to an institution. An institution may also disregard or cover up reports in attempt to protect its own reputation or perpetrators within the institution. Finally, punishing victims who come forward with reports of wrongdoing by means of victim-blaming, threatening or engaging in legal action, or removing victims from the institution are particularly insidious ways institutions betray their members (Smith & Freyd, 2014).

Smith and Freyd (2013) developed the Institutional Betrayal Questionnaire (IBQ) to evaluate sexual assault survivors' encounters with these institutional behaviors from their university. Results of this study revealed institutional betrayal to be associated with higher levels of PTSD symptoms. In other words, survivors who experienced betrayal from their institution—both in terms of the institution's

failure to prevent sexual violence and then adequately respond to sexual violence once it happened—were worse off than survivors who did not experience institutional betrayal. Since the publication of this inaugural study, a growing body of research has identified the unique harms inflicted by institutional betrayal. A systematic review of 37 studies investigating institutional betrayal found consistent support for associations between institutional betrayal broadly and negative outcomes, such as worse psychological functioning and worse physical health (Christl et al., 2024).

## The Current Study

Although significant research exists identifying experiences of institutional betrayal among *reporters* of campus sexual violence (e.g., Cipriano et al., 2022), less commentary exists regarding how experiences of institutional betrayal (unrelated to reporting) may impact *barriers* to support-seeking and reporting among survivors who do not report. Service barrier research has largely been disconnected from institutional betrayal research, despite sharing clear conceptual links (with some exceptions, including Holland, 2020). This paper is an attempt to merge the parallel, complementary literatures examining campus sexual assault survivors' mental health, barriers to university reporting and support-seeking, and experiences of institutional betrayal. Uniquely, this study uses a two-factor model of institutional betrayal (Reffi et al., 2021) to examine how two categories of institutional betrayal—system factors leading to sexual victimization (Factor 1—Institutional Climate) and system responses to sexual victimization (Factor 2—Institutional Response)—are related to campus support-seeking behaviors and PTSD symptoms.

The two-factor model allows for a closer analysis of distinct facets of institutional betrayal. Most research examining this issue emphasizes Factor 2—experiences following students' contact with support services on campus. However, campus sexual assault survivors frequently experience betrayal from their institution without coming into direct contact with these services; for instance, in fostering abuse environments that lead to the assault in the first place or invalidating experiences after the assault (unrelated to actual reporting/service use, e.g., feeling unsupported by staff/faculty). Consequently, institutional betrayal can occur prior to or without interacting with support services, and these experiences may *also* shape survivors' willingness to seek help from formal support services. However, no research to our knowledge investigates how facets of institutional betrayal may be linked to service barriers, as well as mental health. This is partially due to the way institutional betrayal is measured. Currently, the IBQ is designed and scored so that betrayal factors preceding the assault (e.g.,

harmful climate) and factors occurring after the assault that are directly linked to formal university services (e.g., mishandled case) are combined and scored together. Although institutional betrayal (when measured as a unidimensional construct) has been linked to posttraumatic stress symptoms (Andresen et al., 2019; Hannan et al., 2020) and other mental health symptoms (Monteith et al., 2024; Smith & Freyd, 2013, 2017), distinctions have typically not made between the two different types of institutional betrayal. Thus, this study examines institutional betrayals unrelated to service utilization (both before and after the sexual assault) and how both types are associated with mental health and barriers to support-seeking.

We had three primary hypotheses:

1. There would be a significant relationship between sexual violence victimization and PTSD symptoms, yet a low rate of actual formal university service utilization (e.g., Title IX office).
2. Both the Institutional Climate (Factor 1) and Institutional Response (Factor 2) subcategories of institutional betrayal would be related to survivors' PTSD symptoms. Students who report more institutional betrayal of either type would also report higher distress, even when covarying for cumulative college and pre-college sexual violence history.
3. Among non-reporters, both the Institutional Climate (Factor 1) and Institutional Response (Factor 2) subcategories of institutional betrayal would be related to greater psychological barriers (i.e., negative treatment, socioemotional, minimization) to seeking formal support, even when covarying for cumulative college and pre-college sexual violence history.

## Method

### Participants

Students enrolled in the Psychology/Linguistics Human Subjects Pool at a large, public university in the Pacific Northwest of the United States were eligible to participate in a large survey study about stressful events, sexual violence, and mental health among college students. There were no exclusion criteria. Participants received course credit for completion of the one-hour survey. The Human Subjects Pool at this university is designed in such a way that minimizes self-selection bias. In this pool, students sign up for research studies without knowing the topic or study name beforehand, and all studies are labeled using the names of famous composers (e.g., “Auenbrugger”). Students have

the option to discontinue the study, however, during the informed consent process.

In total, 1465 students read and completed the informed consent form on the first page of the survey, and data collection spanned February 2022 to March 2023. At the informed consent stage, four (0.3%) individuals did not consent. Of those who consented ( $N=1461$ ), 1427 (97.7%) completed the survey. A visual inspection of completion data indicated a roughly uniform distribution of dropout rate across the survey (i.e., participants were not more likely to drop out at specific points during the survey). Among survey completers ( $N=1427$ ), 54 (3.8%) individuals incorrectly answered more than one of six attention check questions and were excluded from data analysis. These questions (e.g., “Please choose strongly agree if you are paying attention”) were placed randomly throughout the survey to serve as basic validity checks and protect against haphazard or “straight-lined” responses. Only a subsample of the remaining participants who endorsed nonconsensual sexual contact during college perpetrated by another student ( $n=178$ ; 12.5%; as assessed by the SES-LFV; Koss et al., 2006) was included in the current study's analyses, as these participants' experiences were most relevant to the research questions regarding campus sexual assault, institutional betrayal, and barriers to formal university service use. Participants in this subsample endorsed an average of 3.24 instances of nonconsensual sexual contact ( $SD=3.99$ ) while enrolled in college, and over one-third of these participants indicated they had experienced completed rape while enrolled in college ( $n=64$ ). Two-thirds of participants ( $n=124$ ) endorsed at least one instance of nonconsensual sexual contact prior to college; half of these participants indicated that they had experienced completed rape prior to college ( $n=62$ ). Demographic characteristics are listed in Table 1.

### Procedure

In the initial survey, participants first reviewed an informed consent form, and they indicated their consent to participate before any other survey material was provided to them. In this survey, participants completed a series of questionnaires via Qualtrics survey software on a personal electronic device, and these procedures lasted approximately one hour. Only a subset of these questionnaires was used to examine the current study's hypotheses. After they completed the survey, participants were provided with a debriefing form, which contained resources to local sexual violence community agencies and the university counseling center.

### Sexual Violence History

Participants' sexual violence victimization history was measured using the 17-item Sexual Experiences Survey

**Table 1** Sample demographics  
(*N* = 178)

	<i>n</i> (%)	Race/ethnicity <sup>^</sup>	<i>n</i> (%)
Age			
18	47 (26.4)	Alaskan Native/Native American	2 (1.1)
19	61 (34.3)	Asian/Asian American	23 (12.9)
20	40 (22.5)	Black/African American	9 (5.1)
21	20 (11.2)	Hispanic/Latino	24 (13.5)
22	6 (3.4)	Middle Eastern/North African	3 (1.7)
23	1 (0.6)	Native Hawaiian/Pacific Islander	4 (2.2)
24	1 (0.6)	White/European American	142 (79.8)
25+	1 (0.6)	Not Listed/Self-Describe	3 (1.7)
No answer	1 (0.6)	No answer	0 (0.0)
Student year		Sexual orientation	
First-year	79 (44.4)	Asexual	0 (0.0)
Second-year	51 (28.7)	Bisexual	45 (25.3)
Third-year	34 (19.1)	Gay	1 (0.6)
Fourth-year	11 (6.2)	Heterosexual	110 (61.8)
Other/describe	3 (1.7)	Lesbian	4 (2.3)
Gender		Queer	7 (3.9)
Woman	139 (78.1)	Pansexual	8 (4.5)
Man	23 (12.9)	Not listed/other	3 (1.7)
Non-binary	7 (3.9)	No answer	0 (0.0)
Not listed/describe	5 (2.8)		
No answer	4 (2.3)		
Gender/sex			
Matches birth	167 (93.8)		
Does not match	11 (6.2)		
No answer	0 (0.0)		

Percentages may not add up to 100 due to rounding. <sup>^</sup>Frequencies will not add up to 178 and percentages will not add up to 100 because participants were able to select all identities that applied to them

– Long Form Version (SES-LFV; Koss et al., 2006). This measure determined their inclusion in the current study. All participants (*N* = 1373) reported the frequency with which they have been exposed to 17 types of events that constitute sexual harassment, sexual assault, and/or rape. Response options ranged from 0 (“Never”) to 3 (“3 or more times”). Importantly, items on the SES use behaviorally specific language, instead of the labels “sexual assault” or “rape.” The SES is one of the most widely used questionnaires to assess sexual violence history, and it has demonstrated excellent reliability and validity in multiple prior research samples (Johnson et al., 2017; Koss et al., 2007). Because this scale involves retrospective reporting on past life events that may or may not co-occur, an index of internal consistency (e.g., Cronbach’s alpha) is inappropriate. In the current study, participants rated these items based on their experience both prior to and since attending college. If a participant endorsed an experience of nonconsensual sexual contact (i.e., attempted/completed sexual assault or attempted/completed rape) while enrolled at the university, they also answered several follow-up questions about the event, including perpetrator student status.

Participants were included in analysis if they indicated an experience of nonconsensual sexual contact perpetrated by another student during college.

In addition, variables representing sexual assault victimization history were calculated to serve as covariates. Ratings of items corresponding to attempted/completed sexual assault and attempted/completed rape while enrolled in college (seven items in total) were summed to create an index of college sexual assault history (see Davis et al., 2014 for scoring instructions; referred to as college sexual assault in current study). Ratings of items corresponding to attempted/completed sexual assault and attempted/completed rape prior to college enrollment were summed to create an index of pre-college sexual assault history (called pre-college sexual assault in current study). Observed scores for pre-college sexual assault history spanned across the entire range of possible scores (0–21). Observed scores for college sexual assault history ranged from one to 14 (possible range 0–21).



## Institutional Betrayal

Participants' experiences of institutional betrayal were measured using the Institutional Betrayal Questionnaire—Version 2 (IBQ; Smith & Freyd, 2017). The IBQ is a 12-item measure that is answered in relation to a traumatic or stressful event that occurs within an institutional context. In this study, the IBQ measured the degree to which the university either (1) failed to prevent the sexual assault event(s) from occurring (e.g., “Did the university play a role by creating an environment in which this type of experience seemed more likely to occur?”) or (2) did not adequately address the sexual assault event(s) after it occurred (e.g., “Did the university play a role by denying your experience in some way?”). If participants were multiply victimized, they were instructed to report on the most distressing or impactful instance of sexual violence during college. While completing the IBQ, participants select from three response options: “Yes,” “No,” and “Not Applicable.”

Although typically used as a unidimensional measure (e.g., Smith & Freyd, 2013, 2017), recent research suggests that versions of the IBQ may be multidimensional. One study (Reffi et al., 2021) found that the IBQ was best captured by two factors, one that reflects institutional factors preceding/leading to victimization (e.g., university climate, failed prevention efforts) and a second that reflects institutional reactions in response to the victimization (e.g., invalidation, denial, retaliation; Reffi et al., 2021). Drawing from the model proposed by Reffi and colleagues (2021), two separate subscales were created to reflect (1) system factors leading to sexual victimization (Factor 1; called Institutional Climate in the current study; three items) and (2) system responses to sexual victimization (Factor 2; called Institutional Response in the current study; nine items originally, although the three items relating to experiences after making an official report were removed prior to analyses, as the sample used in primary analyses were non-reporters). The following items were included in the Institutional Climate subscale: *Not taking proactive steps to prevent this type of experience*; *Creating an environment in which this type of experience seemed common or normal*; and *Creating an environment in which this type of experience seemed more likely to occur*. The following items were included in the Institutional Response subscale: *Making it difficult to report the experience*; *Covering up the experience*; *Denying your experience in some way*; *Suggesting your experience might affect the reputation of the institution*; *Creating an environment where you no longer felt like a valued member of the institution*; and *Creating an environment where continued membership was difficult for you*. Notably, each of these items does not require a student to have made an official report to Title IX/campus police or to seek out official campus resources (i.e., there are many ways that institutional

representatives/organizations can “cover up” a sexual assault without an official report being filed). Items endorsed as “Yes” by each participant were summed to create indices of Institutional Climate (Factor 1) and Institutional Response (Factor 2). Because this scale involves retrospective reporting on life events that may or may not co-occur, an index of internal consistency (e.g., Cronbach's alpha) is inappropriate. Observed scores on the Institutional Climate subscale spanned the range of possible scores (0–3; prior to square root transformation, see the Data Analysis Plan section). Observed scores on the Institutional Response subscale spanned the range of possible scores (0–6; prior to square root transformation, see the Data Analysis Plan section).

## Posttraumatic Stress

Posttraumatic stress was measured using the 20-item Post-Traumatic Stress Disorder Checklist for DSM-5 (PCL-5; Weathers et al., 2013). On the PCL-5, participants self-report the frequency with which they have experienced symptoms of posttraumatic stress (e.g., “Repeated, disturbing, and unwanted memories of the stressful experience”) in the past month. Response options range from 0 (“Never”) to 4 (“Extremely”). Participants completed this survey in relation to their most disturbing or distressing sexual assault experience while enrolled in college. Participants' ratings on each item were summed to create a score representing total symptom severity. The PCL-5 is a widely used measure of posttraumatic stress that has demonstrated satisfactory convergent validity, discriminant validity, test–retest reliability, and internal consistency in prior studies on trauma-exposed college students (Blevins et al., 2015). In this study, the measure demonstrated satisfactory reliability ( $\alpha = 0.96$ ). Observed scores spanned across the entire range of possible scores (0–80).

## Formal Service/Reporting Utilization

Participants were asked several questions about formal help-seeking behavior from university-affiliated resources after sexual assault victimization (e.g., “Did you officially notify the university [e.g., talk with the Title IX coordinator] about this unwanted experience?”). Participants were asked these questions regarding seeking formal services from the Title IX office, campus law enforcement, campus health services, campus counseling center, and “other” university resources (e.g., confidential advocate, Women's Center). Participants responded with “Yes” or “No.”

## Barriers to Formal University Service Use

Barriers to formal service utilization was examined using the Psychological Service Barriers for Sexual Assault

Survivors in Higher Education measure (PSBSS-HE; Holland et al., 2021b), which was specifically designed to examine psychological factors (e.g., level of distress, perceived helpfulness of resource, minimization of distress) influencing service barriers among campus sexual assault survivors. This measure was only presented to participants ( $n = 171$ ; 96.1%) who denied reporting to Title IX or other formal university-affiliated resources. Students were asked to rate the degree to which each item was a reason they did not seek services and were specifically instructed to report on barriers to reporting to “Title IX or other formal office.” Response options ranged from 0 (“No”) to 3 (“Yes, definitely”). This scale contains three subscales: Socioemotional Barriers (12 items; e.g., “I thought it would be too emotionally difficult”), Minimization Barriers (4 items; e.g., “I didn’t think the incident was serious enough”), and Fear of Negative Treatment (5 items; e.g., “I was afraid they would treat me poorly, like being insensitive, judgmental, or hostile”). Participants’ ratings on each item were summed to create three subscale scores for each participant. The PSBSS-HE has demonstrated satisfactory convergent validity, test–retest reliability, and internal consistency in prior research (Holland et al., 2021b). In this study, the Socioemotional Barriers ( $\alpha = 0.90$ ), Minimization Barriers ( $\alpha = 0.63$ ), and Fear of Negative Treatment ( $\alpha = 0.91$ ) demonstrated adequate reliability. Observed scores on the Socioemotional Barriers subscale spanned across the range of possible scores (0–36). Observed scores on the Minimization Barriers subscale spanned across the range of possible scores (0–12). Observed scores on the Fear of Negative Treatment subscale spanned across the range of possible scores (0–15).

## Demographic Characteristics

Participants also answered several questions regarding their demographic characteristics, including their gender, age, sexual orientation/identity, race/ethnicity, and academic/student statuses.

## Data Analysis Plan

### Hypothesis 1

To evaluate Hypothesis 1, Pearson’s  $r$  correlation coefficients were calculated between continuous variables, with a focus on the association between college sexual assault history scores on the SES-LFV and posttraumatic stress symptom scores on the PCL. Frequencies were then calculated to determine the number of students who sought help from formal university services.

### Hypothesis 2

To evaluate Hypothesis 2, we examined the Pearson’s  $r$  correlation coefficients between scores on the Institutional Climate (Factor 1) subscale of the IBQ, Institutional Response (Factor 2) subscale of the IBQ, and scores on the PCL. Associations between posttraumatic stress scores on the PCL and institutional betrayal subscale scores on the IBQ were examined a second time using multiple regression to control for their association with one another, as well as sexual assault history scores on the SES-LFV.

### Hypothesis 3

To evaluate Hypothesis 3, we examined the Pearson’s  $r$  correlation coefficients between scores on the Institutional Climate (Factor 1) subscale of the IBQ, Institutional Response (Factor 2) subscale of the IBQ, and the three subscales of the PSBSS-HE representing psychological barriers to service use (Socioemotional, Minimization, and Fear of Negative Treatment) among participants who did not report to Title IX ( $n = 171$ ; 96.1% of sample). The associations between institutional betrayal subscales and service barriers were then examined a second time using multiple regression (one model with each type of barrier as the outcome; three models in total) to control for the two IBQ subscales’ associations with one another, as well as sexual assault history scores on the SES-LFV.

## Statistical Software

For analyses, we used *R* (Version 4.3.0; R Core Team, 2018) and *R* packages *psych* (Version 2.3.3; Revelle, 2023) and *tidyverse* (Version 2.0.0; Wickham et al., 2019). A significance threshold of .05 was used for analyses.

## Data Transformations

All continuous variables were examined for normality. The subscales of the IBQ were kurtotic. A linear square root transformation was applied to these continuous variables, which resolved issues with kurtosis. Although not reported in detail in this manuscript, regression analyses were re-conducted with and without transformed variables, with no changes in statistical conclusions.

## Missing Data

Rates of missing data for continuous variables were low at the scale level (1.1% on SES-LFV; 0% on IBQ; 3.9% on PSBSS-HE; and 0.6% on PCL). For individuals missing < 20% of data on continuous outcome variables (six participants missing one item on PCL, one participant missing

one item on the PSBSS-HE), data were imputed at the item level with each participant's mean item score on the corresponding scale. Participants who did not complete > 80% of items were excluded listwise from analyses involving the respective variable ( $n = 2$  on SES-LFV;  $n = 1$  on PCL;  $n = 7$  on all subscales of the PSBSS-HE).

### Outlier Analysis

We assessed continuous outcome variables for univariate outliers (defined as  $1.5 \times$  the interquartile range of the respective distribution). We ran analyses without removing outliers (one participant on PCL) in service of retaining raw participant data. Although not reported in detail in this manuscript, regression analyses were re-conducted after applying outlier procedures (winsorized at the value corresponding to the 95th percentile of the respective distribution), with no changes in statistical conclusions.

## Results

### Hypothesis 1

Correlational analyses revealed a significant association between college sexual assault history and posttraumatic stress (see Table 2), such that students with higher scores on the SES-LFV-College also had higher scores on the PCL. Yet, rates of formal university service use were low. Seven (3.9%) participants in the sample reported to Title IX, one (0.6%) participant reported to police, three (1.7%) sought resources from university counseling center, zero (0.0%) sought healthcare from the university health center, and two (1.1%) sought resources from other university sources (e.g., Women's Center, confidential advocate). Individuals who reported any type of university-affiliated help-seeking ( $n = 11$ ; 6.2%) appeared to have higher posttraumatic stress ( $M = 35.9$ ,  $SD = 14.7$ ) than students who did not ( $n = 167$ ;  $M = 18.9$ ,  $SD = 18.2$ ). Meaningful statistical differences between groups could not be examined inferentially due to low cell sizes.

**Table 2** Means, standard deviations, and correlations of continuous variables with confidence intervals ( $N = 178$ )

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. PCL	19.93	18.42							
2. IBQ-IC	0.52	0.68	.32***						
			[.18, .44]						
3. IBQ-IR	0.25	0.58	.32***	.48***					
			[.18, .45]	[.36, .59]					
4. PSBSS-HE-SE <sup>^</sup>	13.26	9.67	.67***	.22**	.22**				
			[.58, .75]	[.07, .36]	[.07, .35]				
5. PSBSS-HE-M <sup>^</sup>	6.82	2.96	-.23**	-.13	-.26***	-.02			
			[-.37, -.09]	[-.28, .02]	[-.39, -.11]	[-.17, .13]			
6. PSBSS-HE-NT <sup>^</sup>	5.03	4.97	.58***	.30***	.27***	.79***	-.07		
			[.48, .68]	[.15, .43]	[.13, .40]	[.72, .84]	[-.22, .08]		
7. SES-LFV-C	3.24	2.99	.46***	.22**	.29***	.43***	-.08	.39***	
			[.33, .57]	[.08, .36]	[.14, .41]	[.30, .55]	[-.22, .07]	[.26, .51]	
8. SES-LFV-PC	3.98	4.93	.28***	-.07	.13	.27***	.09	.24**	.37***
			[.13, .41]	[-.21, .08]	[-.02, .27]	[.12, .40]	[-.06, .24]	[.09, .37]	[.24, .49]

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ . <sup>^</sup> indicates that these correlations were calculated only among participants who did not make a formal report to the university ( $n = 171$ , 96.1% of sample). *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. *M* and *SD* are used to represent mean and standard deviation, respectively. *PCL*, scores on the Post-Traumatic Stress Disorder Checklist for DSM-5; *IBQ-IC*, scores on the Institutional Climate subscale of the Institutional Betrayal Questionnaire (with square root transformation); *IBQ-IR*, scores on the Institutional Response subscale of the Institutional Betrayal Questionnaire (with square root transformation); *PSBSS-HE-SE*, scores on the Socioemotional Barriers subscale of the Psychological Service Barrier measure; *PSBSS-HE-M*, scores on the Minimization Barriers subscale of the Psychological Service Barrier measure; *PSBSS-HE-NT*, scores on the Fear of Negative Treatment subscale of the Psychological Service Barrier measure; *SES-LFV-C*, scores on the Sexual Experiences Survey–Long Form Victimization (during college enrollment); *SES-LFV-PC*, scores on the Sexual Experiences Survey–Long Form Victimization (pre-college enrollment)



**Table 3** Parameter estimates for regression model predicting post-traumatic stress from sexual assault history and institutional betrayal variables ( $N=178$ )

Predictor	<i>b</i>	<i>SE</i>	<i>t</i>	Fit
Intercept	7.53	—	—	
College sexual assault	2.01	0.45	4.50***	
Pre-college sexual assault	0.56	0.27	2.20*	
Institutional climate	5.38	2.04	2.64**	
Institutional response	3.64	2.41	1.51	
$R^2 = .290^{***}$				

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . Institutional Climate and Institutional Response predictors were entered into model with square root transformation to address kurtosis

## Hypothesis 2

Correlational analyses revealed significant associations between the Institutional Climate factor of institutional betrayal, Institutional Response factor of institutional betrayal, and posttraumatic stress (see Table 2), such that students with higher scores on each IBQ subscale also had higher scores on the PCL. When both factors of IBQ were examined in tandem using multiple regression (and co-varying for pre-college sexual assault history and college sexual assault history), Institutional Climate was uniquely associated with posttraumatic stress,  $t(170) = 2.64$ ,  $p < .001$ , but Institutional Response was not (see Table 3). Overall, 69 participants (38.8%) endorsed at least one item on the Institutional Climate subscale, and 33 (18.5%) endorsed at least one item on the Institutional Response subscale.

## Hypothesis 3

Among individuals who did not formally report to Title IX or other formal office ( $N = 171$ ; 96.1% of sample), both the Institutional Climate and Institutional Response factors of institutional betrayal were positively associated with Socioemotional Barriers and Fear of Negative Treatment (see Table 2). The Institutional Response factor (but not Institutional Climate factor) was negatively associated with Minimization Barriers, such that participants who reported higher rates of harmful institutional responses also reported that minimization of their assault was less of a barrier to reporting/service use (see Table 2).

When both factors of IBQ were examined in tandem using multiple regression (and co-varying for pre-college sexual assault history and college sexual assault history), Institutional Response was uniquely associated with Minimization Barriers,  $t(164) = -3.07$ ,  $p = .002$  (see Table 4), and Institutional Response was uniquely associated with Fear of Negative Treatment  $t(164) = 2.57$ ,  $p = .01$  (see Table 4).

**Table 4** Parameter estimates for regression model predicting psychological service barriers (socioemotional, minimization, and fear of negative treatment) from sexual assault history and institutional betrayal variables (among non-reporters;  $n = 171$ )

Predictor	<i>b</i>	<i>SE</i>	<i>t</i>	Fit
Socioemotional barriers				
Intercept	7.63	—	—	
College sexual assault	1.09	0.25	4.36***	
Pre-college sexual assault	0.27	0.15	1.87	
Institutional climate	1.87	1.15	1.62	
Institutional response	0.27	1.35	0.51	
$R^2 = .222^{***}$				
Minimization barriers				
Intercept	7.00	—	—	
College sexual assault	-0.07	0.08	-0.79	
Pre-college sexual assault	0.09	0.05	1.84	
Institutional climate	0.05	0.38	0.14	
Institutional response	-1.38	0.45	-3.07**	
$R^2 = .086^{**}$				
Fear of negative treatment				
Intercept	2.10	—	—	
College sexual assault	0.46	0.13	3.57***	
Pre-college sexual assault	0.13	0.08	1.73	
Institutional climate	1.52	0.59	2.57*	
Institutional response	0.70	0.69	1.01	
$R^2 = .223^{***}$				

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . Institutional Climate and Institutional Response predictors were entered into model with square root transformation to address kurtosis

## Discussion

This study examined PTSD symptoms, barriers to formal service use, and two factors of institutional betrayal among campus sexual assault survivors (with student perpetrators) at a large, public university in the Pacific Northwest. Ultimately, results suggest that there are complex relationships between survivors' mental health, institutional betrayal, and psychological barriers to the use of reporting services/resources. Consistent with decades of research (Campbell et al., 2009; Carey et al., 2018; Dworkin, 2020; MacGregor et al., 2019), we found that the severity of participants' college sexual assault history was unsurprisingly related to higher PTSD symptoms. Yet, only 3.9% ( $n = 7$ ) of the sample reported this incident to Title IX, and only 11 students (6.8% of the sample) sought any university-affiliated resources at all, reflecting similar patterns in other research (e.g., Graham et al., 2021a; McGraw & Tyler, 2022). Experiences of either factor of institutional betrayal (i.e., Factor 1—harmful institutional climate preceding sexual assault or Factor 2—harmful institutional actions after sexual assault unrelated to reporting) were each associated with additional

levels of distress, mirroring previous research identifying links between institutional betrayal and posttraumatic symptoms (Hannan et al., 2021; Lind et al., 2020; Rosenthal et al., 2016; Smith & Freyd, 2013; Smith et al., 2016). This consistent finding underscores a relationship between poorer outcomes and institutional betrayal. Experiencing sexual violence is a serious trauma; experiencing an institution's failure to prevent or effectively respond to sexual violence may be an additional wound that potentially hinders sexual assault survivors' recovery and thereby maintains greater levels of psychological distress. Moreover, both factors of institutional betrayal were related to greater socioemotional barriers to seeking formal reporting services and greater expectation of negative treatment from these services—novel outcomes that, to our knowledge, have not yet been linked to experiences of institutional betrayal.

This study is one of the first studies to use Reffi and colleagues' (2021) two-dimensional model of institutional betrayal and to find evidence that both factors of institutional betrayal (unrelated to reporting) are correlated with PTSD symptoms among campus sexual assault survivors to a similar magnitude ( $r$ 's = 0.32). The unique association between Factor 1 (Institutional Climate) and posttraumatic symptoms in multiple regression analysis is particularly striking. Prominent and frequently cited examples of institutional betrayal usually involve high-profile cases where institutions engage in serious misconduct, such as retaliation or cover-ups, in response to reported assaults (Smith & Freyd, 2014). In comparison, institutional actions leading up to sexual assault, or smaller acts of invalidation by an institution unrelated to formal reporting processes, are frequently neglected, despite being the most common forms of institutional betrayal found in research (e.g., Adams-Clark & Freyd, 2021; Smith & Freyd, 2013). An important implication of this finding is that multiple subtypes of institutional betrayal are associated with students' wellbeing. Psychological consequences stemming from institutional betrayal extend beyond a college or university's response to individual reports of sexual violence; comprehensive evaluation of an institution's climate and reporting policies is therefore crucial. Effective prevention and intervention efforts must address both an institution's ineffective and harmful responses to incidents of sexual violence and target systemic institutional issues that make experiencing harm possible and likely. For example, cultivating a culture of safety and respect and implementing educational or awareness programs may be just as important as creating a supportive and effective system that deals with reports of sexual misconduct. By focusing on the full spectrum of institutional betrayal, efforts can better address sexual violence on campus.

In addition, this study provides a bridge between the parallel literatures on institutional betrayal and students' barriers to formal reporting/service use. In the current

study, institutional betrayal was related to common barriers that prevent students from reporting sexual assault to formal services. Among non-reporters (the vast majority of the sample), Institutional Climate and Institutional Response subtypes of institutional betrayal were positively correlated with socioemotional barriers to formal service use and higher expectations of negative treatment by formal services. In multiple regression analyses, Institutional Climate was a unique predictor of fear of negative treatment from campus services. This finding may suggest that individuals who experience institutional betrayal from university actions prior to an assault (e.g., harmful climate leading to sexual violence) may be even less likely to seek the very same resources that are designed by universities to help (and which often inadvertently result in additional institutional betrayal themselves). And, importantly, even if universities amend their reporting policies and procedures to prevent committing institutional betrayal, students may be unlikely to seek these services if they experience institutional betrayal in the events leading up to the sexual assault. Ultimately, institutional betrayal is not only an outcome of reporting/service use but also as a possible barrier to service use.

Prior sexual victimization may also play a role in students' barriers to formal service use. The majority of participants in the current study reported they had experienced some form of unwanted sexual contact (including rape) before entering university, which was correlated with two of the three barriers to formal service use—socioemotional barriers and fear of negative treatment—but unrelated to institutional betrayal. It is possible that students in the sample previously encountered these barriers following their pre-university experiences with sexual violence; as a consequence, students with a history of sexual victimization may be particularly aware of the challenges sexual assault survivors may face in their efforts to obtain support. Supporting this, previous research with college students finds that students with histories of sexual victimization have less trust in campus sexual assault resources than their non-victimized peers (Burgess-Proctor et al., 2016). Conversely, other research using a sample of undergraduates who had experienced sexual assault on campus did not find a difference in university-affiliated resource use between participants with pre-college sexual victimization histories and those without (Graham et al., 2021b). The relationship between pre-college sexual violence histories and support-seeking behavior on campus warrants further exploration in future studies examining campus sexual violence, especially since both pre-college sexual violence history and campus sexual victimization were uniquely related to posttraumatic symptoms in the current study. It is also possible that PTSD symptoms stemming from pre-college sexual violence history contribute to students' mistrust of campus support services, which

consequently diminishes help-seeking behaviors following campus sexual violence.

Unexpectedly, the Institutional Response subtype (but not Institutional Climate subtype) was a significant (and negative) predictor of minimization barriers in correlational and regression analyses. Although we predicted that those experiencing both types of institutional betrayal would have higher levels of all barriers (including minimization, as students soak in the messages that the institution tells them), that was not the case. Experiencing institutional betrayal after the assault (unrelated to reporting) was associated with fewer minimization barriers. It is possible that students who consider their assault to be more severe (and therefore less likely to minimize their experiences) seek out additional interactions with the institution (e.g., talking to peers/professors, seeking informal resources) that then put them at risk for additional (non-reporting-related) institutional betrayal after the assault occurs. Further research is needed to replicate and fully explore this complex association between institutional betrayal and barriers to service use.

The findings of the current study also have legal implications. The data revealed that, in the span of one year, the university was unsuccessful in preventing incidents of sexual assault perpetrated by students. Title IX compliance at most universities and colleges has long been primarily responsive in nature (Silbaugh, 2015), meaning institutional action is likely to be taken only after an incident of sexual violence has occurred. Although the provision of post-assault resources and actions are necessary, more efforts should be dedicated to the prevention of campus sexual violence. Moreover, the low rates of formal support-seeking behaviors identified in the current study suggest that campus resources are another major area needing improvement. As of August 2024, Title IX regulations require that institutions of higher education receiving federal funds offer “supportive measures” to students and employees who report sexual violence; however, there is little guidance on what these supportive measures should be (there is no requirement, for instance, for the supportive measures to include trauma-informed psychological support). Students may be more likely to use these services if they include measures that are demonstrably effective.

## Limitations

Despite significant results, this study also had several limited limitations. The current study collected data from a sample of undergraduate students enrolled in a Psychology/Linguistics Human Subjects Pool located at one specific university institution in the Pacific Northwest of the United States. Although college students were the targeted population for this study, the results of this study may not generalize to all college students. Importantly, the sample in

this study was predominantly white, and additional research should be conducted among college students with a range of diverse backgrounds, as sexual violence experiences can differ substantially based on sociocultural factors (Dworkin & Weaver, 2021). In addition, the university at the center of this study also has several unique aspects of its Title IX process, including a student-directed reporting policy (as opposed to a mandated reporting policy; see Holland et al., 2018), that may not generalize to other students’ experiences of Title IX at other universities.

Moreover, this study involved the collection of cross-sectional data only, which prevents us from confidently drawing causal conclusions. Although our hypotheses are theory driven and we have tried to isolate events temporally based on the design of self-report measures (e.g., institutional betrayal leading to assault, institutional betrayal after assault), we cannot adequately isolate specific causal relationships between our variables of interest, particularly since students may have experienced multiple campus sexual assault, with varying degrees of institutional betrayal occurring before and after.

Additional limitations involve how institutional betrayal was measured. The IBQ may not capture all forms of climate-related institutional betrayals. For instance, students may experience institutional betrayal vicariously through witnessing failed institutional responses to their peers’ reports of sexual violence (PettyJohn et al., 2023). In interviews with students who chose not to contact formal university services about their sexual assault, a qualitative study found that those who observed their peers try to use campus resources were sufficiently deterred from making reports after they themselves were sexually assaulted (Griffin et al., 2022). One interviewee explained they did not report because “I saw what my best friend went through when she reported. Because reporting to my college or the police wouldn’t have brought justice. Because reporting would have exacerbated my trauma rather than doing anything to relieve it” (Griffin et al., 2022, p. NP14727). Currently, the IBQ does not capture this potential form of institutional betrayal. Future studies would benefit from expanding measurement of institutional betrayal to include instances of witnessing and observing others’ experiences of mistreatment by an institution.

## Future Directions

In addition to expanding future research to include diverse samples and longitudinal designs, additional research should expand upon this work to further examine factors of institutional betrayal. Additional work consistent with Reffi and colleagues’ (2021) model may be useful, as well as continued investigation into facets of institutional betrayal that cause the most harm for specific groups and within specific

institutions. The majority of institutional betrayal research thus far has been conducted in the context of educational institutions, and some research indicates that institutional betrayal as it is currently measured may vary in its appropriateness within the context of other institutions (Porter et al., 2024).

Furthermore, future research should expand beyond the observation and measurement of institutional betrayal to the design and implementation of intervention and prevention efforts. To apply the results of the current study, universities could implement additional efforts to meaningfully and genuinely demonstrate their commitment to preventing sexual violence (or principles of “institutional courage”; see Freyd, 2014, 2018). Examples of such efforts could include providing trauma-informed services for students, requiring university leadership to receive comprehensive education about sexual violence, and dedicating university resources to preventing and responding to campus sexual violence (e.g., investing in effective prevention programs, hiring and adequately compensating victim advocates; Nightingale & Cousineau, 2024). Measures taken to address sexual violence should then be regularly evaluated via both quantitative and qualitative approaches, including longitudinal mixed methods designs that gather information about how students experience their institutions’ sexual-violence reduction and prevention policies. Additionally, universities should make their actions visible to faculty, staff, and students. For instance, universities could maintain up-to-date webpages and host regularly occurring presentations that describe the specific actions a university has adopted, explain the mechanisms of accountability put in place for these actions, and offer current data on campus sexual violence. To foster greater institutional trust, universities must not only adopt effective efforts but also ensure these efforts are known on campus.

## Conclusion

The current study offers important insights into the complex relationship between institutional betrayal, PTSD symptoms, and barriers to reporting/service use among campus sexual assault survivors. Both dimensions of institutional betrayal—namely, cultivating or tolerating a harmful institutional environment and failing to respond appropriately when harm occurs—were associated with sexual assault survivors’ psychological distress and to barriers to using campus support services, with Institutional Climate emerging as a unique predictor. This underscores colleges and universities’ need to adopt a comprehensive approach of addressing sexual violence on campus. Institutions of higher education that offer effective and supportive services for sexual assault

survivors are still engaging in institutional betrayal if they fail to tackle a rape-supportive campus culture. Likewise, colleges or universities will similarly cause harm to their students if they invest efforts into rape prevention and awareness education but neglect their reporting policies and procedures. Our students deserve to be safe in their pursuit of higher education, and taking steps to tackle all facets of institutional betrayal is a crucial step in ensuring their wellbeing.

## Declarations

**Competing Interests** The authors declare no competing interests.

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