



# Sexual Victimization in Adulthood and Associated Factors Among Men and Women: Cross-Sectional Evidence from Mainland China

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## Abstract

Limited empirical research addresses sexual victimization and related factors among the general adult population in China. To address this gap, we explored the association between sexual victimization in adulthood and associated factors (unwanted sexual experiences [USE] before age 18, binge drinking prior to sex, hooking up, violent pornography use, awareness and perceived behavioral control of consent, and sexual refusal assertiveness) among a convenience Chinese sample. A cross-sectional study was performed in September 2020 among 898 screened men and women from 29 provinces in mainland China. Overall, 52.5% of men and 57.9% of women experienced sexual victimization at least once in adulthood. Men and women differed in the severity of sexual victimization in adulthood, with the mean severity scores of women being significantly higher than those of men. Hierarchical ordinal logistic regression revealed that, after considering control variables, correlates of severity of sexual victimization in adulthood included gender (OR 3.17, 95% CI 2.30–4.40), severity of USE before age 18 (OR 2.28, 95% CI 1.92–2.73), binge drinking prior to sex (OR 2.52, 95% CI 1.83–3.49), hook-up history (OR 2.24, 95% CI 1.49–3.39), violent pornography use (OR 1.07, 95% CI 1.04–1.09), lack of perceived behavioral control of communicating consent (OR 1.04, 95% CI 1.01–1.07), and sexual refusal assertiveness (OR 0.92, 95% CI 0.89–0.95). These findings indicate that early adverse sexual experiences, potential risky sexual behaviors, violent pornography use, and beliefs about consent and refusal may play an important role in predicting sexual victimization among Chinese adults.

**Keywords** Sexual victimization · Unwanted sexual experiences · Risky sexual behaviors · Sexual consent · Sexual refusal assertiveness · Sexual abuse

## Introduction

The pervasive global public health issue of sexual victimization causes long-term negative effects on the physical and mental health of victims (Dworkin, 2020; World Health Organization, 2013). Because of differences in sample diversity and operational definitions, the prevalence of sexual victimization varies greatly, with data revealing that up to 83.9% of women and 65% of men have experienced sexual victimization at least once (Depraetere et al., 2020; Krahe et al., 2014; Schuster et al., 2016). However, the bulk of existing studies were obtained with North American (Fedina et al.,

2018), South American (D'Abreu & Krahe, 2016; Schuster & Krahe, 2019a), and European samples (Krahe et al., 2014). Evidence from East Asian countries is minimal, and the topic is in serious need of research attention. This study aims to contribute to the literature by using a cross-sectional survey to explore the association between sexual victimization in adulthood and related factors among a convenience, non-nationally representative sample of Chinese men and women.

Although sexual assault constitutes serious violence, research on Chinese sexual victimization in adulthood is scarce compared to Western research, with most of the existing empirical studies on sexual violence focusing on childhood sexual abuse (usually before the age of 18 or 16 in China; Ji et al., 2013; Ma, 2018), which may reflect the neglect of sexual victimization in adulthood. To explore sexual victimization and its associated factors in adulthood specifically (as distinct from sexual victimization in childhood), the outcome variable in this study was sexual victimization after 18 years.

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In previous studies that investigated sexual victimization of adults in China, preliminary data indicated that 32% of married Chinese women reported experiencing unwanted spousal intercourse and 20% reported being compelled to perform sexual acts (Parish et al., 2007). Data from China's 2010 National Survey on Women's Social Status revealed that 24.9% married women and 22.8% married men had experienced violence in their lifetime (Xiao & Feng, 2014). A cross-cultural study conducted by the United Nations revealed a prevalence rate of 19% for sexual intimate partner violence in China (Fulu et al., 2013). Significantly, the results of a survey on the sexual and reproductive health of Chinese college students conducted between 2019 and 2020 showed that approximately 23% of male students and 42% of female students did not entirely consent to their first-time sexual intercourse (China Family Planning Association, 2020). Although the above studies have different operational definitions, measurement methods, and samples, they indicate that, in China, sexual victimization among the adult population is a significant public health issue that cannot be ignored.

Gaps and limitations in the available research on Chinese sexual victimization in adulthood need to be addressed and resolved. First, there is a possibility that sexual victimization might be underreported. From a traditional Chinese social perspective, the word "sexual assault" is considered taboo and a sensitive issue that may affect social stability. If people do not fiercely resist physically when sexually assaulted, they may be considered responsible for the assault and accused of being morally imperfect (Xue et al., 2019). Thus, victims may choose not to report their sexual victimization experiences from fear of being blamed. Second, a criminal law stipulates the nature of rape in China: "rape is a coercive act that uses violence, threats, or other means to force sexual intercourse with a woman against her will" (Criminal Law of the People's Republic of China, 2015, Article 236). This means that men are legally excluded from being victims of rape. Meanwhile, most previous studies have not investigated men's sexual victimization, although studies have shown that sexual intimate partner violence is not exclusive to one sex in China (Breckenridge et al., 2019; Chen & Chan, 2021); surveys of sexual victimization in general male samples are scarcer. Third, existing studies on violence against adults in China have mostly focused on the context of intimate/dating relationships (e.g., Breckenridge et al., 2019; Yang et al., 2019), and few studies have focused specifically on sexual victimization. Finally, most previous related studies in China focused mainly on victimization and its association with sociodemographic variables (e.g., Chen & Chan, 2021; Tu & Lou, 2017); less attention has been paid to the associated vulnerability or protection factors of behaviors and beliefs at the individual level.

We referred to the structure of associated factors of sexual victimization, which was proposed by D'Abreu and Krahe

(2016) in a previous study, to strengthen the understanding of correlates, which may lead to susceptibility to or protection against sexual victimization in adulthood among Chinese adults. However, D'Abreu and Krahe's (2016) study modeled the relationship around risky sexual scripts, risky sexual behaviors, and sexual victimization, and their items measuring risky sexual scripts and risky sexual behaviors corresponded to each other; unlike this, because the cross-sectional approach of our study was unable to test for causal associations between these variables, we did not consider direct measures of sexual scripts but instead considered similar factors that may influence individuals' sexual behavior patterns, and looked for correlations of these factors with sexual victimization. We investigated the associations between the following factors and sexual victimization in adulthood: (1) early adverse sexual experiences, (2) potential risky sexual behaviors (hook-up history and binge drinking prior to sex), and (3) potential impact factors of sexual behavior patterns (violent pornography use, awareness and perceived behavioral control of consent, and sexual refusal assertiveness). The logic for proposing these factors in this study is that (1) early adverse sexual experiences may increase an individual's vulnerability to sexual victimization in adulthood; (2) individuals' risky sexual behavior may expose them to risky situations of sexual victimization and may also weaken their physical and cognitive ability to resist victimization; and (3) potential impact factors of sexual behavior patterns may lead individuals to develop negative or positive sexual behavior patterns, thereby increasing or decreasing their vulnerability to sexual victimization. The present study does not examine the mechanism and pathways by which these factors influence sexual victimization but only explores their correlations.

### **Adverse Sexual Experiences in Childhood and Sexual Victimization in Adulthood**

According to the United Nations *Convention on the Rights of the Child* (United Nations International Children's Emergency Fund, 1989), this study defines the age of childhood as 0–18 years. According to a United Nations study on childhood trauma and violence in the Asia–Pacific region (including China; Fulu et al., 2017) and most empirical and review studies on early adverse sexual experiences in China (e.g., Chen et al., 2004; Ji et al., 2013; Ma, 2018; Tang et al., 2018), this study specifies adverse sexual experiences in childhood as "unwanted sexual experiences (USE) before age 18" at the hands of an adult. Existing empirical medical research shows that sexual health in adulthood is at least partly determined by adverse experiences in childhood (Kalmakis & Chandler, 2015; van der Feltz-Cornelis et al., 2019), and sexual abuse in childhood is a known antecedent factor for sexual victimization in adulthood (e.g., Krahe & Berger, 2017a;

Ports et al., 2016). Previous studies from non-East Asian countries have shown that both women's and men's adverse sexual experiences in childhood increase the incidence of sexual revictimization in their adulthood (e.g., D'Abreu & Krahe, 2016; Krahe & Berger, 2017a; Tyler et al., 2017), with women having a higher rate of revictimization (Banyard et al., 2004; Barnes et al., 2009). In China, only one study, conducted in Hong Kong, explored the relationship between sexual abuse in childhood and sexual victimization in adulthood finding an independent association (Chan, 2011). Few studies have explored the relationship between adverse sexual experience in childhood and sexual victimization in adulthood using mainland Chinese samples. Chinese people in Hong Kong are exposed to both Chinese culture and Western culture—indeed, the latter is predominant—and Hong Kong has a local judicial system to address sexual violence (Chan, 2009). Therefore, mainland Chinese and Hong Kong samples are heterogeneous (Chan, 2009). In the present study, we explored findings obtained from samples from mainland China.

### Potential Risky Sexual Behaviors and Sexual Victimization

Many well-performed studies from non-East Asian countries have verified that alcohol use prior to sex increases the risk of sexual victimization, regardless of whether samples are male or female and whether survey methods are cross-sectional or longitudinal (Abbey et al., 2004; D'Abreu & Krahe, 2016; Kuyper et al., 2013; Lorenz & Ullman, 2016; Schuster & Krahe, 2019b; Tyler et al., 2017). Statistics show that about half of all sexual assaults involve the victim drinking alcohol prior to the assault (Lorenz & Ullman, 2016). Problematic alcohol use also leads to repeated victimization. In a study of repeated victimization among college students, Walsh et al. (2020) found that, compared with their peers who had only experienced victimization once, participants with repeated victimization experiences had a more problematic relationship with alcohol.

The second potential risk factor for sexual victimization in the present study is hook-up history (Flack et al., 2008; Santos-Iglesias & Sierra, 2012). This is often included in some studies from non-East Asian countries as a risk factor for sexual victimization in sexual situations, along with binge drinking (e.g., Schuster & Krahe, 2019b; Testa et al., 2010; Tyler et al., 2017). For instance, Tyler et al. (2017) indicated that hook-up history was related to drinking behavior, which in turn increased the likelihood of sexual victimization. Additionally, they found an independent association between hook-up history and sexual victimization. Overall, to our knowledge, there is no research on whether the Chinese general adult population's binge drinking prior to sex and hook-up history are correlates of sexual victimization in

adulthood. It is necessary to establish whether the abovementioned findings hold in the Chinese context.

### Pornography Use and Sexual Victimization

In Wright's (2011) sexual script acquisition, activation, and application model, when descriptions of sexual roles and behaviors are considered normative, acceptable, and satisfactory, these sexual scripts are activated and applied. In other words, the more participants are exposed to risky sexual scripts, the more likely such scripts are to be assimilated and used in sexual situations. Some studies have shown a positive association between consumption of pornography (general or violent) and sexual victimization experiences (e.g., Romito & Beltramini, 2011; Simons et al., 2012; Ybarra et al., 2014). A review study also indicated that exposure to violent sexual media was related to the anticipation and occurrence of sexual victimization (Rodenhizer & Edwards, 2019). Although previous studies on pornography use in men mainly focused on its relationship with sexual assault crimes, D'Abreu and Krahe (2016) revealed the pathway from pornography use to sexual victimization among college men. Pornography use affects men's sexual scripts, making them more receptive to the idea that “men who reject sex are not manly enough” and consequently, they may offer less resistance in the face of unwanted sex. Considering that violent pornography overwhelmingly portrays men's violence against women and hypermasculine scripts (Cohen, 2001), we expected the association between violent pornography use and sexual victimization to be significant.

### Awareness and Communication of Consent and Sexual Refusal Assertiveness

Previous studies demonstrated that a low level of sexual refusal assertiveness, which refers to the ability to reject unwanted sex (Morokoff et al., 1997), was an associated factor in sexual victimization and compliance (Darden et al., 2019; Krahe & Berger, 2017b; Schuster & Krahe, 2019b; Tomaszewska & Krahe, 2018). However, few studies have explored the awareness of sexual consent and its perceived behavioral control as correlates of sexual victimization. Perceived behavioral control refers to how difficult it is for a person to perform a behavior (Ajzen, 1991). In terms of communicating consent, the more difficult it is for individuals to communicate consent, the more difficult it may be to perform such behaviors. Although communication of consent sounds like the expression of willingness to engage in sexual behavior rather than rejection, the lack of perceived behavioral control to explicitly communicate consent may increase the possibility of sexual miscommunication, which is a risk factor for sexual victimization (Jozkowski et al., 2014). Moreover, because lack of awareness of sexual consent may imply

the perception that communication of sexual consent is not important, it may also increase the risk of sexual victimization. The abovementioned findings lack evidence from East Asian samples. Traditional Confucian ascetic sexual norms make the topics of sexual behavior and violence sensitive and taboo in China (Shi & Zheng, 2020; Xue et al., 2019); therefore, whether the awareness of consent, perceived behavioral control of communicating consent, and sexual refusal assertiveness are potential impact factors for sexual victimization need to be examined in the Chinese context.

## Aims of This Study

Empirical research on sexual victimization in the general adult population in mainland China is limited, and so, to our knowledge, are available official data on sexual assault and sexual victimization. To date, no research conducted on the Chinese adult population has specifically focused on the associations between USE before age 18, potential risky sexual behaviors, potential impact factors of sexual behavior patterns, and sexual victimization in adulthood. This study aimed to explore the associations between sexual victimization in adulthood and its associated factors through a cross-sectional survey in mainland China. We hypothesized that: participants with higher scores of USE before age 18 would report more severe sexual victimization (Hypothesis 1); those who experienced potential risky sexual behaviors would report more severe sexual victimization (Hypothesis 2); and participants who scored higher on potential factors related to risky scripts and behaviors would report more severe victimization (Hypothesis 3a), while those scored higher on sexual refusal assertiveness would report less severe sexual victimization (Hypothesis 3b).

## Method

### Participants and Procedure

A convenience sample was used in this study. Data were collected through the Chinese professional data collection and modeling platform Credamo (<https://www.credamo.com>), a platform similar to Amazon MTurk. All procedures were approved by the ethics review committee of the Faculty of Psychology of Southwest University. We posted the questionnaire on the platform, and adults (age  $\geq 18$ ) who were interested in the questionnaire could click on the link. The beginning of the questionnaire contained an informed consent form. Participants were told that this was a questionnaire on sexual experiences and attitudes, and the respondents were assured that their responses were anonymous and would not be made public. Because we sought answers to all questions, we informed the respondents that they were

allowed to withdraw from the survey at any time during the questionnaire completion process, which would mean that the questionnaire had not been submitted successfully and they would not get paid. The remuneration for each valid questionnaire was 13.5 CNY (approximately \$2). The survey took approximately 15 min to complete. To establish quality control, when the respondent failed two of three attention test questions (e.g., “Please select *strongly agree* for this item”), the questionnaire was considered not to have been submitted successfully. A total of 1079 adult individuals clicked on our questionnaire link, and 181 individuals without coital experience, or who did not agree with the informed consent, or did not pass our quality control conditions were screened out. Therefore, the final analytical sample of this study comprised 898 adults from 29 provinces in China.

## Measures

### Demographics

Participants reported their gender (0 = men, 1 = women), age, living place (rural or urban area), sexual orientation (heterosexual, homosexual, bisexual, pansexual, asexual, queer, or other), education level (junior high school, senior high school, bachelor’s degree, master’s degree, or beyond), and relationship status (committed, casual, or single).

### Sexual Victimization in Adulthood

Sexual victimization in adulthood was assessed using the modified (Testa et al., 2004) version of the Sexual Experiences Survey (SES; Koss et al., 1987). The modified scale asked the participants whether or not each experience had occurred; we revised the SES to ask how many times each experience had occurred, following a previous study (Tyler et al., 2017). Participants were asked the following question: “Since you were 18 years old, how many times has anyone performed the following actions with you when you did not want this to happen?” The scale comprises 11 items of four types of sexual victimization: three items about sexual contact (e.g., “Be fondled, kissed, or touched sexually when you did not want to because you were overwhelmed by someone’s continual arguments and pressure”), two items about sexual coercion (e.g., “Give in to sexual intercourse when you did not want to because you were overwhelmed by someone’s continual arguments and pressure”), two items about attempted rape (e.g., “Attempt to have sexual intercourse with you [but intercourse did not occur] by threatening or using some degree of force [twisting your arm, holding you down, etc.] when you did not want to”), and four items about rape (e.g., “Had sexual intercourse when you did not want to because someone made you intoxicated by giving you alcohol or drugs without your knowledge or consent”). Participants

reported how many times each situation had occurred on a 5-point Likert scale ranging from 0 (*never*) to 4 (*four times or more*). To yield a nonredundant score, participants were classified into groups by the most severe form of sexual victimization they reported (Koss, et al., 2007, 2008). In this way, we created an ordinal severity score for the sexual victimization scale (0 = *no victimization*, 1 = *sexual contact*, 2 = *sexual coercion*, 3 = *attempted rape*, 4 = *rape*).

### USE before Age 18

Two types of USE (non-contact and contact) were measured using the 12 items developed by Chen et al. (2004) to assess childhood sexual victimization experiences among the Chinese population. The original scale focused on the experience of sexual abuse under the age of 16; however, since our study aimed to explore the relationship between adverse sexual experiences in childhood and sexual victimization in adulthood, we increased the age of USE to 18 years, in line with some studies from China (Chan, 2011; Xu et al., 2018). Participants were asked the following question: “Before the age of 18 years, did any adult perform the following actions on you when you did not want this to happen?” Three items measured non-contact USE (e.g., “Exposed their genitals to you”), and nine items measured contact USE (e.g., “Touched or fondled your body including breasts or genitals”). Participants reported how many times each situation occurred on a 5-point Likert scale ranging from 0 (*never*) to 4 (*five times or more*). Similar to sexual victimization in adulthood, participants were classified into the most severe type of USE they reported, and ordinal severity scores were created (0 = *no victimization*, 1 = *non-contact USE before age 18*, 2 = *contact USE before age 18*).

### Overall Binge Drinking and Binge Drinking Prior to Sex

Binge drinking history was assessed by a single question: “In the past 12 months, how frequently did you consume five or more drinks of alcohol within two hours?” (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). Responses ranged from 0 (*no such situation*) to 7 (*more than once a day*). Based on previous studies on binge drinking in China (Xu et al., 2019; Zhang et al., 2015), participants who reported *more than once a week* were categorized as frequent binge drinkers. Additionally, participants who had experiences of binge drinking prior to sex were identified based on the following question: “Did you consume five or more drinks of alcohol within two hours prior to having sex in the past 12 months?”

### Hook-Up History

To evaluate hook-up history, participants were asked the following question: “Did you sexually hook up (oral, anal, or vaginal sex with a casual partner) with someone in the past year?” This variable was dichotomous (0 = *no* and 1 = *yes*).

### Overall and Violent Pornography Use

Overall pornography consumption was assessed by a single item: “In the past 12 months, how often did you view pornographic videos or pictures?” Response categories ranged from 1 (*never*) to 7 (*several times a day*). Higher scores indicate higher frequency of pornography use. The measurement of violent pornography use comprises 10 items that depict violent and aggressive sexual behaviors, derived from 17 types of sexual behaviors portrayed in pornographic materials, identified by Davis et al. (2018). Participants were asked the question, “In the past 12 months, how often did you intentionally view pornographic materials containing the following situations?” An example item is, “Violence or aggression toward a woman regardless of whether she appears to want it or not.” Responses were given on a 6-point Likert scale ranging from 1 (*never*) to 6 (*always*). Higher total scores indicated higher viewing frequencies of violent or degrading pornography. The Cronbach’s  $\alpha$  coefficient was 0.88.

### Awareness and Perceived Behavioral Control of Communicating Consent

The Awareness and Discussion subscale of the Sexual Consent Scale-Revised (SCS-R; Humphreys & Brousseau, 2010), which comprises four items, was used to assess participants’ awareness of sexual consent (current Cronbach’s  $\alpha = 0.76$ ), with responses ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). An example item is “I have not given much thought to the topic of sexual consent” (reversed scored). Possible scores ranged from 4 to 28, with higher total scores reflecting more awareness of consent. Four items from the Lack of Perceived Behavioral Control subscale of the SCS-R were summed to assess perceived behavioral control of communicating consent (current Cronbach’s  $\alpha = 0.82$ ), with responses ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample item is “I would have a hard time verbalizing my consent in a sexual encounter because I am too shy.” Possible scores ranged from 4 to 28, with higher total scores indicating lower level of perceived behavioral control of communicating consent.

### Sexual Refusal Assertiveness

The Refusal subscale of the Sexual Assertiveness Scale (Morokoff et al., 1997) was used to assess participants’

self-reported ability to reject unwanted sex. It contains 6 items, with responses ranging from 1 (*never*) to 5 (*always*). Example items are “I refuse to have sex if I do not want to, even if my partner insists” and “I refuse to let my partner touch my breasts if I do not want that, even if my partner insists.” Possible scores range from 6 to 30, with higher total scores indicating greater ability of rejecting unwanted sex. The Cronbach’s  $\alpha$  of the scale in the current study was 0.80.

## Statistical Analysis

Data analyses were conducted using SPSS software, version 22.0 (SPSS Inc., Chicago, IL, USA) and Jamovi (The Jamovi Project, 2021). Sociodemographic characteristic analyses were performed to examine no victimization and four categories of sexual victimization (sexual contact, sexual coercion, attempted rape, and rape) in our sample. Descriptive analyses were conducted separately between men and women to present gender differences of individual-level correlates and sexual victimization in adulthood. Correlations among severity of sexual victimization in adulthood and associated factors were then performed. Finally, hierarchical ordinal logistic regression was performed to explore associations between demographic variables (entered in Step 1), associated factors (entered in Step 2; gender, severity of USE before age 18, overall binge drinking, binge drinking prior to sex,

hook-up history, overall pornography use, violent pornography use, awareness and perceived behavioral control of communicating consent, and sexual refusal assertiveness) and severity of sexual victimization, and whether associations between these factors and sexual victimization in adulthood differed between men and women (interaction terms entered in Step 3). To prevent the occurrence of multicollinearity after adding interaction items, we centered the total scores of continuous variables and then created interaction terms prior to computing interactions in Step 3 (Jaccard, 2001). For all logistic analyses, the odds ratio (OR) and 95% confidence intervals (CIs) were calculated.

## Results

### Sample Characteristics of Study Participants

Table 1 presents the sociodemographic characteristics of the most severe types of sexual victimization in adulthood for the total sample. The mean age of the participants was 28.49 ( $SD = 5.28$  years, range = 18–50 years), from 404 men and 494 women. Of our sample, 81.3% ( $n = 730$ ) were in a committed relationship, 6.8% ( $n = 61$ ) were in a casual relationship, and 11.9% ( $n = 107$ ) were single. The majority of participants reported they were heterosexual (852 out of 898;

**Table 1** Sociodemographic characteristics by the severity of sexual victimization in adulthood among Chinese adult men and women ( $N = 898$ )

	Total (898)	No victimization (400; 44.5%)	Sexual contact (150; 16.7%)	Sexual coercion (59; 6.6%)	Attempted rape (108; 12.0%)	Rape (181; 20.2%)
<b>Gender</b>						
Men	404 (45.0)	192(48.0)	77 (51.3)	41(69.5)	36(33.3)	58(32.0)
Women	494 (55.0)	208(52.0)	73 (48.7)	18(30.5)	72(66.7)	123(68.0)
<b>Age</b>						
18–25 years	281 (31.3)	151(37.8)	44 (29.3)	12(20.3)	24(22.2)	50(27.6)
≥ 26 years	617 (68.7)	249(62.2)	106 (70.7)	47(79.7)	84(77.8)	131(72.4)
<b>Living place</b>						
Rural areas	429 (47.8)	200(50.0)	76 (50.7)	25(42.4)	44(40.7)	84(46.4)
Urban	469 (52.2)	200(50.0)	74(49.3)	34(57.6)	64(59.3)	97(53.6)
<b>Sexual orientation</b>						
Heterosexual	852 (94.9)	379(94.7)	146(97.3)	59(100)	101(93.5)	167(92.3)
LGBQ	46 (5.1)	21(5.3)	4(2.7)	0(0)	7(6.5)	14(7.7)
<b>Education level</b>						
≤ Senior high school	51 (5.7)	14(3.5)	10(6.7)	3(5.1)	7(6.5)	17(9.4)
Bachelor’s degree	766 (85.3)	344(86.0)	131(87.3)	49(83.0)	94(87.0)	148(81.8)
≥ Master’s degree	81 (9.0)	42(10.5)	9(6.0)	7(11.9)	7(6.5)	16(8.8)
<b>Relationship status</b>						
Committed	730 (81.3)	302(75.5)	124(82.6)	51(86.4)	98(90.7)	155(85.6)
Casual	61 (6.8)	20(5.0)	10(6.7)	6(10.2)	6(5.6)	19(10.5)
Single	107 (11.9)	78(19.5)	16(10.7)	2(3.4)	4(3.7)	7(3.9)

LGBQ lesbian, gay, bisexual, and queer

94.9%), with approximately half (52.2%;  $n = 469$ ) living in urban areas. All participants reported their most severe form of victimization: 44.5% ( $n = 400$ ) of participants had experienced no sexual victimization in adulthood, 16.7% ( $n = 150$ ) had experienced unwanted sexual contact only, 6.6% ( $n = 59$ ) had experienced sexual coercion, 12.0% ( $n = 108$ ) had experienced attempted rape, and 20.2% ( $n = 181$ ) had experienced rape that conformed to the operational definition.

## Descriptive Statistics and Correlations of Sexual Victimization and Associated Factors

Descriptive statistics of sexual victimization in adulthood and individual level correlates among the total sample are presented in Table 2. Overall, our study found that 52.5% ( $n = 212$ ) of men and 57.9% ( $n = 286$ ) of women had experienced sexual victimization at least once since the age of 18. Men and women differed in the severity of their sexual victimization in adulthood, with the mean severe scores of women being significantly higher than those of men (1.65 vs. 1.23,  $p < 0.001$ ). Moreover, men and women differed in binge drinking, binge drinking prior to sex, and hook-up history, with the affirmative report rates of men significantly higher than those of women ( $p < 0.001$  for binge drinking, binge drinking prior to sex, and hook-up history). There were also gender differences in overall pornography use, violent pornography use, awareness of consent, and sexual assertiveness of refusal, with men reporting higher scores in overall pornography use ( $p < 0.001$ ), violent pornography use ( $p = 0.041$ ), and awareness of consent ( $p = 0.005$ ),

whereas women scored higher in sexual refusal assertiveness ( $p < 0.001$ ). However, there was no difference between men and women for severe scores of USE before age 18 and lack of perceived behavioral control of consent. Correlations among severity of sexual victimization in adulthood and associated factors in our sample can be found in Table 3. All the variables were significantly bivariate correlated with the exception of the correlation between awareness of consent and sexual refusal assertiveness, which was not significant.

## Hierarchical Ordinal Logistic Regression Analyses

To identify the association between correlates and the severity of sexual victimization in adulthood, we conducted hierarchical ordinal logistic regression analyses with variables of interest among the total sample, since sexual victimization was created as an ordinal severity variable. Table 4 presents three logistic regression models. Model 1 included demographic variables except gender. Model 2 included all associated variables. Model 3 included interaction terms between gender and the associated variables to test whether there were gender differences in the associations between associated variables and sexual victimization.

In Model 1, correlates of sexual victimization in adulthood included having a bachelor's degree or above (bachelor's degree: OR 0.48, 95% CI 0.29–0.81; master's degree or above: OR 0.44, 95% CI 0.23–0.85), being in a committed relationship (OR 3.59, 95% CI 2.24–5.87), and being in a casual relationship (OR 5.66, 95% CI 3.03–10.74). However, after adding associated factors and interactions, these

**Table 2** Descriptive statistics of sexual victimization in adulthood and associated factors among Chinese men and women ( $N = 898$ )

	Men ( $N = 404$ )	Women ( $N = 494$ )	
Any sexual victimization in adulthood	212 (52.5)	286 (57.9)	
Severity of sexual victimization in adulthood $M$ (SD)	1.23 (1.47)	1.65 (1.69)	$p < .001$
<i>Associated factors</i>			
Severe scores of USE before age 18 $M$ (SD)	1.27 (.90)	1.35 (.87)	NS
Binge drinking			$p < .001$
Less than weekly	234 (57.9)	408 (82.6)	
At least weekly	170 (42.1)	86 (17.4)	
Binge drinking prior to sex			$p < .001$
No/almost no	148 (36.6)	266 (53.8)	
Yes	256 (63.4)	228 (46.2)	
Hooking up history			$p < .001$
No	312 (77.2)	449 (90.9)	
Yes	92 (22.8)	45 (9.1)	
Pornography use $M$ (SD)	4.30 (1.38)	3.20 (1.46)	$p < .001$
Violent pornography use $M$ (SD)	21.66(7.29)	20.55 (8.99)	$p = .041$
Lack of perceived behavioral control of consent $M$ (SD)	14.84(5.59)	14.68 (5.90)	NS
Awareness of consent $M$ (SD)	18.48(4.93)	17.50 (5.36)	$p = .005$
Sexual refusal assertiveness $M$ (SD)	16.91(4.29)	19.77 (4.85)	$p < .001$

USE Unwanted sexual experiences

**Table 3** Correlations among sexual victimization in adulthood and associated factors

	1	2	3	4	5	6	7	8	9	10
1. Severity of sexual victimization in adulthood	1									
2. Severity of USE before age 18	0.42**	1								
3. Binge drinking	0.23**	0.15**	1							
4. Binge drinking prior to sex	0.38**	0.25**	0.42**	1						
5. Hooking up history	0.29**	0.18**	0.31**	0.22**	1					
6. Pornography use	0.17**	0.19**	0.32**	0.22**	0.29**	1				
7. Violent pornography use	0.43**	0.25**	0.29**	0.35**	0.31**	0.44**	1			
8. Lack of perceived behavioral control of consent	0.26**	0.16**	0.07*	0.09*	0.12**	0.12**	0.25**	1		
9. Awareness of consent	0.16**	0.13**	0.26**	0.30**	0.08**	0.12**	0.22**	-0.19**	1	
10. Sexual refusal assertiveness	-0.27**	-0.13**	-0.21**	-0.25**	-0.24**	-0.26**	-0.28**	-0.29**	-0.03	1

USE unwanted sexual experiences

\* $p < 0.05$

\*\* $p < 0.01$

associations became non-significant. In Model 2, all associated factors were added to test the associations between variables of interest and sexual victimization, whereas Model 3 was created to test gender differences among associations between sexual victimization and associated factors. However, as shown in Model 3, all interaction terms between gender and associated variables were non-significant, and the Model  $\chi^2$  change was also non-significant ( $\Delta\chi^2 = 12.0$ ,  $df = 9$ ,  $p = 0.215$ ). Thus, we eliminated the interaction terms (Jaccard, 2001).

The final results are shown in Model 2. After controlling sociodemographic variables included in Model 1, correlates of severity of sexual victimization in adulthood included gender (OR 3.17, 95% CI 2.30–4.40), severity of USE before age 18 (OR 2.28, 95% CI 1.92–2.73), binge drinking prior to sex (OR 2.52, 95% CI 1.83–3.49), hook-up history (OR 2.24, 95% CI 1.49–3.39), violent pornography use (OR 1.07, 95% CI 1.04–1.09), lack of perceived behavioral control of communicating consent (OR 1.04, 95% CI 1.01–1.07), and sexual refusal assertiveness (OR 0.92, 95% CI 0.89–0.95). All variables accounted for 23.7% (Nagelkerke's  $R^2 = 0.237$ ) of the variance in sexual victimization in adulthood. Thus, Hypotheses 1, 2, and 3b were supported, while Hypothesis 3a was partially supported.

## Discussion

To date, there is limited research on sexual victimization and its associated factors among the general adult population in East Asian countries, especially in China. To fill the current gaps in the literature, the present study proposed to explore sexual victimization in adulthood and its correlates among adult men and women in 29 provinces of mainland China.

Overall, a high percentage of participants (total rate, 55.5%) reported that they had experienced sexual victimization in adulthood, with 52.5% of the male and 57.9% of the female participants reporting having experienced sexual victimization at least once since the age of 18. This proportion of victimization seems to be higher than that of previous studies on intimate sexual violence in China (e.g., Fulu et al., 2013; Hu et al., 2021; Parish et al., 2007). However, most of those studies focused only on violence within participants' current intimate relationships. Since there is no available empirical research investigating sexual victimization in adulthood in the general population in China, it is difficult to compare occurrence rates. Nevertheless, considering that our research investigated experiences of sexual victimization from age 18, it is reasonable that the occurrence of sexual victimization was higher than in some previous investigations of victimization "in the past year" or "several months." Another possible explanation is that after the #MeToo movement began in 2018 in China (BBC, 2018), people developed a better understanding of sexual assault and sexual victimization due to the intense discussions of topics such as sexual harassment, sexual assault, rape, and sexual consent across Chinese society and in cyberspace.

Consistent with some studies conducted in non-Asian countries, we found no difference between men and women in overall sexual victimization rates (e.g., Hines et al., 2012; Schuster & Krahe, 2019b; Tomaszewska & Krahe, 2018). However, many previous studies showed that women reported higher rates of sexual victimization than men (e.g., Campbell et al., 2021; Krahe et al., 2021; Sutton et al., 2021). A survey of participants from 10 European countries by Krahe et al. (2015) revealed that victimization rates of men in some countries were higher than that of women, while some countries had the opposite result, suggesting that the occurrence of sexual victimization among men may vary



**Table 4** Hierarchical ordinal logistic regression analyses examining correlates of the severity of sexual victimization in adulthood (N = 898)

	Model 1		Model 2		Model 3 <sup>a</sup>	
	OR	95% CI	OR	95% CI	OR	95% CI
<i>Sociodemographics</i>						
Age (ref. 18–25 years)	1.15	0.86–1.54	0.96	0.69–1.33	0.99	0.71–1.37
Living place (ref. rural areas)	1.14	0.89–1.46	0.91	0.69–1.20	0.90	0.68–1.19
Sexual orientation (ref. heterosexual)	1.50	0.83–2.68	0.94	0.49–1.77	1.02	0.53–1.96
Education level						
Bachelor's degree (ref. high school)	0.48**	0.29–0.81	0.61	0.35–1.08	0.61	0.35–1.07
≥ Master's degree (ref. high school)	0.44*	0.23–0.85	0.71	0.34–1.48	0.72	0.35–1.50
Relationship status						
Committed (ref. single)	3.59***	2.24–5.87	1.36	0.79–2.38	1.36	0.79–2.37
Casual (ref. single)	5.66***	3.03–10.74	1.19	0.57–2.49	1.17	0.56–2.46
<i>Associated factors</i>						
Gender (ref. men)			3.17***	2.30–4.40	3.82*	1.15–12.88
Severity of USE before age 18			2.28***	1.92–2.73	2.62***	2.04–3.41
Frequent binge drinking (ref. infrequent)			1.28	0.91–1.79	1.19	0.77–1.84
Binge drinking prior to sex (ref. no/almost no)			2.52***	1.83–3.49	3.00***	1.85–4.92
Hooking up history (ref. no)			2.24***	1.49–3.39	1.79*	1.09–2.95
Pornography use			0.95	0.85–1.07	0.96	0.81–1.14
Violent pornography use			1.07***	1.04–1.09	1.04**	1.01–1.08
Lack of perceived behavioral control of consent			1.04**	1.01–1.07	1.04*	1.00–1.09
Awareness of consent			1.02	0.99–1.05	1.01	0.96–1.05
Sexual refusal assertiveness			0.92***	0.89–0.95	0.91***	0.85–0.95
<i>Interactions of gender and other associated factors</i>						
Gender × Severity of USE before age 18					0.77	0.54–1.09
Gender × Frequent binge drinking					1.11	0.55–2.24
Gender × Binge drinking prior to sex					0.77	0.40–1.48
Gender × Hooking up history					2.36	0.96–6.06
Gender × Pornography use					0.99	0.79–1.24
Gender × Violent pornography use					1.03	0.99–1.08
Gender × Lack of perceived behavioral control of consent					1.00	0.95–1.05
Gender × Awareness of consent					1.04	0.98–1.10
Gender × Sexual refusal assertiveness					1.02	0.95–1.09
Model $\chi^2$	60.0***		484.5***		496.5***	
$\Delta$ Model $\chi^2$ (Model 2 vs. Model 1; Model 3 vs. Model 2)			424.6***		12.0	
Cox & Snell's $R^2$	0.013		0.102		0.105	
Nagelkerke's $R^2$	0.031		0.237		0.242	

USE Unwanted sexual experiences, OR odds ratios, CI confidence interval

\* $p < 0.05$

\*\* $p < 0.01$

\*\*\* $p < 0.001$

<sup>a</sup>Since non-significant interactions of gender with all of other associated factors, all interactions were excluded; Model 2 is the final model

widely across countries and cultures. China's criminal law was amended in 2015 to adopt more gender-neutral wording, changing “whoever acts indecently against or insults a woman by violence, coercion or any other forcible means” to “whoever, by violence, coercion or other means, forces or molests any other person or humiliates a woman” (Standing Committee of the National People's Congress, 2015, Article,

237). This law amendment indicates that men are also legally protected as victims of sexual molestation (although Chinese law still does not admit that men can be victims of rape), thereby possibly increasing the likelihood that men recognize when they are sexual victims and report crimes more often. However, as mentioned earlier, this study used convenience sampling, recruiting participants through an online research

advertisement, which may have made participants who experienced sexual victimization interested in our survey, resulting in the sample's not effectively representing Chinese adults overall. Future studies should adopt random sampling methods to explore further the prevalence and gender differences of sexual victimization in the Chinese adult population.

We found that there were significant gender differences in the severity of sexual victimization, with women reporting more severe victimization than men, in line with some previous studies (e.g., Campbell et al., 2021; Tyler et al., 2017), suggesting that women were more vulnerable to more severe types of sexual victimization such as sexual coercion, attempted rape, and rape. There were gender differences in the associated factors of binge drinking and binge drinking prior to sex, indicating that men were more likely to use alcohol heavily in general and in sexual situations, confirming the findings of some previous studies (e.g., Cheng et al., 2015; Li et al., 2011; Thompson et al., 2014; Wang et al., 2018; White et al., 2009). Moreover, men in the present study were more likely to report hook-up history than women, consistent with previous studies in China (Yang et al., 2021; Yu & Zheng, 2020). This may indicate that women in China are influenced by the sexual double standard, which typically manifests in a more severe attitude toward women than toward men in terms of sexual behavior (Wu et al., 2021; e.g., women should not have sex with anyone outside of a non-committed or marital relationship). Women may fear the stigma associated with a history of hooking up (Conley et al., 2013). Finally, in line with the results of some studies conducted in Western countries (Romito & Beltramini, 2011, 2015; Rostad et al., 2019), men scored significantly higher on overall pornography use and viewing violent pornographic materials than women, which may show cross-cultural consistency.

Our results showed that women reported higher scores for sexual refusal assertiveness than men, which may be consistent with "men [being] the initiator of sexual behavior and women [being] gatekeeper" in the traditional heterosexual script (Vannier & O'Sullivan, 2011). In this kind of sexual script, women are more responsible than men for accepting or rejecting sex, which may prompt women to develop a higher level of assertiveness in sexual refusal than men. Interestingly, our results showed that men scored higher in awareness and discussion of consent than women, which was inconsistent with the results of a previous study that did not find gender differences (Humphreys & Herold, 2007). This may be because Chinese men's awareness of sexual consent was to some extent inspired by the #MeToo movement that started in early 2018 in China (Fincher, 2018). In that online campaign against sexual violence, those accused of being perpetrators were overwhelmingly men (Ling & Liao, 2020). Men may be more likely to be prompted to consider or discuss consent issues in sexual activities to avoid related legal liabilities or accusations. However, our study did not

investigate whether the awareness of sexual consent was positive or negative. Future research could further explore the influence of the Chinese anti-sexual assault atmosphere on men's sexual consent attitudes.

The first main aim of the current study was to examine the association of USE before age 18 and sexual victimization in adulthood among Chinese men and women. In general, the severity of USE before age 18 was positively correlated with the severity of sexual victimization in adulthood. Men and women with more severe USE before age 18 reported more severity of sexual victimization in adulthood, in line with findings in non-Asian countries (D'Abreu & Krahé, 2016) and results from a household research study in Hong Kong (Chan, 2011). Specifically, we found that for each unit increase in the severity of USE before age 18, the severity of sexual victimization in adulthood increased 2.28 times. This may be because childhood adverse sexual experiences produce a series of negative outcomes, such as lower sexual self-esteem (Krahé & Berger, 2017a; Schuster & Krahé, 2019b), attachment anxiety (Reese-Weber & Smith, 2011), and risky sexual behaviors (Bramsen et al., 2013; Krahé & Berger, 2017a). These factors may cause individuals to have difficulties in communication, intimacy, and sexual function (DiLillo et al., 2001) and, in turn, increase the risk of future revictimization. The interaction between gender and the severity of USE before age 18 was non-significant, which indicated that there was no gender difference in the association between the severity of USE before age 18 and sexual victimization in adulthood. These findings were consistent with some previous results in non-Asian countries, in which significant associations between childhood sexual abuse and sexual victimization were found in both men and women, and gender difference was not found in these associations (D'Abreu & Krahé, 2016; Krahé & Berger, 2017a). However, Krahé and Berger's (2017a) study found gender differences in the correlation between childhood sexual abuse and sexual victimization in the last 12 months, with men's coefficient significantly higher than women's coefficient. We could not compare our results with theirs because we did not investigate sexual victimization in the last year or collect longitudinal data. Future research should further explore possible gender differences and impact pathways in the relationship between early adverse sexual experiences and sexual victimization in adulthood in Chinese populations. It should be mentioned that in our study, adverse sexual experiences in childhood specifies unwanted sexual acts performed by adults before the age of 18, which may differ from the operational definition and terminology of some of the above studies and thus requires a conditional comparison of results with some previous studies.

The second goal of our study was to explore the association between potential risky sexual behaviors and sexual victimization in adulthood. We found that binge drinking

prior to sex was a correlate of sexual victimization in adulthood for both Chinese men and women, which was consistent with some previous well-performed studies (e.g., Abbey et al., 2004; Kuyper et al., 2013; Li et al., 2010; Lorenz & Ullman, 2016; Tyler et al., 2017), indicating the cross-cultural consistency of this finding. As a correlate of sexual victimization, binge drinking prior to sex may affect individuals' judgment and decision-making regarding sexual intercourse and reduce their ability to resist sexual assault. Moreover, our results suggested that participants with a history of hooking up reported 2.24 times the severity of sexual victimization than their peers without such history. This finding was generally in accordance with previous findings that casual sex was a risk factor for both men and women (Tyler et al., 2017). The non-significant interaction between gender and hook-up history showed no gender difference in the association between hook-up history and the severity of sexual victimization, which was also consistent with the findings of Tyler et al (2017). Because hooking up may occur in conjunction with alcohol consumption (Tyler et al., 2017), men and women with a history of both hooking up and binge drinking prior to sex may be more likely to experience sexual victimization, which needs to be explored in future studies.

Additionally, violent pornography use was a correlate for both men and women; for each unit increase in violent pornography use, the severity of sexual victimization in adulthood increased 1.07 times. The association between violent pornography use and sexual victimization in female participants was consistent with some previous studies in non-Asian countries (e.g., Rodenhizer & Edwards, 2019; Romito & Beltramini, 2011; Simons et al., 2012; Ybarra et al., 2014). This may be because women exposed to pornography and violent pornography are more likely to accept the rape myth (Davis et al., 2006), adhere to traditional gender role attitudes (Brown & L'Engle, 2009), and have delayed behavioral responses to a sexually risky situation (Franklin, 2008). The link between violent pornography use and sexual victimization in adulthood among men was also expected, because some items about sexual victimization measure unwanted sexual behaviors that occur in situations of continual arguments and pressure (Testa et al., 2004), which may be related to risky sexual scripts for men, as described in a previous study (D'Abreu & Krahé, 2016). Pornographic materials usually include content that reinforces the sexual scripts and norms about "men's never-ending pursuit of sex" (Ward, 2003) and how "guys always want sex" (Jozkowski & Peterson, 2013), which aim to highlight their masculinity. Pornographic content may impact the social construction of masculinity by reinforcing the idea that "men can't say no to sex" and that "refusing sex" is "not manly enough" (D'Abreu & Krahé, 2016; Dines, 2010). Such social constructs may make men less assertive about refusing unwanted sex. The depiction of hypermasculinity in violent pornographic

materials may intensify this pattern. Unlike most industrial countries, any form of pornography distribution is illegal in China (Chen et al., 2015; Lo et al., 2013). From the government's point of view, pornographic materials harmfully affect people's physical and mental health and corrupt social morality (Chen et al., 2015; Reuters, 2014). Accordingly, individuals are less likely to be inadvertently exposed to pornographic materials on the Chinese Internet, and viewing such materials implies that individuals have proactively searched for them through anonymous networks. Based on this, participants who actively searched for and viewed violent pornographic materials may be more likely to incorporate violent patterns into their own sexual scripts, thus forming risky sexual beliefs. Therefore, in our study, those men were more likely to experience victimization when faced with unwanted sex.

Our results showed that the lack of perceived behavioral control of communicating consent was a correlate of sexual victimization in adulthood among both men and women, indicating that the more difficulty participants felt in communicating consent in a sexual situation, the greater their likelihood of experiencing sexual victimization. This may be because ambiguous communication of sexual consent is linked to a greater risk of sexual misunderstanding (Walsh et al., 2021). Although the party who initiates a sexual advance should follow "no means no" and "yes means yes" as the standard for agreeing to sexual acts, individuals who have difficulty communicating their sexual consent or non-consent may be at a greater risk of engaging in unwanted sex. This suggests that the development of sexual consent education policies is extremely urgent in China, which has a long-standing patriarchal system in which women have been considered the property of their fathers or husbands (Luo, 2021, p. 6). For example, in late Imperial China, sexual assault within marriage was legally impossible because the wife had to submit to the sexual demands of her husband (Sommer, 2000, p. 40). Moreover, if a man sexually assaulted a woman within a non-marital relationship, the man would not be punished by law if he married the woman. Although the people of contemporary China are increasingly aware of gender equality, and sex and marriage in China are in an era of transition (Cao et al., 2019; Pan, 2004), before the #MeToo movement, the issue of sexual consent was discussed less frequently. In recent years, along with the #MeToo movement in China (BBC, 2018), sexual consent has received much attention and heated discussion, and the concept of affirmative consent and the slogans "no means no" and "yes means yes" have been explored and supported by some women's protection associations, legal scholars, feminists, and social activists in some regions of China (Cheng, 2019; Guo, 2020; Modern Women's Foundation, 2017; Wei, 2012). Unfortunately, there are still few measures for sexual consent education in China, which is an issue that deserves official attention, as proper sexual consent education may be important in

filling the knowledge gap many individuals have about sexual assault and sexual consent communication.

In addition, our results revealed that sexual refusal assertiveness was a correlate of sexual victimization, supporting the findings of previous studies that a low level of sexual assertiveness was significantly related to sexual victimization and compliance (e.g., Darden et al., 2019; Krahe & Berger, 2017b; Schuster & Krahe, 2019b; Tomaszewska & Krahe, 2018), indicating cultural consistency in our findings. The non-significant association between awareness of sexual consent and sexual victimization was in line with the result in a previous study (Kilimnik & Humphreys, 2018), suggesting that awareness of consent was not a correlate of sexual victimization in our sample. Since we did not measure the chronological order between sexual consent awareness and sexual victimization, we could not infer whether the former was influenced by the latter retrospectively. Further longitudinal research is needed to examine whether participants will experience less sexual victimization after they have awareness of sexual consent.

Some limitations in our study affect its generalizability and transferability and suggest directions for future research. First, due to the difficulty of collecting longitudinal data from the general adult population in China, our data were cross-sectional, meaning that the directionality between variables could not be derived. To date, several longitudinal studies on sexual victimization among college students in non-East Asian countries have been performed (e.g., D'Abreu & Krahe, 2016; Schuster & Krahe, 2019b; Tomaszewska & Krahe, 2018); future longitudinal studies on sexual victimization need to include samples of general adults in East Asia countries, especially in China. Second, our participants were recruited through convenience sampling, which may have led to a self-selected study sample, thereby reducing the representativeness of the findings. Because the participants were told that the purpose of the survey was to investigate their sexual experiences and related attitudes, people who had experienced sexual victimization may have been more interested in our survey. Because our data were collected online, some people with lower levels of education, those living in economically underdeveloped areas, and those who had difficulty accessing the Internet may not have had the material resources to participate in our study, even though they may have experienced sexual victimization (e.g., Chan et al., 2009; Gao et al., 2011). Third, participants' reports of sexual victimization were retrospective, which may have caused a retrospective bias in the proportion of sexual victimization. Future short-term longitudinal research may make up for this issue to a certain extent. Fourth, several of the associated variables were assessed by single items (i.e., overall binge drinking, hook-up history, and overall pornography use), which may lack reliability compared to well-established multi-item scales. Provided that participants do not suffer

from cognitive fatigue from answering too many items, future studies should consider a more rigorous approach in which more established scales are used to measure these factors to increase reliability. The response options we used for violent pornography use may not be clear enough (e.g., *never, rarely, occasionally, always*, etc.) because we did not ask for the specific frequency of viewing, which may lead to biases in participants' understanding of these options. It may be better for future studies to use specific viewing frequency options, such as *never, monthly, weekly, daily, several times a day*. Finally, our study did not investigate the gender of perpetrators of sexual victimization in adulthood and the relationship between participants and perpetrators; thus, we cannot classify sexual victimization as sexual victimization within intimate relationships or caused by non-partners, nor can we identify whether sexual victimization was caused by same-sex or opposite-sex perpetrators. Future research should continue to explore specific information about perpetrators of sexual victimization.

Despite these limitations, we believe that our results will be valuable for sexual assault prevention projects in China and in crafting related legislation under the global trend of combating sexual crimes. To the best of our knowledge, this study is the first to explore sexual victimization in adulthood and its associated factors among a Chinese general sample, which might assist in filling the gap in information on sexual victimization in adulthood in China. This study investigated sexual victimization among both men and women. The rates of sexual victimization in adulthood were high in our sample and in general, there were no gender differences, challenging the Chinese notion that sexual victimization affects only women. In China, male sexual victimization is not adequately protected by law; the results of our research show that male sexual victimization should also be taken seriously and men should be protected against it. Laws and policies on sexual violence should be more gender-neutral (Zhu & van der Aa, 2017), and anti-sexual assault social discourse and educational policies should push against the idea that "only women can be victims," which may negatively impact men's awareness and perception of sexual victimization.

For the first time in a Chinese sample, our study explored the associations between USE before age 18, binge drinking prior to sex, hook-up history, violent pornography use, perceived behavioral control of communicating consent, sexual refusal assertiveness, and sexual victimization in adulthood. Our findings showed that the first five factors were positive correlates of sexual victimization in adulthood, and that sexual refusal assertiveness was a negative correlate of sexual victimization among Chinese men and women. These results also suggest some points of focus for sex education and sexual assault prevention programs in China.

Preventing adverse sexual experiences in early life may be an effective way to reduce vulnerability to sexual

victimization in adulthood. The Chinese judiciary should further combat sexual assault against minors; society, schools, and parents should focus on sex education for children and rethink policies based on a culture of asceticism, rather than treating it as embarrassing or something that should wait until children enter intimate relationships (Li et al., 2009; Liu et al., 2017). Although there have been some discussions about raising the age of sexual consent in China (Zhu, 2020), discussions of what sexual consent is and how to communicate it are still very limited. Sexual consent education and sexual assault prevention programs in schools, colleges, and various institutions are indispensable.

Moreover, we suggest that sexual consent education under the increasingly widespread drinking culture in China should include proper guidance about sexual communication and decisions after alcohol consumption. For example, sexual consent education should point out that co-drinking and intoxication do not mean consent, and that hook-up behavior and alcohol use in sexual situations may increase vulnerability to sexual victimization. It is also important to discuss publicly the influence of alcohol use in sexual communication, judgments, and decision-making, which may provide a more open environment for discussing sexual topics in Chinese society.

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**Availability of data and materials** The data are not publicly available as they contain information that could compromise research participant privacy and consent.

## Declarations

**Conflicts of Interest** The authors have no relevant financial or non-financial interests to disclose.

**Ethical Approval** This study was conducted in accordance with the Declaration of and approved by the Ethics Committee of the Faculty of Psychology of Southwest University.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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