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For Whom Is Sexual Abuse Related to Compulsive Sexual Behaviors? Timing of Abuse and Sociodemographic Characteristics as Potential Moderators Across 42 Countries

Marie-Pier Vaillancourt-Morel 1,2 \odot · Sophie Bergeron 2,3 · Ateret Gewirtz-Meydan 4 · Natasha Zippan 5 · Léna Nagy 6,7 · Mónika Koós 3,7 · Shane W. Kraus 8 · Zsolt Demetrovics 7,9 · Marc N. Potenza 10,11,12 · International Sex Survey (ISS) Consortium · Beáta Bőthe 2,3

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Abstract

Sexual abuse, which includes child (CSA), adolescent, and adult unwanted sexual experiences (AASA), is related to compulsive sexual behaviors (CSB). However, we know little about who reports a stronger association between sexual abuse and CSB. We examined whether the association between sexual abuse and CSB varied across age-related sexual abuse categories, participants' age, genders, sexual orientations, relationship status, and countries of residence across 42 countries. We used data from the International Sex Survey among 82,233 adults ($M_{\rm age} = 32.39$; cisgender women: 55.8%) who completed online self-report measures. Results showed that even if all age-related categories of sexual abuse (i.e., CSA, AASA, and CSA + AASA) were significantly related to higher CSB with small effect sizes, CSA + AASA was more strongly related, followed by CSA, and then AASA. All forms of sexual abuse were more strongly related to CSB in younger participants, in cisgender men, and in single participants. Although CSA was related to higher CSB similarly across all sexual orientations, AASA and CSA + AASA were more strongly related to CSB among gay or lesbian, asexual, and queer or pansexual participants than among those reporting being heterosexual, homo- or heteroflexible, and another sexual orientation. Finally, the associations between sexual abuse and CSB were different across countries, with a complex pattern of findings. This large-scale, crosscultural study supports the association between sexual abuse and CSB, providing a much-needed comprehensive depiction of the demographics linked to a stronger sexual abuse-CSB association.

 $\textbf{Keywords} \ \ Sexual \ abuse \cdot Compulsive \ sexual \ behavior \cdot Childhood \ sexual \ abuse \cdot Adolescent \ or \ adult \ sexual \ abuse \cdot Compulsive \ sexual \ behavior \ disorder$

Marie-Pier Vaillancourt-Morel
Marie-Pier.Vaillancourt-Morel@uqtr.ca

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- Department of Psychology, Université du Québec à Trois-Rivières, Pavillon Michel-Sarrazin, 3600, rue Sainte-Marguerite, C.P. 500, Trois-Rivières, QC G9A 5H7, Canada
- Centre de recherche interdisciplinaire sur les problèmes conjugaux et les agressions sexuelles, Montréal, QC, Canada
- Département de Psychologie, Université de Montréal, Montréal, QC, Canada
- School of Social Work, Faculty of Social Welfare and Health Sciences, University of Haifa, Haifa, Israel
- Department of Psychology, Queen's University, Kingston, ON, Canada

- Doctoral School of Psychology, ELTE Eötvös Loránd University, Budapest, Hungary
- Institute of Psychology, ELTE Eötvös Loránd University, Budapest, Hungary
- Department of Psychology, University of Nevada, Las Vegas, Las Vegas, NV, USA
- ⁹ Centre of Excellence in Responsible Gaming, University of Gibraltar, Gibraltar, Gibraltar
- Yale University School of Medicine, New Haven, CT, USA
- Connecticut Council on Problem Gambling, Wethersfield, CT, USA
- 12 Connecticut Mental Health Center, New Haven, CT, USA



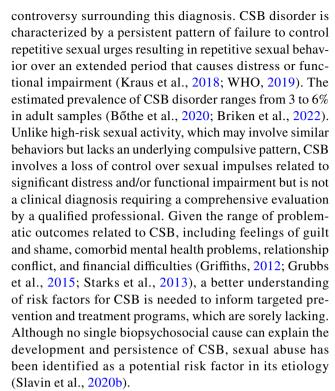
Introduction

Sexual abuse, which includes child, adolescent, and adult unwanted sexual experiences, is a widespread public health problem with long-lasting deleterious consequences (Krug et al., 2002; Murray et al., 2014). Nationally representative samples indicate that one in three women and one in five men experience some type of sexual abuse in their lives (Breiding et al., 2014; Schapansky et al., 2021). Sexual abuse is associated with a host of negative outcomes in victims' sexuality, including lower sexual desire, sexual distress, anxiety during sexual arousal, and sexual avoidance (Bigras et al., 2021; van Berlo & Ensink, 2000). In contrast to these symptoms characterized by sexual inhibition, sexual abuse is also related to externalized, compulsive sexual behaviors (CSB), including higher number of sexual partners, excessive masturbation, problematic pornography use, and impulsive engagement in high-risk sexual contacts (Gewirtz-Meydan & Godbout, 2023; Littleton et al., 2014; Slavin et al., 2020b; van Roode et al., 2009).

Although a handful of studies indicate that sexual abuse is related to CSB, effect sizes are small, while some studies even report nonsignificant associations (Slavin et al., 2020b). Most past studies have relied on small samples and focused exclusively on childhood sexual abuse (CSA), primarily among men, gay and bisexual individuals, and Western, Educated, Industrialized, Rich, and Democratic (WEIRD) samples (Slavin et al., 2020b). As a result, we know little about how the sexual abuse-CSB association varies across subgroups. Understanding who may develop CSB in the aftermath of sexual abuse is crucial for prevention and intervention efforts. The current study examined whether the association between sexual abuse and CSB varied across age-related sexual abuse categories, participants' age, genders, sexual orientations, relationship statuses, and countries of residence using data from the International Sex Survey (ISS; Bőthe et al., 2021), an international study across 42 countries.

Sexual Abuse and Compulsive Sexual Behavior

Despite extensive debates around the classification and conceptualization of CSB as a disorder (Biedermann et al., 2021; Bőthe et al., 2022), CSB disorder was included as a new diagnosis in the *International Classification of Diseases* (ICD-11; World Health Organization (WHO), 2019). However, although hypersexual behavior disorder was proposed for inclusion, it was not incorporated into the revised fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5-TR; American Psychiatric Association, 2022), highlighting the ongoing



The scarce number of studies on individuals reporting CSB report significantly higher rates of sexual abuse compared to the general population, with 39 to 78% reporting sexual abuse in these clinical samples (Blain et al., 2012; Carnes & Delmonico, 1996). Cross-sectional studies have shown that sexual abuse is related to higher CSB among general community participants from Hungary (Slavin et al., 2020a), Sweden (Långström & Hanson, 2006), the United Kingdom (Plant et al., 2005), New Zealand (Skegg et al., 2010), the United States (Meyer et al., 2017), and Canada (Nolin et al., 2023), as well as among students (Griffee et al., 2012; Perera et al., 2009), military service members and veterans (Blais, 2020; Smith et al., 2014), individuals in treatment for CSB (Opitz et al., 2009), and sexual offenders (Davis & Knight, 2019).

In line with the self-trauma model (Briere & Scott, 2014), CSB could represent an attempt to cope with painful sexual abuse-related emotions including powerlessness, shame, inadequacy, or anger by turning to external behaviors that distract from or numb painful internal states as a way to avoid triggers or memories of the abuse and render a sense of control over one's body and sexuality (Briere, 2002; Briere et al., 2010; Fontanesi et al., 2021). The traumagenic dynamics model (Finkelhor & Browne, 1985) suggests that sexual abuse may shape victims' sexual feelings and attitudes as affection, attention, and privileges are often given during the abuse in exchange for sexuality, which may lead to the tendency to use sex as a strategy to feel closer to others, or the opposite, as a way to avoid intimacy. However, even if the sexual abuse-CSB association has theoretical and empirical



support, its strength varies widely, mostly evidenced by small effect sizes (Slavin et al., 2020a), with some studies reporting non-significant associations (Kingston et al., 2017; McPherson et al., 2013). A clear understanding of the population at risk of CSB may help to inform accurate conceptualization, orient prevention efforts, and tailor more effective treatments.

Potential Moderators of the Associations Between Sexual Abuse and Compulsive Sexual Behavior

Age Category of Sexual Abuse Most studies examining the link between sexual abuse and CSB have focused on CSA alone (Slavin et al., 2020b; Vaillancourt-Morel et al., 2015). Aaron's (2012) theoretical proposition contends that the younger the abuse occurred, specifically before adolescence, the more likely the victim is to react with externalized sexual behaviors. Yet, some studies have shown that adolescent or adult sexual abuse (AASA) is also related to higher CSB (Nolin et al., 2023; Slavin et al., 2020a). Moreover, sexual revictimization is common (Classen et al., 2005) and is consistently related to greater distress, affect dysregulation, and self-blame (Classen et al., 2005)—all pathways that may lead to higher CSB (Aaron, 2012).

Individuals' Age Though changes in CSB across the lifespan in the aftermath of sexual abuse have never been examined, CSB seems to be the initial response to sexual abuse and may, over time, be replaced slowly by more healthy sexual behaviors, or, by the opposite pattern (Aaron, 2012). Moreover, CSB onset generally occurs in the late teens or early twenties, suggesting that this may be a typical response for younger individuals (Kuzma & Black, 2008). Thus, participants' age may be related to the strength of the SA-CSB association with CSB being more strongly related to sexual abuse for younger people.

Gender Prevailing theories assert that CSB is the typical sexual response to sexual abuse for men, whereas women more often tend to avoid sexuality (Aaron, 2012). However, studies on the SA-CSB association have focused mostly on men, with the handful of studies including women reporting mixed findings (Långström & Hanson, 2006; Meyer et al., 2017; Vaillancourt-Morel et al., 2016b). Moreover, trans and gender-diverse people are more likely to report SA, yet they are overlooked in research on the SA-CSB link (Biedermann et al., 2021; Newcomb et al., 2020).

Sexual Orientation Although a handful of studies have reported that sexual abuse is related to higher CSB in gay and bisexual men specifically (Blain et al., 2012; Kirwan et al., 2023; Parsons et al., 2012), most studies report a blend of sexual orientations without examining differences given their limited sample sizes (Skegg et al., 2010; Vaillancourt-Morel

et al., 2015). No studies have directly examined whether the SA-CSB association is different based on one's sexual orientation. Yet, sexually diverse people report higher rates of sexual abuse and CSB (Gonzalez-Bueso et al., 2022; Paul et al., 2001; Slavin et al., 2020a), and the combination of sexual abuse and a sexually diverse identity results in markedly elevated odds of mental health problems (Andresen et al., 2022). Sexually diverse people with a sexual abuse history may report higher CSB as the effects of sexual abuse may be added to those inherent to their minority status.

Relationship Status Despite most studies combining participants regardless of their relationship status (Slavin et al., 2020a), one study reported that CSA was related to higher CSB in single and cohabitating participants, but not in married participants (Vaillancourt-Morel et al., 2016b). Single individuals with a sexual abuse history may use sex compulsively to fulfill their need for approval and closeness (Jacob & Veach, 2005; Rellini, 2014). However, in relationships with higher commitment, CSB may no longer be relevant or may be re-triggered later as extradyadic sexual behaviors (Vaillancourt-Morel et al., 2016b). Thus, CSBs may predominate in single individuals reporting sexual abuse, or in the very early stages of relationships.

Cultural Background Sexual behaviors and attitudes are rooted in one's cultural background (e.g., Bhugra et al., 2010). The SA-CSB link has mostly been examined in WEIRD countries (e.g., Sweden, United Kingdom, New Zealand, United States, Canada; Långström & Hanson, 2006; Meyer et al., 2017; Nolin et al., 2023; Plant et al., 2005; Skegg et al., 2010), limiting the generalizability of their results. Even if one or two studies have been conducted in non-WEIRD samples (e.g., Brazil; Reis et al., 2023), no comparative cross-cultural studies have examined whether the SA-CSB association differs between countries. Countries with greater sexual liberalism, which promote sexual pleasure and have some awareness of sexual abuse (e.g., Canada, Sweden), may exhibit a different CSA-CSB association.

The Current Study

The overall aim of the current study was to examine whether the association between sexual abuse and CSB was different according to key abuse-related and sociodemographic characteristics, using data across 42 countries. Specifically, the first aim was to examine whether age-related categories of sexual abuse were linked to CSB, i.e., CSA (i.e., sexual abuse occurring at age 13 and younger without AASA), AASA (i.e., sexual abuse occurring at age 14 and older without CSA), and both CSA and AASA (i.e., CSA + AASA, revictimization). We hypothesized that CSA, AASA, and CSA + AASA would be significantly and positively related to CSB compared with



no sexual abuse history. The second aim was to examine whether the associations between these age-related categories of sexual abuse and CSB were moderated by participants' age, gender, sexual orientation, relationship status, and country of residence. We predicted that the sexual abuse-CSB association would be stronger among younger participants (compared to older ones), cisgender men (compared to cisgender women), sexually diverse people (i.e., gay or lesbian, bisexual, queer or pansexual, homo- and heteroflexible, asexual identities, and people questioning their sexual orientation; compared to heterosexual), and single or dating individuals (compared to married or common-law people). Concerning gender differences, as no study to date has included gender-diverse people, we only hypothesized that cisgender men would be different from cisgender women, but we also compared them against trans men, trans women, and gender-diverse individuals. For relationship status, we made comparisons with divorced or widowed participants, but no specific hypothesis was formulated. Finally, we examined differences in the SA-CSB associations across the 42 countries in an exploratory manner.

Method

Participants and Procedure

The ISS (http://internationalsexsurvey.org) is an international, multi-language, cross-sectional, self-report survey of a very large community sample of adults (for detailed study protocol see Bőthe et al., 2021). The study protocol (https://osf.io/uyfra/?view_only=6e4f96b748be42d99363 d58e32d511b8) as well as the current study (https://doi.org/ 10.17605/OSF.IO/27W4E) were preregistered. Recruitment was conducted in 42 countries¹ and in 26 languages between October 2021 and May 2022 (see Table 1 for the list of the 42 countries and the 26 languages) via news media appearances, research panels, and social media ads. The English survey battery was translated by the study's native-speaking collaborating researchers following a pre-established translation protocol (Beaton et al., 2000) and measurement invariance across languages and countries was confirmed (Bothe et al., 2023; Nagy et al., 2025). The advertisement materials explicitly stated that the study was about



understanding which factors can contribute to problematic

After data cleaning and exclusions, the ISS final dataset included a total of 82,243 participants (see https://osf.io/qg8c4 for the detailed description of participants flow leading to this sample). For this study, participants who did not respond to any items of the Sexual Abuse History Questionnaire and the Compulsive Sexual Behavior Disorder Scale were excluded from analyses (n = 10 participants were missing on both scales), but partial missingness was allowed. Thus, for this study, the final sample was 82,233 participants. Detailed sociodemographic characteristics are presented in Table 1.

Measures

The wording and translations of all included measures can be found at https://osf.io/jcz96/?view_only=9af0068dde81488 db54638a01c8ae118.

Sociodemographic Characteristics

Several sociodemographic questions (e.g., age, gender, relationship status) were included. Age was assessed by one



¹ Egypt, Iran, Pakistan, and Romania were included in the study protocol paper as collaborating countries (Bőthe et al., 2021); however, it was not possible to get ethical approval for the study in a timely manner in these countries. Chile was not included in the study protocol paper as a collaborating country (Bőthe et al., 2021) as it joined the study after publishing the study protocol. Therefore, instead of the planned 45 countries (Bőthe et al., 2021), only 42 individual countries are considered in the present study; see details at https://osf.io/n3k2c/.

Table 1 Sociodemographic characteristics of the total sample (N = 82,233)

Variables	n	%
Country of residence		
Algeria	24	0.03
Australia	639	0.78
Austria	746	0.91
Bangladesh	373	0.45
Belgium	644	0.78
Bolivia	385	0.47
Brazil	3579	4.35
Canada	2541	3.09
Chile	1173	1.43
China	2428	2.95
Colombia	1912	2.33
Croatia	2389	2.91
Czech Republic	1638	1.99
Ecuador	276	0.34
France	1706	2.07
Germany	3271	3.98
Gibraltar	64	0.08
Hungary	11,200	13.62
India	194	0.24
Iraq	99	0.12
Ireland	1701	2.07
Israel	1334	1.62
Italy	2401	2.92
	562	
Japan Lithania		0.68
Lithuania	2015	2.45
Malaysia	1170	1.42
Mexico	2136	2.60
New Zealand	2832	3.44
North Macedonia	1251	1.52
Panama	333	0.40
Peru	2671	3.25
Poland	9891	12.03
Portugal	2262	2.75
Slovakia	1134	1.38
South Africa	1849	2.25
South Korea	1464	1.78
Spain	2327	2.83
Switzerland	1144	1.39
Taiwan	2668	3.24
Turkey	820	1.00
United Kingdom	1412	1.72
United States of America	2398	2.92
Other	1177	1.43
Language		
Arabic	142	0.17
Bangla	332	0.40
Croatian	2521	3.07
Czech	1581	1.92
Dutch	518	0.63



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Variables	n	%
English	13,991	17.01
French	3941	4.79
German	3494	4.25
Hebrew	1315	1.60
Hindi	17	0.02
Hungarian	10,937	13.30
Italian	2437	2.96
Japanese	466	0.57
Korean	1437	1.74
Lithuanian	2094	2.55
Macedonian	1301	1.58
Mandarin-simplified	2474	3.01
Mandarin-traditional	2685	3.27
Polish	10,342	12.58
Portuguese-Brazil	3650	4.44
Portuguese-Portugal	2277	2.77
Romanian	75	0.09
Slovak	2118	2.58
Spanish-Latin America	8923	10.85
Spanish-Spain	2312	2.81
Turkish	853	1.04
Sex assigned at birth	000	1101
Male	33,242	40.42
Female	48,980	59.56
Gender (original answer options in the survey)	40,500	37.30
Masculine/Man	32,547	39.58
Feminine/Woman	46,868	57.00
Indigenous or other cultural gender identity (e.g., two-spirit)	166	0.20
Non-binary, gender fluid, or something else (e.g., genderqueer)	2314	2.81
Other	302	0.37
	302	0.57
Trans status	70 271	96.40
No, I am not a trans person	79,271 357	
Yes, I am a trans man		0.43
Yes, I am a trans woman	295	0.36
Yes, I am a non-binary trans person	881	1.07
I am questioning my gender identity	1136	1.38
I don't know what it means	269	0.33
Gender (categories used in the analyses)	21.640	20.40
Cisgender man	31,640	38.48
Cisgender woman	45,852	55.76
Transgender man	276	0.34
Transgender woman	196	0.24
Gender-diverse individual	2079	2.53
Questioning or other gender	1133	1.38
Sexual orientation (original answer options in the survey)		
Heterosexual/Straight	56,117	68.24
Gay or lesbian or homosexual	4607	5.60
Heteroflexible	6200	7.54
Homoflexible	534	0.65
Bisexual	7688	9.35



 Table 1 (continued)

Variables	n	%
Queer	957	1.16
Pansexual	1969	2.39
Asexual	1064	1.29
I do not know yet or currently questioning	1949	2.37
None of the above	807	0.98
I don't want to answer	308	0.37
Sexual orientation (categories used in the analyses)		
Heterosexual	56,117	68.24
Homosexual	4607	5.60
Bisexual	7688	9.35
Queer or pansexual	2926	3.56
Homo- or heteroflexible identity	6734	8.19
Asexual	1064	1.29
Questioning	1949	2.37
Other sexual orientation	807	0.98
Highest level of education		
Primary (e.g., elementary school)	1002	1.22
Secondary (e.g., high school)	20,319	24.71
Tertiary (e.g., college or university)	60,892	74.05
Current level of education	•	
Not being in education	49,797	60.56
Being in primary education (e.g., elementary school)	64	0.08
Being in secondary education (e.g., high school)	1570	1.91
Being in tertiary education (e.g., college or university)	30,758	37.40
Work status	24,124	
Not working	20,847	25.35
Working full time	42,978	52.26
Working part-time	11,356	13.81
Doing odd jobs	7028	8.55
Socioeconomic status	, 626	0.00
My life circumstances are among the worst	226	0.27
My life circumstances are much worse than average	773	0.94
My life circumstances are worse than average	4232	5.15
My life circumstances are average	26,737	32.51
My life circumstances are better than average	31,566	38.39
My life circumstances are much better than average	14,733	17.92
My life circumstances are much better than average My life circumstances are among the best	3957	4.81
Residence	3931	4.01
Metropolis (population is over 1 million people)	26,440	32.15
City (population is between 100,000–999,999 people)	29,917	36.38
Town (population is between 1,000–99,999 people)	21,100	25.66
	4761	5.79
Village (population is below 1,000 people)	4/01	3.19
Relationship status	27 527	33.49
Single In a relationship	27,537	
In a relationship	27,437	33.36
Married or common-law partners	24,336	29.59
Widow or widower	427	0.52
Divorced Divorced	2472	3.01
Relationship status (categories used in the analysis)	0	22 : *
Single	27,537	33.49



Table 1 (continued)

Variables	n	%
In a relationship	27,437	33.36
Married or common-law partners	24,336	29.59
Widowed or divorced	2899	3.53
Number of children		
No	57,903	70.41
Yes, 1	8415	10.23
Yes, 2	10,351	12.59
Yes, 3	3843	4.67
Yes, 4	1014	1.23
Yes, 5	290	0.35
Yes, 6–9	125	0.15
Yes, 10 or more	24	0.03
	М	SD
Age	32.39	12.52

Percentages might not add up to 100% due to missing data

M, mean; SD standard deviation

question: "How old are you? (years)". Participants' gender was identified based on the intersection of sex assigned at birth, gender identity, and trans status and was categorized into six categories: cisgender man, cisgender woman, transgender man, transgender woman, gender-diverse individual, and questioning or another gender identity. Sexual orientation was categorized into eight categories: heterosexual, gay or lesbian, bisexual, queer or pansexual, homoor heteroflexible identities, asexual, questioning, and another sexual orientation. Relationship status was categorized into four categories: single, dating (i.e., in a relationship), married or common-law, and widowed or divorced. Participants indicated their country of residence by one question at the beginning of the survey.

Sexual Abuse

The Sexual Abuse History Questionnaire (Leserman et al., 1995) was used to assess childhood, adolescent, and adult sexual abuse history. This scale includes six questions (e.g., "Has anyone ever forced you to have sex when you did not want this?") with dichotomous response options (0 = "no"; 1 = "yes") presented separately for event occurring at 13 years old and younger and those occurring at 14 years old and over. CSA history was measured by a positive response to any of the six items during childhood (13 years old and younger) and AASA was measured by a positive response to any of the six items during adolescence or adulthood (14 years old and over). Based on these items, we created three dummy-coded variables: CSA, AASA, and CSA + AASA with no sexual abuse as the referent. This measure uses a standard age

cutoff of 14 years of age to differentiate the developmental period in which the abuse occurred. The standard age cutoff is important for comparative cross-population research but may not align with the legally-defined age of consent in each jurisdiction or the distinction between child, adolescent, and adult across cultures. As there is no clear-cut empirical evidence to indicate which age is the best cutoff point to distinguish between the developmental stages in which the abuse took place, the authors of this measure chose a commonly used age cutoff (Leserman et al., 1995). This scale has good convergent validity with a structured abuse interview (Leserman et al., 1995), acceptable test-retest reliability (Leserman et al., 1995), and acceptable internal consistency (Slavin et al., 2020a). In this sample, the Sexual Abuse History Questionnaire demonstrated excellent structural validity in all country-, gender-, sexual-identity-, and trans-statusbased groups (Nagy et al., 2025). Cronbach's alphas were 0.73 for CSA and 0.75 for AASA in the current study.

Compulsive Sexual Behavior

The 19-item Compulsive Sexual Behavior Disorder Scale (CSBD-19; Bőthe et al., 2020) was used to assess compulsive sexual urges, thoughts, and behaviors and their consequences in the past 6 months along five factors: control (three items, e.g., "I could not control my sexual cravings and desires"), salience (three items, e.g., "I would rather have had sex than to have done anything else"), relapse (three items, e.g., "Trying to reduce the amount of sex I had almost never worked"), dissatisfaction (three items, e.g., "Although sex was not as satisfying for me as before, I engaged in it"), and negative



consequences (seven items, e.g., "I did not accomplish important tasks because of my sexual behavior"). This self-report scale is based on ICD-11 diagnostic domains but does not provide a clinical diagnosis of CSBD. Participants indicated their levels of agreement with each item on a four-point Likert scale (1 = "totally disagree"; 4 = "totally agree"). A total sum score was computed ranging from 19 to 76, with higher scores indicating higher CSB. This scale has good internal consistency and convergent validity as it was positively and strongly related to hypersexual behaviors and problematic pornography use (Bőthe et al., 2020). In this sample, CSBD-19 was invariant across languages, countries, genders, and sexual orientations (Bőthe et al., 2023). In the current study, Cronbach's alpha was 0.90.

Statistical Analyses

Following the preregistered analysis plan (https://doi.org/10.17605/OSF.IO/27W4E), descriptive and correlation analyses were first performed using the Statistical Package for the Social Sciences (SPSS 28.0). All other analyses were conducted in Mplus 8.10 (Muthén & Muthén, 2017). In Mplus, missing values were treated using Full Information Maximum Likelihood (FIML) with maximum likelihood estimates robust to non-normality (MLR). To examine the associations between CSA, AASA, CSA + AASA, and CSB, a linear regression model predicting CSB from CSA, AASA, and CSA + AASA was computed. Then, we used intergroup invariance tests (Dimitrov, 2006) to examine whether the

associations between CSA, AASA, and CSA + AASA and CSB differed between categorical moderators, i.e., genders, sexual orientations, relationship statuses, and countries of residence. This inter-group approach is recommended for categorical moderator variables (Edwards & Lambert, 2007) and is conceptually aligned with moderation approaches using interaction terms. Each moderator was used as the grouping variable in four separated models. In these models, the configural saturated model was first assessed allowing the path to be estimated freely between subgroups of each moderator. Then, this configural model was compared to the restricted model in which the path was constrained to be equal between subgroups of each moderator. We then compared these models using a corrected chi-square difference test in which a significant chi-square difference indicated that the association differs across levels of the moderator (Satorra-Bentler scaled chi-square; Edwards & Lambert, 2007; Satorra & Bentler, 2001). Finally, to examine the moderator role of participants' age as a continuous moderator, we added age and its interaction with each category of sexual abuse in the linear regression model. Age was standardized before computing the interactions. When an interaction term was significant, simple slope tests were used to report the association for younger (-1 SD), mean sample age, and older (+1 SD) participants. The raw output file from statistical analyses can be found at https://osf.io/gdmxs/.

Table 2 Descriptive statistics concerning sexual abuse and compulsive sexual behaviors

	Total sample	Cisgender men	Cisgender women	Transgender and gender-diverse individuals	2.	3.	4.	5.	6.
	<i>n</i> = 82,003–82,012	n = 31,568 - 31,536	<i>n</i> = 45,724–45,743	n = 3,671 - 3,675					
	M(SD)	M(SD)	M(SD)	M(SD)					
	% (n)	% (n)	% (n)	% (n)					
1. CSA (with or without AASA)	30.1% (24,752)	20.9% (6,626)	35.2% (16,148)	44.9% (1,654)	.23***	.56***	38***	.72***	.08***
2. AASA (with or without CSA)	43.7% (35,952)	25.4% (8,051)	55.1% (25,261)	61.0% (2,246)	-	32***	.66***	.54***	.06***
3. CSA only (without AASA)*	11.7% (9,644)	11.6% (3,676)	11.8% (5,395)	12.2% (449)		-	21***	17***	.02***
4. AASA only (without CSA)*	25.3% (20,844)	16.1% (5,101)	31.6% (14,508)	28.3% (1,041)			_	28***	01
5. Both CSA and AASA*	18.4% (15,108)	9.3% (2,950)	23.5% (10,753)	32.7% (3,684)				-	.08***
6. CSB	30.63 (9.54)	33.29 (10.49)	28.67 (8.12)	31.25 (10.49)					-

CSA, childhood sexual abuse; AASA, adolescent or adult sexual abuse; CSB, compulsive sexual behaviors



^{***}p<.001. *Categories used simultaneously in subsequent analyses in which sexual abuse is the referent

Results

Descriptive Analyses

Descriptive statistics of sexual abuse and CSB are reported in Table 2 for the total sample and for cisgender men, cisgender women, and transgender and gender-diverse individuals. Correlations between CSA with or without ASA, AASA with or without CSA, the three dummy-coded SA variables used simultaneously in subsequent analyses in which no sexual abuse is the referent (CSA only without AASA, AASA only without CSA, both CSA and AASA), and CSB are reported in Table 2. CSA with or without ASA, AASA with or without CSA, CSA only, and CSA + AASA were significantly and positively but weakly related to CSB.

Moderators of the Associations Between Sexual Abuse and Compulsive Sexual Behavior

Age Category of Sexual Abuse

Results of the linear regression model predicting CSB from CSA, AASA, and CSA + AASA, with no sexual abuse as the referent, are reported in Table 3. Findings showed that, compared with no sexual abuse history, CSA, AASA, and CSA/ASSA were significantly related to higher CSB. CSA/ASSA was more strongly related to CSB, followed by CSA and then AASA.

Participants' Age

As reported in Table 3, adding participants' age and its interaction with each age-related categories of sexual abuse in a linear regression model, result showed that participants' age significantly moderated the associations between CSA, AASA, CSA+AASA, and CSB. Simple slope tests, reported in Table 3, showed that CSA, AASA, and CSA+AASA were more strongly related to CSB in younger than older participants.

Gender

The comparison of the linear regression model in which all paths were freely estimated across the six gender categories to the models in which equality constraints were placed on these paths for the six groups yielded significant chi-square differences for the CSA-CSB link (χ^2 diff[5] = 73.35, p < 0.001) the AASA-CSB link (χ^2 diff[5] = 21.55, p < 0.001), and the CSA+AASA-CSB link (χ^2 diff[5] = 75.15, p < 0.001). Results of the associations between CSA, AASA, CSA+AASA, and CSB among cisgender men, cisgender women, transgender

Table 3 Associations between sexual abuse and compulsive sexual behaviors according to age categories of sexual abuse and participants' age (N=82,233)

	Compulsive sexu	al behaviors	
	b (SE)	p	ß
Age categories of SA			
CSA	1.16 (0.11)	<.001	.04
AASA	0.63 (0.08)	<.001	.03
CSA+AASA	2.21 (0.10)	<.001	.09
Participants' age			
CSA	1.16 (0.11)	<.001	.04
AASA	0.64 (0.08)	<.001	.03
CSA+AASA	2.22 (0.10)	<.001	.09
Age	0.40 (0.05)	<.001	.04
CSA*Age	-0.27(0.11)	.012	01
AASA*Age	-0.46(0.09)	<.001	02
CSA+AASA*Age	-1.03 (0.10)	<.001	04
Simple slope tests for p	participants' age		
Younger participants (-1SD)		
CSA	1.43 (0.16)	<.001	.05
AASA	1.10 (0.11)	<.001	.05
CSA+AASA	3.25 (0.14)	<.001	.13
Mean age (M)			
CSA	1.16 (0.11)	<.001	.04
AASA	0.64 (0.08)	<.001	.03
CSA+AASA	2.22 (0.10)	<.001	.09
Older participants (+1	SD)		
CSA	0.90 (0.15)	<.001	.03
AASA	0.18 (0.13)	<.001	.01
CSA+AASA	1.19 (0.14)	<.001	.05

CSA, childhood sexual abuse; AASA, adolescent or adult sexual abuse; CSA+AASA, both childhood sexual abuse and adolescent or adult sexual abuse. No sexual abuse history is the referent. Coefficients in bold are significant at p < .05

men, transgender women, gender-diverse individuals, and participants questioning their gender identity or reporting another gender identity including significant pairwise posthoc comparisons are reported in Table 4.

For the CSA-CSB link, pairwise post-hoc comparisons showed that the association between CSA and CSB was significantly stronger among cisgender men than cisgender women. For the AASA-CSB link, pairwise post-hoc comparisons showed that the association between AASA and CSB was significantly stronger among cisgender men than among cisgender and transgender women and it was also significantly stronger among transgender men than transgender women. For the CSA + AASA-CSB link, pairwise post-hoc comparisons showed that the association between CSA + AASA and CSB was significantly stronger among cisgender men than among cisgender women, gender-diverse



Table 4 Associations between sexual abuse and compulsive sexual behaviors according to gender (N = 81,176)

	Compulsive sexua	l behaviors									
	Cisgender men			Cisgender wome	en		Transgender men				
	n = 31,640			n = 45,852			n=276				
	b (SE)	p	β	b (SE)	p	ß	b (SE)	p	ß		
CSA	3.01 (0.19) _b	<.001	.09	1.20 (0.12) _a	<.001	.05	3.45 (2.09) _{a,b}	.099	.11		
AASA	2.63 (0.16) _b	<.001	.09	$1.89 (0.09)_{a,c}$	<.001	.11	3.87 (1.58) _{a,b}	.014	.14		
CSA+AASA	$5.34(0.22)_{a}$	<.001	.15	3.31 (0.11) _b	<.001	.17	$6.10 (1.74)_{a,b}$	<.001	.25		
	Transgender wome	en		Gender-diverse	individuals		Questioning or other gender				
	n = 196		_	n = 2,079			n = 1,133				
	b (SE)	p	β	b (SE)	p	ß	b (SE)	p	ß		
CSA	-0.66 (2.09) _{a,b}	.753	02	2.03 (0.74) _{a,b}	.006	.07	2.19 (1.09) _{a,b}	.044	.07		
AASA	$-1.09(1.75)_{c}$.532	04	2.19 (0.57) _{b,c}	<.001	.10	1.60 (0.87) _{b.c}	.066	.07		
CSA+AASA	$3.32(2.28)_{a,b}$.145	.13	$3.70 (0.57)_{b}$	<.001	.18	2.83 (0.84) _b	.001	.12		

CSA, childhood sexual abuse; AASA, adolescent or adult sexual abuse; CSA+AASA, both childhood sexual abuse and adolescent or adult sexual abuse. No sexual abuse history is the referent. Coefficients with different superscript letters across subgroups are significantly different at p < .05. Coefficients in bold are significant at p < .05

individuals and participants questioning their gender identity or reporting another gender identity.

Sexual Orientation

The comparison of the linear regression model in which all paths were freely estimated across the eight sexual orientation categories to the models in which equality constraints were placed on these paths for the eight groups yielded a nonsignificant chi-square difference for the CSA-CSB link (χ^2 diff[7] = 10.72, p = 0.151) and significant chi-square differences for the AASA-CSB link (χ^2 diff[7] = 32.73, p < 0.001) and the CSA + AASA-CSB link (χ^2 diff[7] = 70.72, p < 0.001). Thus, results showed that CSA was significantly related to higher CSB similarly among all sexual orientation groups, b(SE) = 1.09(0.11), p < 0.001, β = 0.04. Results of the associations between AASA, CSA + AASA, and CSB among heterosexual, gay or lesbian, bisexual, queer or pansexual, homo- or heteroflexible identities, asexual, questioning, and another sexual

Table 5 Associations between sexual abuse and compulsive sexual behaviors according to sexual orientation (N = 81,892)

	Compulsive sex	xual beha	viors				,			,			
	Heterosexual			Gay or lesbian		Bisexual			Queer or pansex	Queer or pansexual			
	n = 56,117			n = 4,607			n = 7,688			n = 2,926			
	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß	
AASA CSA+AASA	0.42 (0.10) _d 1.54 (0.12) _d	<.001 <.001	.02 .06	1.59 (0.37) _a 4.11 (0.44) _a	<.001 <.001	.06 .16	0.71 (0.26) _{b,d} 2.53 (0.29) _{b,c}	.006	.03 .11	1.35 (0.44) _{a,b} 3.14 (0.45) _{a,b}	.002	.06 .15	
-	, , , , u	no- or heteroflexible Asexual				Questioning			Other				
	n = 6,734			n = 1,064			n = 1,949			n = 807			
	b (SE)	p	β	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß	
AASA CSA+AASA	-0.18 (0.27) _c 1.65 (0.31) _d		01 .07	1.89 (0.55) _{a,b} 3.51 (0.69) _{a,b}	.001 <.001	.11 .18	1.08 (0.49) _{a,d} 4.02 (0.59) _a	.028 <.001	.05 .18	-0.53 (0.82) _{c,d} 0.93 (0.90) _{c,d}	.517 .304	02 .04	

CSA, childhood sexual abuse; AASA, adolescent or adult sexual abuse; CSA+AASA, both childhood sexual abuse and adolescent or adult sexual abuse. No sexual abuse history is the referent. Coefficients with different superscript letters across subgroups are significantly different at p < .05. The associations with CSA are not reported in this table as results showed that CSA was significantly related to higher compulsive sexual behaviors similarly among all sexual orientation groups, b(SE) = 1.09(0.11), p < .001, $\beta = .04$. Coefficients in bold are significant at p < .05



orientation including significant pairwise post-hoc comparisons are reported in Table 5.

For the AASA-CSB link, pairwise post-hoc comparisons showed that the association between AASA and CSB was significantly stronger among gay or lesbian than among participants reporting being heterosexual, bisexual, homo- or heteroflexible and another sexual orientation. The AASA-CSB link was also significantly stronger among asexual and queer or pansexual participants than among those reporting being heterosexual, homo- or heteroflexible, and another sexual orientation. The association between AASA and CSB was significantly stronger among all sexual orientations except among participants reporting another sexual orientation than among homo- or heteroflexible participants. For the CSA + AASA-CSB link, pairwise post-hoc comparisons showed that the association between CSA + AASA and CSB was significantly stronger among gay or lesbian than among participants reporting being heterosexual, bisexual, homo- or heteroflexible and another sexual orientation. The CSA + AASA-CSB link was also significantly stronger among questioning, asexual, and queer or pansexual participants than among those reporting being heterosexual, homoor heteroflexible, and another sexual orientation. Similarly, the CSA + AASA-CSB link was significantly stronger among bisexual participants than among those reporting being heterosexual, homo- or heteroflexible, and questioning their sexual orientation.

Relationship Status

The comparison of the linear regression model in which all paths were freely estimated across the four relationship status categories to the models in which equality constraints were placed on these paths for the four groups yielded significant chi-square differences for the CSA-CSB link (χ^2 diff[3] = 9.08, p = 0.028), the AASA-CSB link (χ^2 diff[3] = 37.62, p < 0.001), and the CSA + AASA-CSB link (χ^2 diff[3] = 80.75, p < 0.001). Results of the associations

between CSA, AASA, CSA+AASA, and CSB among single, dating, married or common-law, and widowed or divorced participants, including significant pairwise post-hoc comparisons, are reported in Table 6.

For the CSA-CSB link, pairwise post-hoc comparisons showed that the association between CSA and CSB was only significantly stronger among single than married or commonlaw participants. For the AASA-CSB link, pairwise post-hoc comparisons showed that the association between AASA and CSB was significantly stronger among single participants than among dating, married or common-law, and widowed or divorced participants. Moreover, the AASA-CSB link was significantly stronger among dating participants than among married or common-law participants. For the CSA + AASA-CSB link, pairwise post-hoc comparisons showed that the association between CSA + AASA and CSB was significantly stronger among single participants than among dating, married or common-law, and widowed or divorced participants. Moreover, the CSA + AASA-CSB link was significantly stronger among dating participants than among married or common-law and widowed or divorced participants.

Country of Residence

The comparison of the linear regression model in which all paths were freely estimated across the 42 countries to the models in which equality constraints were placed on these paths for the 42 groups yielded significant chi-square differences for the CSA-CSB link (χ^2 diff[41] = 79.35, p < 0.001), the AASA-CSB link (χ^2 diff[41] = 119.14, p < 0.001), and the CSA + AASA-CSB link (χ^2 diff[41] = 237.38, p < 0.001). Results of the associations between CSA, AASA, CSA + AASA, and CSB among participants from the 42 countries are reported in Table 7 and significant pairwise post-hoc comparisons are reported in Table S1, S2, and S3 of the Supplemental Material.

Table 6 Associations between sexual abuse and compulsive sexual behaviors according to relationship status (N = 82,209)

	Compulsive sexual behaviors											
	Single			Dating (in a relationship)			Married or co	mmon-la	w	Widowed or divorced		
	n=27,537			n=27,437			n = 24,336			n = 2,899		
	b (SE)	p	β	b (SE)	p	β	b (SE)	p	ß	b (SE)	p	ß
CSA	1.58 (0.20) _b	<.001	.05	1.07 (0.19) _{a, b}	<.001	.04	0.82 (0.19) _a	<.001	.03	0.38 (0.59) _{a, b}	.519	.01
AASA	1.29 (0.15) _a	<.001	.06	$0.55(0.13)_{c}$	<.001	.03	$0.04 (0.15)_{b}$.815	.002	$0.02 (0.46)_{b, c}$.965	.001
CSA+AASA	3.18 (0.18) _a	<.001	.12	2.32 (0.16) _b	<.001	.10	1.00 (0.17) _c	<.001	.04	1.31 (0.49) _c	.007	.06

CSA, childhood sexual abuse; AASA, adolescent or adult sexual abuse; CSA+AASA, both childhood sexual abuse and adolescent or adult sexual abuse. No sexual abuse history is the referent. Coefficients with different superscript letters across subgroups are significantly different at p < .05. Coefficients in bold are significant at p < .05



 Table 7
 Associations between sexual abuse and compulsive sexual behaviors according to country of residence (N=81,056)

	Compulsive s	exual be	haviors											
	Algeria			Australia			Austria			Bangladesh				
	n=24			n = 639			n = 746			n = 373				
	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß		
CSA AASA CSA+AASA	5.78 (9.86) -5.89 (4.69) -2.35 (5.17)	.209	.18 16 09	1.72 (1.9 -1.39 (1.0 0.04 (1.0	.18:	50	•	.985	.06 .001	8.35 (2.01) 4.43 (2.07) 7.21 (1.81)	<.001 .032 <.001	.11		
	Belgium			Bolivia			Brazil			Canada				
	n = 644			n = 385			n = 3579			n = 2541				
	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß		
CSA 0.81 (1. AASA -0.32 (0. CSA + AASA 0.87 (1.		.722	02	2 0.61 (1.39	.659	.02	1.73 (0.51) 0.45 (0.48) 2.49 (0.47)	.001 .350 <.001	.02	0.27 (0.44)	.318 .543 <.001	.02 .01		
	Chile			China			Colombia			Croatia				
	<u>n=1173</u>			n=2428		n=1912			n = 2389					
	b (SE)	p	β	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß		
CSA AASA CSA+AASA	1.93 (0.88) 2.55 (0.73) 3.73 (0.75)	.028 <.001 <.001	.07 .11 .15	0.93 (0.66) 4.24 (0.74) 8.64 (0.78)	.159 <.001 <.001	.03 .12 .26	2.23 (0.67) 3.08 (0.66) 4.17 (0.65)	.001 <.001 <.001	.08 .11 .15	-0.21 (0.61) 1.04 (0.40) 2.38 (0.52)	.735 .010 <.001	01 .06 .11		
	Czech Repub	lic		Ecuador			France			Germany				
	n = 1638			n=276			n=1706			n = 3271				
-	b (SE)	p	ß	b (SE)	p	β	b (SE)	p	ß	b (SE)	p	β		
CSA AASA CSA+AASA	-1.01 (0.88) 1.17 (0.52) 2.00 (0.76)	.025	.06	1.45 (2.08) 3.01 (1.87) 3.53 (1.80)	.109	.05 .11 .11	1.02 (0.90) -0.52(0.58) 0.33 (0.69)	.259 .370 .636	.03 02 .01	1.26 (0.49) -0.35 (0.33) 0.64 (0.46)	.288	.05 02 .03		
	Gibraltar			Hungary			India			Iraq				
	n = 64			n = 11,200	n=11,200			n = 194			n=99			
	b (SE)	p	ß	b (SE)	p	β	b (SE)	p	ß	b (SE)	p	ß		
CSA AASA CSA+AASA	1.56 (6.30) 0.27 (3.07) 2.13 (3.79) Ireland	.805 .930 .574	.01	0.45 (0.29) 0.55 (0.21) 0.63 (0.27) Israel	.119 .010 .020	.02 .03 .02	6.03 (2.87) 1.01 (2.33) 2.54 (2.33) Italy	.665	.17 .03 .09	2.47 (3.79)	.206 .514 .007	.10 .07		
	n = 1701			n = 1334			$\frac{n}{n=2401}$			$\frac{1}{n=562}$				
	b (SE)	p		b (SE)	p	ß	b (SE)	p	β	b (SE)	p	ß		
CSA AASA CSA+AASA	2.01 (1.04) 1.53 (0.56) 2.08 (0.64) Lithuania n=2015	.053 .007 .001		-0.76 (0.77) $0.01 (0.60)$ $0.03 (0.64)$ Malaysia $n = 1170$.323 .992 .963	03 <.001 .001	0.80 (0.53) 1.71 (0.39) 2.66 (0.50) Mexico n=2136	.133 <.001 <.001	.03 .10 .12	-1.49 (1.16) 1.95 (1.10) 1.37 (1.42) New Zealand $n=2832$.201 .077 .337	05 .08 .05		
	b (SE)	p	β	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß		
CSA AASA	0.50 (0.75) 0.65 (0.53)	.507 .222	.02	2.84 (1.01) 2.63 (0.75)	.005	.09 .10	1.14 (0.58) 2.52 (0.55)	.050	.05 .11	1.92 (0.74) 0.44 (0.46)	.010	.05		



	Lithuania			Malaysia			Mexico			New Zealand			
	n = 2015			n = 1170			n = 2136			n = 2832			
	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	β	b (SE)	p	ß	
CSA + AASA	0.94 (0.60)	.118	.04	3.90 (0.89)	<.001	.14	2.98 (0.56)	<.001	.14	1.84 (0.52)	<.001	.08	
	North Mace	donia		Panama			Peru			Poland			
	n = 1251			n = 333		n = 2671			n=9891				
	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p ß	'	b (SE)	p	ß	
CSA	0.99 (0.88)	.259	.03	2.53 (1.61)	.117	.09	-0.08 (0.55)	.879 –	003	0.34 (0.27)	.197	.01	
AASA	1.82 (0.60)	.002	.09	1.19 (1.71)	.485	.04	0.44 (0.54)	.411	.02	0.74 (0.19)	<.001	.04	
CSA+AASA	2.82 (0.81)	.001	.11	3.84 (1.59)	.016	.15	1.41 (0.52)	.007	.06	1.71 (0.23)	<.001	.09	
	Portugal			Slovakia			South Africa			South Korea			
	n = 2262			n = 1134			n = 1849			n=1464			
	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	β	b (SE)	p	ß	
CSA	0.25 (0.45)	.573	.01	0.65 (1.04)	.533	.02	2.04 (0.81)	.012	.06	2.65 (0.76)	.001	.09	
AASA	1.65 (0.37)	<.001	.10	0.42 (0.65)	.522	.02	1.49 (0.55)	.007	.07	2.55 (0.76)	.001	.09	
CSA+AASA	2.87 (0.46)	<.001	.16	1.22 (0.84)	.146	.04	2.96 (0.65)	<.001	.12	4.94 (0.90)	<.001	.16	
	Spain			Switzerland			Taiwan			Turkey			
	n = 2327			n = 1144			n = 2668			n = 820			
	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß	b (SE)	p	ß	
CSA	0.84 (0.66)	.207	.03	0.64 (0.93)	.494	.02	-0.66 (0.62	2) .289	02	0.78 (0.94)	.405	.03	
AASA	1.17 (0.40)	.003	.06	-0.15 (0.60)	.806	01	0.49 (0.62	.430	.02	1.43 (0.98)	.144	.06	
CSA+AASA	4.40 (0.61)	<.001	.18	1.30 (0.81)	.107	.06	2.75 (0.74	<.001	.08	2.10 (0.89)	.018	.09	
	J	Jnited Kin	gdom				Uı	nited States	;				
	\overline{n}	=1412					\overline{n}	=2398					
	\overline{b}	(SE)		p β		\overline{b}	b (SE)			p			
CSA	1	1.35 (1.03))	.193		.04	2.	08 (0.77)		.007		.06	
AASA	C	0.74 (0.61))	.230		.04	0.	77 (0.49)		.120		.03	
CSA+AASA	1	.08 (0.67))	.108		.05	3.	15 (0.55)		<.001		.14	

CSA, childhood sexual abuse; AASA, adolescent or adult sexual abuse; CSA+AASA, both childhood sexual abuse and adolescent or adult sexual abuse. No sexual abuse history is the referent. No sexual abuse history is the referent. Coefficients with different superscript letters across subgroups are significantly different at p < .05. Coefficients in bold are significant at p < .05

For the CSA-CSB link, pairwise post-hoc comparisons showed that the association between CSA and CSB was significantly stronger in Bangladesh compared with almost all other countries. Overall, the CSA-CSB association was higher in India, Malaysia, South Korea, Colombia, the United States, South Africa, Chile, New Zealand, Brazil compared with Hungary, Poland, Portugal, Peru, Croatia, Taiwan, Israel, Czech Republic, and Japan. Algeria, Iraq, Bolivia, Panama, Ireland, Australia, Austria, Gibraltar, Ecuador, United Kingdom, Germany, Mexico, France, North Macedonia, China, Spain, Belgium, Italy, Turkey, Canada, Slovakia, Switzerland, and Lithuania showed little to no significant difference compared to other countries.

For the AASA-CSB link, pairwise post-hoc comparisons showed that the association between AASA and CSB was significantly stronger in China, Colombia, Malaysia, South Korea, Chile, and Mexico compared with Australia, France, Germany, Belgium, Switzerland, Israel, Austria, Canada, Slovakia, Peru, New Zealand, Brazil, Taiwan, Hungary, Lithuania, Poland, and the United States. Moreover, this association was significantly stronger for Bangladesh, North Macedonia, Italy, Portugal, Ireland, South Africa, and Panama than for Australia, France, Germany, Belgium, Switzerland, Israel, Austria, and Canada. Algeria, Gibraltar, Bolivia, United Kingdom, India, Croatia, Czech



Republic, Spain, Turkey, Japan, Iraq, and Ecuador showed little to no significant difference with other countries.

For the CSA + AASA-CSB link, pairwise post-hoc comparisons showed that the association between CSA + AASA and CSB was significantly stronger in China compared with almost all other countries. The CSA + AASA-CSB link was also significantly stronger in Iraq, Bangladesh, South Korea, Spain, Colombia compared with Israel, Australia, France, Hungary, Germany, Belgium, Lithuania, United Kingdom, Slovakia, Switzerland, Japan, Peru, Poland, New Zealand, Austria, Czech Republic, Canada, Ireland, and Turkey. Finally, the CSA + AASA-CSB link was significantly stronger in Malaysia, Panama, Chile, the United States, Mexico, South Africa, Portugal, North Macedonia, Taiwan, Italy, Brazil, and Croatia compared with Israel, Australia, France, Hungary, Germany, Belgium, Lithuania, United Kingdom, Slovakia, Switzerland, Japan, and Peru. Ecuador, Bolivia, India, Gibraltar, and Algeria showed little to no significant difference with other countries.

Discussion

SA is known to be related to higher CSB, but there is no clear picture concerning the sociodemographic profiles of those who are more prone to develop CSB in the aftermath of SA. The aim of the current study was to examine whether the association between sexual abuse and CSB was different according to key abuse-related and sociodemographic characteristics.

Even if, in line with our hypothesis, all age-related categories of sexual abuse were significantly related to higher CSB, results showed that revictimization was more strongly related, followed by CSA, and then AASA. Even if all associations were significant, it is important to highlight their small effect sizes. Our results support Aaron's (2012) theoretical conceptualization that the younger the sexual abuse occurs, the more likely the victim may react with externalized sexual behaviors. However, our results further reveal that the CSA-CSB link is stronger in the case of revictimization, which may represent a cycle in which CSA is related to higher CSB when associated with early first sexual experiences, more frequent sexual activities, and risky sexual behaviors that increase the risk of facing coercive sexual partners (Griffee et al., 2012; Kaltiala-Heino et al., 2018). Thus, revictimization could be an outcome of the CSA-CSB association. Yet, in line with past studies focusing exclusively on CSA (Slavin et al., 2020b; Vaillancourt-Morel et al., 2015), CSA alone was still significantly associated with higher CSB. CSA is often perpetrated by a caretaker and the abuse is paired with care and affection, which may lead to the tendency to use sex as a way to feel closer, seek validation, and feel desired (Finkelhor & Browne, 1985). CSA may also instill mixed feelings towards the perpetrator and the abuse, and using sex compulsively as a result may be a way to reenact the trauma to make sense of the sexual abuse narrative (Gold & Heffner, 1998). Even if AASA alone is still significantly related to higher CSB, in line with past studies (Nolin et al., 2023; Slavin et al., 2020a), this association was smaller, suggesting that most individuals with an AASA history do not develop this sexual response pattern. Given the developmental timing of the SA, AASA may be more easily labelled as abuse, with adolescent/adult victims viewing the perpetrator and the behavior as the problem versus themselves; individuals who self-define their sexual abuse as abuse tend to report sexual avoidance instead of CSB (Vaillancourt-Morel et al., 2016a).

In line with our hypothesis, the association between sexual abuse and CSB was moderated by participants' age and showed that CSA, AASA, and CSA + AASA were more strongly related to CSB in younger than older participants. This result supports theoretical propositions suggesting that CSB is the initial response to sexual abuse. Thus, CSB would be more frequent in younger participants, as it would be during this period that maladaptive strategies are put into place to deal with SA-related emotions, to make sense of the abuse, and take back control over one's body and sexuality (Briere, 2002; Briere et al., 2010; Fontanesi et al., 2021). Over time, using sex to cope with sexual abuse may be replaced with other responses, including a phobic reaction to sexuality or healthier emotion regulation strategies.

With respect to gender, in line with our hypothesis, sexual abuse was differentially related to CSB across genders and showed that the associations between CSA, AASA, CSA + AASA and CSB were stronger among cisgender men than cisgender women. Moreover, the AASA-CSB link was stronger among cisgender and transgender men than transgender women, and the CSA + AASA-CSB link was stronger among cisgender men than among gender-diverse individuals and participants questioning their gender identity or reporting another gender identity. Findings are in line with theoretical propositions asserting that CSB is the typical sexual response to sexual abuse for cisgender men (Aaron, 2012) and past studies reporting that sexual abuse is related to CSB in men only (Skegg et al., 2010). Partly due to gendered sexual scripts and sexual double standards, outward expressions of sexuality are more socially acceptable for men, while women are often expected to exhibit restrained sexual behavior in many cultures (Cherkasskaya & Rosario, 2019; Endendijk et al., 2020; Wiederman, 2005). Sexual victimization challenges masculine norms of dominance and power, which can lead to feelings of emasculation and more sexual acting out as a result (Gauthier-Duchesne et al., 2024). Moreover, in the case of revictimization, cisgender men also reported higher CSB than some other gender-diverse participants, suggesting that the CSA + AASA-CSB link is specifically stronger for men, not only compared to women, but also



to individuals of any gender. Again, this can be attributed to gendered norms and sexual double standards, including those that constrain the sexuality of sexual and gender minorities. Finally, in relation to AASA, it is more common for cisgender and transgender men to resort to CSB than transgender women, underscoring the role of men's socialization and gender norms, to explain why men, cis or trans, may respond to sexual abuse with externalizing behaviors like compulsive sexual behaviors (Aaron, 2012; Slavin et al., 2020a). The stronger SA-CSB link might apply to transgender men for the AASA only category, as it is in this group that the abuse most likely occurred after their gender transition.

Partly in line with our hypothesis, AASA and CSA + AASA were differentially related to CSB across sexual orientations and showed that, as predicted, the associations between AASA, CSA + AASA and CSB were stronger among some specific subgroups of sexually diverse participants compared with heterosexual ones. Overall, AASA and CSA + AASA were more strongly related to CSB among gay or lesbian, asexual, and queer or pansexual participants than among those reporting being heterosexual, homo- or heteroflexible, and another sexual orientation. Moreover, the associations between AASA, CSA + AASA and CSB were significantly stronger among gay or lesbian than among bisexual participants, whereas it was stronger among bisexual and questioning participants than among those reporting being heterosexual and homo- or heteroflexible. These results expand upon past studies reporting that sexual abuse is related to higher CSB in gay and bisexual men specifically (Blain et al., 2012; Kirwan et al., 2023; Parsons et al., 2012), showing that the association is stronger in sexually diverse participants overall. The combination of sexual abuse and a sexually diverse identity such as gay or lesbian, asexual, and queer or pansexual may result in markedly elevated odds of CSB as the potential effects of sexual abuse are added to those inherent to a minority status (Andresen et al., 2022). Indeed, aspects of minority stress are related to substance use and sexual risk behaviors including CSB (Goldbach et al., 2014; Lewczuk et al., 2024; Pachankis et al., 2015). Finally, CSA was related to higher CSB similarly across all sexual orientations, suggesting that the link with earlier sexual abuse alone may be more homogeneous and far-ranging in nature.

In line with our hypothesis, sexual abuse was differentially related to CSB across relationship status; the associations between CSA, AASA, CSA + AASA and CSB were stronger among single than married or commonlaw participants. Moreover, as predicted, the AASA and CSA + AASA-CSB links were stronger among dating participants than among married or common-law participants. Overall, our results suggest a gradation related to relationship commitment in which the SA-CSB link is lower as relationship commitment increases from single, to dating, and finally with married, common-law, widowed, and divorced

participants. This is in line with the only study reporting that CSA was associated with higher CSB in single and cohabitating participants, but not in married participants (Vaillancourt-Morel et al., 2016b). During singlehood or the initial stages of a romantic relationship, individuals with a history of sexual abuse may frequently engage in sexual behaviors to navigate intimacy difficulties, boost self-esteem, and distract from emotional distress. However, as the relationship progresses from dating to increasing commitment, partners' shortcomings may emerge as idealization fades and the need to deal with daily hassles is more frequent. Embracing vulnerability with one's partner becomes an unavoidable necessity and intimacy naturally deepens, potentially triggering dysregulated feelings and unresolved intrapersonal issues associated with the sexual abuse. These evolving dynamics tied to relationship commitment may lead individuals with a history of sexual abuse to avoid sexual intimacy. Even when the relationship ends after reaching a high-commitment stage such as marriage, as in cases of widowhood or divorce, victims may resist reverting to past trauma-related coping strategies such as CSB.

Finally, as predicted, the associations between sexual abuse and CSB were moderated by the country of residence, with a complex pattern of findings. Overall, across the age-related categories of SA, the SA-CSB association was found to be stronger in Bangladesh, Chile, Colombia, Malaysia, South Korea, and South Africa, and weaker in Hungary, Poland, Peru, and Israel. We acknowledge that a full explanation may be elusive as no outstanding regional trends related to conservative cultural norms, societal stigmas around sexuality, and access to sex education and mental health resources seem to emerge clearly. However, results are in line with those of the past few studies conducted in non-WEIRD samples. For instance, a study conducted in Brazil reported a significant CSA-CSB association and our results showed that both CSA-CSB and CSA + AASA-CSB associations were stronger in Brazil (Reis et al., 2023). Results for CSA also seem to follow rates of CSA in these countries, with stronger CSA-CSB links in countries with higher rates of sexual abuse as Bangladesh, India, South Korea, and South Africa are among the highest in prevalence, the United States and Asian countries tend to be in the middle-low range (with the exception of China), and Europe showing the lowest rate (Borumandnia et al., 2020; Pereda et al., 2009; Stoltenborgh et al., 2011). Higher SA-CSB associations in some countries may be explained by several key factors, such as cultural norms and rigid gender roles that discourage open discussions about sexuality and sexual violence, potentially leading to unaddressed issues and the adoption of CSB as a coping mechanism.



Limitations

Despite the study's strengths, some general limitations of the ISS (described on the study's OSF page; https://osf. io/n3k2c/?view only=838146f6027c4e6bb68371d9d1% 204220b5) and some study-specific limitations should be considered. First, the correlational, cross-sectional design and the lack of statistical control for other potential third variables make it impossible to determine causal relations. Sexual abuse often occurs in deficient family environments, delinquent peer environments, or in co-occurrence with other forms of childhood maltreatment or intimate partner violence (Coker et al., 2000; Jones et al., 2023), which may also be related to CSB. Second, despite the large sample across 42 counties, the generalizability of our findings may be limited by the non-representative sampling of participants who volunteered for a study on sexuality. Moreover, while both scales used in the current study were invariant across countries (Bőthe et al., 2023; Nagy et al., 2025), measures developed based on Western conceptions of sex, gender, and sexual abuse may not be fully adapted to other cultural contexts. Third, all data in this study were collected via self-report measures, which have some inherent biases. The use of a selfreported measure to assess compulsive sexual behaviors does not allow a clinical diagnosis of CSB disorder. Moreover, the sexual abuse measure conceptualizes abuse as an unwanted sexual experience, excluding potential legally-defined sexual abuse that may not be considered as "unwanted," and the obtained binary score did not take into account the severity of the sexual abuse. This measure separately assesses events occurring at age 13 and younger and those at age 14 and older, which prevents the differentiation between adolescent and adult abuse. Finally, this study focused on the timing of abuse and sociodemographic characteristics as potential moderators. However, other potential moderators or mediators, including religiosity, trauma-related symptoms, and depressive or anxious symptoms, may also play a crucial role.

Conclusions

This large-scale, cross-cultural study lends further support to sexual abuse being an etiological factor in the development of CSB, offering a more fulsome picture of who is more at risk of developing CSB following sexual abuse. Our findings highlight that CSA, particularly when paired with revictimization in adolescence or adulthood, is related to CSB. Thus, prevention efforts should include earlier intervention and education for youth experiencing CSA. Our results reveal specific demographics associated with heightened risk, emphasizing that younger, male, sexually diverse, and single populations are particularly susceptible to CSB following sexual abuse. Thus, prevention and intervention efforts for CSB need to be more targeted to this population and include

the development of adaptive strategies to cope with SA, such as emotion regulation. Finally, although the SA-CSB associations were different across countries, our cross-cultural results reveal a complex pattern that warrants further exploration. Understanding how cultural contexts may influence sexual outcomes in the aftermath of sexual abuse in different countries is essential for refining global prevention strategies.

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Availability of Data and Materials All included measures and translation can be found at this link. The data are not openly available for ethical reasons in some countries, but they are available upon request by email to the last author.

Code Availability The code related to this study are available upon request by email to the first author.

Declarations

Conflict of interest SWK discloses that he has received funding from the International Center for Responsible Gaming, MGM Resorts International, Center for the Application of Substance Abuse Technologies,



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