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Gender-Related Differences in Associations Between Sexual Abuse and Hypersexuality

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Abstract

Background: Individuals with histories of sexual abuse may be more likely to experience sexual-related problems including hypersexuality, but gender-related differences remain unclear.

Aim: This online study examined sexual abuse history and hypersexuality by gender among 16,823 Hungarian adults, adjusting for age, sexual orientation, relationship status, education, employment status, and residence.

Methods: An online questionnaire on one of the largest Hungarian news portals advertised this study examining sexual activities in January 2017. 3 categorizations of age-related sexual abuse were examined: child sexual abuse (CSA) occurring at age 13 and earlier (compared to no abuse), adolescent/adult sexual abuse (AASA; compared to no abuse), and CSA and AASA (CSA/AASA; compared to one age-related category of abuse or the other).

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STATEMENT OF AUTHORSHIP

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Outcomes: The outcome variable, hypersexuality, was examined as a continuous variable due to the low prevalence of clinical hypersexuality in this sample. 3 multivariate linear regression analyses adjusting for covariates aimed to predict hypersexuality from each category of abuse, along with gender and its interaction with each category.

Results: In all models, younger age, non-heterosexual sexual orientation, male gender, single relationship status, less than full-time work, and living in a capital city were associated with hypersexuality, and education was not a significant predictor. CSA, AASA, and CSA/AASA predicted hypersexuality in both men and women. There was a significant interaction between CSA/AASA and gender, such that the relationship between CSA/AASA and hypersexuality was stronger in men than in women.

Clinical Translation: Sexual abuse at each developmental time-point may influence hypersexuality among men and women, although the cumulative impact of CSA and AASA on hypersexuality may be particularly relevant among men.

Strengths & Limitations: This is one of the largest studies to examine gender-related differences in the relationship between sexual abuse and hypersexuality. Nevertheless, our study is cross-sectional, and longitudinal work is needed to determine how sexual abuse affects children, adolescents, and adults throughout their lives.

Conclusion: Developmental impacts of sexual abuse may be considered in a gender-informed fashion in order to develop and optimize effective prevention and treatment strategies for hypersexuality.

Keywords

Hypersexuality; Childhood Sexual Abuse; Adolescent/Adult Sexual Abuse; Gender; Victimization; Compulsive Sexual Behavior Disorder

INTRODUCTION

Histories of sexual abuse have been linked to problematic sexual behaviors, including hypersexuality (also termed compulsive sexual behavior [CSB], sexual compulsivity, sexual impulsivity, out-of-control sexual behavior, or sexual addiction).^{1,2} Hypersexuality consists of sexual behaviors, preoccupations, and urges that persist despite repeated and prolonged attempts to control or reduce the amount of time spent engaging in such acts, resulting in clinically significant distress or adverse consequences.³ Hypersexuality commonly involves “socially acceptable,” or “normophilic” activities, including masturbation, pornography use, and sex with multiple anonymous partners, but these behaviors are typically extreme in frequency and/or intensity in a manner leading to distress or interference with personal, interpersonal, or vocational pursuits.⁴ Consequences of hypersexuality may include risky sexual behaviors, unwanted pregnancies, sexually transmitted infections including HIV, and experiencing non-sexual attacks or robberies.⁵⁻⁸ Additionally, hypersexuality is associated with a range of psychiatric comorbidities including mood and anxiety disorders, as well as substance use disorders, gambling disorder, and compulsive buying disorder.⁹⁻¹²

Multiple theories have been proposed to explain links between sexual abuse and CSB. Neurologically, sexual abuse may “blunt” right hemispheric brain function, impairing insight, emotional regulation, and tendencies promoting interpersonal connections.¹³ According to the traumagenic dynamics model,¹⁴ sexual abuse survivors may develop problematic “sexual scripts” that shape their beliefs and guide their decisions regarding sexual behaviors.¹⁵ Attachment theories posit that individuals develop internal working models from their early experience with caretakers influencing their self-concept and subsequent sexual behaviors.¹⁶ Other theorists have suggested that child sexual abuse (CSA) survivors may use sex as a means of attempting to take back control lost in childhood.¹⁷ Lastly, some CSA survivors may engage in frequent sexual encounters as a means of regulating psychological distress and coping with trauma-related symptoms.¹⁸

Some of the earliest work examining links between sexual abuse, including CSA, and hypersexuality are reports of sexual victimization among individuals in the treatment for sexual addiction. For instance, Carnes and Delmonico¹⁹ found that among 290 men and women in the treatment for sexual addiction, 78% reported CSA. Another study of 539 self-identified “sex addicts” also found that 78% of individuals were CSA survivors.²⁰ Additionally, as indicated in a recent review,¹ studies have found positive links between sexual abuse and hypersexual behavior among general community samples,²¹ men who have sex with men,²² individuals incarcerated for sexual offenses,²³ individuals with sexual trauma,²⁴ U.S. military veterans,²⁵ and university students.²⁰ In this work, there is a wide range of estimates for correlations between sexual abuse and hypersexuality, partly due to differences in measurements of both hypersexuality and sexual abuse across studies.¹ Multiple measures of hypersexuality exist,²⁶ with some studies defining it subjectively or continuously and others focusing only on individuals who meet a suggested threshold or criteria for disordered behavior. Estimates of hypersexuality have been reported to range from approximately 3% to 6% of U.S. adults,²⁷ with some authors reporting hypersexuality in 3% of men and 1% of women.²⁸ Recently, in nationally representative samples of U.S. adults, “clinically relevant levels of distress and/or impairment associated with difficulty controlling sexual feelings, urges, and behaviors” have been reported in 8.6% of individuals, and “sexual impulsivity” in 14.7%.^{29,30} In addition, there are vast differences in the definitions for sexual abuse, particularly concerning CSA,³¹ largely dependent on the specific behaviors considered (contact vs non-contact, touching vs penetration, etc) and the ages at which such events were experienced.^{1,32,33}

Additionally, although sexual abuse survivors may be at a greater risk than the general population of developing hypersexuality, they are also more prone to developing other sexual concerns, including sexual abuse perpetration, shame, guilt, and anxiety during sexual arousal, decreased sexual desire, dissociation, and orgasm and arousal disorders.^{34–38} The 2 major pathways, sexual avoidance and sexual compulsivity, commonly attributed to CSA can also vacillate at separate times over the course of an individual’s life.³⁹ Response differences may relate to moderating variables, including gender, age of sexual abuse, and revictimization. For instance, research suggests that men more often engage in externalizing behaviors such as hypersexuality and risky sexual behaviors after CSA⁴⁰ while women commonly display internalizing behaviors, including sexual avoidance or sexual ambivalence.^{2,35} There are several possible explanations for these gender differences,

including societal influences on traditional gender norms and socially acceptable behaviors, which may not only influence the behaviors in which individuals engage, but also the behaviors they report.⁴¹ Additionally, women may be more likely than men to report penetrative abuse and abuse by a family member.^{35,42} As abuse perpetrated by a family member, such as a child's biological father, may be conducted in the absence of physical force or violence, it may prevent the child from understanding the real power differential that exists between the child and adult, leading the child to engage in more self-blame and confusion surrounding sexual arousal, leading to sexual ambivalence.²⁴ Boys also tend to be molested at younger ages than girls since they may be better able to defend themselves in adolescence than girls,² and younger children such as preschoolers (children younger than age 6) often engage in inappropriate sexual "acting out" in response to CSA, which may be a precursor to hypersexuality.^{2,43} Lastly, some researchers have suggested that gender differences may reflect skewing, given more studies having been conducted on CSB among men.^{22,44}

Regarding age of sexual abuse, most research has focused on early CSA, rather than adolescent/adult sexual abuse (AASA) and its specific impact on hypersexuality. Individuals sexually abused in adolescence rather than early childhood may be more prone to develop sexual avoidance than hypersexuality, with 1 study finding that no adolescents displayed externalizing sexualized behavior, and that almost half of the adolescents reacted to their abuse by withdrawing, nearly 5 times the rate at which preschoolers withdrew.^{2,45} Consistently, a study of men who experienced sexual abuse as adolescents or adults appeared to experience more erectile dysfunction than men without an abuse history.⁴⁶ More work is needed to address the effects of sexual assault in adolescence and adulthood on sexual functioning, not only limited to hypersexuality.

Lastly, another related but distinct topic is the potential cumulative impact of CSA and AASA on hypersexuality. Research has suggested that adult sexual victimization is common among CSA survivors, but much research has focused on relatively smaller samples, often consisting of college women.⁴⁸⁻⁵⁰ Additional insights on the likelihood of revictimization, in general, could be gained from studying larger, diverse samples of men and women. Furthermore, there is a scarcity of research on the relationship between revictimization and hypersexuality. One study found links between revictimization and the likelihood of sexual preoccupation.⁵⁰ Another study offered a potential explanation for this relationship, suggesting that having sex more frequently, especially risky sex, may increase the likelihood of encountering a coercive sexual partner.⁶ Thus, there may be a circular relationship between CSA leading to hypersexuality or risky sexual behavior in adolescence or adulthood, which could in turn lead to a greater probability of sexual revictimization. More research is needed to better understand this relationship.

With these questions in mind, this online study examined associations between sexual abuse and hypersexuality by gender among 16,823 Hungarian adults. Specifically, 3 categorizations of age-related sexual abuse were examined: CSA occurring at age 13 and younger (without AASA), AASA occurring at age 14 and older (without CSA), and both CSA and AASA. We administered a validated scale to assess hypersexuality, the Hypersexual Behavior Inventory (HBI).⁵¹ We examined hypersexuality as a continuous

variable due to the fact that sensitivity and specificity analyses on the HBI in this sample were unable to determine a clinical threshold score given the low prevalence of clinical hypersexuality.⁵² We hypothesized significant positive links between each age-related category of sexual abuse with hypersexuality for both men and women. We hypothesized that each of these relationships would be stronger in men as compared to women, as determined through moderation analyses. Additionally, we adjusted for age, sexual orientation, relationship status, education, employment status, and residence in each of our analyses. Based on current research regarding demographic factors and hypersexuality, we hypothesized that younger, non-heterosexual, single males with lower education and levels of employment living in a major city would report greater hypersexuality.^{21,53}

METHOD

Participants

The present study was approved by the institutional review board of Eötvös Loránd University following the Declaration of Helsinki.⁵³ An online questionnaire on 1 of the largest Hungarian news portals advertised this study examining sexual activities in January 2017 (https://osf.io/hxj5q/?view_only=203035477bbd498eaa9108bd49755d1f). Prior to enrollment, consent was obtained from participants aged 18 years and older before they began completing the questionnaires. Participants received detailed information about the study aims (ie, investigation of sexual habits and behaviors of people), and were assured of anonymity and confidentiality before providing informed consent. In addition to standard demographic questions (eg, age, gender, education level) and the main variables of interest assessed in this study (self-reported sexual abuse and hypersexuality), further topic-relevant questions were asked.⁵⁴ These included number of sexual partners, frequency of sex with partners, relationship and sexual satisfaction, and frequency of masturbation and pornography viewing. The online questionnaire completion took approximately 30 minutes. Out of 24,372 participants, 16,823 completed the HBI and sexual abuse questionnaires in their entirety and were thus included in analyses.

Measures

Demographics—Demographics included in this study were gender (male vs female), age, sexual orientation (heterosexual vs nonheterosexual), relationship status (single vs married/in a relationship), education (primary school, or less than primary school, vocational school, high school, college, or university), employment status (full time or less than full time), and residence (capital city vs other).

Sexual Abuse—Sexual abuse was assessed through the Sexual Abuse History Questionnaire, a scale developed by Leserman et al,⁵⁵ based on a prior measure from Badgley et al.⁵⁶ This scale asked 6 questions (described below), with options for “yes” or “no” responses for CSA (13 and younger; Kuder-Richardson formula 20 = 0.59) and AASA (14 and over; Kuder-Richardson formula 20 = 0.67). Endorsement of any 1 of the 6 items was scored as a positive response. Analyses were conducted on individuals who endorsed CSA (without AASA), AASA (without CSA), or both CSA and AASA. The questions were, “Has anyone ever exposed the sex organs of their body to you when you did not want it?”;

“Has anyone ever threatened to have sex with you when you did not want it?”; “Has anyone ever touched the sex organs of your body when you did not want this?”; “Has anyone ever made you touch the sex organs of their body when you did not want this?”; “Has anyone ever forced you to have sex when you did not want this?”; “Have you had any other unwanted sexual experiences not mentioned above?”. The Sexual Abuse History Questionnaire was translated into Hungarian on the basis of Beaton et al’s protocol.⁵⁷

HBI—Hypersexuality was measured with the HBI,⁵⁸ a 19-item assessment that measured 3 aspects of sexual behavior, including (i) control over sexual thoughts, urges, and behavior (eg, “I engage in sexual activities that I know I will later regret”), (ii) negative consequences relating to sexual urges, thoughts, and behaviors, such as interfering with important tasks, studies, or work (eg, “My sexual thoughts and fantasies distract me from accomplishing important tasks”), and (iii) using sex to cope with negative affect (eg, “Doing something sexual helps me cope with stress”). The HBI has demonstrated high validity and reliability in clinical⁵¹ and non-clinical⁵⁹ samples. Items were assessed on a 5-point Likert scale ranging from 1 (never) to 5 (very often) with possible scores ranging from 19 to 95 with 53 regarded as the threshold for hypersexuality, based on a sample of men.⁵⁸ In this current sample, we assessed hypersexuality as a continuous variable due to the fact that sensitivity and specificity analyses were unable to determine a clinical threshold score given the low prevalence of extreme hypersexuality.⁵² Cronbach’s alpha was 0.90 in the current study.

Sexual Functioning Descriptive Variables—Participants were also queried on a number of different sexual functioning variables including single items assessing individuals’ relationship status, endorsement of having a casual sexual partner in the past year, objective and subjective frequency of sex with participants’ relationship partners and casual partners, and average number of life sex partners. Additionally, the Hypersexual Behavior Consequences Scale (HBCS)⁶⁰ was used as a measure of the consequences of hypersexuality. Items on the HBCS query consequences associated with work, educational activities, commitment, legal, health, self-esteem, well-being, and social problems due to engagement in sexual activities. There are 22 items with scores on each: 1 = “hasn’t happened and is unlikely to happen,” 2 = “hasn’t happened but might happen,” 3 = “hasn’t happened but will very likely happen,” 4 = “has happened once or twice,” and 5 = “has happened several times.” The HBCS has demonstrated internal consistency, test-retest reliability, and convergent and discriminant validity in a clinical sample of hypersexual men and women.⁶⁰ Scores range from 22 to 110. Cronbach’s alpha was 0.89 in the current study. Table 1 provides descriptive information for each of these sexual functioning variables stratified by each sexual abuse category.

Analytic Plan

First, we used Welch’s *t*-tests to examine whether there were significant differences in hypersexuality across the following groups and by gender: CSA (vs no abuse), AASA (vs no abuse), and both categories of abuse (compared to 1 age-related category of abuse or the other). 3 separate linear regression analyses were conducted to confirm relationships between CSA, AASA, and both categories of sexual abuse, along with gender, and its interaction with each category of sexual abuse. In each equation, we adjusted for gender,

age, sexual orientation, relationship status, education, employment status, and residence. Due to multiple analyses, we used Bonferroni corrections so that the new P value consisted of the original α of 0.05 divided by the number of comparisons (9): (α altered = $0.05/9$) = .006.

RESULTS

Descriptive Information

In the sample of 16,823 individuals, 11,191 (66%) were male, 5,529 (32%) were female, and 103 (0.6%) did not specify a gender. Participants were aged between 18 and 76 years, ($M_{\text{age}} = 33.26$, $SD_{\text{age}} = 10.95$). 14,099 individuals (83.8%) identified as heterosexual while 2,724 (16.2%) identified as non-heterosexual. 4,599 (26%) reported being single, while 12,224 (71%) reported being in a relationship or married. 458 participants (2.7%) endorsed having a primary school degree or less, 688 (4.1%) reported having a vocational degree, 5,459 (32.4%) reported having a high school degree, and 10,218 (60.7%) reported having a degree in higher education (eg, bachelor's, master's, or doctorate). 1,954 (65.1%) participants reported working full time, while 5,869 (34.9%) reported working less than part time. 9,078 (54.0%) reported living in the capital city, while 7,745 (46.0%) reported living elsewhere such as a town or village.

Among the sample of 16,823 individuals, 1,202 (7.1%) endorsed CSA (without AASA), including 6.0% of men and 9.4% of women. 3,399 (20.2%) endorsed AASA (without CSA), including 14.1% of men and 32.4% of women. 1,630 (9.7%) endorsed CSA and AASA, including 4.3% of men and 20.6% of women. Table 2 provides numerical and percentual information of people who endorsed CSA (with or without AASA) and AASA (with or without CSA), which were not included in the analyses.

Group Differences in Hypersexuality Across Sexual Abuse Categories

See Table 3 for Welch t -tests results examining differences in hypersexuality across CSA, AASA, and CSA/AASA by the entire sample, and by gender. Individuals who endorsed CSA in comparison to no sexual abuse reported significantly greater hypersexuality across the entire sample (Cohen's $D = 0.07$) and among both men (Cohen's $D = 0.19$) and women (Cohen's $D = 0.11$). Individuals who endorsed AASA in comparison to no sexual abuse reported significantly greater hypersexuality across the entire sample (Cohen's $D = 0.17$) and among both men (Cohen's $D = 0.29$) and women (Cohen's $D = 0.31$). Welch t -tests revealed that individuals who endorsed both AASA and CSA in comparison to one or the other reported significantly greater hypersexuality generally (Cohen's $D = 0.34$) and among both men (Cohen's $D = 0.34$) and women (Cohen's $D = 0.09$).

Multivariate Linear Regressions

CSA and Hypersexuality—The first multivariate linear regression predicting hypersexuality from CSA, gender, and their interaction, adjusting for covariates, was significant; $F(9, 11,611) = 96.96$, $P < .001$, with an R^2 of 0.070. In all equations younger age, non-heterosexual sexual orientation, male gender, single relationship status, less than full-time work, and living in a capital city were associated with hypersexuality, and

education was not a significant predictor. CSA ($B = 0.068, P < .001$) was significant, but the interaction of CSA \times Gender ($B = -0.023, P = .071$) was not significant. Follow-up analyses with gender as the selection variable indicated CSA significantly predicted hypersexuality among both men ($B = 0.056, P < .001$) and women ($B = 0.062, P < .001$).

AASA and Hypersexuality—The second multivariate linear regression predicting hypersexuality from AASA, gender, and their interaction, adjusting for covariates, was significant; $F(9,13,721) = 127.266, P < .001$, with an R^2 of 0.077. AASA ($B = 0.107, P < .001$) was significant, but the interaction of CSA \times Gender ($B = 0.001, P = .944$) was not significant. Follow-up analyses with gender as the selection variable indicated AASA significantly predicted hypersexuality among both men ($B = 0.088, P < .001$) and women ($B = 0.153, P < .001$).

CSA/AASA and Hypersexuality—The third multivariate linear regression predicting hypersexuality from CSA/AASA, gender, and their interaction, adjusting for covariates, was significant; $F(9, 6,039) = 87.843, P < .001$, with an R^2 of 0.116. CSA/AASA ($B = 0.130, P < .001$) as well as the interaction of CSA/AASA \times Gender ($B = -0.076, P = .001$), were significant. Follow-up analyses with gender as the selection variable indicated AASA significantly predicted hypersexuality among both men ($B = 0.109, P < .001$) and women ($B = 0.061, P < .001$).

DISCUSSION

This study established a significant, positive, and weak association between sexual abuse (CSA, AASA, CSA/AASA) and hypersexuality and some gender-related differences in this association among 16,823 non-clinical Hungarian adults. This is one of the largest studies to examine these relationships in adults. Additionally, this population-based sample offers a distinct perspective from analyzing individuals in treatment who may have differences in characteristics related to their treatment seeking motivations and tendencies.^{12,61,62} We formulated several hypotheses for our study. First, we hypothesized that each of the 3 categories of sexual abuse would relate positively to hypersexuality in both men and women. Second, we hypothesized that these positive relationships would be stronger in men than in women, as demonstrated by moderation analyses. Regarding demographic covariates, we hypothesized that younger, non-heterosexual, single males with lower education and levels of employment living in a major city would report greater hypersexuality.^{21,53} The findings partially supported our hypotheses. Specifically, we found that hypersexuality was positively associated with CSA, AASA, and CSA/AASA among both genders. Regarding gender differences, the only significant interaction was between CSA/AASA and gender, with both types of abuse versus one or the other more strongly impacting hypersexuality in men than in women. Regarding demographics, all hypothesized covariates except for education were associated with hypersexuality, consistent with prior literature. These findings are discussed in greater detail below.

First, frequencies of CSA and AASA in our study appear to be higher in this sample than among the general population. For instance, the percentage of CSA (with or without AASA) was 16% among the total sample (30% in women and 10% in men). Although there is a

dearth of research on prevalence rates of CSA in Hungary, a meta-analysis of 323 self-report studies worldwide, featuring a total of 9.9 million abused children, estimated the worldwide incidence of CSA to be 12.7% (18.0% for girls and 7.6% for boys).⁶³ Nevertheless, most of the studies in this review focused on contact offenses. We chose to include both contact and non-contact offenses for CSA and AASA in our study as both have associations with negative mental health outcomes.⁶⁴ In a systematic review and meta-analysis of 9 studies involving non-contact CSA, the authors found pooled prevalence estimates of 17% for boys and 31% for girls under 18 years of age.⁶⁵ There has been less research on self-reporting of lifetime AASA and its clinical implications. One systematic review of 113 studies covering 27 countries in Europe examining sexual assault (some including non-contact offenses) covering individuals with an age range 13–25 years found substantial variability in prevalence estimates, ranging from 9% to 83% in women and 2–66% in males.⁶⁶ More large-scale research is needed on prevalence estimates of non-contact and contact sexual victimization of adults throughout their lifetimes (past age 25) and its effects on sexual behavior.

Second, in this current sample, all categories of abuse were related to hypersexuality across men and women. Nevertheless, significant relationships in our study may be influenced by the large sample size, as effect sizes were small. More stringent measures may be necessary to ensure that the criteria of clinical hypersexuality are met, but it is also important that the recommended thresholds for considering hypersexuality are accurate and reliable across genders. As Reid et al.'s⁵⁸ initial validation study examining the psychometric properties of the HBI was performed on a sample of men, future work should investigate a more optimal threshold for men and women. Regarding the similar relationship between CSA and hypersexuality across men and women, our findings are consistent with a recent systematic review of the relationship between CSA and hypersexuality that did not reveal major gender differences.¹ Thus, it is important for clinicians to consider hypersexuality as a consequence of CSA for a target of treatment in women in addition to sexual avoidance behaviors.^{67,68}

AASA (without CSA) positively predicted hypersexuality among men and women. These findings seemingly contrast those suggesting that individuals sexually abused at later ages, including adolescence, are more likely to develop sexual avoidance or dysfunction,^{45,46} although these types of behaviors were not tested for specifically in this study. Given the cross-sectional nature of the study, the precise nature of the relationship remains unclear, that is, whether AASA leads to hypersexuality, hypersexuality to AASA, or other possibilities including shared determinants. Along with work by Griffee et al.,⁶ the findings may suggest that having sex more frequently, especially risky sex, may increase the likelihood of encountering a coercive sexual partner. Additionally, there may exist significant differences in the developmental impacts of sexual abuse on younger vs older adolescents and adults, and future studies should examine the impact using finer measures of AASA and longitudinal designs.

Among men and women, both CSA and AASA were more likely to statistically predict hypersexuality than either CSA or AASA alone. However, the interaction between gender and CSA/AASA was statistically significant, such that the relationship between cumulative abuse and hypersexuality was stronger in men. Although research has documented the

effects of multiple forms of abuse on trauma symptoms, less work has focused on its impact on hypersexuality. One study⁶⁹ found that multiple traumas, including CSA, adult sexual assault, and spouse abuse, had a greater impact on trauma symptoms,⁷⁰ which includes a range of sexual behaviors (eg, sexual overactivity, bad thoughts or feelings during sex, sexual feelings when you should not have them). Another recent study⁷¹ found that CSA and sexual or physical assault in adulthood each contributed uniquely to adult veterans' development of post-traumatic stress symptoms and that experiencing multiple types of victimization increased the likelihood of negative outcomes more than experiencing only 1 or 2 types among men and women. These findings also suggest that in clinical settings, particularly for men, when assessing and treating hypersexuality, it may be crucial to assess thoroughly all episodes of sexual abuse throughout a person's lifetime. Multiple types of trauma may largely affect a person's current presentation of hypersexuality and possibly their responses to intervention. More efficacious treatments for cumulative effects of sexual abuse are important and should be addressed in order to prevent revictimization, including interventions focused on building self-esteem, positive sexual self-schemas, greater body awareness and connection, or assertiveness.^{56,72}

Limitations

The current study has several limitations worth noting. First, regarding participants, there may have been the possibility of self-selection for individuals with sexual-related issues or interests. Additionally, we did not assess whether participants received or sought treatment for sexual abuse, which may mediate or moderate links between sexual abuse and hypersexuality. Regarding measurements, we did not differentiate the age of sexual abuse aside from discriminating between abuse at age 13 and below and 14 and older. We also did not assess for sexual revictimization within one's childhood or adulthood. Additionally, we did not differentiate between contact and non-contact offenses, which may in part explain why so many people endorsed both CSA and AASA. Regarding analyses, we included multiple variables, which may have led to type-2 errors. We employed a Bonferroni correction to address multi-comparisons but recognize this approach is still limited. Additionally, although our study attempted to differentiate sexual abuse at different ages reflecting different developmental epochs, data are cross-sectional. More longitudinal work is needed to determine how sexual abuse impacts individuals immediately after onset of sexual abuse and in the longer term. Lastly, it is unknown what behaviors people report as problematic regarding hypersexuality (eg, pornography, sex with strangers, casual sex). Prior studies suggest that there are differences in problems that hypersexual men and women report.^{61,73} For example, one study examining hypersexual behaviors in help-seeking men and women found that the predominant hypersexual behaviors for men included pornography use and masturbation whereas for women the predominant sexual behaviors were with consenting adults, and women experienced significantly more risky sexual behaviors when compared to men.⁷⁴ Furthermore, the reasons underlying the associations between sexual abuse and hypersexuality were not examined. A relevant question is whether survivors of sexual abuse or other forms of abuse in general are using sexual behaviors as a way of coping with distressing emotions, in similar ways as with other substance-use and addictive behaviors. Clinically, it is important to not only identify associations but also

understand the underlying motivations. There may be many reasons why a person with a history of sexual abuse may be engaging in hypersexual behaviors, and these may differ from person to person or within the same individual over time. Thus, additional research should further examine relationships between sexual abuse, gender, and hypersexuality.

CONCLUSION

This study is one of the largest to investigate relationships between developmental timing of prior sexual abuse (CSA, AASA, and both) and hypersexuality. The findings reveal significant effects of CSA, AASA, and CSA/AASA on hypersexuality, although the effect of CSA/AASA on hypersexuality was stronger among men than women. Developmental impacts of sexual abuse should be considered in a gender-informed fashion in order to develop effective prevention and treatment strategies for those affected with hypersexuality reporting sexual trauma histories. Treatment for hypersexuality should include trauma-informed assessments and interventions. Sexual abuse throughout one's lifetime may have a cumulative impact on hypersexuality, particularly among men. Developing and refining treatments addressing sexual trauma histories within the context of hypersexuality appear warranted.

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REFERENCES

1. Slavin MN, Scoglio AAJ, Blycker GR, et al. Child sexual abuse and compulsive sexual behavior: a systematic literature review. *Curr Addict Rep* 2019;7:76–88.
2. Aaron M The pathways of problematic sexual behavior: a literature review of factors affecting adult sexual behavior in survivors of childhood sexual abuse. *Sex Addict Compulsivity* 2012;19:199–218.
3. Kafka MP. Hypersexual disorder: a proposed diagnosis for DSM-V. *Arch Sex Behav* 2010;39:377–400. [PubMed: 19937105]
4. Kuzma JM, Black DW. Epidemiology, prevalence, and natural history of compulsive sexual behavior. *Psychiatr Clin North Am* 2008;31:603–611. [PubMed: 18996301]
5. Chemezov EM, Petrova NN, Kraus SW. Compulsive sexual behavior in HIV-infected men in a community based sample, Russia. *Sex Addict Compulsivity* 2019;26:164–175.
6. Griffee K, O'Keefe SL, Stroebel SS, et al. On the Brink of Paradigm Change? Evidence for unexpected predictive relationships among sexual addiction, masturbation, sexual experimentation, and revictimization, child sexual abuse, and adult sexual risk. *Sex Addict Compulsivity* 2012;19:225–264.
7. Kalichman SC, Cain D. The relationship between indicators of sexual compulsivity and high risk sexual practices among men and women receiving services from a sexually transmitted infection clinic. *J Sex Res* 2004;41:235–241. [PubMed: 15497052]
8. Schneider JP, Irons RR. Assessment and treatment of addictive sexual disorders: relevance for chemical dependency relapse. *Subst Use Misuse* 2001;36:1795–1820. [PubMed: 11795580]
9. Freimuth M, Waddell M, Stannard J, et al. Expanding the scope of dual diagnosis and co-addictions: behavioral addictions. *J Groups Addict Recover* 2008;3:137–160.

10. Grant JE, Steinberg MA. Compulsive sexual behavior and pathological gambling. *Sex Addict Compulsivity* 2005; 12:235–244.
11. Kraus SW, Potenza MN, Martino S, et al. Examining the psychometric properties of the Yale-Brown Obsessive-Compulsive Scale in a sample of compulsive pornography users. *Compr Psychiatry* 2015;59:117–122. [PubMed: 25732412]
12. Raymond NC, Coleman E, Miner MH. Psychiatric comorbidity and compulsive/impulsive traits in compulsive sexual behavior. *Compr Psychiatry* 2003;44:370–380. [PubMed: 14505297]
13. Katakis A. Affective neuroscience and the treatment of sexual addiction. *Sex Addict Compulsivity* 2009;16:1–31.
14. Finkelhor D, Browne A. The traumatic impact of child sexual abuse: a conceptualization. *Am J Orthopsychiatry* 1985; 55:530–541. [PubMed: 4073225]
15. Castro Á, Ibáñez J, Maté B, et al. Childhood sexual abuse, sexual behavior, and revictimization in adolescence and youth: a mini review. *Front Psychiatry* 2019;10. [PubMed: 30761023]
16. Alexander PC. Application of attachment theory to the study of sexual abuse. *J Consult Clin Psychol* 2005;60:185–195.
17. Gold SN, Heffner CL. Sexual addiction: Many conceptions, minimal data. *Clin Psychol Rev* 1998;18:367–381. [PubMed: 9564585]
18. Stappenbeck CA, George WH, Staples JM, et al. In-the-moment dissociation, emotional numbing, and sexual risk: the influence of sexual trauma history, trauma symptoms, and alcohol intoxication. *Psychol Violence* 2016;6:586–595. [PubMed: 28239507]
19. Carnes PJ, Delmonico DL. Childhood abuse and multiple addictions: Research findings in a sample of self-identified sexual addicts. *Sex Addict Compulsivity* 1996;3:258–267.
20. Perera B, Reece M, Monahan P, et al. Childhood characteristics and personal dispositions to sexually compulsive behavior among young adults. *Sex Addict Compulsivity* 2009;16:131–145.
21. Långström N, Hanson RK. High rates of sexual behavior in the general population: correlates and predictors. *Arch Sex Behav* 2006;35:37–52. [PubMed: 16502152]
22. Blain LM, Muench F, Morgenstern J, et al. Exploring the role of child sexual abuse and posttraumatic stress disorder symptoms in gay and bisexual men reporting compulsive sexual behavior. *Child Abuse Negl* 2012;36:413–422.
23. Davis KA, Knight RA. The relation of childhood abuse experiences to problematic sexual behaviors in male youths who have sexually offended. *Arch Sex Behav* 2019;48:2149–2169. [PubMed: 30627932]
24. Noll JG, Trickett PK, Putnam FW. A prospective investigation of the impact of childhood sexual abuse on the development of sexuality. *J Consult Clin Psychol* 2003;71:575–586. [PubMed: 12795580]
25. Smith P, Potenza M, Mazure C, et al. Compulsive sexual behavior among male military veterans: Prevalence and associated clinical factors. *J Behav Addict* 2014;3:214–222. [PubMed: 25592306]
26. Womack SD, Hook JN, Ramos M, et al. Measuring Hypersexual Behavior. *Sex Addict Compulsivity* 2013;20:65–78.
27. Garcia FD, Thibaut F. Sexual addictions. *Am J Drug Alcohol Abuse* 2010;36:254–260. [PubMed: 20666699]
28. Odlaug BL, Lust K, Schreiber LRN, et al. Compulsive sexual behavior in young adults. *Ann Clin Psychiatry* 2013;25:193–200. [PubMed: 23926574]
29. Dickenson JA, Gleason N, Coleman E, et al. Prevalence of distress associated with difficulty controlling sexual urges, feelings, and behaviors in the United States. *JAMA Netw Open* 2018;1:e184468. [PubMed: 30646355]
30. Erez G, Pilver CE, Potenza MN. Gender-related differences in the associations between sexual impulsivity and psychiatric disorders. *J Psychiatr Res* 2014;55:117–125. [PubMed: 24793538]
31. Scoglio AAJ, Kraus SW, Saczynski J, et al. Systematic review of risk and protective factors for revictimization after child sexual abuse. *Trauma, Violence, Abuse* 2019.
32. Leonard LM, Follette VM. Sexual functioning in women reporting a history of child sexual abuse: review of the empirical literature and clinical implications. *Annu Rev Sex Res* 2002;13:346–388. [PubMed: 12836736]

33. Zwickl S, Merriman G. The association between childhood sexual abuse and adult female sexual difficulties. *Sex Relatsh Ther* 2011;26:16–32.
34. Price C Dissociation reduction in body therapy during sexual abuse recovery. *Complement Ther Clin Pract* 2007;13:116–128. [PubMed: 17400147]
35. Najman JM, Dunne MP, Purdie DM, et al. Sexual abuse in childhood and sexual dysfunction in adulthood: An Australian population-based study. *Arch Sex Behav* 2005;34:517–526. [PubMed: 16211473]
36. Loeb TB, Williams JK, Vargas J, et al. Child sexual abuse: Associations with the sexual functioning of adolescents and adults. *Annu Rev Sex Res* 2002;13:307–345. [PubMed: 12836735]
37. Walker EA, Gelfand A, Katon WJ, et al. Adult health status of women with histories of childhood abuse and neglect. *Am J Med* 1999;107:332–339. [PubMed: 10527034]
38. Lisak D, Beszterczey S. The cycle of violence: The life histories of 43 death row inmates. *Psychol Men Masculinity* 2007; 8:118–128.
39. Herman J, Hirschman L. Families at risk for father-daughter incest. *Am J Psychiatry* 1981;138:967. [PubMed: 7258359]
40. Compton WM, Han B, Jones CM, et al. Marijuana use and use disorders in adults in the USA, 2002-14: analysis of annual cross-sectional surveys. *The Lancet Psychiatry* 2016;3:954–964. [PubMed: 27592339]
41. Ferree M, Hudson L, Katehakis A, et al. Etiology of female sex and love addiction: A biopsychosocial perspective Mak. *Adv. A Compr. Guid. Treat. female sex love addicts* Royston, GA: SASH; 2012 p. 44–66.
42. Rind B, Tromovitch P. A meta-analytic review of findings from national samples on psychological correlates of child sexual abuse. *J Sex Res* 1997;34:237–255.
43. McClellan J, McCurry C, Ronnei M, et al. Age of onset of sexual abuse: relationship to sexually inappropriate behaviors. *J Am Acad Child Adolesc Psychiatry* 1996;35:1375–1383. [PubMed: 8885592]
44. Forouzan E, Van Gijsegem H. Psychosocial adjustment and psychopathology of men sexually abused during childhood. *Int J Offender Ther Comp Criminol* 2005;49:626–651. [PubMed: 16249395]
45. Kendall-Tackett KA, Williams LM, Finkelhor D. Impact of sexual abuse on children: a review and synthesis of recent empirical studies. *Psychol Bull* 1993;113:164–180. [PubMed: 8426874]
46. Tucker RD, Harris SS, Simpson WB, et al. The relationship between adult or adolescent sexual abuse and sexual dysfunction: preliminary results from the Boston Area Community Health Survey (BACH). *Ann Epidemiol* 2004;14:621.
47. Tsai M, Feldman-Summers S, Edgar M. Childhood molestation: variables related to differential impacts on psychosexual functioning in adult women. *J Abnorm Psychol* 1979; 88:407–417. [PubMed: 479463]
48. Van Bruggen LK, Runtz MG, Kadlec H. Sexual revictimization: the role of sexual self-esteem and dysfunctional sexual behaviors. *Child Maltreat* 2006;11:131–145. [PubMed: 16595847]
49. Walsh K, Blaustein M, Knight WG, et al. Resiliency factors in the relation between childhood sexual abuse and adulthood sexual assault in college-age women. *J Child Sex Abus* 2007; 16:1–17.
50. Trickett PK, Noll JG, Putnam FW. The impact of sexual abuse on female development: Lessons from a multigenerational, longitudinal research study. *Dev Psychopathol* 2011;23:453–476. [PubMed: 23786689]
51. Reid RC, Carpenter BN, Lloyd TQ. Assessing psychological symptom patterns of patients seeking help for hypersexual behavior. *Sex Relatsh Ther* 2009;24:47–63.
52. Bőthe B, Kovács M, Tóth-Király I, et al. The psychometric properties of the hypersexual behavior inventory using a large-scale nonclinical sample. *J Sex Res* 2019;56:180–190. [PubMed: 30028633]
53. Bőthe B, Bartók R, Tóth-Király I, et al. Hypersexuality, gender, and sexual orientation: a large-scale psychometric survey study. *Arch Sex Behav* 2018;47:2265–2276. [PubMed: 29926261]
54. Bőthe B, Tóth-Király I, Potenza MN, et al. Revisiting the role of impulsivity and compulsivity in problematic sexual behaviors. *J Sex Res* 2018;00:1–14.

55. Leserman J, Drossman DA, Li Z. The reliability and validity of a sexual and physical abuse history questionnaire in female patients with gastrointestinal disorders. *Behav Med* 1995;21:141–150. [PubMed: 8789650]
56. Badgley R, Allard H, McCormick N, et al. *Occurrence in the Population, Vol 1* Ottawa: Canadian Government Publishing Centre; 1984.
57. Beaton DE, Bombardier C, Guillemin F, et al. Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine (Phila Pa 1976)* 2000;25:3186–3191. [PubMed: 11124735]
58. Reid RC, Garos S, Carpenter BN. Reliability, validity, and psychometric development of the hypersexual behavior inventory in an outpatient sample of men. *Sex Addict Compulsivity* 2011;18:30–51.
59. Yeagley E, Hickok A, Bauermeister J a. Hypersexual behavior and HIV sex risk among young gay and bisexual men. *J Sex Res* 2013;51:37–41.
60. Reid RC, Garos S, Fong T. Psychometric development of the hypersexual behavior consequences scale. *J Behav Addict* 2012;1:115–122. [PubMed: 26165461]
61. Lewczuk K, Szmyd J, Skorko M, et al. Treatment seeking for problematic pornography use among women. *J Behav Addict* 2017;6:445–456. [PubMed: 29034717]
62. Lloyd M, Raymond NC, Miner MH, et al. Borderline personality traits in individuals with compulsive sexual behavior. *Sex Addict Compulsivity* 2007;14:187–206.
63. Stoltenborgh M, van IJzendoorn MH, Euser EM, et al. A global perspective on child sexual abuse: Meta-analysis of prevalence around the world. *Child Maltreat* 2011;16:79–101. [PubMed: 21511741]
64. Landolt MA, Schnyder U, Maier T, et al. The harm of contact and non-contact sexual abuse: health-related quality of life and mental health in a population sample of swiss adolescents. *Psychother Psychosom* 2016;85:320–322. [PubMed: 27513863]
65. Barth J, Bermetz L, Heim E, et al. The current prevalence of child sexual abuse worldwide: A systematic review and meta-analysis. *Int J Public Health* 2013;58:469–483. [PubMed: 23178922]
66. Krahe B, Tomaszewska P, Kuyper L, et al. Prevalence of sexual aggression among young people in Europe: A review of the evidence from 27 EU countries. *Aggress Violent Behav* 2014; 19:545–558.
67. Vaillancourt-Morel M-P, Godbout N, Labadie C, et al. Avoidant and compulsive sexual behaviors in male and female survivors of childhood sexual abuse. *Child Abuse Negl* 2015;40:48–59. [PubMed: 25435106]
68. Vaillancourt-Morel MP, Godbout N, Sabourin S, et al. Adult sexual outcomes of child sexual abuse vary according to relationship status. *J Marital Fam Ther* 2016;42:341–356. [PubMed: 26804731]
69. Follette VM, Polusny MA, Bechtle AE, et al. Cumulative trauma: the impact of child sexual abuse, adult sexual assault, and spouse abuse. *J Trauma Stress* 1996;9:25–35. [PubMed: 8750449]
70. Briere J, Runtz M. The Trauma Symptom Checklist (TSC-33): Early Data on a New Scale. *J Interpers Violence* 1989;4:151–163.
71. Scoglio AAJ, Shirk SD, Mazure C, et al. It all adds up: Addressing the roles of cumulative traumatic experiences on military veterans. *Child Abus Negl* 2019;98:104227.
72. Carvalho A, Price C, Neves CF. Body awareness and bodily dissociation among those with and without sexual difficulties: differentiation using the scale of body connection. *J Sex Marital Ther* 2017;43:1–10. [PubMed: 26643598]
73. Gola M, Lewczuk K, Skorko M. What matters: quantity or quality of pornography use? psychological and behavioral factors of seeking treatment for problematic pornography use. *J Sex Med* 2016;13:815–824. [PubMed: 27012817]
74. Öberg KG, Hallberg J, Kaldo V, et al. Hypersexual disorder according to the hypersexual disorder screening inventory in help-seeking swedish men and women with self-identified hypersexual behavior. *Sex Med* 2017;5:e229–e236. [PubMed: 28993093]

Table 1.

Sexual functioning descriptors of 3 sexual abuse groups by gender

| Variables | No abuse | | CSA (vs none) | | AASA (vs none) | | CSA/AASA (vs one) | |
|--|---|---|---|---|---|---|---|---|
| | Men | women | Men | women | Men | women | Men | women |
| In a relationship | 71.1% | vs 72.0% | 73.2% | vs 76.7% | 67.3% | vs 72.3% | 59.8% | vs 72.9% |
| Frequency of relationship sex in past year | | | | | | | | |
| Less than monthly | 10.4% | vs 8.0% | 12.7% | vs 6.4% | 11.4% | vs 7.2% | 9.8% | vs 8.2% |
| Less than weekly | 22.4% | vs 14.2% | 26.1% | vs 19.3% | 20.4% | vs 16.2% | 22.8% | vs 19.8% |
| Weekly or more | 67.1% | vs 77.7% | 61.2% | vs 74.4% | 68.1% | vs 76.4% | 67.9% | vs 72.1% |
| Subjective frequency of relationship sex | | | | | | | | |
| Less than I would like | 55.5% | vs 40.1% | 61.9% | vs 40.6% | 54.6% | vs 42.5% | 52.0% | vs 42.5% |
| As much as I would like | 41.8% | vs 53.9% | 36.4% | vs 53.8% | 42.0% | vs 51.1% | 42.7% | vs 49.9% |
| More than I would like | 2.6% | vs 6.0% | 1.6% | vs 5.6% | 3.5% | vs 6.5% | 5.3% | vs 7.6% |
| Casual partner in past year | 34.8% | vs 34.4% | 36.7% | vs 31.5% | 43.7% | vs 39.0% | 50.7% | vs 37.2% |
| Frequency of casual sex in past year | | | | | | | | |
| Less than monthly | 67.0% | vs 74.8% | 63.5% | vs 64.0% | 65.3% | vs 73.8% | 60.2% | vs 68.5% |
| Less than weekly | 19.3% | vs 15.5% | 19.1% | vs 22.4% | 21.0% | vs 16.8% | 23.4% | vs 19.2% |
| Weekly or more | 13.7% | vs 9.8% | 17.4% | vs 13.7% | 13.7% | vs 8.3% | 16.4% | vs 12.3% |
| Subjective frequency of casual sex | | | | | | | | |
| Less than I would like | 47.0% | vs 32.5% | 44.2% | vs 35.5% | 46.5% | vs 30.4% | 45.8% | vs 32.8% |
| As much as I would like | 42.5% | vs 50.6% | 45.0% | vs 49.4% | 42.1% | vs 48.3% | 38.8% | vs 52.0% |
| More than I would like | 10.5% | vs 17.0% | 10.8% | vs 15.2% | 11.4% | vs 20.3% | 15.4% | vs 15.2% |
| Life sex partners | M = 8.27 (SD = 4.6) vs M = 7.8 (SD = 4.1) | M = 8.9 (SD = 4.5) vs M = 7.8 (SD = 4.0) | M = 9.2 (SD = 4.4) vs M = 8.4 (SD = 3.9) | M = 9.2 (SD = 4.5) vs M = 8.4 (SD = 4.0) | M = 9.2 (SD = 4.4) vs M = 8.9 (SD = 4.0) | M = 9.2 (SD = 4.5) vs M = 8.9 (SD = 4.0) | M = 9.2 (SD = 4.5) vs M = 8.9 (SD = 4.0) | M = 9.2 (SD = 4.5) vs M = 8.9 (SD = 4.0) |
| HBI | M = 34.7 (SD = 4.6) vs M = 31.7 (SD = 12.0) | M = 36.0 (SD = 12.2) vs M = 31.1 (SD = 9.1) | M = 36.7 (SD = 11.4) vs M = 32.8 (SD = 9.9) | M = 36.7 (SD = 11.4) vs M = 32.8 (SD = 9.9) | M = 40.8 (SD = 14.0) vs M = 37.0 (SD = 13.8) | M = 40.8 (SD = 14.0) vs M = 37.0 (SD = 13.8) | M = 40.8 (SD = 14.0) vs M = 37.0 (SD = 13.8) | M = 40.8 (SD = 14.0) vs M = 37.0 (SD = 13.8) |
| HBCS | M = 33.6 (SD = 12.4) vs M = 32.8 (SD = 12.0) | M = 35.3 (SD = 13.2) vs M = 31.6 (SD = 10.9) | M = 37.4 (SD = 13.2) vs M = 34.1 (SD = 12.3) | M = 37.4 (SD = 13.2) vs M = 34.1 (SD = 12.3) | M = 40.6 (SD = 15.6) vs M = 37.0 (SD = 13.8) | M = 40.6 (SD = 15.6) vs M = 37.0 (SD = 13.8) | M = 40.6 (SD = 15.6) vs M = 37.0 (SD = 13.8) | M = 40.6 (SD = 15.6) vs M = 37.0 (SD = 13.8) |

AASA = adolescent/adult sexual abuse; CSA = child sexual abuse; HBCS = Hypersexual Behavior Consequences Scale; HBI = Hypersexual Behavior Inventory; M = mean.

Table 2.

Raw and percentual data of sexual abuse groups

| Variables | Total | Men | Women |
|----------------------------|-------------------|-------------------|------------------|
| | n = 16,823 | n = 11,191 | n = 5,529 |
| CSA (with or without AASA) | 2,832 (16.8%) | 1,152 (10.3%) | 1,160 (30%) |
| AASA (with or without CSA) | 5,029 (29.9%) | 2,059 (18.4%) | 2,930 (53%) |
| CSA only (without AASA) * | 1,202 (7.1%) | 673 (6.0%) | 522 (9.4%) |
| AASA only (without CSA) * | 3,399 (20.2%) | 1,580 (14.1%) | 1,792 (32.4%) |
| Both CSA and AASA * | 1,630 (9.7%) | 479 (4.3%) | 1,139 (20.6%) |

AASA = adolescent/adult sexual abuse; CSA = child sexual abuse.

* Item used in analyses.

Table 3.

Group differences in hypersexuality across 3 sexual abuse groups

| | General | Men | Women |
|----------|---|---|--|
| CSA | $t(458.033) = -2.27, P = .02$ CSA: $M = 33.78, SD = 11.17$ No CSA: $M = 33.01, SD = 10.62$ Cohen's $D: 0.07$ | $t(760.61) = -4.60, P < .01$ CSA: $M = 35.97, SD = 12.16$ No CSA: $M = 33.76, SD = 10.91$ Cohen's $D: 0.19$ | $t(777.86) = -2.11, P = .04$ CSA: $M = 30.92, SD = 9.05$ No CSA: $M = 20.99, SD = 8.66$ Cohen's $D: 0.11$ |
| AASA | $t(5,626.38) = -8.62, P < .01$ AASA: $M = 34.85, SD = 10.88$ No AASA: $M = 33.01, SD = 10.62$ Cohen's $D: 0.17$ | $t(2,143.29) = -10.56, P < .01$ AASA: $M = 37.06, SD = 11.50$ No AASA: $M = 33.76, SD = 10.91$ Cohen's $D: 0.29$ | $t(3,587.97) = -9.58, P < .01$ AASA: $M = 32.88, SD = 9.90$ No AASA: $M = 20.99, SD = 8.66$ Cohen's $D: 0.31$ |
| CSA/AASA | $t(2,648.56) = -3.16, P < .01$ CSA/AASA: $M = 35.64, SD = 12.02$ One type: $M = 34.57, SD = 10.96$ Cohen's $D: 0.34$ | $t(626.81) = -6.48, P < .01$ CSA/AASA: $M = 41.19, SD = 14.04$ One type: $M = 36.74, SD = 11.71$ Cohen's $D: 0.34$ | $t(2,167.65) = -2.43, P = .02$ CSA/AASA: $M = 33.33, SD = 10.22$ One type: $M = 32.44, SD = 9.75$ Cohen's $D: 0.09$ |

AASA = adolescent/adult sexual abuse; CSA = child sexual abuse; M = mean.