SEXUAL MEDICINE REVIEWS

Methodologic Considerations for the Study of Childhood Sexual Abuse in Sexual Health Outcome Research: A Comprehensive Review

Chelsea D. Kilimnik, MS,¹ Carey S. Pulverman, PhD,^{1,2,3,4} and Cindy M. Meston, PhD¹

ABSTRACT

Introduction: Childhood sexual abuse (CSA) has been a topic of interest in sexual health research for decades, yet literature on the sexual health correlates of CSA has been hindered by methodologic inconsistencies that have resulted in discrepant samples and mixed results.

Aim: To review the major methodologic inconsistencies in the field, explore the scientific and clinical impact of these inconsistencies, and propose methodologic approaches to increase consistency and generalizability to the general population of women with CSA histories.

Method: A comprehensive literature review was conducted to assess the methodologic practices used in examining CSA and sexual health outcomes.

Main Outcome Measures: Methodologic decisions of researchers examining sexual health outcomes of CSA.

Results: There are a number of inconsistencies in the methods used to examine CSA in sexual health research across the domains of CSA operationalization, recruitment language, and measurement approaches to CSA experiences.

Conclusion: The examination of CSA and sexual health correlates is an important research endeavor that needs rigorous methodologic approaches. We propose recommendations to increase the utility of CSA research in sexual health. We recommend the use of a developmentally informed operationalization of childhood and adolescence, rather than age cutoffs. Researchers are encouraged to use a broad operationalization of sexual abuse such that different abuse characteristics can be measured, reported, and examined in the role of sexual health outcomes. We recommend inclusive recruitment approaches to capture the full range of CSA experiences and transparency in reporting these methods. The field also could benefit from the validation of existing self-report instruments for assessing CSA and detailed reporting of the instruments used in research studies. The use of more consistent research practices could improve the state of knowledge on the relation between CSA and sexual health. **Kilimnik CD, Pulverman CS, Meston CM. Methodologic Considerations for the Study of Childhood Sexual Abuse in Sexual Health Outcome Research: A Comprehensive Review. Sex Med Rev 2018;X:XXX–XXX.**

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Key Words: Childhood Sexual Abuse; Methodology; Non-Consensual Sexual Experiences

INTRODUCTION

Childhood sexual abuse (CSA) has been a topic of interest in sexual health research for decades. The prevalence rates of CSA histories vary widely, but meta-analytic reviews have found

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prevalence rates of approximately 20% for women and 8% for men internationally.^{1,2} Despite the high prevalence rates and the ongoing examination of sexual health correlates of CSA, methodologic inconsistencies have resulted in discrepant samples and mixed results that prevent the ability to make strong inferences about the relation between CSA and sexual health outcomes. The 1st aim of this review is to introduce the methodologic inconsistencies of the field across 3 main domains, namely operationalization, language, and measurement. The 2nd aim of this review is to propose certain methodologic considerations within each of the domains that might help increase consistency and generalizability to the complete population of women with CSA histories.

The present review examined literature reviews, meta-analyses, and empirical studies found from keyword searches in the

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 $^{^{1}\}mbox{Psychology}$ Department, The University of Texas at Austin, Austin, TX, USA;

²VISN 17 Center of Excellence for Research on Returning War Veterans, Central Texas VA Healthcare System, Waco, TX, USA;

³Department of Psychiatry, Dell Medical School of the University of Texas at Austin, Austin, TX, USA;

⁴Texas A&M College of Medicine, Bryan, TX, USA

PsychInfo and PubMed databases using the search terms child(hood) sex(ual) abuse + methodology, definitions, language, measurement, sexual (functioning, well-being, health, behaviors, risk taking, distress, schemas, activity, anxiety, excitation, inhibition, satisfaction, arousal, desire), and sexuality. Articles were read and reviewed when the topic of interest was CSA and sexual health correlates (eg, sexual functioning, risky sexual behaviors, sexual schemas), and included a female sample-in whole or in part. Articles were examined for the operational definition of CSA, the language used in the recruitment of samples, and measurement approaches to assessing CSA histories. Because early reviews have been conducted on some of the methodologic inconsistencies, the present review gave priority to research conducted in the past 2 decades (since 1997). In addition, it should be noted that we use the language of CSA and childhood non-consensual sexual experiences (NSEs) throughout the review to refer to childhood sexual experiences that were nonconsensual or abusive in nature. Because many individuals with childhood NSEs do not identify these experiences with the sexual abuse label (which is discussed in more detail in the Language section of this article), the language of childhood NSEs is used to be more inclusive to the multiplicity of women's experiences.

OPERATIONALIZATION OF CSA EXPERIENCES

The differences in the ways in which researchers operationalize or define CSA is perhaps the area that has received the most criticism within the field.^{3–7} Research has demonstrated that variability in the definition of CSA used in prevalence studies accounts for 39% of the variability among prevalence estimates in North American samples.⁴ Although this is critically problematic to understanding the base rates of CSA, it also suggests that the CSA operationalization used in any given study can play a role in the sexual outcomes observed through sample inclusion.

In the process of operationalizing CSA, researchers must define *childhood* (ie, the criteria that will be imposed to separate *childhood* experiences from *adolescent* and/or *adult* experiences) and *sexual abuse* (ie, the characteristics of the experience that will qualify it as sexual abuse for the purposes of the study). In defining childhood for the study of sexual abuse, researchers have typically imposed age cutoffs indicating that abuse experiences occurring *before* this age will be categorized as CSA (eg, <16 years old). Age differences between the child and perpetrator also have been examined (eg, sexual contact with someone \geq 5 years older) in an effort to exclude experiences that could be consensual peer-to-peer sexual exploration.

Operationalization of Childhood

The tradition of using age cutoffs to define childhood in CSA research most likely stems from early research that used an age cutoff to demarcate the age group that at the time of the research was believed to be the most at risk for sexual abuse (<16 years).⁸ Currently, the span of age cutoffs within the literature vary:

younger than 18,⁹ younger than 16,¹⁰ younger than 14,¹¹ and younger than 12.¹² Further adding to the inconsistency, some studies fail to report a method for operationalizing childhood.¹³ To date, the most frequently used age cutoff to define childhood in the literature appears to be younger than 16 years, which could be due to precedent from previous studies or the common legal age of consent in Canada and across most of the United States being 16 years.¹⁴ The dramatic inconsistency in the age cutoffs imposed in the literature results in heterogeneity of study samples, decreasing the ability to make generalizing inferences to the entire CSA population.

Most CSA studies using age cutoffs to define developmental stages (ie, childhood, adolescence, adulthood) fail to provide a rationale for the selection of the specific age cutoff. 1 study using the 12-year cutoff proposed that this age was a proximal index for the onset of puberty.¹⁵ Consideration of abuse in the context of pubertal onset is important to understanding the influence of CSA on adjustment outcomes, particularly sexual well-being.¹⁶ However, using a proximal age cutoff for pubertal onset might be overly simplistic because there are dramatic individual differences in the age of pubertal onset.¹⁷

Complicating the issue of operationalizing childhood, an experience of CSA also can affect pubertal onset and development. Stressful or traumatic early life events, such as sexual abuse, have been shown to significantly affect the neuroendocrine functioning and brain development of individuals.¹⁸⁻²⁰ Trickett et al²⁰ conducted a longitudinal study of female development following girls who had CSA incidents reported to Child Protective Services within 6 months of the study commencement and were 6 to 16 years old at the time of the study, with an agematched comparison group. Their results indicated that the girls who had been sexually abused demonstrated accelerated pubertal (including earlier pubertal onset) development and hypothalamic-pituitary-adrenal axis dysregulation (indicated by hyper-cortisol levels in childhood and hypo-cortisol levels in early adulthood with corresponding dysregulated stress responsivity). Furthermore, research has suggested that CSA exposure during different developmental stages (ie, preschool, latency, prepubertal, pubertal, and adolescence) are differentially related to lower levels of brain volume in certain regions (eg, CSA during the age span of 3-5 years was related to a smaller hippocampal volume).²¹ These research findings suggest that there are critical developmental periods throughout childhood and adolescence that are differentially vulnerable to trauma and stress^{18,19,22} and can affect sexual development.^{20,23,24} The dysregulation of these biological and developmental processes can result in significant impairment of physiologic responses, including stress responsivity and sexual arousal.²¹

Because adolescence is a time of biological and social sexual maturation indexed by pubertal onset²³ and can be fairly reliably indexed retrospectively for women by age at menarche,^{26,27} individual-level data for pubertal onset could be a valid and informative way to operationalize a distinction between

childhood and adolescence. Indeed, recent research has demonstrated that age at NSE onset in relation to age at menarche and age at 1st consensual sexual experience (ie, grouping NSE onset into 3 groups: onset before menarche, onset after menarche and before the 1st consensual sexual experience, and onset after menarche and after the 1st consensual sexual experience) can reliably detect nuances in sexual sequelae related to NSEs that are missed by the 16-year cutoff.¹⁶ An approach guided by sexual developmental stage of NSE onset in the examination of sexual health outcomes might provide greater information about CSA correlates than arbitrary age cutoffs.

Age Differential

A secondary age cutoff imposed by a substantial number of studies in the CSA and sexual health literature is the age difference between the child and the perpetrator. Researchers who impose the perpetrator age differential typically use a cutoff of 5 years,²⁸ a tradition that can be traced to Kinsey et al's²⁹ Sexual Behavior in the Human Female. It appears this approach was taken to minimize the potential for including consensual peer-topeer sexual exploration experiences as CSA experiences.⁵ The age differential criteria also can be influenced by the legal statutes of the locations where the research is conducted. For instance, Canadian consent laws state that 12- and 13-year-olds can consent to a partner less than 2 years their senior, 14- and 15year-olds can consent to a partner less than 5 years their senior, and no one younger than 18 can consent to an authority figure.¹⁴ Some researchers further qualify the age differential cutoff by stating that an experience is deemed abuse if the perpetrator was 5 years older or, if the contact was unwanted, then the age differential does not apply.³⁰ Few studies provide a rationale for the inclusion of the 5-year age differential cutoff,³¹ and the studies that do provide a rationale³² reference the 1st random sampling national prevalence study for CSA³³ as the precedent for this operationalization of CSA. In contrast to this traditional practice, Roodman and Clum,³⁴ in a meta-analysis on re-victimization rates, found that imposing the 5-year age differential in the operationalization of sexual abuse was unnecessarily restrictive without the qualification of allowing for the perpetrator to be less than 5 years older if force was involved. In addition, other reviews have cautioned against excluding peer-topeer sexual experiences, stating that "peers are certainly capable of committing extremely abusive, violent, forced acts of sexual assault" [p. 26]⁷ and that perpetrator strategies (eg, force) are more important than the age differential cutoff. Although there is a tradition of imposing an age differential criterion in the operationalization of CSA, this approach can be overly restrictive and limit the full assessment of women's history of NSEs.

Operationalization of Abuse Characteristics

An additional way to define an experience as abusive or not has been in the inclusion and exclusion of certain abuse characteristics. Definitions of sexual abuse based on abuse characteristics vary widely, from narrow definitions that create a more homogeneous sample of CSA experiences (eg, only penetrative sexual experiences that involved the use of force) to broad definitions that are more inclusive to the multiplicity of forms that CSA can take (eg, any form of non-consensual or unwanted sexual activity from exposure to someone's genitals to penetration). The abuse characteristics of inclusion and exclusion that seem to vary most frequently include only contact experiences,⁹ only genital-contact experiences,³⁵ and only experiences that involved coercion or force.³⁶ Less frequently used for the inclusion and exclusion criteria are aspects of the perpetrator (other than the age differential criteria), such as was in a position of authority,³⁷ a family member,²⁰ and, more specifically, a father figure.³⁸

A more complex approach to operationalizing sexual abuse has been to use a combination of abuse criteria that apply differentially depending on the characteristics of the abuse. For instance, Lemieux and Byers¹⁰ operationalized CSA as any sexual contact with someone older (age differential not specified) as long as the abuse survivor was no older than 12 years at the time, but for those who were 13 to 16 years of age at the time, physical force during the abuse was required to qualify. As another example, Batten et al³⁹ operationalized CSA as sexual contact of any kind experienced when younger than 18 that involved coercion, force, or an age differential of at least 5 years. Broader definitions of CSA tend to garner a higher prevalence of CSA in a given sample, which allows for further examination of different forms of CSA and their associated sequelae. In contrast, broad definitions tend to produce a heterogeneous sample, with a greater variety in outcomes, that might minimize effect sizes of any particular outcome.⁷ For instance, a meta-analytic review of revictimization rates found that broader definitions (ie, included non-contact sexual abuse) resulted in smaller effect sizes for CSA histories predicting later-life sexual violence experiences.³⁴

Some researchers who used a broad definition of CSA also used a severity index based on the abuse characteristics to categorize the abuse into ordinal groups (eg, 1 = unwanted genital and/or breast touching, 2 = being forced to touch or fondle another person's genitals, 3 = oral-genital sex, 4 = sexual intercourse)³⁶ or create a continuous score for *severity* of abuse⁴⁰ (for an in-depth discussion of the measurement of abuse severity, see the Measurement of Abuse Severity subsection). Although the broad operationalization of CSA with a severity index allows for more forms of CSA to be examined and characteristics of the CSA to be included in analyses, these severity indices tend to operate on the assumption that certain characteristics and experiences are objectively "worse" than others. Although this distinction in severity might be physically true (eg, more accrued physical injuries), it does not necessarily capture cognitive, emotional, or subjective psychological effects that also influence sexual health. For instance, Young et al⁴¹ found that physical invasiveness (eg, penetrative experiences) was only minimally associated with individuals' cognitive and emotional

Table	I. Summary of	findings fo	or sexual	health	outcomes	associated	with a	abuse c	haracteristics
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Characteristic measured	Associated sexual health outcomes			
Penetration status	Penetrative abuse associated with decreased sexual satisfaction but not with sexual function ¹⁵			
	Penetrative and non-penetrative abuse associated with decrements in sexual function ⁶⁹			
	Penetrative abuse associated with greater sexual dysfunction ⁷⁰			
	Penetrative abuse associated with larger number of sexual partners and more STD diagnoses ⁷¹			
	Penetrative abuse associated with greater risk for re-victimization in adulthood, having engaged in casual sex, larger number of sexual costs, lower sexual self-esteem, and more positive sexual self-schemas than those with non-penetrative, contact CSA histories ¹⁰			
	Penetrative (or attempted penetration) abuse was associated with more high-risk sexual behaviors ⁷²			
	Women with non-penetrative contact CSA experiences demonstrated more negative sexual self-concepts and more sexual problems than women with no CSA experiences, whereas women with penetrative CSA experiences did not differ from those with no CSA histories ⁷²			
Force involved	Forced abuse experiences associated with a larger number of sexual partners and more STD diagnoses ⁷¹			
Chronicity	Multiple CSA experiences associated with higher levels of sexual dysfunction compared with those with single CSA experiences ⁷³			
Perpetrator identity	Those with CSA experiences involving a biological father as the perpetrator demonstrated greater sexual aversion and sexual ambivalence than those with other perpetrators ⁷⁴			
Age of onset	Older age at 1st abuse onset predicted greater odds for fear of sex and sexual dissatisfaction ⁷⁵			
	Childhood (age $<$ 12 years) onset was associated with a larger number of sexual partners ¹²			
	CSA onset after menarche onset was associated more embarrassed and conservative sexual self-schemas ¹⁶			
Disclosure status	Those who had disclosed the CSA to someone had greater psychosexual impairment than those who did not ⁷⁵			

CSA = childhood sexual abuse; STD = sexually transmitted disease.

appraisals of the event (eg, humiliation, fear, shame) and was a poor indicator of severity on its own. The grouping of individuals based on the activities experienced during their abuse needs strong consideration of the appropriateness and implications of these categories descriptively and in relation to sexual health outcomes. Previous research has demonstrated that individuals' perceptions of how traumatic, negative, or impactful a life event was are highly prognostic of health outcomes.⁴² An alternative method of accounting for severity might be to assess women's subjective appraisals of the severity of the abuse and the impact on their life.

Abuse Characteristics and Sexual Outcomes

Research examining the sexual correlates of specific CSA characteristics has found that certain abuse characteristics are related to specific decrements in sexual well-being (Table 1 presents a summary of these findings). Some investigators recommend selecting for abuse characteristics that have previously shown an association with sexual problems to gain a more homogeneous group of women with CSA histories for examining sexual health correlates.^{43,44} Although this approach might be helpful for focusing on the nature of sexual health outcomes in those most at risk to experience sexual concerns, the research has not yet reached a consensus on exactly which abuse characteristics demonstrate a consistent relation with negative sexual health outcomes and which do not (Table 1). Before researchers can select for a homogeneous group of women based on abuse characteristics associated with sexual health decrements, the field needs to reach a greater consensus on what those characteristics are.

Attempting to operationalize CSA to include only what is perceived or assumed to be the more severe experiences (eg, only with genital contact or penetration, only with force involved) can unnecessarily limit the sample selected. The practice of selecting for severity can bias CSA outcome research and inflate effect sizes in the sexual health domains. Exclusion practices that limit or restrict the sample leave the field at risk for over-pathologizing this vulnerable population and ignoring instances of resilience. In addition, this practice is based on the assumption that individuals with other forms of CSA (eg, non-contact CSA, perpetrator <5 years older than them, etc) have similar sexual health outcomes as women with no CSA experiences, which research has refuted. ^{41,45,46}

LANGUAGE

The language of "childhood sexual abuse" is inclusive of a number of activities and experiences that someone might have experienced in childhood. However, as described earlier, the operational definitions of CSA can vary widely and the public or lay understanding of what constitutes CSA is often discrepant from that of researchers' operational definitions of CSA or even legal definitions of CSA. Research has demonstrated that a large majority of women who meet operational definitions of CSA do *not* identify their experiences as sexual abuse (although this phenomenon has been called abuse *acknowledgement*, *labeling*, *defining*, and *identification* in the literature, the present review uses the language of *identification*).^{15,45,47} Thus, the various ways in which participants understand the labels researchers ascribe to

childhood NSEs results in challenges for recruiting samples of participants with these experiences.

A review of the literature showed different language choices in recruitment strategies that seemed to cluster into 3 domains: (i) recruiting using the language of "childhood sexual abuse" (eg, "women with a history of sexual abuse who are experiencing sexual difficulties")⁴⁸; (ii) recruiting using other targeted language, such as "unwanted," "forced," or "non-consensual" (eg, "women with and without unwanted past sexual experiences")⁴⁹; and (iii) recruiting using outcome-specific language (ie, stating the outcome variables) without specifying sample requirements (eg, "study on sexual fantasies and sexual desire").⁵⁰ Studies not using the "sexual abuse" language in recruitment were often recruiting those with and without CSA histories as part of a larger study or to acquire a comparison group for between-group analyses. There also were a large number of studies that failed to specify the language used to recruit participants,⁵¹ some of which accrued participants through referrals from agencies, hospitals, or support organizations.⁵²

Research that recruits for participants using the language of "childhood sexual abuse" can bias results by selecting *only* participants who identify their experiences with that specific language. Previous research has demonstrated that identifying childhood NSEs as sexual abuse is associated with certain characteristics of the abuse, including vaginal or anal penetration experiences, ^{15,53} fear at the time of abuse, ¹⁵ threats or force at the time of the abuse, ^{31,53} younger age at abuse onset, ^{15,31,47,52} more frequent or regular abuse, ^{15,47} familial abusers¹⁵ (or parental figure specifically), ⁴⁷ and when the perpetrator was male. ⁴⁷ Therefore, using the language of "sexual abuse" can inadvertently oversample women with specific CSA experiences and subsequent sexual health outcomes.

Excluding individuals who do not identify their experiences with a certain label, despite their abuse experiences meeting the researchers' definitions of abuse, can inflate effect sizes, miss other effects entirely, and underestimate the prevalence rates. Indeed, research has demonstrated that women who identify their NSEs as sexual abuse report greater sexual distress and perceived impact of their childhood NSEs on sexual functioning,¹⁵ significantly more sexual aversion and anxiety,⁴⁷ and greater prominence of sexual abuse themes within their sexual self-schemas⁵⁴ than do non-identifying women. That is not to say that individuals who do not identify their childhood NSEs as CSA are not exhibiting noteworthy sexual health decrements. Research has shown that women who do not identify with the CSA label still demonstrate adjustment difficulties that are significantly different from women with no NSE histories.^{15,45,54} These results suggest that women's experiences, despite not being identified as "sexual abuse" by the individual, have affected their sexual adjustment but that the impact might be different than that of identifying women. For instance, Vaillancourt-Morel et al⁴⁷ found that those who did not identify their experiences as "sexual abuse" reported higher rates of sexual compulsivity than identifiers and those with no NSE histories. Evidently, the language used in study recruitment and measurement of CSA histories can have an influence on the sample composition and subsequent sexual health outcomes reported. Research measuring CSA rates that do *not* use the language of "sexual abuse" in their assessment have yielded higher rates of CSA than those that do^{7,45}; therefore, it is likely that research using a more inclusive language approach (eg, "non-consensual" or "unwanted") for recruitment would yield a more representative sample than studies recruiting with the langue of "sexual abuse."

MEASUREMENT OF CSA

Another critical aspect to the study of CSA is the instrument used for measuring the abuse. Best practices for the measurement of sexual violence experiences has been an ongoing subject of debate within the field.^{5,7,41,55,56} Although methods of CSA measurement include questionnaires, interviews, phone screens, and medical or legal records, the research has predominantly been conducted using self-report questionnaires.⁵ There are numerous instruments and items that have been used within the literature, but, as others have pointed out,^{5,57} these instruments are rarely standardized and frequently modified by subsequent researchers to meet the needs of particular research questions.

Early research assessed CSA histories by asking participants with a single item using non-descriptive labels, such as exposure to sexual abuse or molestation (eg, "As a child were you ever sexually abused?").⁵⁸ As outlined earlier, the language used to label NSEs is open to numerous interpretations and can exclude a large portion of individuals with childhood NSEs meeting the researchers' operational definition of CSA but who do not identify with these labels themselves. This identification-based approach to assessing CSA also offers little information about the NSEs and their associated characteristics (eg, type of abuse, chronicity of abuse, relationship to perpetrator). Some singleitem approaches have assessed experiences of "forced sex" before a particular age cutoff; however, this leaves "force" and "sex" open to interpretation. Finkelhor⁵⁹ suggested that researchers should choose or develop measures that "gather sufficient detail on the sexual activity involved" [p. 218], including the assessment of distinctions between giving and receiving stimulation and considering the vagueness of the measurement language (eg, "fondling," "relative," "force").

Improving on the single-item approach, Peters et al⁷ suggested that using a series of questions to investigate the abuse provides more information and is more inclusive of a multiplicity of abuse experiences. Reviews of the number of questions in measuring abuse have demonstrated higher rates of abuse reported in response to multiple questions as opposed to single-item questions.^{5,7} Within the various approaches to measuring CSA, Peters et al⁷ outlined 2 specific domains: relationship-specific questions and activity-specific questions. Relationship-specific questions refer to those that define aspects of the perpetrator in the question (eg, "Have you ever experienced unwanted sexual contact with someone at least 5 years older than you?"). Activity-specific questions refer to those that assess specific sexual activities (eg, "Has anyone ever inserted objects, fingers, or their genitals into your vagina against your will?"). In a review of the instruments used to assess CSA experiences,⁵ activity-specific questionnaires appeared to be increasing in their frequency within the literature over time, perhaps in response to previous methodologic reviews.⁷

The language of the activity-specific questionnaires is inconsistent, which can have significant implications for the resulting rates of CSA reported. For instance, some instruments use the language of "want" or "unwanted" (eg, "I have been ... when I did not want that to happen"),⁶⁰ whereas other measures use the language of "against your wishes" or "against your will."⁶¹ However, research has demonstrated that there are critical implications for conflating "want" and "consent," such that an individual can consent to unwanted sex and *not* consent to sex despite having feelings of wanted-ness.⁶² Participants responding to these measures might hesitate to endorse items that assess only activities in an unwanted context as opposed to non-consensual or pressured contexts, especially if the individual was positively reinforced for the activity, as frequently occurs in CSA.⁶³

Measurement of Abuse Severity

Discussed briefly in the Operationalization of CSA Experiences section was the concept of CSA severity. Many researchers have included a severity index in the assessment of CSA.⁴¹ These indices are composite scores dependent on various abuse characteristics. Typically, the researchers decide how to operationalize severity and the operationalization tends to vary across studies. In contrast, some researchers have attempted to standardize and validate the process. For instance, Zink et al⁶⁴ proposed the Sexual Abuse Severity Score (SASS), which attributes more points (and, thus, severity) to a younger age of onset, a larger number of perpetrators, a more coercive perpetrator tactic (ie, force vs verbal pressure), more invasive sexual activities (eg, intercourse vs fondling), and a greater chronicity of the abuse (ie, more occurrences). An index such as this is useful because it can be used to estimate risk for later-life health concerns (eg, the SASS was based on abuse characteristics predictive of somatic, trauma, and alcohol abuse symptoms); however, Zink et al⁶⁴ reported that they left out indicators of severity found important in previous research but that were not found significant in their analyses (eg, relationship to the perpetrator). In an assessment of the importance of using a severity index in the examination of negative sexual experience and re-victimization rates in people with CSA histories, Loeb et al⁴⁴ allotted higher severity scores for more invasive sexual activities (eg, penetration vs nonpenetration), familial relationships with the perpetrator (eg, extrafamilial vs intrafamilial), greater chronicity of abuse, and younger age at onset. Loeb et al⁴⁴ and Zink et al⁶⁴ selected the characteristics of abuse that demonstrated associations with

negative outcomes in previous research. However, Zink et al^{64} and Loeb et al^{44} did not arrive at the same conclusion for the specific abuse characteristics to include in their severity indices. This comparison demonstrates the variability in interpretations of severity in the literature.

Other researchers have challenged the importance of CSA severity compared with simply the presence or absence of CSA. Godbout et al⁶⁵ concluded that regardless of the severity of CSA experiences, the presence of CSA was the significant predictor for difficulties in romantic relationships. However, Loeb et al44 proposed that using a continuous measure of CSA, created as a composite score by summing the experiences and severity indicators, results in a more explanatory fit to the data in predicting negative sexual experiences and re-victimization, such that accounting for operationalized severity of the CSA experiences explains more of the variance in these sexual health outcomes. Although Godbout et al's⁶⁵ and Loeb et al's⁴⁴ perspectives are not mutually exclusive (ie, CSA history increases someone's risk for later-life interpersonal difficulties and accounting for CSA severity can help to more holistically predict negative sexual outcomes), it highlights the debate of whether a severity index is useful, when it is useful, and the appropriate ways to use it. The approach of basing a severity index on characteristics with relation to negative outcomes is limited by the previous studies examined including the samples in the studies, the outcomes assessed within the studies, and the operational definitions of CSA used by those studies. Indeed, as stated earlier, accounting for the characteristics of abuse can add to our understanding of the sexual health correlates of CSA, but reporting that a higher severity composite score accounts for greater negative outcomes offers little information about the specific aspects of the abuse involved.

Peters et al⁷ provided an appended list of questions and measures that has been used to assess CSA histories. These questions were developed decades ago and before the multiple reviews of CSA research methods that called for more detailed examination of abuse characteristics, yet these measures continue to be widely used.⁵ Table 2 presents a summary of an updated list of the characteristics of interest to the study of CSA. The severity measurement issue remains problematic because there are few validated measures of CSA and many fail to include the examination of all or even a majority of these characteristics.

DISCUSSION

In considering the future of CSA research, we need to think critically and make scientifically responsible decisions about the methods we use to improve consistency, clarity, and utility within the field. The present review of the literature suggests that methodologic inconsistencies in studies on CSA have resulted in discrepant samples and mixed results. Major areas of methodologic concern were found to fall under 3 domains: operationalization, language, and measurement.

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Table 2. Continued

Domain

Childhood Sexual Abuse in Sexual Health Research

Table 2. Measurement	of childhood	sexual	abuse: c	haracteristics
of interest*				

Characteristic Domain Age related Age at onset Age at offset Age at menarche Age at 1st consensual sexual experience Current age (time since abuse) Chronicity Number of abuse experiences across multiple perpetrators Number of times abuse occurred with 1 perpetrator Perpetrator related Relationship with perpetrator at time of abuse Relationship with perpetrator currently Age of perpetrator at time of abuse Gender(s) of perpetrator Number of perpetrators (for a single event, across multiple events) Level of authority (degree of power dynamics) Level of emotional closeness Level of trust Type of activity Contact activities Vaginal penetration (by objects, fingers, or genitals) Anal penetration (by objects, fingers, or genitals) Orogenital contact or oral sex Genital touching or fondling (over clothes or under clothes) Breast touching or fondling (over clothes or under clothes) Buttocks touching or fondling (over clothes or under clothes) Sexual, sensual, or deep kissing Non-contact activities Nudity or undress Pornography or pornographic content Sexual proposition Child's or adolescent's Giving (stimulation, penetration, role touch) Receiving (stimulation, penetration, touch) Exposed own nudity Exposed to others' nudity Use of and type of drugs, alcohol, Tactic of perpetration substance intoxication Use of, degree of, and type of verbal pressure, manipulation Use of, degree of, and type of threats Use of, degree of, and type of physical pressure Use of, degree of, and type of force

(continued)

Dornain	Characteristic
Physical injury	Use of, degree of, and type of violence Presence of, type of, and degree of injuries accrued
	Hospitalization, medical treatment received
Psychological injury	Degree of fear at the time
	Degree of humiliation or shame at the time
	Perceived level of impact on life overall
	Perceived level of impact on sexual health
	Perceived degree of trauma
	Emotional response at the time (eg, blame, disgust)
	Emotional response currently (eg, blame, disgust)
Post-abuse factors	History of reporting abuse (to police, child protective agencies)
	History of disclosing abuse (parents, partners, peers)
	Reactions from others to disclosure
	History of treatment seeking (therapist, counselor)
Pre-abuse factors (or concurrent)	Other forms of abuse (emotional, verbal, physical) or neglect (emotional, physical)
	Quality of relationship with caregivers
	Presence of and degree of home stability
	Presence of and degree of social supports

Characteristic

*This list includes those characteristics that have been assessed in relation to sexual health and those that others have recommended be assessed in relation to sexual health. It is likely that these are not the only abuse characteristics of interest in the examination of childhood sexual abuse. A wider collaborative of experts in the field should be consulted to create an exhaustive list of relevant abuse characteristics.

In the operationalization of CSA, inconsistencies were found in the definition of *childhood* and the definition of *abuse*. To date, childhood has most commonly been identified by an age cutoff, yet the ages used for that cutoff have been inconsistent. Because there are important sexual developmental processes that can be overlooked in the use of arbitrary age cutoffs, researchers might want to consider the operationalization of childhood and adolescence with a developmentally informed classification approach (eg, NSE onset before or after age at menarche) to assist in the interpretation of sexual health outcomes. If used consistently throughout the field, a sexual developmental stage approach to classifying abuse experiences also could aid in contextualizing the outcomes within a broader interdisciplinary literature on the biopsychosocial mechanisms involved in sexual health. Furthermore, in operationalizing sexual experiences as abuse, researchers should use a broad and inclusive definition (ie,

inclusive to all forms of NSEs with no age differential cutoffs) to further the information gathered about the NSEs. Excluding certain individuals from a study based on the operationalized severity of their abuse experiences can prevent further advancement of knowledge about the larger population of women with CSA histories.

More inclusive and science-forward approaches to operationalizing CSA in sexual health research could include recruiting for individuals with various forms of CSA, reporting on all CSA characteristics within the sample (in a table or supplementary materials), and running analyses and reporting the results for both the more stringent and more inclusive grouping criteria. In addition, the assessment of various abuse characteristics enables researchers to examine the impact of the presence or absence of abuse, and specific abuse characteristics, on sexual health outcomes.

Methodologic inconsistencies in the language and procedures used to recruit participants were found to lead to discrepant and potentially biased samples. Because many women do not view their experiences as sexual abuse or sexual assault (ie, "nonidentifiers"), considering the use of more inclusive language, such as "non-consensual," in recruitment procedures and advertisements would help ensure the study of the entire CSA population, as opposed to just the CSA identifying subset. Alternatively, using outcome-specific language (eg, "study on sexual fantasies and sexual desire") in recruitment, as opposed to CSA or other targeted language (eg, "non-consensual"), would be an efficient approach to garner a naturally representative sample with normative rates of CSA (ie, approximately 20% of a female sample).^{1,2} Within-study methods of measuring abuse or prestudy screening interviews could assess the various characteristics of abuse or inclusion and exclusion criteria based on the operational definition of CSA. Of course, the language used is only part of the recruitment process and the type of sample (eg, clinical vs community), location of recruitment advertisements (eg, rape crisis center vs coffee shop), and geographic region are equally as important in determining CSA rates and selection or response biases (for reviews, see 3,4).

Recruitment advertisements using the language of "sexual abuse" can be particularly limiting in treatment or intervention studies. When we study only the efficacy of treatment on a subgroup of a population, we are potentially excluding the rest of the population from access to care and novel treatments. In addition, non-identifiers are much less likely to have social support, disclose the event, and seek treatment compared with identifiers.^{66,67} It is critical for participant engagement and sample representativeness in sexual health research that researchers are actively recruiting women with childhood NSEs who do *not* identify them as sexual abuse, in addition to those who do. This inclusive approach to recruitment also could result in more representative samples and potentially higher response rates. In addition, transparency in the language used to recruit participants within publications could aid in the interpretation of

findings, comparison of results across studies, and meta-analyses. Researchers examining CSA should clearly state the language used to recruit the sample within the procedure descriptions of their research articles.

The methodologic inconsistencies in the within-study measurement of CSA experiences make it difficult to generalize across studies, given the different information obtained about the abuse experiences. Given the high rates of women who do not identify their experiences as CSA, the use of multiple measurement modalities, such as activity-specific and identification-based items, can be used to provide a comprehensive assessment of CSA rates within the sample and further the understanding of individuals' NSE identification processes. For instance, asking identification-based questions (eg, "Were you ever sexually abused as a child?") and administering a comprehensive activityspecific questionnaire (eg, "Has anyone ever inserted objects, fingers, or their genitals into your vagina against your will?") that involve a follow-up assessment of perpetrator and other abuse characteristics would provide the most comprehensive assessment of CSA history.

Many prior studies have attempted to quantify CSA history through the calculation of severity composite scores. The use of severity composite scores is problematic because they aggregate abuse characteristics into single scores and fail to offer nuanced information on the importance of various abuse characteristics. A more informative approach would be to assess the role of unique abuse characteristics in the sexual health outcomes of interest to that particular study. Although Table 2 presents a list of abuse characteristics that have been previously considered in the literature, this list is likely incomplete. A collaborative effort by experts in the field to make an exhaustive list of abuse characteristics relevant to sexual health outcomes would be useful as the field moves forward. Ideally, a measure that comprehensively examines the characteristics of the abuse should be used in the assessment of CSA experiences.

The use of measures that incorporate a thorough assessment of the characteristics of abuse (see Table 2 for characteristics of interest), as opposed to composite scores of abuse severity, is encouraged to provide more descriptive information about the experiences of a given sample. These abuse characteristics also can be assessed for their role in sexual health correlates of CSA. In reporting the rates of CSA yielded by these different approaches, a great deal more can be understood about the composition of the sample, implications and correlates of identification of CSA, and CSA characteristics more broadly.

More efforts to validate existing measures could be 1 step toward decreasing measurement discrepancies in CSA research. A 2nd step could be comprehensively describing the assessment instruments in the Methods section of publications. A final step toward increasing the consistency and transparency of measurement methods could be appending the actual measure used, in its

full form, to all publications. This final step is particularly important when the researchers have modified the measure or created their own measure for the assessment of CSA to facilitate replication and consistency.

The Publication Manual of the American Psychological Association, 6th Edition,⁶⁸ outlines a number of ethical research publication practices, including requirements for the Methods section of a published article. Among the American Psychological Association method recommendations (see Section 2.06) are fully detailing the sampling procedures, measurement instruments used, characteristics of the sample and groups within the sample, and operational definitions of the study variables. Detailed transparency in research methods allows for the assessment of sample representativeness, validity of results, and generalizability of findings to the greater population and facilitates replication attempts. In CSA research, transparency of research methods is critical, not only to the basic understanding of the public health concern but also for advancement of practice, policy, and treatment development.

Previous reviews also have pointed out the methodologic inconsistencies in the study of sexual abuse. More than 3 decades ago, Finkelhor⁵⁹ described a number of important methodologic considerations in designing studies of sexual abuse and called for critical deliberation of these concerns. He stated that "if we are to have a strong foundation of knowledge from which to build policy, this can happen only on the basis of conscientious and well-designed research" [p. 223]. Since that time, additional researchers have reviewed the instrumentation and operationalization practices,^{3–6,55–57} yet little has changed since Finkelhor's⁵⁹ initial complaint. The present review suggests that methodologic inconsistencies remain within the literature examining sexual health outcomes and CSA histories. Although methodologic inconsistencies are not unique to this field, the study of experiences as sensitive and potentially stigmatizing as CSA requires methodologic rigor to decrease method-based variance in results.⁵⁹ Accurate representations for the rates of sexual concerns within the CSA population are necessary for the development of best clinical practices for treating the mental and sexual health of this potentially vulnerable group of women.

It should be noted that the present review might be limited by potential publication biases, because only the published literature of CSA and sexual health outcomes was examined. In addition, the present review did not include studies that examined nonsexual correlates of CSA (eg, trauma, depression), which can mediate the relation between CSA and sexual well-being. We also did not examine the methods of studying CSA in men and the methodologic considerations for studying the sexual health correlates of men's CSA experiences could differ from the study of CSA and sexual health in women. The present review was not a systematic review of the CSA literature but instead looked to present the numerous methodologic practices in the study of CSA and sexual health and the potential implications of these methodologic decisions.

y RECOMMENDATIONS

We propose that certain practices could be adopted to help develop a more cohesive literature examining sexual health correlates of early-life sexual violence. Recommended practices include (i) considering sexual developmentally relevant indices for the operationalization of childhood and adolescence, (ii) using a broad, as opposed to a narrow, operationalization of sexual abuse, (iii) consistently measuring, reporting, and assessing the role of abuse characteristics in sexual health outcomes, (iv) using inclusive language in recruitment advertisements and transparently reporting that language in publications, (v) using identification-based and activity-specific measures of CSA, and (vi) further validation of existing measures of sexual abuse and appending the measures or items used to publications.

Corresponding Author: Cindy M. Meston, Psychology Department, The University of Texas at Austin, 180 E Dean Keeton Street, A8000, Seay Psychology Building, Room 3.318, Austin, TX 78712, USA. Tel: 512-232-4644; Fax: 512-471-6175; E-mail: mestoncm@gmail.com

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STATEMENT OF AUTHORSHIP

Category 1

- (a) Conception and Design
 - Chelsea D. Kilimnik; Carey S. Pulverman; Cindy M. Meston
- (b) Acquisition of Data
 Chelsea D. Kilimnik
 (c) Analysis and Interpretation of Data
- c) Analysis and Interpretation of Data Chelsea D. Kilimnik

Category 2

- (a) Drafting the Article
- Chelsea D. Kilimnik; Carey S. Pulverman; Cindy M. Meston (b) Revising It for Intellectual Content
 - Chelsea D. Kilimnik; Carey S. Pulverman; Cindy M. Meston

Category 3

(a) Final Approval of the Completed Article

Chelsea D. Kilimnik; Carey S. Pulverman; Cindy M. Meston

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