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REVIEW ARTICLE



Prevalence of unwanted sexual experiences and their associations on university students in the United States, United Kingdom, and Ireland: a systematic review

Megan Reynolds ^{a*}, Ngozi Anyadike-Danes ^b, Susan Lagdon ^b, Áine Aventin ^c and Cherie Armour ^a

^aSchool of Psychology, Queens University Belfast, Belfast, Northern Ireland, UK; ^bSchool of Psychology, Ulster University, Coleraine, Northern Ireland, UK; ^cSchool of Nursing & Midwifery, Queen's University Belfast, Belfast, Northern Ireland, UK

ABSTRACT

Whilst prevalence rates of unwanted sexual experiences (USEs) and their association on Higher Education Institution students have been extensively researched for decades in the United States of America (US), there is a dearth of published studies on this topic in the United Kingdom (UK) and Ireland. The current study reviewed existing peer-reviewed and specific grey literature on USEs from these countries between 2000 and January 2023 ($n=48$) to determine (1) prevalence rates, (2) most prevalent act, and (3) impacts of USEs on higher education students. It is evident from the included studies that prevalence rates of USE are wide ranging, with rates from 7% to 86% (Coulter & Rankin. (2020). College sexual assault and campus climate for sexual- and gender-minority undergraduate students. *Journal of Interpersonal Violence*, 35(5-6), 1351–1366; Lorenz et al. (2019). Graduate student experiences with sexual harassment and academic and social (Dis)engagement in higher education. *Journal of Women and Gender in Higher Education*, 12(2), 205–223). However, findings were difficult to synthesise due to variations in definitions and measurements utilised. Students report mental health and substance use following a USE. The review concludes by providing recommendations for future research, practice, and policy.

PRACTICE IMPACT STATEMENT

This article will have wider reaching implications for research, practice, and policy in the UK and Ireland by outlining the pressing need for empirical research on USEs and the associated impacts of such among higher education institution (HEI) students in the UK and Ireland. Further, the findings from this study highlight the importance for evidence-based prevention programmes and campaigns within these regions when tackling this issue on university campuses.

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CONTACT Megan Reynolds mreynolds16@qub.ac.uk; megan.reynolds@dcu.ie School of Psychology, Queens University Belfast, University Road, Belfast BT7 1NN, Ireland

*Present address: Anti-Bullying Centre, Dublin City University, All Hallows Campus, Dublin 9, Ireland

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Background

Unwanted sexual experiences (USEs) are defined as non-consensual sexual acts, including sexual harassment, unwanted sexual contact, sexual coercion, rape, and sexual assault (Pinchevsky et al., 2019). USEs pose significant public health and safety risks for students at higher education institutions (HEI) and in recent years, have garnered media attention, thus becoming a major topic of conversation among student activists, researchers, and universities (Sabri et al., 2019). Within US literature, it has been reported that USEs are associated with higher levels of trauma symptoms among student populations (Frazier et al., 2009; Tansill et al., 2012). Depression has been linked with men (Larimer et al., 1999) and women students who have had a USE (Carey et al., 2018; Sabina & Straus, 2008), and anxiety has been associated with women students' experience (Carey et al., 2018; Sabina & Straus, 2008). Additionally, the link between USEs and alcohol use, both as an outcome and risk factor (i.e. alcohol is used by perpetrators to target incapacitated individual(s) [Klein et al., 2018]), has also been extensively documented (Barrick et al., 2012; Kaysen et al., 2006).

The impacts of this experience are extensive and therefore understanding the rate and frequency of such experiences has been a major focus within the field, with much of the knowledge base originating from the US. While research investigating the prevalence and impacts of USEs within the higher education or college context has been steadily reported over the past two decades (e.g. Banyard et al., 2005; Larimer et al., 1999), the topic attracted national attention (Fedina et al., 2018) from 2014 to present. Notably, the White House Task Force to Protect Students from Sexual Assault (Pritchard et al., 2019) was established as well as the premiere of the "The Hunting Ground" documentary about sexual misconduct across college campuses. Thus, the accumulation of decades of scholarly research addressing USEs in HEI since the 1980s, the continued efforts of legislators and new campus campaigns, as well as media attention, led to a proliferation of data driven research known as campus climate surveys, to assess prevalence rates of USEs across HEI (McMahon et al., 2019). These surveys represent an important step change in the research agenda, moving from individual experiences to gathering data on a broader variety of factors such as campus safety, student attitudes and perceptions of institutional services (McMahon et al., 2017; Wolff et al., 2017).

Despite these focused efforts in the US, prevalence rates have not changed significantly (Cantor et al., 2015). Several studies have found that between 20%–25% of college women and 5%–8% of college men (Banyard et al., 2007; Cantor et al., 2015) reported some form of USE despite a multitude of prevention efforts. Research emerging from the UK and Ireland, support that USEs among students are pervasive, although much of this work remains in its infancy, lacking in standardisation of measurement tools as well as conceptualisation of USEs and non-consent. To date, there is limited information relating to the impacts of these experiences within the British and Irish context. Indeed, it appears that the main sources of knowledge on prevalence rates stems from research reports conducted by student unions, sometimes in collaboration with academics and non-government organisations [for example, Hidden Marks Report (National Union of Students [NUS], 2010), SCORE (Haughey et al., 2016), Say Something Report (The Union of Students in Ireland [USI], 2013) and Sexual Experiences Survey (Burke et al., 2020)]. These reports are helpful as they provide sufficient detail when there is a dearth of information or data on USE in these regions, but ideally, implementing and publishing results following peer review would allow for greater representation and comparisons within and across these countries.

Current study

To date, no systematic review has been conducted on the prevalence rates of USEs of HEI student samples combining studies from the US, UK, and Ireland. The last systematic review on this topic (i.e. Klein & Martin, 2019) was published in 2019, and the current review provides updated information on prevalence rates of USEs among university students in the US. The rationale for focusing

on the US, UK and Ireland and not others, is that while we recognise that other high-income countries may also have served as appropriate comparators, the US was chosen because it has similar legal, political, and ecological systems to UK and Ireland. Furthermore, this review is the first to examine the current literature on prevalence rates in the UK and Ireland among university students, which has implications for both countries. Importantly, the findings from this review indicate how little is known about the rates and types of USEs and their impacts (i.e. students who report a USE also report higher anxiety symptoms) from the UK and Ireland. In addition, these findings are important as they demonstrate a pressing need for more research to be conducted in both countries, as without any updated findings researchers, practitioners and universities cannot begin to implement evidence- and trauma-informed prevention programmes or support services to students. Thus, as this topic is of high interest in the HEI landscape currently, this is timely and informative review.

The current systematic review aims to synthesise relevant literature between January 2000 and January 2023, to provide recommendations for future research, practice, and policy. The authors restricted the literature review dates from January 2000 because research on USEs became prolific in the early 2000s up until January 2023 to ensure scope and currency of literature included in the systematic review. This review poses the following research questions and specifies that the population is HEI students in the US, UK, and Ireland for all three questions below: (1) What are the estimated prevalence rates of USEs? (2) What is the most prevalent USE? and (3) What is the prevalence of mental health and alcohol use associations for students experiencing USEs?

Methods

The guidelines of the Preferred Reporting Items for Systematic Reviews and Meta-Analyses [PRISMA] (Moher et al., 2009) informed the reporting of the analysis for this review. This systematic review is registered on the Prospero database: https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42021231424. A search was conducted to identify studies on prevalence rates and impacts, specifically mental health, and substance abuse, of USEs among HEI students published between January 2000 and January 2023. Databases searched included Web of Science, PsycINFO, Scopus, Sociological Abstracts, PubMed, ERIC (subscribed version) and PsycARTICLES. The following search terms were utilised; "sexual violence" or "rape" or "sexual assault" or "sexual coercion" or "sexual harassment" or "unwanted advances" or "unwanted sexual contact" or "unwanted sexual experiences" or "sexual victimization" AND "university" or "college" or "campus" or "higher education" AND "prevalence" or "rate*" or "incidence".

Articles were included if they were peer-reviewed; published after 2000; written in English; contained studies from the US, UK, and Ireland; reported prevalence rates (i.e. percentages, counts, and/or rate) on USE among HEI students of these countries, since they entered HEI; and participants were aged 18 years and older. Studies with measures of both lifetime and USEs since entering HEI and studies on dating violence among HEI students (i.e. only if prevalence rates of USEs were reported) were included. Studies that did not meet this inclusion criteria were excluded.

Only one researcher, the first author, screened the titles and abstracts, but reliability was established in the full text screening of the articles (Stage 2). From the number of articles in stage 2, a second author reviewed every second article. The second author then quality assessed the articles independently from the first author. Following the completion of this, the first and second author met to discuss scores of the CASP quality assessment tool for the articles the second author assessed. Both authors agreed on scores given. Please see [Table 1](#) for CASP scores.

The main author created and piloted a data extraction table. The categories included in the table were relevant to answering the research questions and included the following: study reference, study design, country, sample size, sampling strategy, participant demographics, research questions, measures utilised, the type of USE, the type of analysis, findings, limitations, and implications for each study.

Table 1. Summary of study design, sampling, CASP scores, USE type and measurement(s).

ID	Author (year)	Study design	Sampling	CASP	USE type	USE measure(s)
1	Banyard et al. (2007)	CS	Random	7	Unwanted Sexual Contact	Non-Standardised (NS)
2	Barrick et al. (2012)	CS	Random	7	Sexual Assault	Historically Black College and University Campus Sexual Assault Study (HBCU-CSA)
3	Butler et al. (2020)	CS	Random	8	Alcohol or drug related sexual violence	Non-Standardised
4	Campbell et al. (2021)	CS	Random	9	Unwanted Sexual Contact; Sexual Violence; Sexual Harassment	Sexual Experiences Survey Short Form Victimization (SES-SFV) & Sexual Experiences Survey Short Form Perpetration (SES-SFP)
5	Carey et al. (2015)	LT	Random	8	Forced Rape; Incapacitated Rape	Sexual Experiences Survey-Revised (SES-R)
6	Carmody et al. (2020)	CS	Random	8	Sexual Violence	Multi-College Bystander Efficacy Evaluation (McBEE) survey
7	Chang et al. (2020)	CS	Random	7	Sexual Assault	National College Health Assessment Scale
8	Conley et al. (2017)	LT	Random	9	Sexual Assault	College-onset PTE Exposure (NS)
9	Coulter and Rankin (2020)	CS	Random	8	Sexual Assault	Non-Standardised
10	Cusack et al. (2019)	LT	Random	9	Sexual Assault	Life Events Checklist (LEC)
11	DeKeseredy et al. (2020)	CS	Random	9	Sexual Harassment; Sexual Assault; Intimate Partner Violence	C.A.T.S. Survey, SES-R, National Intimate Partner and Sexual Violence Survey (NISVS) & Administrator-Researchers Campus Climate Collaborative (ARC3) survey
12	Demers et al. (2015)	LT	Convenience	9	Unwanted Sexual Experience	Sexual Experiences Survey Short Form Victimization (SES-SFV)
13	Edwards et al. (2015)	CS	Random	8	Sexual Violence	NVAW & NISVS
14	Fantasia et al. (2018)	CS	Random	7	Sexual Violence	Abuse Assessment Screen (AAS)
15	Flack et al. (2008)	CS	Stratified Random	7	Unwanted Sexual Touching; Unwanted Sex	Sexual Experiences Survey-Revised (SES-R)
16	Flack et al. (2016)	CS	Random	7	Sexual Assault	Sexual Experiences Survey-Revised (SES-R)
17	Ford and Soto-Marquez (2016)	CS	Convenience	7	Sexual Assault	Online College Social Life Survey (OCSLS)
18	Gardella et al. (2015)	CS	Random	10	Sexual Violence	Bureau of Justice Statistics National Crime Victimization Survey
19	Hines et al. (2012)	CS	Random	7	Sexual Assault	Modified Sexual Assault Victimization survey
20	Kaysen et al. (2006)	LT	Random	9	Incapacitated Rape	Young Adult Alcohol Problem Severity Test (YAAPST)
21	Kimble et al. (2008)	CS	Random	8	Unwanted Sexual Experience; Unwanted Sexual Touching; Attempted Unwanted Sex; Competed Unwanted Sex	Sexual Experiences Survey (SES)
22	Kirkner et al. (2020)	CS	Random	7	Sexual Violence	Adapted Campus Sexual Violence Study
23	Krebs et al. (2011)	CS	Convenience	8	Sexual Assault	HBCU-CAS
24	Krebs et al. (2009a)	CS	Random	7	Sexual Assault	CSA survey
25	Krebs et al. (2009b)	CS	Random	7	Sexual Assault	CSA survey
26	Lorenz et al. (2019)	CS	Convenience	7	Sexual Harassment	Sexual Experiences Questionnaire-Department of Defense (SEQ-DoD)
27	Martin et al. (2020)	CS	Random	7	Sexual Assault	Campus Climate Survey on Sexual Assault and Sexual Misconduct

(Continued)

Table 1. Continued.

ID	Author (year)	Study design	Sampling	CASP	USE type	USE measure(s)
28	Martin et al. (2011)	CS	Random	10	Sexual Assault	CSA study
29	McClain et al. (2020)	CS	Random	8	Sexual Harassment	Sexual Experiences Questionnaire-Department of Defense (SEQ-DoD) & Administrator-Researchers Campus Climate Collaborative (ARC3) survey
30	Mellins et al. (2017)	CS	Stratified Random	8	Sexual Assault	Sexual Health Initiative to Foster Transformation (SHIFT) survey (S)
31	Messman-Moore et al. (2008)	LT	Convenience	10	Unwanted Sexual Experience	Sexual Experiences Survey (SES)
32	Rosenthal et al. (2016)	CS	Random	7	Sexual Harassment	Sexual Experiences Questionnaire-Department of Defense (SEQ-DoD-s) & Sexual Experiences Survey-Revised (SES-R)
33	Rothman and Silverman (2007)	CH	Convenience	8	Sexual Assault	Sexual Experiences (SES)
34	Schrag et al. (2019)	CS	Random	7	Sexual Violence; Sexual Harassment	Sexual Experiences Questionnaire-Department of Defense (SEQ-DoD)
35	Seabrook et al. (2018)	CS	Random	7	Sexual Assault	modified White House Task Force to Prevent Sexual Assault's Not Alone toolkit
36	Sutherland et al. (2014)	CS	Random	7	Sexual Violence	Sexual Experiences Survey Victimisation & Sexual Experiences Survey Perpetration
37	Thompson and Kingree (2010)	CS	Random	8	Sexual Violence	Sexual Experiences Survey (SES)
38	Wolff et al. (2017)	CS	Random	9	Sexual Harassment	Sexual Experiences Questionnaire (SEQ)
39	Wood et al. (2020)	CS	Random	9	Intimate Partner Violence	Modified CATS, Cyber Abuse Dating Scale, & Sexual Experiences Survey Short Form Victimisation (SES-SFV)
40	Haughey et al. (2016)	CS	Random	10	Unwanted Sexual Experience; Unwanted Sexual Touching; Sexual Assault	Adapted questions from the SES
41	Burke et al. (2020)	CS	Random	10	Sexual Violence; Sexual Harassment	Administrator-Researchers Campus Climate Collaborative (ARC3) survey
42	Gómez (2022)	CS	Random	10	Campus Sexual Violence	Sexual Experiences Survey (SES)
43	Anyadike et al. (2022)	CS	Random	10	Unwanted Sexual Experience	Sexual Experiences Survey (SES)
44	Holloway et al. (2022)	CS	Random	8	Sexual Victimization	Modified Version of the SES
45	Hoxmeier et al. (2022)	CS	Random	7	Sexual Violence	Non-Standardised
46	Adhia et al. (2023)	CS	Random	8	Sexual Violence	Non-Standardised
47	Marcantonio et al. (2022)	CS	Random	10	Sexual Assault	Sexual Coercion Inventory (SCI) and Sexual Experience Survey-Short Form Victimisation (SES-SFV)
48	Martin et al. (2020)	CS	Random	9	Sexual Assault	Association of American Universities (AAU) Campus Climate Survey on Sexual Assault and Sexual Misconduct

Note: CS = Cross-sectional, LT = Longitudinal survey, CH = Cohort.

Results

The search strategy resulted in a total of 8247 articles, all of which were peer-reviewed articles (see [Figure 1](#) below for overview of review process). Following the removal of duplicates ($n = 1702$), a total of 6545 articles remained eligible to be screened. The titles and abstracts of the 6545 eligible articles were individually screened to identify those which met the inclusion criteria of this review. A

total of 6312 articles were removed at this stage, as they focused on prevalence rates of USEs for the general population. Following the removal of these studies, 224 peer-reviewed studies remained. The systematic review yielded no peer-reviewed articles for the UK and Ireland, therefore, grey literature from these regions was explored. Following a search of grey literature from the UK and Ireland, nine reports were found and were screened. Thus, 233 articles (224 from databases plus 9 from grey literature search) proceeded through Stage 2 screening. Among the 233 studies, 181 studies were excluded from this review for the following reasons: were editorials/commentaries or other non-empirical studies, were studies conducted outside the US, UK and Ireland, were qualitative studies, did not report prevalence rates of USEs among HEI students, or HEI prevalence rates of USEs were not discernible from the reported findings. Thus, 52 articles were eligible for quality assessment using the Critical Appraisal Skills Programme (CASP; Critical Appraisal Skills Programme, 2014), which is utilised to assess the quality, validity, and reliability of studies. A second reviewer quality assessed every third article to reduce the risk of any bias. If both reviewers had any disagreements, it was decided that this would be resolved by a third reviewer. The two reviewers discussed each quality assessment and following this, four articles were removed. Thus, the remaining 48 articles were included in this review. Due to the heterogeneity of the data, a narrative synthesis was conducted.

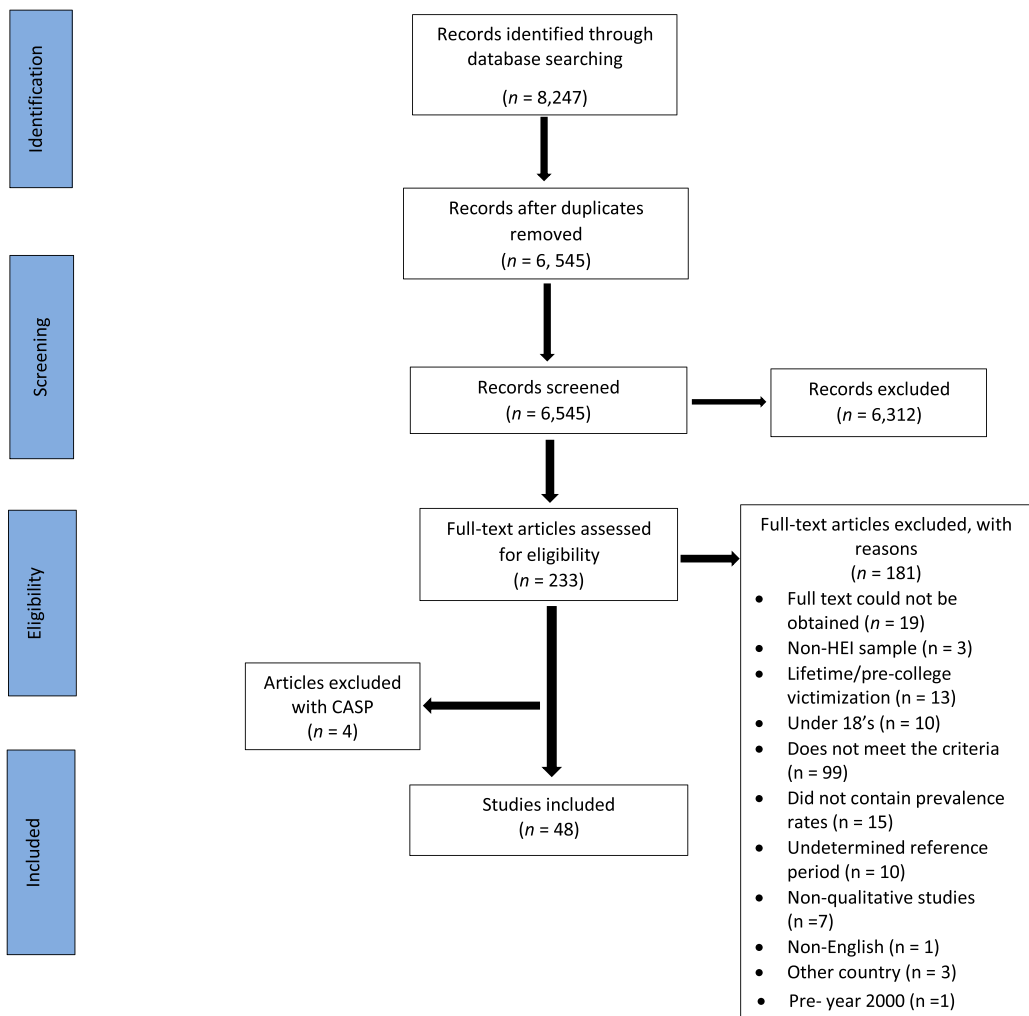


Figure 1. PRISMA flow diagram.

Characteristics of studies

Table 1 presents the study design, sampling strategy, type of USE and measures, for each of the 48 studies included in this review (see Table 1 below). The majority of studies were conducted in HEIs in the US with only 3 studies from the UK and Ireland (Anyadike et al., 2022 [43]; Burke et al., 2020 [41]; Haughey et al., 2016 [40]), which reaffirms the lack of peer-reviewed research outside of bespoke reports from Student Unions in these countries. Most studies used a cross-sectional design ($n = 39$), six used a longitudinal design, and one used a cohort design. There was a variation of measures utilised to examine USEs, with several studies using versions of the Sexual Experiences Survey (SES) ($n = 16$). Other measurements used were: non-standardised measures ($n = 11$), Abuse Assessment Screen ($n = 1$), Campus Sexual Assault Survey (CSA) ($n = 3$), Historically Black College and University Campus Sexual Assault Study (HBCU-CSA) ($n = 2$), Sexual Experiences Questionnaire-Department of Defense (SEQ-DoD) ($n = 4$), Sexual Health Initiative to Foster Transformation (SHIFT) survey ($n = 1$), Sexual Coercion Inventory (SCI) ($n = 1$), Association of American Universities (AAU) Campus Climate Survey on Sexual Assault and Sexual Misconduct ($n = 1$), and Administrator-Researchers Campus Climate Collaborative (ARC3) survey ($n = 3$).

For study samples, a mixed gender sample was mainly used ($n = 31$), with cisgender women accounting for the majority, and this was followed closely by only women participant samples ($n = 16$). Furthermore, only one study did not provide demographics for their study sample. Sample sizes varied widely across all 48 studies from 102 to 13,685. Forty-two studies used random sampling and six studies used convenience sampling. Most participants sampled were predominately white, heterosexual students and few studies examined prevalence rates of USEs among ethnic minority and LGBTQ students. Please see Table 2 below.

Characteristics of participants

For gender of participants, women samples were the most sampled gender across all studies included in this review. For instance, 16 studies included in this review utilised all women student samples (Barrick et al., 2012 [2]; Carey et al., 2015 [5]; Chang et al., 2020 [7]; Demers et al., 2015 [12]; Fantasia et al., 2018 [14]; Flack et al., 2016 [16]; Kimble et al., 2008 [21]; Krebs et al., 2011 [23]; Krebs et al., 2009a [24]; Krebs et al., 2009b [25]; Martin et al., 2011 [28]; Messman-Moore et al., 2008 [31]; Seabrook et al., 2018 [35]; Thompson & Kingree, 2010 [37]; Wood et al., 2020 [39]; Marcantonio et al. (2022) [47]), which is not surprising considering earlier research highlighted that women experience USEs at a higher rate compared to men. Moreover, within mixed gender samples most participants were women, with participation ranging from 47.5% (Coulter & Rankin, 2020 [9]) to 99% [37]. Whereas participation from men in these studies was considerably lower with rates ranging from 10.4% (Schrag et al., 2019 [34]) to 39% [9]. Participation from transgender students ranged from 0.3% (Edwards et al., 2015 [13]) to 7.7% [9], and participation from gender non-conforming/non-binary students ranged from 1% (Burke et al., 2020 [41]; Haughey et al., 2016 [40]) to 2% (Lorenz et al., 2019 [26]; Mellins et al., 2017 [30]; [34]) to 4.8% [9]. However, more recent studies appear to be more inclusive of genders, by recruiting men, transgender and non-binary students to examine their rates of USEs and whether they report rates similarly or higher to women. In fact, one study included in this review (e.g. Hoxmeier et al., 2022 [47]) only examined cisgender men and gender and sexual minority men's experiences of sexual victimisation.

Regarding ethnicity, studies overwhelmingly had participation from White/Caucasian students as rates ranged from 53% (Cusack et al., 2019 [10]) to 92.8% [12]. Whereas participation rates from ethnic minority groups were lower compared to their white/Caucasian counterparts. Within studies that included white and ethnic minority students (e.g. Black, Asian, Hispanic, Native American and Multiracial, etc.), rates for ethnic minority students ranged from 0.4% to 26.9% to 40%. Only studies that were conducted with student samples from historically black colleges and universities had higher participation rates from ethnic minority students. For example, one study (Barrick et al.,

Table 2. Summary of sample size, gender, ethnicity, sexual orientation, prevalence rates and, mental health and alcohol use association with USE.

ID	Author (year)	Total sample size (N)	Gender N (%)	Ethnicity N (%)	Sexual orientation N (%)	Prevalence rate N (%)	Mental Health Association w/. USE	Alcohol Use Association w/. USE
1	Banyard et al. (2007)	633	F: 408 (64.4%) M: 225 (35.6%)	NI	NI	F: (19.6%) M: (8.2%)	NI	NI
2	Barrick et al. (2012)	3951	NI	White: 97 (2.20%) Black: 3415 (87.19%) Hispanic: 33 (0.90%) Other: 92 (2.34%) Multiracial: 309 (7.37%)	NI	Nearly 10% of undergraduate women reported a completed SA; Incapacitated SA: (6.2%); Forced SA: (4.8%)	NI	NI
3	Butler et al. (2020)	2748	NI	NI	NI	Alcohol or drug-related SA from T1 to T2 (85.04%); students victimised at T1 but not at T2 (6.33%), whereas, others were victimised at T2 but not T1 (8.62%); repeated alcohol or drug related-related sexual assault at both T1 and T2 (14.73%)	NI	NI
4	Campbell et al. (2021)	3977	W: 2404 (60.7%) M: 1527 (38.5%) Alternate Gender Identity: 32 (0.8%)	White: 2052 (51.8%) Asians: 1104 (25.6%)	NI	USC via verbal tactic (7.5%); SV (5%); SV while intoxicated or asleep (4.8%); SH (9%); USC and SH more prevalent among undergrads than postgrads; women undergrads more likely to report USC than men	NI	NI
5	Carey et al. (2015)	483	W: 483 100%	White: (64%) Asian: (11%) Black: (10%) Hispanic: (9%) Other/Multiple races (13%)	Heterosexual: 96%	Forced Rape (9.0%); IA/IR (15.4%)	NI	NI
6	Carmody et al. (2020)	735	W: 440 (59.9%) M: 277 (37.7%) Gender Minority: 18 (2.5%)	Hispanic White: 160 (22.7%) Hispanic Other: 121 (17.2%) Non-Hispanic White 286 (40.6%)	Heterosexual: 583 (79.8%) Sexual minority: 148 (20.3%)	Non-sexual/gender minority student: SH (25%), SA (7%) & IPV (49%); Sexual/Gender Minority Students: SH (49%), SA (16%) & IPV (485); Sexual/Gender and Race Minority Students: SH	NI	NI

7	Chang et al. (2020)	151	W: 151 (100%)	Non-Hispanic Other: 138 (19.6%) White/European (88.7%); Black (6.6%); Asian (2.6%); Latino (2.0%)	NI	(50%), SA (18%) & IPV (48%) Women: verbal threats (12.6%); unwanted touching (11.9%); attempted sexual penetration (7.3%); indicated sexual penetration (8.6%)	Anxious and depressive symptoms associated with SA	Problematic alcohol use associated with SA experience
8	Conley et al. (2017)	7603	W: (61.1%) M: NI	Black (19.6%), Asian (16.3%), & Other (13.8%)	NI	SA (5.2%); USE (17.5%)	NI	NI
9	Coulter and Rankin (2020)	1,925	W: 915 (47.5%) M: 769 (39.9%) Transgender 149 (7.7%); Gender non-conforming 92 (4.8%)	White: 1,429 (74.2%) Ethnic minority: 496 (25.8%)	Gay/lesbian 1,059 (55%); bisexual 333 (17.3%); queer 285 (14.8%); Pansexual 116 (6%); Other 132 (6.9%)	SA (5.2%)	NI	NI
10	Cusack et al. (2019)	3,294	W: 2,592 (78.69%) M: NI	White: 1,768 (53.67%); Black: 609 (18.49%); Asian: 400 (12.14%); another race/ethnicity: 516 (15.66%)	NI	Overall revictimisation (39.5%); Year 1 (48.73%); Year 2 (22.3%); Year 3 (15.42%); Year 4 (0.63%)	Revictimisation at Year 1 spring associated w/. depression and anxiety symptoms	Alcohol use associated with revictimisation rates at Year 1 and Year 2 spring
11	DeKeseredy et al. (2020)	5449	W: 60% M: (38.9%) Other: (1.1%)	White: (83.8%); Black: (4.4%); Asian: (6%); Hawaiian/Pacific Islander (0.2%); Native American (0.4%); Hispanic: (3.1%); Other: (2%)	Gay: 92 (1.7%); Lesbian: 55 (1%); Bisexual: 194 (3.6%); Asexual: 38 (0.7%); Heterosexual: 4966 (91.1%)	LGBTQ students: SA (40.2%); All gender identities: SA (25.2%); All women in the larger sample (34%); LGBTQ students report higher non-consensual vaginal penetration compared for all women (15.8% vs 10%)	NI	NI
12	Demers et al. (2015)	563	W: 563 (100%)	White: (92.8%); Black: <i>n</i> = 4; Asian: <i>n</i> = 10; Native American: <i>n</i> = 2; Hispanic/Latino <i>n</i> = 2	NI	USE (26.5%)	Stress and depression associated with USEs	NI
13	Edwards et al. (2015)	6030	W: (65.8%) M: NI	White: (92.7%)	Heterosexual (82.3%)	SMS 2.32 times more likely than heterosexual students to report SV; female were 2.20 times more likely than male to report SV	NI	NI

(Continued)

Table 2. Continued.

ID	Author (year)	Total sample size (N)	Gender N (%)	Ethnicity N (%)	Sexual orientation N (%)	Prevalence rate N (%)	Mental Health Association w/. USE	Alcohol Use Association w/. USE
14	Fantasia et al. (2018)	873	W: 873 (100%)	NI	NI	IPV/SV during the preceding fall semester (12%); forced unwanted sexual activities (5.3%); forced unwanted sexual activities most common act; women in first year more likely to report than any other year	NI	NI
15	Flack et al. (2008)	207	W: 121 (59%) M: 84 (41%)	White: 181 (88.3%); Asian: 12 (5.9%); Hispanic: 7 (3.4%) & Other: 5 (2.5%)	NI	Women: USE (43.8%); UST (29.8%); attempted unwanted sex (25.6%); completed unwanted sex (7.7%); Men: USE (7.1%); UST (4.8%); attempted unwanted sex (1.2%); completed unwanted sex (1.2%); Year of Study: First years (40.7%) & Second years (46.8%) report a USE; second year students report more incidents of UST than first years	NI	NI
16	Flack et al. (2016)	373	NI	White: (87.40%); Asian/Asian Americans (3.49%); African Americans (1.60%); & Hispanics (1.60%)	Heterosexual:(95.44%); minorities homosexual (1.07%) or "other" (3.49%)	any SA (44.24%); contact sexual touching [noninvasive] (39.68%); attempted rape (22.52%); completed rape (22.25%); attempted rape or completed rape (33.24%)	NI	NI
17	Ford and Soto-Marquez (2016)	21,185	W: 14,604 M: 6581	NI	NI	Heterosexual women SA by senior year (24.7%); heterosexual men SA (12.7%); Bisexual women SA by senior year (37.8%); Lesbian women SA (11.4%); gay men (24.3%) & bisexual men (17.7%), heterosexual women SA by senior year (24.3%); Heterosexual Women:	NI	NI

18	Gardella et al. (2015)	479	W: 354 (74%) M: 127 (26%)	White: (65%) Asian (21.3%); non-Asian minority (13.8%)	NI	freshman year (13.3%); sophomore year (17.8%) and junior year (23.2%) women students reported four times more sexual victimisation than male students; final year students reported more SV compared to other years; Caucasian students reported twice the rates of SV (OR = 2.57, 1.13, 5.82) compared with those from ethnic minority groups	NI	NI
19	Hines et al. (2012)	1916	W: 1381 M: 535	NI	NI	Women: SA (6.6%); Men: SA (3.2%)	NI	NI
20	Kaysen et al. (2006)	1238	M: 406 (33%) W: 832 (67%)	White (75.1%); Asian/Pacific Islander (17.2%); Hispanic/Latina/Latino (2.3%), Black/African American (0.9%); Native American/American Indian (0.5%); Other (4.0%)	NI	Women: IR (78.3%); 24 students during year 1, 26 students during year 2, and 26 during year 3 experienced an IR during college	NI	Alcohol use increases following victimisation
21	Kimble et al. (2008)	102	W: 102 (100%)	White: 76 (75%); Asian: 9 (9%); Black: 2 (2%); Other: 14 (14%)	Heterosexual 96 (94%); Bisexual: 5 (5%); Questioning: 1 (1%)	25% reported some type of UWS in their first 2 years at college. Unwanted sexual touching (22%); attempted unwanted anal, vaginal, or oral sex (15%); completed unwanted anal, vaginal, or oral sex (5%). Two women defined their experience as rape	NI	NI
22	Kirkner et al. (2020)	2929	W: 1986 (67.8%); M: 902 (9.7%); Transgender Man: 6 (0.06%); Nonbinary: 33 (0.4%); Another: 2 (0.02%)	White: Asian: Black: Hispanic: More than one race: American Indian, Alaskan Native, or Pacific Islander:	Heterosexual: Gay: Lesbian: Bisexual: Pansexual: Queer: Asexual: Unsure: Another:	Students with disabilities significantly more likely to be sexually victimised (24%) compared to students without disabilities (17%); students with disabilities reported attempted assaults at a	NI	NI

(Continued)

Table 2. Continued.

ID	Author (year)	Total sample size (N)	Gender N (%)	Ethnicity N (%)	Sexual orientation N (%)	Prevalence rate N (%)	Mental Health Association w/. USE	Alcohol Use Association w/. USE
23	Krebs et al. (2011)	3951	W: 3951 (100%)	Black (87.2%); White (2.2%); Hispanic (0.9%); Multiracial (9.7%)	Heterosexual (89.93%); Lesbian (2.48%); Bisexual (7.59%)	significantly higher rate (13% vs 7.6%); Junior students report SA (36.4%) Women: completed or attempted SA (14%); incapacitated SA (6%); Total sample forcible SA (5%); alcohol enabled SA most common form incapacitated SA	NI	NI
24	Krebs et al. (2009a)	5446	W: 5446 (100%)	White: (66.9%); Black (16.2%); Hispanic: 3%; Other: (14%)	NI	Completed or attempted SA (19%); Total sample forcible SA (5%); forced rape (4%); reported an alcohol enabled SA (7.8%); Women: completed SA (13.7%); attempted SA (12.7%); SA in junior year (20%) & incapacitated SA in senior year (16%)	NI	NI
25	Krebs et al. (2009b)	5,446	Random	White: (66.9%); Black (16.2%); Hispanic: 3%; Other: (14%)	NI	Incapacitated SA only (8.9%); physically forced assault only (2.5%); both types of assault (2.2%)	NI	NI
26	Lorenz et al. (2019)	108	W: (81%) M: (16%) Gender non-conforming (2%) Transman: <i>n</i> = 1	White (78%) Black (4%); Asian/Asian American (5%); Latino/Hispanic (3%); Multi-racial (9%). Arab/Middle-Eastern: <i>n</i> = 2	Heterosexual (70%); Bisexual (17%); Queer (9%); Gay (1%); Lesbian (1%); Pansexual (2%)	women & female-identified SH (88%); women were more likely to experience SH than men ($F = 3.53$; $p < 0.05$)	NI	NI
27	Martin et al. (2020)	13,685	Cisgender women (80%); cisgender men (19%); gender minorities (2%)	White (73%); Asian (12%); Black/African American (5%), and Other (10%); Hispanic/Latino (10%)	Heterosexual (83%); gay or lesbian (5%); Other (12%)	Cisgender women; coerced penetration/oral sex (0.8%); lack of affirmative consent penetration/oral sex (12%); coerced sexual touching (1%); lack of affirmative consent sexual touching (18%)	NI	NI
28	Martin et al. (2011)	5439	W: 5439 (100%)	NI	Heterosexual: 5239; bisexual: 167; lesbian: 33	Bisexuals (24.0%) & lesbians (17.9%) reported SA	NI	NI

29	McClain et al. (2020)	CS	Random		SH	SH perpetrated by a faculty/staff (36.6%); SH by a student (38.5%); SH by either faculty/staff or a student (51.1%); women (47.1%) and men (24.8%) students reported experiencing SH from staff; women (50.7%) and men (24.8%) students reported experiencing SH from fellow students	SH by members of faculty/staff or by peers increased likelihood of PTSD symptoms & depression; SH by members of faculty/staff only and SH by students only both increased level of depression	NI
30	Mellins et al. (2017)	1592	W: (58%); M: (40%) 2% GNC (2%); 4 students refused to identify their gender	White non-Hispanic (43%); Asian (23%); Hispanic/Latino (15%); Black non-Hispanic (8%)	Women (79%) & men (85%) identified as heterosexual	any SA (22.0%); women were over twice as likely as men to report any sexual assault (28.1% vs 12.5%); freshman (21%) & junior (29.7%) female students report SA; freshman (9.9%) & senior (15.6%) male students report SA	NI	NI
31	Messman-Moore et al. (2008)	276	W: 276 (100%)	Caucasian: (91.0%); biracial (2.4%); Asian or Asian American: (2.1%); African American: (1.8%); Native American: (1.2%); Hispanic: (0.6%); Other, 0.9%	NI	Rape (9.5%); verbal sexual coercion (11.7%) during the 8-month study; majority of reported rapes were substance related rape (88%)	Dissociation and depression as risk factor	Higher levels of alcohol use increase the risk for rape only
32	Rosenthal et al. (2016)	525	W: 324 (61.7%); M: 201 (38.3%); Transgender 13 Gender Identity not provided: 1	White (78%); Asian: (10%); Black: (2%) Hispanic/Latino: (5.7%); Native American or Alaskan Native (2%); Hawaiian or Pacific Islander: less than 1%; ethnicity not listed (3.2%)	Heterosexual (84.8%); gay or lesbian (3.4%); bisexual (6.2%); queer (1.9%); sexual orientation not listed (1.9%)	Female (13%) & male (11%) SH from faculty/staff; female (11%) and male (9%) SH from student	SH by both students and faculty/staff significantly predicted trauma symptoms for females; SH by faculty/staff significantly predicted trauma symptoms	NI
33		1982	W: 1081 (54.5%) M: 901 (45.5%)	NI	Heterosexual: 1818 (91.73%) LGB: 164 (8.27%)	Students with no exposure sexually assaulted during	NI	NI

(Continued)

Table 2. Continued.

ID	Author (year)	Total sample size (N)	Gender N (%)	Ethnicity N (%)	Sexual orientation N (%)	Prevalence rate N (%)	Mental Health Association w/. USE	Alcohol Use Association w/. USE
	Rothman and Silverman (2007)					their first year of college (odds ratio = 1.74, 95% confidence interval [1.32–2.29]); 17% of the comparison group and 12% of the intervention group reported a SA during their first year; gay, lesbian, and bisexual students exposed to the programme were 50% less likely to report experiencing a SA in their first year than their counterparts in the comparison group		
34	Schrag et al. (2019)	734	W: 642 (87.6%); M: (10.4%); nonbinary: 15 (2.1%)	Hispanic or Latino (44%); White (41%); African American (11%); Asian (4%); Multiracial: (3.8%); Other (7.2%)	Gay/lesbian: (4.2%); bisexual: (5.9%); heterosexual: (85.4%); other (4.5%)	SH (30%); SV (14.4%); rape (8.9%)	Higher PTSD symptoms associated w/. SV	NI
35	Seabrook et al. (2018)	6067	W: 6067 (100%)	Black: 572 (9.4%); Asian: 1629 (26.9%); Hispanic: 818 (13.5%); White: 2700 (44.5%); Other: 348 (5.7%)	Heterosexual: 4591 (75.7%); bisexual: 1407 (23.2%); gay/lesbian: 69 (1.1%)	Bisexual women (30.4%) reported at least one experience of victimisation, compared to gay/lesbian women (24.6%) and heterosexual women (16.8%)	NI	NI
36	Sutherland et al. (2014)	1829	NI	NI	NI	Men & women SV (38%); women (42.6%) reported an experience of victimisation than men (28.7%); rape (4%)	NI	NI
37	Thompson and Kingree (2010)	719	W: 719 (100%)	NI	NI	Some form of sexual victimisation (18%); unwanted sexual contact (8%); sexual coercion (4%); attempted rape (3%) & completed rape (3%)	NI	SV is related to higher levels of alcohol-related issues
38	Wolff et al. (2017)	2984	W: 1339 + 1022M: 982 + 689		NI	NI	SH was associated with depression	SH was associated with binge drinking

39	Wood et al. (2020)	6818	W: 6818 (100%)	White: 2313; Black: 288; Latino: 534; Asian: 571; Other: 290 Hispanic/Latinx (40.8%); White (29.7%); Asian (10.1%); Black (6.8%)	NI	IPV (31%); psychological violence (21%); physical violence (11%); sexual violence (7%); physical only (3%); physical and psychological (3.89%); physical and sexual (0.16%); physical, psychological and sexual (0.89%); psychological only (9%); psychological and sexual (1.58%); sexual only (2.24%)	Psychological IPV had the strongest correlation with depression and PTSD, and higher levels of psychological and sexual IPV were associated with increased PTSD and depression	NI
40	Haughey et al. (2016)	3097	W: (63.8%); M: (35.1%); non- binary: (1.2%)	NI	LGB+: 425 (13.8%); Heterosexual 2533 (81.7%) Unsure: (4.2%)	Attempted SA (7.9%); women (90%), men (8%) & nonbinary (2%) attempted SA; LGB+ (17%) attempted SA; intoxicated attempted SA (57%); penetrative SA (5.5%); females (86%), males (11%), nonbinary (3%) penetrative SA; LGB+ penetrative SA (21%); w/. disability penetrative SA (13%); most common was intoxicated penetrative SA (58%); UST (34%) (see report for further rates, such as sexual comments)	NI	Alcohol Use was reported prior to assault (i.e. 14% penetrative assault were coerced into consuming alcohol)
41	Burke et al. (2020)	6026	W: 3928 (65.2%); M: 1986 (33%); Transgender: 11 (0.2%) Gender non- conforming: 21 (0.3%); Non-binary: 42 (0.7%); Other: 20 (0.3%);	White (Irish): 4689 (77.8%); White (Irish Traveller): 20 (0.3%); White (other): 762 (12.6%); Black/Black Irish-African: 111 (1.8%); Black (other): 15 (0.2%); Asian/Asian Irish- Chinese: 62 (1%); Asian	Heterosexual 4455 (73.9%); Bisexual: 824 (13.7%); Asexual: 274 (4.5%); Gay: 179 (3%); Other: 104 (1.7%); Lesbian: 73 (1.2%); Queer: 68 (1.1%); Prefer not to say: 49 (0.8%)	<i>Nonconsensual penetration by incapacitation, force, or threat of force:</i> women (29%), men (10%), nonbinary (28%), asexual (26%), bisexual (30%), gay/ lesbian (19%), heterosexual (21%), queer (26%), Year 1 (19%), Year 2 (25%), & Year 3+ (27%); <i>Sexist Hostility:</i>	23% moderate category and 21% severe category for depression and anxiety	Alcohol use identified as a risk factor (i.e. either the perpetrator or victim used alcohol prior to incident)

(Continued)

Table 2. Continued.

ID	Author (year)	Total sample size (N)	Gender N (%)	Ethnicity N (%)	Sexual orientation N (%)	Prevalence rate N (%)	Mental Health Association w/. USE	Alcohol Use Association w/. USE
			Prefer not to say: 18 (0.3%)	(other): 195 (3.2%); Other: 172 (2.9%)		women (70%), men (61%), non-binary (83%); higher rates for LGB+, higher rates for Year 2 and 3+; <i>Sexual hostility</i> : women (62%), men (50%), nonbinary (76%); higher rates for LGB + than heterosexual students and higher rates for Year 2 and 3+.		
42	Gómez (2022)	222	W: (66.2%) M: (33.8%)	Asian/Asian American (42.3%); Hispanic/Latina/o (30.6%); Other (10.8%); Black/African American (9.9%); Hawaiian/Pacific Islander (5.4%); Native American/Alaska Native (5%)	Heterosexual (90.5%)	College students reported campus sexual violence (18%); women (23.8%) & men (6.7%) reported campus sexual violence; fondling (16.7%); women (21.8%) & male (6.7%) fondling; oral penetration (4.5%); women (6.1%) & male (1.3%) oral penetration; vaginal penetration (7.2%); women 10.2% vaginal penetration; anal penetration (1.8%); women (2%) & men (1.3%) reported anal penetration	NI	NI
43	Anyadike et al. (2022)	1,412	W: 1129 (80%) M: 263 (19%) Self-described: 20 (1%)	White/European 1257 (89%); Asian/Arab: 94 (7%); Mixed race: 29 (2%); African/Black: 14 (1%); Any ethnicity: 12 (1%); Unreported: 6 (0.4%)	Heterosexual 1077 (76%); Bisexual: 222 (16%); Gay man/woman: 50 (4%); Self-described: 63 (4%)	Any USE: women (67%), men (44%), self-described (53%); USC: women (61%), men (37%), self-described (47%); Attempted coercion: women (23%), men (11%), self-described (13%); Coercion: women (27%), men (13%); Attempted rape: women: (35%), men (19%), self-described (13%); Rape: women (46%), men (21%), self-described (33%)	Anxiety (41%), depression (52%) and PTSD likely (36%) associated w/. USE	Alcohol use associated with USE (47%)

44	Holloway et al. (2022)	187	W: 147 (79%) M: 40 (21%)	White: 162 (87%); Black: 2 (1%); Latino/Hispanic: 7 (4%); Asian: 3 (2%); Native American: 3 (2%); Other: 10 (5%)	Heterosexual: 150 (80%)	51% (<i>n</i> = 95) reported victimisation since attending the university	NI	NI
45	Hoxmeier et al. (2022)	904	Cisgender Men: 791 (87.50%); gender and sexual minoritised (GSM) men: 113 (12.50%)	White: 371 (41.31%); Black: 57 (6.35%); Asian: 323 (35.97%); Hispanic: 107 (11.92%); Other: 40 (4.45%)	Gender and sexual minoritised (GSM) men: 113 (12.50%)	During their time at the university, GSM and cis/heterosexual men experienced various types of SV, including unwanted and attempted sexual contact by force or threat, as well as unwanted sexual contact while unable to consent (including both certain and uncertain)	NI	NI
46	Adhia et al. (2023)	1004	W: 679 (67.7%); M: 317 (31.6%); Non-binary: 5 (0.5%)	White: 745 (74.4%); Black: 149 (14.9%); Hispanic: 120 (12%); Asian: 68 (6.8%); Native Hawaiian/Other Pacific Islander: 23 (2.3%); American Indian/Alaska Native: 13 (1.3%); Middle Eastern/North African: 11 (1.1%); Not listed: 10 (1.10%)	Heterosexual: 901 (89.7%); bisexual: 58 (5.8%); asexual: 18 (1.8%); Not sure: 17 (1.7%); Lesbian: 11 (1.1%); Gay: 10 (1%); Queer: 10 (1%); Pansexual: 5 (0.5%)	288 (29%) of all student-athletes experienced some type of SV since enrolling at their university; Among student-athletes on women's teams, 36% (<i>n</i> = 247) experienced SV compared to 13% (<i>n</i> = 41) of student athletes on men's teams. Unwanted sexual touch was the most commonly experienced type of SV (22%, <i>n</i> = 151 for women's sport athletes; 6%, <i>n</i> = 20 for men's sport athletes) followed by unwanted sexual situations (20%, <i>n</i> = 138 for women's teams; 7%, <i>n</i> = 22 for men's teams), stalking (12%, <i>n</i> = 78 for women's teams; 4%, <i>n</i> = 14 for men's teams), attempted sexual assault (10%, <i>n</i> = 68 for women's teams; 3%, <i>n</i> = 11 for men's teams), and	NI	NI

(Continued)

Table 2. Continued.

ID	Author (year)	Total sample size (N)	Gender N (%)	Ethnicity N (%)	Sexual orientation N (%)	Prevalence rate N (%)	Mental Health Association w/. USE	Alcohol Use Association w/. USE
47	Marcantonio et al. (2022)	902	W: 902 (100%)	White: 533 (59.1%); Black: 144 (16%); American Indian/Alaska Native: 154 (17%); Asian: 47 (5.2%); Native Hawaiian/Pacific Islander: 50 (5.5%); Other: 14 (1.5%)	Heterosexual: 678 (75.2%); bisexual: 103 (11.4%); gay/lesbian: 81 (9%); Queer: 30 (3.3%); Not sure: 5 (0.6%); Prefer not to say: 5 (0.6%)	completed sexual assault (8%, $n = 54$ for women's teams; 3%, $n = 9$ for men's teams) (see paper for further rates by sexual orientation, year of study and ethnicity) On the SCI, 87.6% of women reported at least one victimisation experience since entering college ($n = 790$), and 90.6% reported at least one victimisation experience on the SES-SFV ($n = 817$). Almost 82.6% of women reported a sexual assault experience on both measures ($n = 745$). Overall, proportionally more participants reported any type of sexual assault experience on the SES-SFV than the SCI ($\chi^2 (1) = 103.55, p < .001, V = .34, Kappa = .34$); 11.1% ($n = 100$) of women only reported an experience of verbal coercion on the SCI, whereas 8.3% ($n = 75$) only reported an experience on the SES-SFV; 75.4% ($n = 680$) of women reported verbal coercion experiences on both measures ($\chi^2 (1) = 51.09, p < .001; V = .24; Kappa = .23$). significant association for threats of physical force with the SCI and SES-SFV ($\chi^2 (1) = 39.32,$	NI	NI

48	Martin et al. (2020)	13,685	W: 11,594 (79.56%); M: 1882 (18.89%); Gender minority: 209 (1.55%)	White: 10,473 (73.38%); Asian: 1516 (11.90%); Black: 532 (5.02%); Other: 1,164 (9.70%)	Heterosexual: 11,249 (83.24%); gay/lesbian: 552 (4.61%); Other: 1703 (12.15%)	<p>$p < .001$; $V = .21$; Kappa = .16). Only 5.1% ($n = 46$) of women reported experiencing threats of physical force on the SCI, and 37.9% ($n = 342$) reported it only on the SES-SFV; 42.9% ($n = 387$) of participants reported this tactic on both measures</p> <p>Cisgender women comprised the majority of survivors within each of the eight types of sexual assault groups (87% [$n = 2950$] of survivors of physically forced penetration/oral sex, 79% [$n = 2351$] of incapacitated penetration/oral sex, 78% [$n = 100$] of coerced penetration/oral sex, 88% [$n = 1149$] of lack of affirmative consent penetration/oral sex, 81% [$n = 5214$] of physically forced sexual touching, 74% [$n = 2232$] of incapacitated sexual touching, 68% [$n = 37$] of coerced sexual touching, and 82% [$n = 1220$] of lack of affirmative consent sexual touching)</p>	NI	NI
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Note: NI = Not Indicated, W = Women, M = Men, SA = Sexual Assault, IPV = Intimate Partner Violence, USE = Unwanted Sexual Experience; USC = Unwanted Sexual Contact, UST = Unwanted Sexual Touching, UWS = Unwanted Sex SH = Sexual Harassment, SV = Sexual Violence, SC = Sexual Coercion, IR = Incapacitated Rape.

2012 [2]) reporting high participation rates from Black students (87.19%) compared to White students (2.20%). Five studies did not collate data on ethnicity of students (Banyard et al., 2007 [1]; [40]; Hines et al., 2012 [19]; Rothman & Silverman, 2007 [33]; Seabrook et al., 2018 [35]), and two studies obtained data on ethnicity but did not provide this information (Butler et al., 2020 [3]; Ford & Soto-Marquez, 2016 [17]).

The majority of participants in the included studies identified as heterosexual, with participation rates ranging from 70% (Lorenz et al., 2019 [26]) to 98.5% (Flack et al., 2008 [15]). Whereas rates of participation from LGBTQ+ students were much lower with rates ranging from 1% to 8.27% to 16%. One study (Coulter & Rankin, 2020 [9]) that specifically examined rates of participation from LGBTQ+ students reported slightly higher rates for gay/lesbian (55%), bisexual (17.3%), and queer (14.8%). Additionally, out of all 43 studies in this review, there are 21 studies that did not collate any data on sexual orientation of participants in the studies [1; 3; 4; 5; 7; 8; 10; 12; 13; 14; 17; 18; 19; 20; 24; 25; 31; 36; 37; 38; 39]. Only three studies collected data on whether participants were heterosexual but did not ask about or report any other sexual orientation [23; 30; 42; 44].

Prevalence rates of USEs

Findings on prevalence rates of USEs among HEI students varied significantly among studies, which made it difficult to synthesise results across the 48 studies included in this review. Studies ranged from measuring USEs as a group of behaviours to only investigating specific types of USEs, such as sexual assault. In addition, inconsistencies of definitions within the included studies, also made it increasingly difficult to synthesise prevalence findings, these inconsistencies contribute to the variety in prevalence rates (Rennison & Addington, 2014). It was, however, possible to synthesise findings from studies that reported prevalence findings for similar behaviours. Thus, prevalence findings are presented below that corresponds with form of USEs that were investigated among studies.

Unwanted sexual experiences (USEs)

Four studies investigated whether students reported a USE (group of behaviours) since they began university (Anyadike et al., 2022 [43]; Demers et al., 2015 [12]; Flack et al., 2008 [15]; Kimble et al., 2008 [21]). These studies used different versions of the Sexual Experiences Survey, which made results easier to compare. Findings of USEs ranged from 26.5% [12] to 67% [43] for women and 7.1% [15] to 44% [43] for men. Additionally, two studies [15; 21] further broke down USEs acts reported by gender and by year of study. For gender, women the following acts of USEs were reported following prevalence rates were reported; 22% (S21) to 29.8% (S15) unwanted sexual touching, 15% (S21) to 25.6% (S15) attempted unwanted sex, 5% (S21) to 7.7% (S10) completed unwanted sex and two women reported experiencing a rape (S21). Whereas, lower prevalence rates were reported by men; 4.8% unwanted sexual touching, 1.2% attempted unwanted sex and completed unwanted sex (S15). For year of study, one study found that second year students reported slightly higher rates compared to first year students (46.8% vs 40.7%) [S15], whereas, another study reported that first year students report more USEs than second year students [S21]. Finally, one study reported that the idea of the red zone (i.e. first six to eight weeks of the first semester when more USEs take place than any other time in the year) on campuses was supported ($F[2.3, 232] = 3.86, p < .05$) (S21).

Sexual violence/sexual victimisation (SV)

Thirteen studies examined prevalence rates of sexual violence (Campbell et al., 2021 [4]; Carmody et al., 2020 [6]; Edwards et al., 2015 [13]; Fantasia et al., 2018 [14]; Gardella et al., 2015 [18];

Kirkner et al., 2020 [22]; Schrag et al., 2019 [34]; Sutherland et al., 2014 [36]; Thompson & Kingree, 2010 [37]; Burke et al., 2020 [41]; Gómez, 2022 [42]; Holloway et al., 2022 [44]; Hoxmeier et al., 2022 [45]; Adhia et al., 2023 [46]). Only five studies investigating sexual violence utilised the same measure, thus making comparisons for this section difficult. Additionally, the studies below did not all investigate similar acts, further adding to the difficulty in reporting prevalence rates.

Findings of SV ranged from 5% [4] to 51% [44]. Some studies further broke down rates by gender; 12% [14] to 23.8% [42] of women reported sexual violence, and women (42.6%) are more likely to report sexual violence within surveys than men (28.7%) [36]. Moreover, several studies [4; 14; 36; 37; 41; 46] broke down sexual violence acts, which included: 3% rape [S37], 4.8% sexual violence whilst intoxicated or asleep [S4] and 44% pressured to drink with the intention of having sex (see Table 2 for detailed findings). In addition, one study broke down rates by year of study, ethnicity and athletic team [46] (please see Table 2 for detailed findings). Whereas two studies did not report prevalence rates in the format of percentages, but rather, how many times students were likely to experience sexual violence [13; 18]. Both studies reported different rates by gender: women students reported four times the rate of SV than men students [S18], and women students were 2.20 times more likely than male student to report SV during the past six months [S13]. One study reported that final year students report more sexual violence compared to other years and those who are Caucasian students reported twice that rates of sexual violence (OR = 2.57, 1.13, 5.82) compared with individuals from ethnic minority groups [S18] and the other study [S13] reported that sexual minority students were 2.32 times more likely than heterosexual students to report sexual violence.

Intimate partner violence (IPV)

Two studies examined prevalence rates of intimate partner violence (DeKeseredy et al., 2020 [11]; Wood et al., 2020 [39]). Whilst some acts of intimate partner violence could fall under the previous section (USEs), these acts have been categorised as acts of intimate partner violence as they acts have been experienced specifically within the context of an intimate relationship. Both studies investigating intimate partner violence utilised the same measure, with one study also using the CDC National Intimate Partner and Sexual Violence Survey [11]. Thus, improving the comparability of the findings.

Findings of intimate partner violence ranged from 0.2% [39] to 22% [11]. For the total sample, one study reported that slightly over 18% of students experienced at least one act of intimate partner violence [11]. Two studies further broke down rates by gender, specifically for women [11; 39], with rates ranging from 18% [S11] to 31% [S39]. Only one study reported rates by sexual orientation, with 22% of LGBQ+ students reporting IPV [S11]. One study further broke down types of intimate partner violence [11], ranging from 21% psychological violence, 11% physical violence, and 7% sexual violence [S39]. Additionally, neither study reported intimate partner violence rates by race or ethnicity.

Unwanted sexual contact/unwanted sexual touching

Two studies examined unwanted sexual contact/unwanted sexual touching among HE students (Banyard et al., 2007 [1]; Haughey et al., 2016 [40]), using non-standardised list of questions from previous study (Ward et al., 1991) and questions adapted from the Sexual Experiences Survey, respectively. One study reported that there is a clear relationship between gender and unwanted sexual contact, as more women (19.6%) report more incidents of unwanted sexual contact than men (8.2%). The second study reported that 34% students in NI experienced unwanted sexual touching and 11% experienced unwanted sexual contact of private areas, and for both incidents intoxication and physical force were the most common tactic [40].

Sexual coercion

One study of women, mainly white, students at a Midwest U.S. college measured sexual coercion using the modified 10-item SES found that 11.7% reported at least one experience of verbal sexual coercion during the course of this study (Messman-Moore et al., 2008 [31]).

Sexual harassment

Six studies examined sexual harassment amongst HEI students (DeKeseredy et al., 2020 [11]; Lorenz et al., 2019 [26]; McClain et al., 2020 [29]; Rosenthal et al., 2016 [32]; Schrag et al., 2019 [34]; Burke et al., 2020 [41]), utilising similar measures; Sexual Experiences Questionnaire-Department of Defense [SEQ-DoD] (Lorenz et al., 2019 [26]; Schrag et al., 2019 [34]), SEQ-DoD short version (McClain et al., 2020 [29]; Rosenthal et al., 2016 [32]) and SES-Revised (DeKeseredy et al., 2020 [11]; Rosenthal et al., 2016 [32]). Findings of sexual harassment among students ranged from 30% [34] to 86% [26]. One study further breaking down rates for women from 61.4% [S11] to 88% [26]. One study broke down rates of sexual harassment by sexist and sexual hostility [41]. Only two studies reported rates by sexual orientation, ranging from 51.3% [S29] to 66.7% [11], and no significant differences were found by race/ethnicity [29] Two studies broke down rates by perpetrator tactics [S29; S32] (see [Table 2](#) for breakdown of rates by perpetrator tactic).

Sexual assault

Twenty-one studies investigated sexual assault among students (Barrick et al., 2012 [2]; Butler et al., 2020 [3]; Chang et al., 2020 [7]; Conley et al., 2017 [8]; Coulter & Rankin, 2020 [9]; Cusack et al., 2019 [10]; DeKeseredy et al., 2020 [11]; Flack et al., 2016 [16]; Ford & Soto-Marquez, 2016 [17]; Hines et al., 2012 [19]; Krebs et al., 2011 [23]; Krebs et al., 2009a [24]; Krebs et al., 2009b [25]; Martin et al., 2011 [28]; Martin et al., 2020 [27]; Mellins et al., 2017 [30]; Rothman & Silverman, 2007 [33]; Seabrook et al., 2018 [35]; Haughey et al., 2016 [40]; Marcantonio et al., 2022 [47]; Martin et al., 2020 [48]), using a variety of different measures. This section below will outline prevalence rates of sexual assault that is labelled as completed or attempted sexual assault, and findings that report breakdown of different forms of sexual assault will be presented after in two specific sections.

Findings of sexual assault of HEI students ranged from 5.2% [9] to 44% [16] of the total sample. Prevalence rates for women ranged from 6.6% [19] to 28% [30], whereas men reported lower rates ranging from 3.2% [19] to 12.5% [30]. Two studies further broke down sexual assault findings for women, with acts/tactics ranging from 1% coerced sexual touching [S27], 12.6% verbal threats [S7], and 8.6% [S7] to 13.7% completed SA [S24]. Two studies measured rates of SA for students that identified as gender non-conforming/non-binary of which 2.4% and 38.5% reported a sexual assault since beginning college, respectively [40; 30]. Five studies measured sexual assault experiences by sexual orientation, with rates ranging from 15.8% to 40.2% [17; 28; 35;40] (see [Table 2](#) for further details of rates from women and LGBQ+ students, as well as rates for year of study).

Forced sexual assault

Findings of forced sexual assault of HEI students ranged from 2.5% [25] to 53% [27] of the total sample, with findings of 4.8% of women, whom were mainly Black [2]. One study broke down forced sexual assault acts even further by gender [27]. One study reported prevalence rates by year of study, with 6.9% of seniors experiencing a forced sexual assault (24). Two studies measured forced sexual assault experiences by sexual orientation, with 12.9% for gay men [17] and higher prevalence among bisexual and lesbians compared to heterosexual students [28].

Incapacitated sexual assault

Respondents were more likely to experience a sexual assault in the form of an incapacitated sexual assault, which ranged from 6% to 85%. Findings of 8.9% to 85% for the total sample [25; 27; 3], with findings of 6% to 79% [27] for women. Moreover, one study reported rates of incapacitated sexual assault by men and gender minorities [27] (see [Table 2](#) for breakdown of these rates), and two studies measured incapacitated sexual assault experiences by sexual orientation, with 14% of gay men reporting such an experience [17], and both bisexuals and lesbian report higher prevalence than heterosexual student during college [28].

Rape (including incapacitated rape)

Six studies investigated HEI students of rape (i.e. forced or incapacitated rape) since they began university (Carey et al., 2015 [5]; Flack et al., 2016 [16]; Kaysen et al., 2006 [20]; Krebs et al., 2009a [24]; Messman-Moore et al., 2008 [31]; Schrag et al., 2019 [34]), with prevalence rates varying from 9% to 78.3%. Most studies used versions of the SES [5; 16; 31; 34] and three studies used; YAAPST [20], SEQ-DoD [34] and CSA [24], respectively. Prevalence rates for rape varied widely, ranged from 8.9% [34] to 9.5% [31] for a reported rape, to 9% reported a forced rape [5], to 22.52% reporting an attempted rape, and completed rape, respectively, and 33.24% attempted or completed rape [16]. Findings for incapacitated rape ranged from 8.5% [24] to 15.4% [5] to 78.3% [20] for women. Moreover, one study examined timing of when participants experienced an incapacitated rape during college which is broken down as follows; 24 during year one, 26 during year two, and 26 during year three [20].

Most prevalent form of USEs

Findings from this systematic review suggest that sexual harassment is the most prevalent form of USE that occurs amongst students at HEI. This is followed by rape, sexual assault, unwanted sexual contact and finally sexual coercion. However, the most prevalent form of sexual assault that students experienced was incapacitated sexual assault.

Impacts of USEs

Mental health

Eleven studies examined the mental health impacts that students reported following a USE (Anyadike et al., 2022 [43]; Burke et al., 2020 [41]; Chang et al., 2020 [7]; Cusack et al., 2019 [10]; Demers et al., 2015 [12]; McClain et al., 2020 [29]; Rosenthal et al., 2016 [32]; Schrag et al., 2019 [34]; Thompson & Kingree, 2010 [37]; Wolff et al., 2017 [38]; Wood et al., 2020 [39]). Findings of studies were not easily comparable, as the impacts investigated, and statistical analysis utilised differed across studies (see [Table 2](#) for detailed findings). Anxious and depressive symptoms, and suicidal behaviour were reported by women students who reported a range of USEs [7]. Additionally, sexual violence was associated with PTSD [34], anxiety [41], depression [37; 41] and negative cognitions (thoughts or perceptions) about the self and world [37]. Moreover, psychological and sexual intimate partner violence experiences were associated with depression and PTSD symptoms [39]. Further, sexual harassment predicted depression [38; 29], PTSD symptoms [29], and trauma symptoms [32] among women and men students. Thus, highlighting that there is a variety of negative mental health outcomes that students report following a USE.

Substance abuse (Alcohol)

Only six studies investigated substance abuse, specifically alcohol, following a USE (Anyadike et al., 2022 [43]; Chang et al., 2020 [7]; Cusack et al., 2019 [10]; Kaysen et al., 2006 [20]; Thompson &

Kingree, 2010 [37]; Wolff et al., 2017 [38]), whilst four studies investigated alcohol use as a risk factor for USEs (Flack et al., 2016 [16]; Messman-Moore et al., 2008 [31]; Haughey et al., 2016 [41]; Burke et al., 2020 [41]). Similar to findings on mental health outcomes, variations of statistical analysis utilised made comparison of results challenging. Higher levels of alcohol use, however, were associated with those who experienced a sexual assault [7; 10], an incapacitated rape [20], sexual violence [37], and sexual harassment [38], and was also identified as a risk factor for sexual assault [16] and rape [31]. Hence, it is evident that several studies found that high levels of alcohol use were reported by students following a USE, as a potential means to cope with their trauma. Further, high levels of alcohol use amongst students were found as a risk factor for a USE. Thus, highlighting how nuanced the role alcohol is within the context of USEs amongst students.

Discussion

The current systematic review examined the literature on prevalence rates of USEs and their impacts, specifically mental health and alcohol use, on HEI students in the US, UK, and Ireland. Critical key findings are summarised in Table 3, which is comparable to previous systematic reviews (Fedina et al., 2018; Klein & Martin, 2019):

Country of studies

In this review, the majority of included studies originate from the US, with three studies from the UK and Ireland. Despite this, prevalence findings are similar in all three countries, as rates of USEs and its associated impacts in the UK and Ireland are consistent with rates in the US. Additionally, there is a lack of research and no peer-reviewed research published from the UK and Ireland. Therefore, highlighting the apparent gap within the literature on prevalence rates of USEs among HEI students from a UK and Ireland perspective, and the importance of future research from these countries to inform policies and practice. Hence, the importance of these grey literature reports from a UK and Irish perspective should not be diminished, as they are the only current source of information on the rates and impacts among university students in these countries at present [e.g. Hidden Marks (NUS, 2010; SCORE (Haughey et al., 2016), Say Something (USI, 2013), Sexual Experiences Survey (Burke et al., 2020) and Unwanted and Non-Consensual Sexual Experiences reported by University Students in Northern Ireland (Anyadike et al., 2022)].

Over the past decade, there have been numerous calls for studies to be conducted in the UK and Ireland on USEs among university students, however, as previously stated above there has been little research conducted by researchers, governments, and universities themselves. There are potential reasons for why this might be, for instance, university students are only now becoming more open in their discussion on their USEs whilst attending university (e.g. Murray, 2021). This leaves researchers to effectively “catch-up” in conducting research into this topic to provide updated data and with only some universities facilitating resources and expertise to tackle this issue. With this being said, in the last three years Ireland has made more strides in

Table 3. Summary of critical findings.

Study and sample characteristics	Prevalence rates	Mental health and alcohol
<ul style="list-style-type: none"> Differences amongst definitions and measurements utilised across studies contributes to the variability of rates. Majority of participants were white, heterosexual women students, with a lack of diversity amongst samples. 	<ul style="list-style-type: none"> Rates of USEs vary widely across studies (1.3%–88%), but they are wide ranging and remain relatively consistent. Sexual Harassment is the most prevalent form of USEs experienced. 	<ul style="list-style-type: none"> Students report a variety of mental health outcomes following a USE. Alcohol is both a risk factor and outcome for USEs.

tackling this issue by conducting research, implementing programmes and sparking a national conversation (Burke et al., 2020; Department of Education and Skills, 2020). Whereas from a UK perspective, developed strategies by government and NGOs must be implemented to tackle this issue through research and policies.

Prevalence rates of USEs varied widely, ranging from 1.3% to 88%, across the 42 studies within this review, therefore it is important to address why variance of rates has occurred. The inconsistencies in prevalence findings across studies may be explained by the number of methodological limitations of measuring rates of USEs among students. For instance, the definitions and measures used, research design and methodology, and participant demographics (representative samples) in the included studies.

Inconsistency of definitions

It is abundantly clear that some students in US, UK and Ireland have experienced a wide variety of USEs while attending their HEI. The scope of prevalence findings for the types of USEs (i.e. rape, and sexual harassment) on campuses in the US and UK varies extensively, which is largely due to how student's experiences are both defined and measured. Within this review, two broad definitions are used to outline a variety of non-consensual acts, USE and sexual violence, and both investigate identical behaviours, such as sexual coercion and sexual harassment. For example, definitions for both unwanted sexual contact and unwanted sexual touching effectively measure the same behaviour. Unwanted sexual contact is defined as "attempting or actually kissing, fondling, or touching someone in a sexual or intimate way, excluding sexual intercourse" (Banyard et al., 2007), whereas unwanted sexual touching is defined as "contact by someone else's hands or other part of their body with some part of your body" (Flack et al., 2008). Thus, it would be more beneficial if researchers agreed a consistent broad definition, which would assist in determining the scope of the issue and aid in comparisons of such behaviours across different demographics, as well as reductions in variance of prevalence (Krebs, 2014).

Inconsistency of measurements

Across the 42 studies included in this review, there was a variety of measurements utilised to collect data on prevalence rates of USEs, which adds to the discrepancies of prevalence rates making it difficult to compare prevalence findings. For example, measures such as the CSA and SES are easy to compare, as they investigate USEs types among students (Cantor et al., 2015; Koss et al., 2006, respectively). Whereas findings from the Revised Conflicts Scale are not as easily comparable to the SES or CSA, as this scale measures physical, verbal and sexual aggression perpetrated by partners (Chapman & Gillespie, 2019). In addition, most of the measures used within studies included in this review have not used inclusive language (i.e. gender neutral terms to included experiences of men and gender minority students). Therefore, the inconsistency of measures utilised in studies examining USEs among students may also contribute to the variance in prevalence findings. For such reasons, US federal agencies have urged HEIs to implement a standardised Campus Climate Surveys within their institutions to assess prevalence rates of USEs (Wood et al., 2017), which has also been urged by government departments in the UK and Ireland (Department of Education & Skills, 2020; Department of Justice NI, 2019). As is evident above, these types of surveys yield low response rates (e.g. 25%) (Cantor et al., 2015), which can potentially create a response bias within the data collected (Mellins et al., 2017). Additionally, it would be more beneficial for future research if there was more consistency among the measures used (Krebs, 2014).

Lack of participant diversity

As seen above, there is a lack of inclusivity regarding participant demographics. Individuals from ethnic minority groups and the LGBTQ+ community are inadequately represented within

studies investigating prevalence rates of USEs among students. Moreover, individuals who identify as gender non-conforming or non-binary are also underrepresented within these prevalence studies.

Mainly female samples were utilised across the included studies, and when mixed gender samples were used, majority of participants were women, thus results unsurprisingly suggesting that women are more likely to have a USE compared to men (Cantor et al., 2015; Sinozich & Langton, 2014). Only six studies collected data from transgender students [9; 13; 22; 26; 32; 41], seven studies collected data from non-conforming/non-binary students [9; 11; 22; 26; 30; 34; 41], one study collected data from alternate gender students [4], and two studies collected data from gender minority students [6; 27]. Additionally, participation rates for transgender and non-binary students were considerably lower than male participation rates, which is concerning considering that transgender students are at a higher risk of a USE than their cisgender counterparts (Cantor et al., 2015). Thus, it is evident and concerning that there is a lack of research on men, transgender, and non-binary students' USEs (Anderson et al., 2018; Mellins et al., 2017). Moreover, it is important that while we still collect prevalence data for women students, we also collect data that captures the full range of sex and gender variations. Therefore, measures utilised within studies investigating prevalence rates of USEs should use more inclusive (i.e. gender neutral language) in order to capture the true experiences of males and gender minority university students. This data will allow us to tailor prevention programmes to address USEs among these students (Mellins et al., 2017). Further, it is vital that prevention programmes are tailored for men and gender minority students, as these students have different risk and social factors, and sexual health needs that must be acknowledged in order to tackle USEs on university campuses (Mellins et al., 2017).

Echoing findings from a previous systematic review (Klein & Martin, 2019), this study found that ethnic minority students are inadequately represented in the studies included in this review. Whilst some studies did collect data on ethnicity of participants, there was an overwhelming majority of studies that did not report prevalence findings by ethnicity, which is quite concerning. Research on ethnic differences of prevalence rates of USEs on campus are inconsistent (Coulter et al., 2017). Some studies report that White women are more likely than Black (Gross et al., 2006; Mohler-Kuo et al., 2004), Hispanic (Koss et al., 1987), and Asian (Cantor et al., 2015; Koss et al., 1987) women to experience a USE. Whereas other studies have found that Black, Asian, and Hispanic women are more likely to experience a USE than White women (Cantor et al., 2015; Coulter et al., 2017). It is therefore vital that more research is conducted in this field.

Similarly, LGBTQ+ students are underrepresented within prevalence rates studies of HEI students, with an overwhelming majority of heterosexual students. As previously stated, 21 studies did not collate any data on sexual orientation of participants [1; 3; 4; 5; 7; 8; 10; 12; 13; 14; 17; 18; 19; 20; 24; 25; 31; 36; 37; 38; 39]. Moreover, three studies [23; 30; 42] only collected data on whether participants were heterosexual but did not ask about or report any other sexual orientation. However, more recent studies, from the year 2010 onwards, included in this review did measure USEs among LGBTQ+ students more consistently than earlier studies, demonstrating an evolution in how USEs among university students is being measured and becoming more inclusive. This is not surprising given that a growing body of research suggests that LGBTQ+ students are more likely to have a USE than their heterosexual counterparts (Cantor et al., 2015; Edwards et al., 2015). For example, research demonstrates that one subgroup (i.e. bisexual) within the LGBTQ+ community report USEs at higher rates than their heterosexual counterparts (Potter et al., 2020). Whilst the LGBTQ+ community is a large and diverse, with some subgroups within the community experiencing USEs at higher rates as demonstrated above, the underrepresentation of minority groups represents a continued lack of inclusivity and diversity among prevalence studies. Thus, future research investigating prevalence rates of USEs among university students must be inclusive in the recruitment of participants.

Impacts of USEs

Thirteen studies in total [7; 10; 12; 16; 20; 29; 31; 32; 34; 37; 38; 39; 41] measured the impacts of USEs, both on mental health and alcohol use. The findings of these studies demonstrated that USEs have a variety of impacts on victims, ranging from stress, dissociation, negative cognitions, depression and PTSD. Results highlighted that participants who reported a USE also reported greater negative mental health impacts (e.g. depression and dissociation) than those who did not report a USE. Moreover, studies that examined substance abuse following a USE found that students do abuse alcohol, which may be a means to cope with their trauma (Read et al., 2014). As stated above, alcohol use is not only perceived as a coping mechanism but a risk factor for USEs (Mohler-Kuo et al., 2004), thus highlighting the nuanced role alcohol has within this area. Furthermore, these findings on the impacts of USEs are comparable with findings from another systematic review, which found that there was an increase alcohol use and psychological distress (Klein & Martin, 2019).

Review implications

The current systematic review did not have an intended goal from the outset to provide recommendations that could inform research and policy approaches to tackle USEs in universities in the UK and Ireland. However, the authors feel that the findings from this review provide important information that universities in the UK and Ireland can take into consideration, for example, highlighting the pressing need for additional research must be conducted in the above countries. The findings from this systematic review can inform future research and policy, which is outlined below (see Appendix 2, Table 4, on implications and see review by Sabina and Ho (2014) for detailed overview on services, practice, policy, and research).

Research

Due to the inconsistency of study definitions and measurements used to investigate USEs of HEI students, there is a necessity for prevalence studies to use consistent definitions and measures. This could potentially reduce the variance of prevalence findings among future studies. More attention is sorely needed on how gender identity, sexual orientation and ethnicity intersect with one another (Coulter et al., 2017) and determine the true scope of prevalence rates of USEs among these students. And to this point above, studies should also include measures that encompass how men and other gender identities, ethnic minorities and LBGTQ+ students have USEs on campus, as scales such as the SEQ and SES were developed and tested specifically with women. Additionally, there is a clear and pressing need for research to be undertaken in the UK and Ireland, as it is very evident from this review that there is currently no empirical research on prevalence rates of USEs and its associated impacts that has met the inclusion criteria of the current review. Given that the most widely known prevalence studies in the US have not generated peer-reviewed publications (e.g. Cantor et al., 2020), this does indicate how vital these types of reports are in the first instance in providing a starting point. However, for these countries we must have a clear understanding of our baseline of rates and associated impacts, which can then be tracked over time, as the more data we obtain can be used to inform evidence-based prevention programmes and support services (Coulter et al., 2017).

Policy

Policies on sexual misconduct for HEIs are essential to tackle USEs among students. As found in the current systematic review, there is wide variability of how USEs is defined, therefore, any sexual

misconduct policy must provide a clear and consistent definition of USEs, what types of behaviours this includes, and what is the most prevalent form on HEI campuses. In addition, findings from future research, that utilises surveys to gather data on prevalence rates of USEs, could be used to build policies around terminology of types of USEs and provide more updated information that can inform such policies. Finally, HEIs must take a clear stance that USEs are not tolerated on campuses and there is a zero-tolerance policy in effect.

Strengths and limitations

The current systematic review is not without limitations. Studies were excluded if they had not been conducted within the US, UK or Ireland using student populations, thus rates of USEs in other countries are not discussed. Prevalence rates of USEs were specific to incidents that occurred since an individual entered university, thus it is possible that some studies were excluded if a period was not explicitly stated. Further, this systematic review focused on quantitative research data, which relied on self-report measures. Participants had to be 18 years or older to be included, which meant that studies including 17-year-old students were excluded. All studies mainly included Caucasian heterosexual individuals, hence the generalisability of such findings to a more diverse and inclusive population is limited. Finally, another limitation to highlight is that universities have conducted this research but decide to keep it in-house. For example, the two universities from Northern Ireland know their own institutions results, but the recent report by Anyadike-Danes and colleagues (2022) only published combined results. Thus, researchers can only “review” research that is publicly available. Due to this, a recommendation could be suggested that, similarly in the US, it becomes a mandatory requirement for universities to report these figures as part of their funding.

Conclusion

Whilst prevalence rates of USEs among university students vary widely, they do indicate that rates are high and remain relatively consistent despite preventative efforts. A potential reason for this is that students are more aware of what constitutes a USE and with the current climate might feel more comfortable reporting their experience. In addition, the use of measurements, such as the SES, which focus on acts and tactics rather than overly loaded language (e.g. sexual assault or rape). Thus, it is vital that researchers, support services, and university staff/management/administrators should work collectively in tackling USEs in HEI, we have presented some recommendations herein. Further, there is a pressing need for empirical research on prevalence rates of USEs and the impacts of such on HEI students to be undertaken in the UK and Ireland. Any future research will assist in addressing the gap within the literature and eventually lead to evidence-based prevention programmes and campaigns within these regions. Additionally, any future research must include a diverse sample of participants, as findings from such research will help us understand how male, LGBTQ and ethnic minority students experience and are impacted by USEs. Future research of this kind will further strengthen efforts across HEIs in tackling USEs both in terms of preventative and support initiatives.

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No potential conflict of interest was reported by the author(s).

Geolocation information

The study was conducted by researchers in Northern Ireland, who are based at Queen’s University Belfast and Ulster University.

ORCID

Megan Reynolds  <http://orcid.org/0000-0002-0162-6406>
 Ngozi Anyadike-Danes  <http://orcid.org/0000-0002-5351-5863>
 Susan Lagdon  <http://orcid.org/0000-0003-0477-2297>
 Áine Aventin  <http://orcid.org/0000-0001-5849-0506>
 Cherie Armour  <http://orcid.org/0000-0001-7649-3874>

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