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Early Trauma and Later Sexual Victimization in College Women: A Multiple Mediation Examination of Alexithymia, Impulsivity, and Alcohol Use

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Abstract

Childhood abuse and sexual violence against women are prevalent in the United States. However, researchers have not fully explored the intersection among important predisposing factors that predict recent sexual violence experienced by women who are also survivors of childhood abuse. The purpose of this study was to examine the relationships among early childhood trauma, alexithymia, impulsivity, alcohol use severity, and sexual victimization in later life among female college students from the United States (n = 1,178). Participants were part of a larger cross-cultural study, conducted between 2012 to 2014, which examined sexual aggression and victimization in the context of alcohol use. The current study aimed to examine if: (a) early trauma, impulsivity, alexithymia, and alcohol use severity

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impact sexual victimization in later life, and (b) if impulsivity, alexithymia, and alcohol use severity mediate the relationship between early trauma and victimization in later life. It was hypothesized that impulsivity, alexithymia, and alcohol use severity would significantly mediate the relationship between early trauma and sexual victimization in later life. Using a multiple mediation path analysis, results indicated that early childhood trauma was significantly linked with impulsivity, alcohol use severity, and sexual victimization in later life. A partial mediation through impulsivity and alcohol use severity was observed. Alexithymia did not produce mediation effects. These findings align with previous research examining how early childhood trauma influences the occurrence of sexual victimization in later life and provides further recommendations for helping professionals as they attempt to stifle the sexual victimization rates among female college students.

Keywords
Alexithymia, trauma, victimization, alcohol consumption, impulsivity

Introduction

Sexual violence against women is prevalent in the United States. Almost 1 in 5 women (19.3%) experience rape and around 43.9% of women have experienced other forms of sexual violence during their lifetimes (Breiding, 2014). Further, individuals who experience trauma in childhood are at an increased risk for experiencing sexual victimization later in life. A recent meta-analysis found that the mean prevalence of sexual revictimization across studies was 47.9% (Walker et al., 2019), suggesting that almost half of individuals who experience childhood sexual abuse are at risk of being sexually revictimized. Additionally, children and adolescents who experience other, non-sexual, forms of violence are also at an increased risk for experiencing sexual violence later in life (Wilkins et al., 2014). College students are not exempt from sexual violence patterns (Fisher et al., 1999). A systematic review of the data showed that one-in-five women experience sexual assault while in college (Muehlenhard et al., 2017).

While sexual victimization has increasingly become of interest in college populations, childhood sexual abuse has been the primary focus of prior works (e.g., Griffee et al., 2012; Hannan et al., 2017; Mokma et al., 2016; Walsh et al., 2013; Wilhite et al., 2018). Relatively few studies have examined whether victims of other types of childhood abuse are also at an increased risk of experiencing sexual victimization in later life. One study which

examined other types of abuse found that higher levels of adverse childhood experiences were directly related to an individual's odds of experiencing sexual victimization later in life (Ports et al., 2016). Further, Widom et al. (2008) found that increased victimization experiences in childhood (physical abuse, sexual abuse, and neglect) were significantly associated with increased risk for experiencing revictimization across individuals' lifetimes. Comorbidity among different forms of childhood abuse is highly common (Edwards et al., 2003: U.S. Department of Health & Human Services, 2016). However, focusing solely on childhood sexual abuse may fail to fully capture experiences of sexual victimization in adulthood for individuals who experience other forms of childhood abuse that are not comorbid with childhood sexual abuse. This study aims to assess the relationship between childhood victimization, including physical, sexual, and emotional abuse, and sexual victimization in adulthood. Understanding the relationship between early trauma and sexual victimization in adulthood is crucial as consequences of victimization can be seen both short and long term (Norman et al., 2012; Paolucci et al., 2001). This article does not seek to remove responsibility from perpetrators of assault but rather seeks to identify mechanisms, which may assist in lowering the risk of sexual victimization in later life.

Mechanisms in the Relationship Between Early Childhood Trauma and Later Sexual Victimization

The relationship between early trauma and later sexual victimization has been well established (Desai et al., 2002). However, the mechanisms that explain this relationship are less clear. One possible explanation of this relationship may be derived from the understanding of state dependence which provides the argument that individual or social environmental changes resulting from initial victimization events increase the risk for subsequent victimization. For example, difficulties with alexithymia (Brown et al., 2016), impulse control (Narvaez et al., 2012), and substance use (Combs et al., 2014) have all been found to be negative outcomes of childhood abuse (Berenbaum, 1996; Camras et al., 1988) and are risk factors for sexual victimization in later life (Brodsky, et al., 2001; Classen et al., 2005; Walsh et al., 2011). While these variables have all been studied independently, few studies have examined these variables simultaneously. The current study will examine how alexithymia, impulsivity, and alcohol use potentially mediate the relations between childhood abuse and later sexual victimization in adulthood in a singular model.

Possible Mediators of Early Trauma and Victimization in Later Life

Alexithymia.

Alexithymia is defined by difficulty identifying, processing, and describing emotions (Nemiah et al., 1976). Further, decreased empathy, emotional processing and comprehension, and an inability to recognize ones' own and others' emotions are often associated with alexithymia (Ward et al., 2000). Alexithymia results from environmental influences (Gündel et al., 2002) and trauma is the greatest risk factor in the development of alexithymia (Taylor, 1984). Brown et al. (2016) found that alexithymia is positively associated with several subtypes of childhood maltreatment (i.e., physical neglect, emotional abuse, and emotional neglect). Although research has found an association between interpersonal victimization and emotion regulation problems, few studies have investigated how emotion regulation problems may be associated with sexual revictimization in adulthood (Paivio & Laurent, 2001). One study conducted by Bell and Naugle (2008) examined the influence of childhood abuse and emotion recognition skills in adulthood on adult sexual revictimization among 104 female participants found that participants who took more time to identify negative emotional expressions (e.g., disgust, anger, contempt, sadness) coupled with behavioral avoidance (e.g., intentions to avoid person displaying emotional expression, intentions to refuse to approach the person displaying emotional expression, discomfort with emotional expression, inability to respond to person with emotional expression) predicted sexual revictimization. This study also found that when female participants were presented with positive (e.g., happiness, surprise) and neutral (e.g., indifferent facial expressions) facial stimuli, and asked to respond, only alexithymia significantly predicted sexual revictimization. As previous studies have indicated that elevated alexithymia is one sequelae of childhood trauma, alexithymia could also serve as a mediator between childhood trauma and sexual victimization in adulthood. Specifically, increased alexithymia could hamper emotional recognition necessary for identifying and coping with risky and dangerous situations, thereby increasing the likelihood of sexual victimization later in life (Boisjoli & Hebert, 2020).

Impulsivity.

Swift action without adequate forethought or conscious judgment, and action without regard for future consequences characterizes impulsivity (Dickman, 1993; Hinslie & Shatzky, 1940; Moeller et al., 2001; Smith, 1952). Individuals who experience childhood abuse have been shown to have higher chronic patterns of severe impulsivity than those without abuse histories (Brodsky et al., 2001). For example, impulsivity has been found to be a contributing

factor for individuals who have experienced childhood abuse to engage in risky health behaviors such as substance use and unsafe sexual activity (Dick et al., 2010). Furthermore, women who have experienced victimization often report higher levels of impulsivity and more frequent alcohol use, which have both been found to be risk factors for later sexual victimization (Messman-Moore et al., 2013). As such, impulsivity plausibly explains the relationship between early trauma and later sexual victimization (Messman-Moore et al., 2013), and will be examined as a mediating variable in the current study.

Alcohol use severity.

Females who have experienced childhood abuse are likely to engage in alcohol use (Goldstein et al., 2010; Jones et al., 2013; Simons et al., 2003), perhaps due to perceptions that alcohol use will help reduce distress they may be experiencing (Cooper, 1994; Kuntsche et al., 2005). Previous research has shown that when an individual engages in high doses of alcohol consumption a pharmacological effect occurs that inhibits cognitive processing (e.g., impairing judgment, increasing impulsive behavior), which in turn leaves the individual vulnerable for sexual revictimization (Curtin & Fairchild, 2003; Messman-Moore et al., 2009). Not only is alcohol a risk factor for sexual victimization in adulthood (e.g., Greene & Navarro, 1998; Messman-Moore & Long, 2002), but is also a potential mediator as one study found coping with alcohol use as a mediator between sexual coercion and significant alcohol-related consequences (e.g., neglected your responsibilities, got into fights; Fossos et al., 2011). While alcohol use helps explicate the relationship between early victimization and sexual victimization later in life (Messman-Moore et al., 2009; Testa et al., 2010); few studies have directly investigated alcohol use as a mediating variable in this specific relationship.

Moreover, alcohol consumption, alcohol use disorders, and binge drinking all significantly relate to alexithymia (Birt et al., 2008; De Rick & Vanheule, 2006; Kauhanen et al., 1992; Thorberg et al., 2009) and impulsivity (Dick et al., 2010). For example, 45 to 67% of individuals with alexithymia also have alcohol use disorders (Thorberg et al., 2009). Despite alexithymia viewed as a major risk factor for the development of alcohol use disorders, little empirical evidence has supported this idea. Researchers postulate that alcohol operates as a coping mechanism that reduces stress or improves interpersonal functioning (Kauhanen et al., 1992; Rybakowski et al., 1988) as individuals with alexithymia often experience discomfort in social situations (Uzun et al., 2003; Wise et al., 1992). Taken together, it remains imperative to fully examine factors that link childhood trauma and adult sexual victimization via the established connection between alexithymia and alcohol use (Cruise & Becerra, 2018).

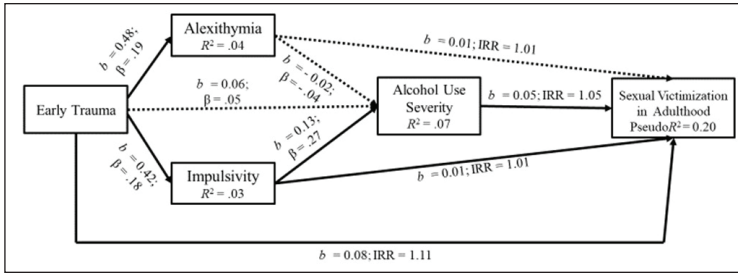

Figure 1. Path Model of Mediation Analysis.

Note. Path model of the relationships between Early Childhood Trauma (predictor variable), Alexithymia (mediator), Impulsivity (mediator), Alcohol Use Severity (mediator), and Sexual Victimization in Adulthood (criterion variable).
Solid lines are significant at $p < .01$; broken lines $p \geq .05$.
IRR = Incidence rate ratio.
Covariance path between Alexithymia and Impulsivity was present during the analysis but omitted here for ease in interpretation.

Present Study

Previous research shows strong relationships between alexithymia, impulsivity, and alcohol use in some contexts. However, whether such variables interconnectedness facilitate a strong relationship between childhood trauma and adult sexual victimization is less clear. Given the considerable empirical evidence supporting these variables as independent mediators, the goal of the current study is to inform the field about their additive effects on the relationship between traumatic events in childhood (experienced before the age of 18) and sexual trauma in early adulthood (experienced after the age of 18). The current study aimed to examine the degree to which: (a) early trauma, impulsivity, alexithymia, and alcohol use severity impact sexual victimization in later life, and (b) impulsivity, alexithymia, and alcohol use severity mediates the relationship between early trauma and sexual victimization in later life. We hypothesize that impulsivity, alexithymia, and alcohol use severity will significantly mediate the relationship between early trauma and sexual victimization in later life. Figure 1 presents the study's multiple mediation model.

Method

Sample and Procedures

Prior to participant recruitment, the University of Nebraska-Lincoln and Creighton University Institutional Review Boards (IRBs) approved all study

procedures. This secondary analysis derives from a multi-site study that enrolled college students from two plain state universities and one Filipino university between 2012 and 2014. For the purposes of this study, female participants from U.S. recruitment comprised the current sample ($N = 1,204$). Volunteer participants received course credits for their involvement. Study measures were administered via Qualtric.com survey platform. To evaluate random responding, researchers embedded four validity items (e.g., "If you are paying attention to this survey, choose 'moderately agree'") among the questions in the survey. Those scoring, at least, two in the validity test were retained for subsequent analyses ($n = 1,178$). On average, participants were 19.76 years of age ($SD = 2.67$), predominantly of European descent (81%; Asian American = 6%; Hispanic = 5%; and African American = 3%), heterosexual (96%; bisexual = 2%; lesbian = .4%), and in their first year of college (47%; second year = 19%; third year = 16%, fourth year = 17%).

Measures

Early Trauma Inventory Self-report-Short Form.

Early Trauma Inventory Self-report-Short Form (ETISR-SF) (Bremner et al., 2007; Bremner et al., 2000) consists of 11-items about the presence of experiences relevant to general trauma ("Did you ever witness violence towards others, including family members?"), 5 items about physical punishment ("Were you ever slapped in the face with an open hand?"), 5 items concerning emotional abuse ("Were you often told you were no good?"), and 6 items about sexual abuse before the age of 18 ("Were you ever forced or coerced to touch another person in an intimate or private part of their body?"). Participants were asked to answer (0 = *No*, 1 = *Yes*). Scores were summed to represent the total number of events experienced, consistent with other studies utilizing these combined items as an overall trauma variable (Nicoladis et al., 2004; Sacks et al., 2017). Previous research has provided evidence for adequate validity and internal consistency (Bremner et al., 2007). Current sample reliability for the ETIS-SF was KR-$\alpha = .84$.

Toronto Alexithymia Scale.

Toronto Alexithymia Scale (TAS-20) (Bagby et al., 1994) is a 20-item self-report scale commonly utilized to measure alexithymia in both research and clinical settings. Prior research indicated that the TAS-20 has a three-factor solution (Taylor et al., 2003): 7 items concerning difficulty of identifying feelings ("I am often confused about what emotion I am feeling"), 5 items about difficulty of describing feelings ("I find it hard to describe how I feel about people"), and 8 items on externally oriented thinking ("I prefer to analyze problems rather than just describe them"). Items are rated on a

5-point Likert scale where 1 = *Strongly disagree* and 5 = *Strongly agree*. Summed scores were used for subsequent analysis. The TAS-20 has good internal consistency of .79–.81 (Parker et al., 2003). Current sample reliability was $\alpha = .86$.

Barratt Impulsivity Scale.

The 30-item Barratt Impulsivity Scale (BIS-11) (Patton et al., 1995), was utilized to measure impulsivity. This scale consists of the following factors: cognitive impulsiveness, motor impulsiveness, and non-planning behavior. Sample items include "I act on impulse" and "I am more interested in the present than the future." Participants were asked to rate their agreement on a 4-point Likert scale (1 = *Rarely/never* to 4 = *Almost always/always)*. Reported alpha coefficient for the BIS-11 ranged from .79 to .83 (Patton et al., 1995). Current sample reliability was $\alpha = .82$.

Alcohol use severity.

The Alcohol Use Disorder Identification Test (AUDIT). The AUDIT (Saunders et al., 1993) is a 10-item measure developed to assess three domains of alcohol use severity: quantity factor (frequency of drinking, typical quantity, and frequency of heavy drinking), dependence symptoms (impaired control over drinking, increased salience over drinking, and morning drinking), and alcohol-related problems (guilt after drinking, blackouts, alcohol-related injuries, and other concerns about drinking) (Babor et al., 2001). Items were measured on a scale from 0 to 4 where higher scores indicated higher levels of problematic alcohol use. Scores were summed and the possible range of scores was 0 to 40. The AUDIT has good internal consistency of .75 to .97, and test-retest reliability of .70 to .89 (Reinert & Allen, 2007). Current sample reliability was $\alpha = .84$.

Sexual Experiences Survey.

Sexual Experiences Survey (SES-F) is typically used to measure interpersonal trauma experienced during adulthood (Koss & Oros, 1982). This measure contains a series of yes-no questions assessing whether specific types of sexual activities have been completed including unwanted sexual contact (kissing, fondling), oral-genital contact, and sexual intercourse (vaginal or anal). A total of 11 items were summed so that higher scores indicated a higher number of sexual assault experiences. See Table 1 for SES-F items and prevalence of sexual victimization. Current sample reliability was $\alpha = .73$.

Table 1. Item Endorsement in the Sexual Experiences Survey-Females (SES-F) in a U.S. Sample (N = 1,178).

SES-F Item	Yes *n*	%
1) Unwanted kissing, sexual touching, or fondling through continual arguments.	374	31.7
2) Unwanted kissing, sexual touching, or fondling through the use of position of authority.	37	3.1
3) Unwanted kissing, sexual touching, or fondling through the use of physical force (e.g., twisting her arm) or threats of physical force.	103	8.7
4) Sexual intercourse through the use of continual arguments and pressure.	214	18.2
5) Sexual intercourse through the use of position of authority.	9	.8
6) Attempt to insert penis (but no intercourse occurred) through the use of physical force (e.g., twisting the arm) or threats of physical force.	55	4.7
7) Attempt to insert penis (but no intercourse occurred) by getting the woman intoxicated on alcohol or drugs without her knowledge or consent.	55	4.7
8) Sexual intercourse by getting the woman intoxicated on alcohol or drugs without her knowledge or consent.	37	3.1
9) Sexual intercourse with a woman who was incapacitated due to alcohol or drugs and was not able to prevent unwanted sexual intercourse from happening.	87	7.4
10) Unwanted sexual intercourse with a woman through the use of physical force (e.g., twisting her arm) or threats of physical force.	43	3.7
11) Unwanted sexual acts (e.g., anal or oral intercourse, penetration by objects other than the penis) through the use of physical force (e.g., twisting her arm) or threats of physical force.	39	3.3

Analysis Plan

To evaluate the hypothesized mediation model (see Figure 1), a path analysis using Mplus Version 7.31 (Muthén & Muthén, 1998–2012) was utilized. The purpose of the path analysis was to evaluate the direct and indirect pathways

through which experiencing early trauma may affect subsequent sexual victimization in later life. Based on the extremely positively skewed distribution and the count nature of sexual revictimization (SES-F), paths leading to SES-F were estimated using a Poisson regression (Coxe et al., 2009), and unstandardized path coefficients are interpreted in terms of the log rate. The analog of the standardized path coefficients in Poisson regression is the incidence rate ratio (IRR), which is the multiplicative increase in the expected count of sexual victimization per one-unit increase of a predictor variable. To further account for violations in multivariate normality and missing data, full-information maximum likelihood with robust standard error (MLR) was used (Enders, 2010; Muthén & Muthén, 2012).

Model fit indices are not available when using Poisson distribution in path analysis. Similarly, conventional R^2 are not available when using Poisson distribution (Mittlböck & Waldhör, 2000); as such, Pseudo-R^2 was estimated by squaring the correlation of the raw SES-F scores and the model predicted count of sexual victimization. Conventional procedures for estimating mediation or indirect effects use bootstrapping procedures, which are unavailable when using MLR. As such, the Mplus MODEL INDIRECT procedure was used, which uses the Sobel method of estimating indirect effects.

Results

Prevalence Rates and Bivariate Correlations

Table 1 presents the prevalence of sexual victimization in adulthood. Results indicated that kissing, touching, and fondling (31.7%) and sexual intercourse (18.2%) through continual arguments and pressure had the highest prevalence, whereas other means of sexual victimization were less than 10%. Bivariate correlations (see Table 2) indicated that all the variables were significantly and positively associated with each other.

Table 2. Descriptive Statistics and Bivariate Correlations.

	1	2	3	4	5	*M*	*SD*
1 Sexual victimization	–					0.90	1.48
2 Alexithymia	.164*	–				46.66	11.04
3 Impulsivity	.210*	.385*	–			61.29	10.12
4 Alcohol use severity	.267*	.081*	.259*	–		5.42	5.06
5 Childhood trauma	.397*	.184*	.177*	.090*	–	4.61	4.25

Note. * $p < .01$.

Path Analysis

A path analysis was conducted to test the proposed model (see Figure 1 for the model, unstandardized and standardized parameters, R^2 estimates, and significance of each path). Results indicated that early trauma, alcohol use severity, and impulsivity were positively and significantly associated with sexual victimization in adulthood. On the other hand, only impulsivity was positively and significantly associated with alcohol use severity. Higher alexithymia and higher impulsivity were significantly associated with severity of early trauma experience. Significant indirect effects of early trauma to sexual victimization were observed for pathways through impulsivity and alcohol use severity (unstandardized indirect effect = .003, SE = .001, $p < .01$) and through impulsivity only (unstandardized indirect effect = .005, SE = .002, p = .02). Due to the significant early trauma to adult sexual victimization direct path, indirect effects are considered as partial mediation.

Discussion

While the link between early childhood trauma and later sexual victimization has been established in literature (Desai et al., 2002), minimal research has examined the underlying mechanisms that could further explicate this relationship. The present study examined the pathways between early childhood trauma (experienced prior to age 18), alexithymia, impulsivity, alcohol use severity, and later sexual victimization (experienced after age 18). Specifically, a multiple mediation model was utilized to examine if early childhood trauma, alexithymia, and alcohol use severity, related to adult sexual victimization. We also tested the extent to which alexithymia, alcohol use severity, and impulsivity accounted for the relationship between early childhood trauma and sexual victimization in later life (see Figure 1). First, as expected, we found that early childhood trauma significantly related to later sexual victimization. In addition, alcohol use severity and impulsivity significantly related to later sexual victimization, but alexithymia did not relate to later sexual victimization. Early childhood trauma significantly related to alexithymia and impulsivity.

The results from our mediation analysis align with previous literature that theorized impulsivity and alcohol use as risk factors for later sexual victimization among women who report early childhood trauma (Combs et al., 2014; Walsh et al., 2011). The mediation analysis indicated that early childhood trauma was associated with impulsivity and alcohol use severity, which in turn related with later sexual victimization. Although previous research has observed the direct links between early childhood trauma,

impulsivity, alcohol use severity, and later sexual victimization, few studies have examined impulsivity and alcohol use severity as mediating variables in this relationship. The significant early childhood trauma—later sexual victimization pathway through impulsivity and alcohol use severity suggests that the relationship between impulsivity and alcohol use is an important mechanism in reducing risk for future sexual victimization in adulthood. There is extensive literature suggesting that individuals who struggle with impulse control may have trouble with substance use (e.g., De Wit, 2009), and research has found alcohol use as a mechanism that may explain the relationship between early childhood trauma and later sexual victimization (Messman-Moore et al., 2009; Testa et al., 2010). However, current findings indicate alcohol use severity did not exclusively explain the link between early childhood trauma and later sexual victimization. Rather, results support the idea that, among early childhood trauma survivors, the combined experience of impulse control difficulties coupled with alcohol use severity influences later sexual victimization. These results add to previous research suggesting that impulsivity and alcohol use severity are risk factors for later sexual victimization (Walsh et al., 2011).

The absence of a mediational role for alexithymia contradicts the findings of Brown et al. (2016) and Bell and Naugle (2008). As previously discussed, alexithymia has been found to be significantly related to childhood maltreatment and later sexual victimization (Berenbaum, 1996; Paivio & McCulloch, 2004). These findings may differ from previous research due to the demographics of our sample. The current study utilized a sample of female college students whereas previous samples included men, which may implicate the role gender plays in processing and identifying emotions (Berenbaum, 1996). These results could suggest that difficulties in processing and identifying emotions are more prominent in women who experienced early childhood trauma when alcohol does not impair the parts of the brain that control judgment, emotional reactivity, and decision-making. While current findings help substantiate the link between childhood trauma and alexithymia in college women, emphasis is placed on impulsivity and alcohol use severity rather than alexithymia when explaining the path to later sexual victimization.

Clinical and Policy Implications

Clinical implications.

The relationship found between early childhood trauma, impulsivity, and alcohol use is consistent with previous literature, which suggests the possibility that survivors of early childhood trauma may use alcohol to cope with the

long-lasting effects of childhood abuse (Kuntsche et al., 2005). Further, findings from the current study suggest that higher rates of early childhood trauma are associated with higher rates of victimization in later life through higher impulsivity and higher alcohol use severity. Two major clinical implications are supported by this study. First, it is important that clinicians assess for issues with both impulsivity and alcohol use when working with clients who have experienced childhood trauma as they may be vital factors in preventing sexual victimization in later life. Second, while most trauma-informed mental health professionals working with trauma survivors who utilize substances understand the importance of substance use reduction, it is also important that clinicians consider intervention to reduce impulsive behaviors.

Policy implications.
Given the increased risk of sexual victimization college students face (Muehlenhard et al., 2017), and the staggering percentage of women who experience early trauma and later sexual victimization (Walker et al., 2019), universities should consider providing campus-specific information along with a list of campus and community resources available to students for treatment. Additionally, information should be included about how impulsivity and alcohol consumption increase the risk for later sexual victimization. Further, policymakers should give greater attention to funding agencies, treatment facilities, and community programs that provide interventions and education about risk recognition and the impacts of early victimization.

Limitations and Suggestions for Future Research

Certain inherent study limitations temper the interpretation of our results. The homogenous nature of our sample restricts generalizability of results. Our sample only included college-aged individuals who identified as female and purposeful sampling was utilized to recruit these participants. Therefore, our findings may manifest differently with other populations and conditions. For example, women and men across different age groups may have varying experiences regarding alexithymia, impulsivity, alcohol use, and sexual victimization in later life. As such, future research would benefit from a larger sampling population and the inclusion of male participants. Additionally, in regard to the average age of our participants, it should be noted that there could be a small gap between early and later experiences for some individuals as the measures used captured experiences prior to 18 and those after age 18.

While the current study helped fill a gap in literature by considering the co-occurrence of different types of childhood trauma, future studies may consider examining how specific types of trauma experienced in early childhood

contribute to sexual victimization in later life. This study also relied on self-reporting measures, which is another limitation. As the variables of interest in our study are often rooted in shame, guilt, and secrecy, it is possible that participants underreport symptoms. Utilizing self-reporting measures is also a limitation in that participants who were subclinical could be included in this study. Third, the directionality of our proposed model is debatable. Extant literature establishes relationships among our variables of interest (e.g., Moeller et al., 2001). However, there remains uncertainty about the directionality. For instance, research supports impulsivity as both a determinant and a consequence of substance use. Further, it is important to acknowledge that while the SES-F is used to measure sexual victimization after the age of 18, these instructions were not specifically given to participants, and although additional analyses run with sexual violence removed from the ETIS did not indicate different results, it is important to note that participants may not have answered with this specific age range in mind.

Discussion of Diversity

The current study examined a relatively homogeneous sample of female college students ($n = 1{,}178$) from the United States. By nature of the participants being college students, they share similar levels of education. While a recent meta-analysis provided support for the relationship between early childhood trauma and later sexual victimization across different colleges and the military (Walker et al., 2019), plausibly, results may vary across other factors such as sexual orientations. Additionally, a large majority of the sample were of European descent (81%). This is problematic as the experience of victimization differs across ethnic groups (Kalof, 2000). Further, the influence of alexithymia, impulsivity, and alcohol use may be different across different ethnicities if examined. Future studies should focus on examining these relationships across ethnic and age groups.

Conclusion

In summary, women's early childhood trauma experiences strongly relate to sexual victimization in later life; impulsivity and alcohol consumption partially explained said relationship. Based on our findings, researchers and mental health professionals should understand how impulsivity and alcohol consumption could potentially contribute to sexual victimization in later life. To increase support for trauma survivors, therapeutic interventions could focus on utilizing specific target activities that help women increase

self-regulation, reduce alcohol consumption as a coping mechanism, and increase awareness about the risk factors for revictimization in a safe space. Further, intervention can focus on development of new coping skills to reduce alcohol use and the potential for revictimization.

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