Sexual Violence and Shame: A Meta-Analysis

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Abstract

Objective: Although sexual violence (SV) has been hypothesized to increase shame, the relationship between SV and shame has not been quantified. Addressing this gap is essential for developing targeted interventions for survivors, as shame is a transdiagnostic risk factor for numerous forms of psychopathology and a barrier to service seeking. This meta-analysis examines whether individuals exposed to SV demonstrate higher shame than individuals who reported no SV exposure. Second, we assessed the strength of the associations between SV severity and shame severity. **Method:** Seven databases were searched for studies published from inception to June 2023. Original studies that assessed SV and shame in at least 10 participants were eligible for inclusion. Random effects models examined shame differences between SV-survivors and non-SV exposed individuals and quantified the association between SV severity and shame severity. **Results:** Meta-analyses of 53 studies (97 effects, N = 20,079) indicated that individuals exposed versus those not exposed to SV experience higher shame (g = .55), with medium effects found across SV timing (childhood/adolescence or adulthood) and shame subtypes (trait, body, trauma-related). SV severity was moderately associated with shame (r = .20), with strong correlations found between child/adolescent SV severity and trauma-related shame, and small effects found between adolescent/adult SV severity and trauma-related and body shame. Risk of bias ratings, whether contact SV was experienced, sample type, and gender moderated some models. **Conclusions:** Our findings suggest that shame is a clinically significant correlate of SV. Interventions that address shame may contribute to more positive outcomes for survivors.

Keywords: shame, sexual violence, trauma, multilevel meta-analysis

Sexual Violence and Shame: A Meta-Analysis

Sexual violence (SV), defined as any sexual contact or behavior where consent is not obtained or freely given (World Health Organization, 2021), affects 35.6% of women, 18% of transgender and gender-diverse people, and 1% of men globally (Borumandnia et al., 2020; Steele et al., 2023). SV is linked to a range of negative psychological outcomes including depression, posttraumatic stress disorder (PTSD), and suicidality (Dworkin et al., 2017). SV has been theoretically and empirically linked to shame (Feiring et al., 1996, 2002; MacGinley et al., 2019), a self-conscious emotion characterized by negative self-evaluation and a transdiagnostic risk factor for various forms of psychopathology (Paulus et al., 2016). Shame is a barrier to disclosing SV and seeking medical, social, and legal assistance (Munro, 2014). However, the strength of the association between SV and shame has not been summarized. Comparing individuals exposed to SV with those reporting no SV exposure can help explain whether SV confers unique risk for shame. Examining whether SV characteristics, including severity and timing, are associated with more severe shame also can contribute to research of SV as a public health concern and inform mental health interventions for survivors.

SV Characteristics and Shame Subtypes

The current study contributes to the research literature by examining how the timing of SV exposure may be associated with shame. Child or adolescent sexual violence (CASV) encompasses contact (unwanted sexual touching, including attempted or completed penetrative and non-penetrative acts) and non-contact abuse (exposure to sexual content like pornography) during childhood and adolescence that are typically perpetrated by a trusted adult (Chouliara et al., 2014). In contrast, adolescent or adult sexual violence (AASV) typically encompasses contact abuse that occurs in adolescence or adulthood by an intimate partner or friend/acquaintance. However, there is no consensus in the CASV literature about

the definitive age range for childhood with some studies defining childhood SV as occurring before age 12 and adolescent SV as occurring between 13 and 17 (Miron & Orcutt, 2014), while others combine the two periods to define CASV as occurring up to age 18 (Assink et al., 2019). Similarly, many studies examine adult SV at age 18 or older, but others ask about contact SV from age 14 onwards (Koss et al., 2007).

Despite inconsistencies in measurement, exposure to childhood SV poses greater risk for psychopathology, including depression and PTSD, compared to exposure during adolescence or adulthood (Dunn et al., 2017; 2018; McCutcheon et al., 2010). CASV occurs during a critical developmental period where brain structure and function, and by extension, self-esteem and beliefs about the self, are being formed (Dunn et al., 2018). Thus, it is plausible that childhood exposure to SV is associated with the development of more severe, stable shame relative to later adolescent or adult exposure to SV. To our knowledge, no peer-reviewed literature has directly compared shame experiences among those who experience CASV versus AASV. Quantifying and comparing these relationships is crucial for identifying whether SV timing is linked to greater shame, which could point to a need to enhance interventions for CASV survivors. For example, CASV survivors may benefit from interventions that focus on addressing shame rooted in disrupted trust and safety during formative years (Foster & Hagedorn, 2014), while AASV survivors might require addressing shame in the context of adult relationships (DiMauro & Renshaw, 2021), where consent and disclosure may be more prominent.

Theoretical Explanations for Link Between SV and Shame

Finkelhor and Browne's (1985) traumagenic dynamics theory suggests that internalized shame is an affective component of stigmatization arising from society's victim-blaming narratives around SV. This stigmatization has been theorized to lead to negative self-evaluations and feelings of defectiveness, which are central to the experience of trait

shame—an enduring and stable form of shame characterized by negative self-attributions across contexts (Tangney, 1990). Feiring and colleagues extended this model with stigmatization theory (1996), suggesting that societal factors lead to negative cognitive attributions that contribute to shame specifically related to SV. These cognitive attributions can manifest as internal ("I feel flawed"), stable ("I will always feel flawed"), and global ("I am flawed in all aspects of my life") evaluations of the self (Lewis, 1992; Tracy & Robins, 2004). SV survivors may internalize these negative beliefs, potentially leading to chronic feelings of shame, particularly when confronted with SV reminders. Shame experienced intermittently or in response to transgressed social norms can be socially adaptive by prompting a change in behavior that conforms with social expectations (Schaumberg & Skowronek, 2022). Persistent shame, however, is maladaptive because it prompts social isolation and dysfunctional coping (Ahmadpanah et al., 2017) and has been linked to suicidal ideation, PTSD, and dissociation among individuals exposed to SV (MacGinley et al., 2019). SV-related shame mediates the relationship between non-supportive social reactions to disclosure of SV and psychological distress (Bhuptani et al., 2019; DeCou et al., 2017).

Shame often is measured as a stable trait or tendency to experience shame across various contexts (Tangney, 1990) and is commonly referred to as "shame proneness", "internalized" or "characterological" shame. Shame also can be experienced at the state-level or "in-the-moment," including in daily contexts or in response to specific events or situations (Turner, 2014). Although state shame may be fleeting, certain events or contexts may be highly salient for some individuals and elicit more frequent experiences of shame in response to a particular source. For example, a person who experiences a potentially traumatic event like SV may experience shame in relation to the event (e.g., trauma or SV-related shame; Aakvaag et al., 2016), in relation to their physical self (e.g., body shame; Miles-McLean et al., 2015), or in relation to a specific behavior during the event (e.g., freezing during SV;

Katz & Nicolet, 2020). While some research has used terms like sexual assault-related shame or abuse-related shame to describe shame associated with SV (e.g., Feiring & Taska, 2005), studies often utilize measures that do not distinguish SV-related shame from broader trauma-related shame. Although individuals exposed to childhood sexual abuse (Alix et al., 2020; Feiring & Taska, 2005) and lifetime SV (Aakvaag et al., 2016; Miles-McLean et al., 2015; Watson et al., 2012) report high levels of shame, whether SV timing and characteristics are differentially related to shame experiences is unclear. Clarifying these associations can inform targeted treatments that address shame-related distress among survivors.

Moderators

SV Characteristics

SV characteristics, such as relationship to the perpetrator, may be critical factors that affect survivors' psychological outcomes (Blayney & Read, 2018). Increased psychological distress is observed when perpetrators are strangers or family versus friends or acquaintances (Ullman et al., 2006). Other aspects of SV, such as experiencing revictimization (i.e., more than one SV) or more recent SV, have been linked to increased risk for psychopathology (Dunn et al., 2018; Walsh et al., 2012), trauma-related shame (Aakvaag et al., 2016), and body shame (Miles-McLean et al., 2015). Despite evidence linking certain SV characteristics with increased psychological distress, it remains unclear whether these factors are consistently linked to shame among survivors. Clarifying these links can improve predictive models of post-SV mental health and inform more nuanced prevention and intervention efforts that are responsive to the specific characteristics of the abuse experienced.

Demographic Differences in Associations with Shame

Gender, race/ethnicity, and sample type can influence the magnitude of shame experienced. Although not consistent across all studies (Byers & Glenn, 2012), women and girls experience higher shame after SV and a greater proportion experience DSM-5 PTSD

symptoms reflecting shame and guilt compared to men and boys (Badour et al., 2017). In longitudinal work, girls experienced more shame than boys when abuse was discovered, but shame did not persist more in girls than boys over time (Feiring et al., 2002). Shame also may be interpreted differently across cultures and racial/ethnic groups. Watson and colleagues (2012) found that White, Asian/Pacific Islander, and Hispanic women had higher body shame than African American women. Contrastingly, Feiring et al.'s (2001) study found no differences in SV-related shame levels amongst White, African American, and Hispanic youth who had experienced CASV, though more severe abuse predicted higher shame levels in White children. In light of mixed findings, the current review sought to clarify whether gender and race/ethnicity moderate the relationship between SV and shame. Understanding these nuances can lead to the development of identity and culturally affirming interventions that more effectively address the unique needs of survivors. This synthesis also can highlight which groups are underrepresented and guide future studies to improve generalizability.

Studies on SV and shame have included college students (DeCou et al., 2017), community recruited participants (Aakvaag et al., 2016), incarcerated individuals, and those seeking psychological treatment or support in clinical settings (Kealy et al., 2018). Quantifying whether associations vary by population can help identify which groups are at greater risk of experiencing shame and tailor more effective support to the specific needs of different populations.

Methodological Considerations

Studies vary in the quality of their measurement of SV (e.g., Dworkin et al., 2017). Single items that require survivors to label their experiences as SV underestimate the prevalence of SV relative to measures that employ multiple behaviorally specific items that avoid labeling (Cook et al., 2011). Indeed, 62.7% of individuals who endorse a behaviorally specific act that meets criteria for rape do not label their experiences as rape (Wilson &

Miller, 2016). Using a risk of bias tool that assesses whether studies used valid and reliable measures for the central concepts in this review will help clarify whether methodological biases affect the magnitude of the association between SV and shame.

Current Review

This meta-analysis quantitatively summarized associations between SV and shame in two ways using two different types of studies. First, we calculated whether shame was higher among individuals who have and have not experienced SV in studies comparing mean shame scores between SV and non-SV exposed individuals. Second, we examined the magnitude and direction of the relationship between SV and shame in studies that measured both constructs continuously. For both meta-analyses, we evaluated whether SV timing was differentially associated with certain subtypes of shame. We also evaluated whether factors such as SV characteristics, demographic differences, and methodological considerations moderated the magnitude of the association between SV and shame.

Method

Protocol and Registration

A review protocol was developed and prospectively registered online with PROSPERO (CRD42022297401). This meta-analysis followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Moher et al., 2009). Changes to the protocol are noted on PROSPERO.

Timing of SV Exposure

We defined CASV as contact or non-contact victimization of children and adolescents up to 18 years of age in accordance with previous meta-analyses (Assink et al., 2019). AASV was defined as contact SV, which includes attempted or completed rape (i.e., penetrative), sexual coercion, and unwanted sexual touching, since age 14 (Basile et al., 2022; Koss et al., 2007). This decision acknowledges literature defining age cut-offs for SV exposure and

allows for comparability across studies, although adolescent SV is included in both categories. Studies that assessed lifetime SV or SV experienced as a child and adult were placed under the "lifetime" SV category and were analyzed separately from CASV and AASV. Studies that did not define when SV occurred were also placed under lifetime SV.

Literature Search and Study Retrieval

The review process commenced September 2021 and concluded May 2024. We first consulted a reference librarian to develop the search strategy and terms. A systematic search was originally conducted across four electronic databases (PsycINFO, CINAHL, PubMed, ProQuest Dissertations and Theses) from inception to October 21, 2021, and updated to include three additional databases: Web of Science, Scopus, and PsyArXiv. An updated search with the seven electronic databases was completed on June 6, 2023. ProQuest and PsyArXiv were searched with the intention of retrieving non-peer reviewed and unpublished literature. Search terms included a Boolean operator (OR, AND) to distinguish between SV and shame constructs and wildcards (*) to accommodate variations in terminology across studies. Appendix A provides a flow diagram detailing the search strategy and Appendix B provides a full list of search terms applied to specific databases.

Once search terms were applied across the seven databases, results were imported into Zotero with duplicates excluded. Abstracts were imported into Covidence. Titles and abstracts were independently coded for inclusion by three authors, with the first author reviewing all studies and the second and third author each reviewing half the total number of articles. This method was also used for full-text screening. Discrepancies were resolved by the first three authors.

To address publication bias, we searched for unpublished studies (Rosenthal, 1979). Eleven authors were contacted when insufficient information on effect sizes was found. Eight (72%) responded. Three authors were contacted when a full text was unavailable; one

responded (33%). We received two unpublished datasets (Laaksonen et al., 2015; Walsh & Lowe, 2017). A manual search of journals from the last decade (2013 to 2023) from which we had obtained two or more articles from our initial list of eligible studies was also completed (i.e., *Violence Against Women, Psychology of Women Quarterly, Sex Roles, Journal of Sex & Marital Therapy, Child Abuse & Neglect*). We searched similar reviews and their references (MacGinley et al., 2019), but identified no new studies.

Eligibility Criteria

Studies included in the meta-analysis met the following inclusion criteria: (1) quantitative study; (2) measured shame as a continuous variable; (3) measured contact-based SV, dichotomously or continuously and as separate from other abuse-related variables (e.g., physical abuse); (4) included participants who have experienced SV; (5) included original research not present in other studies; (6) included at least 10 participants; (7) article was written or translated into English. When dissertations and published articles by the same author(s) using the same data were discovered, we retained the peer-reviewed version of the article. To avoid validity threats from duplicated data in dissertations and articles, we selected the study that had statistics that could be used to compute the effect size and/or the largest sample size. When sample sizes were comparable, we selected the study that reported multiple effects to provide a more comprehensive dataset.

Data Extraction and Coding

A coding spreadsheet was developed by the research team to extract data. Data extraction was undertaken independently and in duplicate by the first three authors. The first author coded all eligible studies, while the second and third authors each coded 50% of the studies. The first three authors extracted the following data: the study's title, author(s), year of publication, publication status (i.e., peer reviewed, dissertation/thesis), name of dataset, total number of participants, number of survivors and comparison participants, study design

(i.e., cross-sectional, longitudinal; correlational and/or group comparison), mean age and standard deviation, country, sample gender, sample race/ethnicity for U.S. samples, SV measure(s) and shame measure(s) (full name, year, and version), shame subtype, characteristics and timing of SV (time since most recent/only assault, percentage of sample revictimized; percentage of sample whose perpetrators were strangers and/or family members), and focal time-period of SV assessed (i.e., CASV, AASV, lifetime). Means and standard deviations were recorded for studies that compared shame for SV and non-SV exposed individuals. Correlations were recorded for studies that assessed associations between SV severity and shame severity. Semi-partial, biserial, unstandardized and standardized regression coefficients were recorded when zero-order correlations were absent.

We tested three continuous moderators: gender, operationalized as the percentage of the sample who identified as girls/women; race/ethnicity, operationalized as the percentage of the sample who identified as White; and risk of bias ratings. We tested three categorical variables: sample type, operationalized as the majority recruitment setting (>50%) participants were sampled from, with college students coded as the reference group, and other common recruitment settings including community and help-seeking services; whether CASV included contact SV only (1 = contact-SV only, 0 = mixed contact and non-contact SV assessed); and publication type, operationalized as journals articles or dissertations. Contact-only vs mixed or non-contact SV was assessed as a moderator only for the CASV to shame models, as AASV was operationalized as contact-only SV.

Inconsistent reporting of SV characteristics, such as relationship to perpetrator, revictimization, and time since most recent assault across studies prevented moderator analyses; therefore, extracted demographic data are primarily for descriptive purposes (see Appendix C). Interrater reliability was assessed using kappa statistics for categorical

variables and intraclass coefficient correlations (ICC) for continuous variables, showing moderate to high agreement (.70-.90) and good to excellent agreement (.75-.90), respectively.

Risk of Bias

The Appraisal Tool for Cross-Sectional Studies (AXIS; Downes et al., 2016) provided a risk of bias and study quality index, with modifications made for the current review (detailed in Appendix D). Criterion was rated as present (1) or absent (0). Unpublished datasets without a corresponding written report were excluded due to insufficient information to assess bias. A total (summed) score was computed for each study, with a possible range of 0 to 15. Higher scores reflect greater study quality and lower risk of bias. Interrater reliability indicated good agreement (ICC = .80) with discrepancies adjudicated by consensus.

Data-Analytic Plan

We describe the study characteristics and risk of bias features for included studies. Next, we calculate the magnitude of difference in shame severity between individuals with and without SV exposure and analyze relevant moderators. Finally, we assess the magnitude of the relationship between SV severity and shame severity and examine relevant moderators.

Meta-analyses were completed in R software (Version 1.4; R Core Team, 2015) by using the metafor package (Viechtbauer & Cheung, 2010). A standardized mean difference (Hedges' *g*) was calculated for studies that examined the effect of lifetime exposure to any form of SV on all shame subtypes by comparing participants with and without a history of SV. Hedges' *g* was used to account for biased effect sizes due to small samples (Cooper et al., 2009). For studies that assessed the association between SV and shame, we recorded a correlation coefficient (Pearson's *r*). These correlations reflected the effect size between SV severity and shame severity. Most studies provided non-adjusted effects with a Pearson's *r*; one study each provided a partial adjusted effect size (R^2), a point-biserial correlation, or a transformed log score. Seven studies included a standardized regression coefficient that was

transformed to Pearson's *r* using the esc package in R (Lüdecke, 2018). Following recommendations (Cooper et al., 2009; Lipsey & Wilson, 2001), correlation coefficients were converted to Fisher's *z* during meta-analyses to stabilize the variance and ensure a normal distribution for analyses. Once analyses were complete, Fisher *z* scores were converted back to zero-order correlations for interpretability. We did not convert studies to one effect size metric given the unique question each set of studies addressed. We conducted overall meta-analyses to quantify the association between SV and shame and specific meta-analyses for different types of SV and shame to address heterogeneity in these variables.

Random Effects Model and Effect Size Dependency

We fit a random effects model to address the substantial heterogeneity observed in sample characteristics, study design, and measurement methods across studies. While a fixed effects model assumes that there is a single true effect size, a random effects model assumes that there is a distribution of effect sizes across studies and allows for variation in estimates.

Meta-analyses assume independence of effect sizes. In this study, several effects reflecting associations between the timing of SV exposure or shame subtypes were derived from within a single study. To avoid dependency concerns, meta-analysts have averaged effect sizes or extracted one effect size per study. This method leads to a loss of valuable information (Assink & Wibbelink, 2016; Cheung, 2014). To address dependency concerns and avoid losing important information, we extracted all relevant effect sizes and built a three-level meta-analytic model. In a three-level meta-analysis, variance is explained by three sources: level 1 reflects sampling variance of the individual effect sizes, level 2 reflects variance in effect sizes within the same study, and level 3 reflects variance between different studies. Following recommendations described by Assink and Wibbelink (2016) and Cheung (2014), we tested the significance of a three-level model by applying the Knapp-Hartung (2003) adjustment. This method involves testing each coefficient with a *t*-distribution and

testing all model coefficients with an *F*-distribution (i.e., omnibus test). This approach excludes the comparison of an intercept-only model to a model with predictors. We used the maximum likelihood estimation to account for uncertainty in estimating the between-study variance while accounting for the lost degrees of freedom. The restricted maximum likelihood estimator is particularly suitable when dealing with heterogeneous studies and small sample sizes (McNeish, 2017).

Heterogeneity and Moderator Analyses

To assess for heterogeneity, we first used the Q-statistic to test the null hypothesis that no heterogeneity existed at level 3. Next, we used a formula outlined by Cheung (2014) to conduct a likelihood ratio test and compare a level 3 model, $\tau^2_{(3)}$, which accounts for variance in measures of shame or the timing of SV exposure, to a level 2 model, $\tau^2_{(2),}$ which accounts for variance in effect sizes within studies, to determine if the inclusion of level 3 would better explain the variance in effect sizes. We did this by conducting two one-sided log-likelihood ratio tests to compare the deviance of the full model with the deviance of a model that excluded one of the variance parameters. If significant variance was found at level 2 and/or 3, we tested variables as potential moderators of the overall strength of the association between SV and shame. Subgroup analyses were performed with a minimum of $k = 10$, as fewer than 10 studies for tests of heterogeneity have been suggested to be unlikely to yield meaningful findings (Schwarzer et al., 2015). Prior to testing moderators, continuous moderators were centered around their mean and dummy variables were created for categorical moderators. When reporting heterogeneity, the *Q* statistic indicates the presence or absence of heterogeneity and the $I^2_{(2)}$ and $I^2_{(3)}$ indicates the proportion of the total variation of the effect size due to level 2 and level 3 between-study heterogeneity. Heterogeneity for univariate models (i.e., only one effect size per study) was explored with the I^2 metric, which quantifies

the proportion of variation in study results due to heterogeneity rather than chance. Heterogeneity was explored for univariate models when significance was found.

Bias and Sensitivity Analyses

Although we aimed to include all relevant studies, it is possible that some were missed due to limitations in our search strategy or the presence of various forms of bias, such as publication bias, subjective reporting bias, or small study effects. To evaluate whether a form of bias was present in the effect sizes analyzed, we implemented multiple approaches tailored to univariate and multilevel models. For univariate meta-analyses, we used the funnel-plot-based trim-and-fill method to impute effect sizes for missing data and determine the overall effect size (Duval & Tweedie, 2000a, 2000b). We examined the asymmetry of funnel plots derived from unconditional models based on uncorrected correlations through weighted regressions and standard errors. An asymmetrical funnel plot suggests a disproportionate representation of studies with either below- or above-average effect sizes. The trim-and-fill method imputes hypothetical effect sizes, restoring symmetry to the plot. Depending on the nature of the asymmetry, these imputations can occur on either side of the plot. We then conducted a classical Egger's test, which is a regression-based approach that assesses the funnel plot's asymmetry (Egger et al., 1997). Egger's test quantifies the probability that the asymmetry is due to chance rather than systemic bias, thus offering a more objective measure.

While traditional methods, such as the Egger's test and trim-and-fill can detect bias for univariate models, they do not account for nonindependence of effect sizes in multilevel models (Nakagawa et al., 2021). Nakagawa and colleagues propose the use of funnel plots where residuals and standard errors are plotted instead of raw effect sizes and sample sizes and use of a multilevel meta-regression model. The adapted Egger's test differs from the

classical Egger's test by accounting for random effects in the model (Assink et al., 2019). These recommendations were followed to account for nonindependence.

To identify outliers, we used influential case diagnostics. Sensitivity tests were conducted by excluding outliers and reanalyzing the data. For univariate models, we used the leave-one-out method, which involves sequentially excluding each study from the meta-analysis and observing whether an individual study has a disproportionate influence on the overall effect size, indicating potential bias. Sensitivity analyses are provided in Appendix E.

Results

Study Characteristics

A complete list of included sources is available in Appendix F, and data files are available on OSF. In total, 52 eligible sources describing 53 independent studies (*k*), 97 effects (*l*), and 20,079 people were identified for inclusion in the review. These studies were published from 1993 to 2023 (median publication year was 2013) and collected from eight different countries. Two studies were included in the group differences and correlational meta-analyses due to their relevance to both sets of findings. A total of 23 studies ($l = 42$ effects) comprising 7,707 people assessed the magnitude of the difference in shame between survivors of SV and non-SV exposed individuals, while 32 studies ($l = 55$) comprising 12,465 people assessed the magnitude of the association between SV severity and shame. Across all studies, 6,422 individuals had experienced SV.

Only one study examined relationships between SV and shame longitudinally, the remainder focused on cross-sectional associations. Most studies came from Western countries, most commonly the United States ($k = 40$) and United Kingdom ($k = 5$) and included majority White ($k = 28$) and women ($k = 52$) participants from college settings ($k = 29$). Several studies came from master's theses or doctoral dissertations ($k = 23$), while the majority were sourced from peer-reviewed journals ($k = 29$), with the remaining unpublished

datasets (k = 2). The mean age of participants across studies was 29.86 (SD = 10.25). A variety of measures capturing eight distinct subtypes of shame with one combined type were assessed across the included studies. They included trait (k = 35), body (k = 18), behavioral (k = 5), SV-related (k = 5), trauma-related (k = 3), external (k = 2), global (k = 1), context-specific (k = 1), and sexual (k = 1) shame.

Risk of Bias

A summary of risk of bias ratings for studies in the current review is provided in Appendix D. Risk of bias was low across studies (M = 12.27, SD = 1.77). Methodological problems included a lack of reporting of basic data (e.g., demographics, number of participants who experienced SV) and missing justifications for sample size.

Standardized Mean Differences in Shame Between SV and Non-SV Exposed Individuals

In the meta-analysis examining shame in survivors and non-SV exposed individuals, 11 meta-analyses were conducted, with the overall model totaling 23 studies encompassing 42 effects. Table 1 includes an overall mean effect for each SV and shame subtype, organized by the most commonly occurring timing of SV and shame subtypes studied to the least frequently examined combinations. Figure 1A provides the summary effects. The overall standardized mean difference for various types of SV and shame ranged from a high of g = 0.62 for SV (all types) to trait shame to a low of g = 0.37 for AASV to trait shame. Effects can be interpreted as small (0.2), medium (0.5), or large (0.8; Cohen, 1988). One SV to shame effect was large, nine were medium, and none were small. Heterogeneity in effect sizes across some models indicated that the effect of SV on shame varies by study. Potential moderators were thus explored.

Assessment of Bias for Studies on Mean Differences in Shame by SV

Two out of eight Egger's test were significant, which indicated significant bias for mean differences between SV (all types) and shame subtypes (all types) (β = 4.41, p = .008)

and SV (all types) and trait shame (β = 6.59, p = .027; Table 1, Appendix G). Trim-and-fill analyses indicated some form of bias in two of four univariate models: CASV to trait shame had underestimation of three effect sizes, and AASV to trait shame had overestimation of two effect sizes. Underestimation suggests that the mean effect may be an underestimation of the true effect, while overestimation is the inverse (Assink et al., 2019). Data and code for the 23 funnel plots from the trim-and-fill analyses are provided on OSF.

Moderator Analyses

Four moderators were significant (Appendix H). Percentage of girls/women was negatively associated with body shame, β = -.00, 95% CI = [0.00, 0.10], p = .009, suggesting that associations between SV and body shame were lower in samples that included more girls/women. In the same model, treatment-seeking had positive associations with body shame, β = .41, 95% CI = [0.10, 0.71], p = .017, suggesting higher associations between SV and shame in treatment-seeking samples. In CASV and trait shame analyses, treatment-seeking, β = .39, 95% CI = [0.05, 0.74], p = .030 and combined samples, β = 1.84, 95% CI = [1.20, 2.49], p = .0003 had positive associations with shame (all types).

Associations Between SV Severity and Shame

The second overall meta-analysis examined associations between SV severity and shame and included 12 models (k = 32, l = 55). Table 2 shows 12 models analyzing the associations between SV severity and shame, organized by broadest SV and shame subtype to more specific. Figure 1B provides the summary effects. Five models were univariate, meaning only one effect size per study was available. Seven models were multilevel, meaning effect sizes were nested within studies. Correlations ranged from r = .10 to .37, and all models were significant. Pearson's correlation coefficients (r) were interpreted as small (.15), medium (.25), or large (.35; Gignac & Szodorai, 2016). Associations between one SV severity to shame relationship was large, two were medium, and nine were small. For

analyses with a minimum of 10 studies or effects, heterogeneity in effect sizes was noted for six, suggesting that the effect of SV severity on shame was not uniform across studies and may be influenced by other factors. Potential moderators were further explored.

Assessment of Bias for Studies Assessing SV Severity and Shame

One of twelve Egger's tests was significant, indicating significant bias for links between CASV and body shame ($\beta = 4.72$, $p = .044$; Table 2, Appendix G). Trim-and-fill analyses indicated that two and one effect sizes, respectively, were underestimated for the following two of four univariate models: SV (all types) to trauma and SV-related shame link and CASV to trauma and SV-related shame link.

Moderator Analyses

Only two moderators were significant (Appendix H). Higher study quality scores were associated with larger associations between AASV and shame (all types), $\beta = .05$, 95% CI = [0.00, 0.10], $p = .028$, indicating that stronger associations between AASV and shame were evident in less biased studies. Contact SV was significant and negative for the model from CASV to shame (all types), $\beta = -.15$, 95% CI = [-0.29, -0.01], $p = .037$, suggesting that contact CASV was associated with lower shame relative to non-contact CASV. Publication type was not a moderator as no dissertations were available for inclusion.

Discussion

This meta-analysis quantified relationships between SV (CASV, AASV, lifetime) and shame (trait, body, behavioral, trauma- and SV-related) across varied samples (treatment-seeking, college, community), over three decades (1993-2023), and within eight countries.

Do SV Survivors Experience Higher Shame Than Individuals Who Report No SV?

Consistent with prior literature suggesting that SV exerts negative effects on an individual's sense of self-worth and identity (Feiring & Taska, 2005; Herman et al., 2011; McElvaney et al., 2022), our findings indicate that SV-exposed individuals experienced

moderately higher levels of shame than non-exposed individuals. This effect was consistent across SV timing and shame subtypes, suggesting that the experience of SV, rather than when it occurs, is more strongly associated with shame. Societal narratives surrounding SV may perpetuate stigma which can contribute to internalized stigmatization and chronic feelings of low self-worth due to victim-blaming attitudes (Finkelhor & Browne, 1985). Although not measured here, negative social reactions to disclosure of SV, including disbelief and blame, can reinforce the internalization of shame, discourage further disclosure, and inhibit recovery (Bhuptani et al., 2019; DeCou et al., 2017).

Although medium effect sizes emerged for all shame subtypes, variations were noted, particularly for SV timing and trait shame. Specifically, the association between CASV and shame was higher than the association between AASV and trait shame. As all studies involved a current assessment of shame and a retrospective assessment of SV among adult participants, these findings suggest that early SV exposure may disrupt self-concept during formative years by increasing the likelihood of experiencing shame across a variety of contexts (Alix et al., 2020; Feiring & Taska, 2005). CASV, particularly when experienced chronically, may foster pervasive negative self-attributions (e.g., “I am inherently flawed”; Lewis, 1992; Tracy & Robins, 2004). These findings underscore the importance of developmentally sensitive interventions that address shame's potential impact on self-perception in SV survivors, with the goal of disrupting the internalization of stigma and promoting healthier self-concept.

Only gender and sample type moderated relationships between SV and shame in this study. Associations between SV and body shame were smaller in samples with more girls/women, aligning with data showing that men, non-binary, and transgender individuals who have experienced past-year SV experience body image disturbances and decreased body satisfaction (Eisenstadt et al., 2023). This finding conflicts with literature examining gender

differences in SV-related shame more broadly (Badour et al., 2017). Results should be interpreted cautiously as a higher proportion of women were included in the reviewed studies, which could reflect limited research on men and non-binary people's experiences of SV (Steele et al., 2023). Efforts should be made to recruit men and non-binary people for studies of SV and shame.

That treatment-seeking samples had higher mean differences in shame between those exposed versus not exposed to SV when compared to college students fits with work suggesting that seeking treatment is related to greater distress (Mojtabai et al., 2008). Notably, 80% of the combined samples in this study included participants seeking treatment. Although shame can inhibit treatment-seeking (Munro, 2014), individuals in treatment-seeking samples may have reported higher shame due to more severe psychological distress, which in turn may have encouraged help-seeking despite shame's inhibitory effects. Shame is a transdiagnostic correlate of various forms of psychopathology (Paulus et al., 2016) and thus could be an important clinical target among treatment-seeking survivors.

Is SV Severity Associated With Severity of Shame?

Among the 29 studies assessing associations between SV severity and shame severity, a small-to-medium effect size emerged. Larger effect sizes emerged for analyses examining links between SV and trauma- and SV-related shame, which reinforces work suggesting that SV survivors may have greater shame that is connected to the distressing aspects of their trauma (Aakvaag et al., 2016; DeCou et al., 2017). Our finding that CASV severity was more strongly associated with trauma- and SV-related shame than was AASV severity fits with prior research (Dunn et al., 2017; 2018) and suggests that earlier exposure to SV, particularly during sensitive periods for self-esteem development, heightens risk for shame compared to later SV exposure. These findings highlight the importance of early intervention with childhood SV survivors to address stigma and promote healing.

A medium effect size emerged for the link between AASV and body shame while a small effect size emerged for CASV and body shame. These findings partially align with prior literature on adult sexual assault (Vidal & Petrak, 2007) and suggest that survivors may perceive their physical self as violated or tainted due to the breach of bodily autonomy. This shame can manifest as feelings of betrayal toward their body for how it responded to the abuse or attracted the abuser (Shin & Salter, 2022), which may be a function of societal messaging and rape myths that blame survivors for their victimization experiences (Krahé, 2016). Survivors may feel ashamed of their body's actions or inactions (Shin & Salter, 2022) which can lead to persistent dissatisfaction with their physical self. Indeed, a growing literature links SV to body dissatisfaction and eating disorders (Malet-Karas et al., 2022). AASV survivors, whose experiences of SV may have occurred closer in time to the research, may exhibit greater body shame than CASV survivors, potentially due to the more recent impact of the physiological violation.

In terms of moderation, CASV studies that measured contact SV had smaller effect sizes than those that included all forms of CASV. CASV survivors who experienced contact SV might have lower shame because their experiences are more similar to “real rape” stereotypes involving contact or force (Krahé, 2016). In turn, they may have greater acknowledgement of the experience as rape or assault and attribute more responsibility for the assault to the perpetrator rather than to themselves (Kahn et al., 2003). Additionally, higher quality studies (i.e., those with less bias) yielded stronger effect sizes, reinforcing the need to attend to careful measurement when specifying these associations.

Implications for Measuring Shame

Across all studies, shame was measured according to its source, but there is fluidity and overlap among subtypes (e.g., trait, body, behavioral, trauma-related, and SV-related shame). This complexity of shame complicated efforts to isolate distinct associations between

SV timing and severity and shame subtypes. Indeed, our group differences meta-analyses revealed medium effect sizes across SV timing and shame subtypes, suggesting that *whether* one experienced SV was more associated with shame than *when* one experienced SV. That associations were relatively stable among shame subtypes reflects conceptual overlap in these experiences. These findings align with perspectives advocating for a holistic (Rizvi, 2009) and multidimensional (Lear et al., 2022) assessment of shame that reflects both internalized (how one sees oneself) and externalized (how others see them) aspects. In our associational meta-analysis, however, effect sizes between SV timing/severity and shame subtypes ranged from small to large, indicating that the strength of the relationship varies depending on the timing of SV and shame subtype. To address these complexities, future assessments might start with broad dimensions that assess an individual's overall shame profile and include modules for specific subtypes (e.g., trauma-related shame) to clarify the extent to which shame is experienced among SV survivors.

Limitations of the Research Literature and Future Directions

The SV literature is limited by variable age distinctions between CASV (before age 18) and AASV (age 14 or later). Although we categorized the predominant period when SV was experienced, adolescent SV was included in both time periods, which reflects its shared features with both childhood (e.g., perpetrator as an authority figure) and adulthood (occurring in dating relationships, etc.) SV. Despite growing recognition that adolescent SV is distinct from childhood and adulthood SV (Torazzi et al., 2021), we were unable to isolate the specific effects of adolescent SV on shame due to this overlap. Future research should ask about age at different SV experiences as well as duration and frequency to better understand how timing of SV is linked to shame and related self-conscious emotions.

Some important moderators could not be examined due to limited variability or data availability. For example, SV characteristics such as relationship to the perpetrator,

revictimization, whether injury occurred, and the tactics used are critical correlates of mental health outcomes in survivors (Peter-Hagene & Ullman, 2015) but were often not queried and should be considered in future research. Additionally, only one study in this review was longitudinal, limiting our ability to determine the directionality or temporality of SV and shame, and none assessed state shame. Future longitudinal studies should address these gaps by examining how state and other shame subtypes evolve over time and whether these emotions confer risk for psychopathology among SV survivors.

Although this review included studies from eight countries, most research came from Western nations and was limited in cultural diversity. Cultural factors such as community beliefs about honor, victimization-related stigma, and gender inequality can influence the degree to which shame is experienced among SV-survivors. Future research should focus on regions where studies on SV and shame are scarce, such as countries in Asia, Africa, and the Middle East, where collectivism, gender roles, and the high value placed on family honor may uniquely influence shame. Understanding cultural variations may guide global public health efforts to address SV-related stigma and enhance mental health support provided to survivors across cultures. Similarly, the current review was unable to draw conclusions about SV and shame for different racial and ethnic groups, since most were majority White samples. Given high rates of SV among Indigenous and multiracial people (Basile et al., 2022), future work should focus on survivors of color.

Finally, the quality of the studies reviewed varied. While risk of bias scores were generally low across studies, some studies had notable limitations, such as small sample sizes and inconsistent operationalization of SV. For example, some studies used single-item measures of SV, which are known to underestimate the complexity and prevalence of these experiences. Others did not measure SV in comparison groups, instead assuming that these participants had not experienced SV, which may reflect misclassification. Future studies

should measure SV in comparison groups. Additionally, the risk of bias across studies varied, as captured by the AXIS tool, with several studies exhibiting insufficient sample size justifications or missing demographic details. These variations in study quality may have influenced the magnitude of effects observed in the meta-analyses. Future research should prioritize larger and more representative samples and the use of validated multi-item scales to measure SV and shame. Improving the methodological quality of studies could strengthen the reliability of findings and provide more definitive guidance for interventions aimed at reducing shame-related distress among survivors.

The current review did not compare shame between SV-survivors and individuals who experienced multiple or other trauma types. Shame may be experienced more strongly after SV in comparison to other trauma types, such as physical trauma (Amstadter & Vernon, 2008). However, SV also co-occurs with other trauma types (Walsh et al., 2015) so in addition to examining differences between trauma types, it will be important to examine whether exposure to multiple trauma types intensifies the experience of shame.

Conclusion

This review summarizes literature on SV and shame, quantifying the association between the timing of SV exposure (CASV, AASV, lifetime) and shame subtypes (trait, body, behavioral, trauma- and SV-related shame). We identify gaps and suggest future research directions, including the need for more diverse samples, systematic measurement of moderators (e.g., assault characteristics), and longitudinal studies (see also Table 3 and 4). Findings suggest shame is common post-SV, highlighting the need for therapeutic approaches that foster self-compassion to counter trauma-related shame, address emotional and cognitive correlates like self-criticism, and challenge internalized negative beliefs about self-worth (Westerman et al., 2020). Public service programs that dismantle rape myths and encourage service seeking could reduce shame and increase survivor service utilization.

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Table 1

Standardized Mean Differences in Shame Between SV and Non-SV Exposed Individuals

Model		*l*	*k*	*n*	*g* (*SE*)	[95% CI]	Sig mean (*p*)	% Var lev 1	Lev 2 var	% Var lev 2	Lev 3 var	% Var lev 3	I^2	*Q*(*df*)
SV (all types)	Shame (all subtypes)	42	23	6824	0.55 (0.12)	[0.30, 0.81]	<.001***	5.27	.08	21.47	.27	73.27	NA	NA
	Trait	25	19	5550	0.62 (0.18)	[0.23, 1.01]	.003**	2.96	.33	47.20	.35	49.84	NA	NA
	Body	10	6	1483	0.48 (0.11)	[0.22, 0.73]	.002**	36.56	0	6.47	.04	56.98	NA	NA
	Behavioral	4	2	584	0.57 (0.20)	[-0.08, 1.23]	.070	43.11	0	0	.06	64.43	NA	NA
CASV	Shame (all subtypes)	17	15	2974	0.57 (0.13)	[0.29, 0.84]	<.001***	13.49	0	0	.21	86.51	NA	NA
	Trait[a]	14	14	2826	0.58 (0.14)	[0.30, 0.85]	<.001***	NA	NA	NA	NA	NA	88.03	82.91 (13)
	Body[a]	2	2	440	0.51 (0.15)	[0.20, 0.81]	<.001***	NA	NA	NA	NA	NA	7.24	1.07 (1)
AASV	Shame (all subtypes)	9	5	2296	0.45 (0.89)	[0.24, 0.65]	<.001***	27.69	.01	25.70	.02	46.60	NA	NA
	Trait[a]	4	4	1694	0.37 (0.07)	[0.13, 0.61]	.015*	NA	NA	NA	NA	NA	24.33	4.93 (3)
	Body[a]	2	2	415	0.46 (0.28)	[-3.13, 4.06]	.349	NA	NA	NA	NA	NA	79.79	4.94 (1)

Model		*l*	*k*	*n*	*g* (*SE*)	[95% CI]	Sig mean (*p*)	% Var lev 1	Lev 2 var	% Var lev 2	Lev 3 var	% Var lev 3	I^2	*Q*(*df*)
Lifetime SV	Shame (all subtypes)	8	7	2030	0.41 (0.09)	[0.18, 0.64]	.003**	21.70	0	14.33	.03	59.72	NA	NA

Note. SV = sexual violence; *l* = number of effect sizes; *k* = number of studies; *n* = total number of participants (both SV and non-SV exposed individuals); *g* = Hedges' *g* (standardized mean difference); *SE* = standard error; CI = confidence interval; Sig = significance; % Var lev 1 = percentage of variance explained at level 1 (sampling variance of extracted effect sizes); Lev 2 var = within study sampling variance; Lev 3 var = between study variance; I^2 = percentage of heterogeneity; *Q* = Q-statistic; *df* = degrees of freedom; NA = not applicable; CASV = child/adolescent sexual violence; AASV = adult/adolescent sexual violence.

[a] Univariate meta-analyses with only one effect size per study; variance was not accounted for by a three-level model for univariate analyses.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table 2

Associations Between SV Severity and Shame

Model		*l*	*k*	*n*	*z* (*SE*)	[95% CI]	Sig. mean *z* (*p*)	*r*	% Var. lev 1	Lev 2 var	% Var lev 2	Lev 3 var	% Var. lev 3	I^2	*Q* (*df*)
SV (all types)	Shame (all subtypes)	55	32	9211	.20 (.02)	[0.15, 0.25]	<.001***	.20	16.12	0	14.18	0.01	69.69	NA	NA
	Trait	25	16	4145	.15 (.02)	[0.08, 0.21]	<.001***	.15	35.72	0	2.88	0	64.27	NA	NA
	Body	13	12	3700	.19 (.02)	[0.14, 0.25]	<.001***	.19	48.85	0	9.76	0	41.38	NA	NA
	Behavioral	4	3	989	.10 (.02)	[0.02, 0.19]	.028*	.10	100	0	0	0	0	NA	NA
	Trauma- or SV-related[a]	7	7	2153	.29 (.07)	[0.14, 0.44]	<.001***	.28	NA	NA	NA	NA	NA	91.84	84.41 (6)
CASV	Shame (all subtypes)	40	23	7136	.20 (.03)	[0.14, 0.27]	<.001***	.20	14.61	0	9.63	0.01	75.75	NA	NA
	Trait	23	16	4143	.15 (.02)	[0.09, 0.21]	<.001***	.15	39.81	0	0	0	60.18	NA	NA
	Body[a]	6	6	2523	.16 (.02)	[0.11, 0.21]	<.001***	.16	NA	NA	NA	NA	NA	43.87	11.43 (5)
	Trauma- or SV-related[a]	4	4	1255	.39 (.09)	[0.20, 0.59]	<.001***	.37	NA	NA	NA	NA	NA	91.24	31.26 (3)
AASV	Shame (all subtypes)	11	9	2900	.17 (.04)	[0.08, 0.26]	.001**	.17	20.26	0	0	0	60.18	NA	NA

Model		*l*	*k*	*n*	*z* (*SE*)	[95% CI]	Sig. mean *z* (*p*)	*r*	% Var. lev 1	Lev 2 var	% Var lev 2	Lev 3 var	% Var. lev 3	I^2	*Q* (*df*)
	Body[a]	5	5	1011	.24 (.03)	[0.18, 0.30]	<.001***	.24	NA	NA	NA	NA	NA	0	1.76 (4)
	Trauma- or SV-related[a]	3	3	898	.16 (.07)	[0.01, 0.30]	.031*	.16	NA	NA	NA	NA	NA	77.88	9.90 (2)

Note. SV = sexual violence; *l* = number of effect sizes; *k* = number of studies; *n* = total number of participants (both SV and non-SV exposed individuals); *z* = mean effect size; *SE* = standard error; CI = confidence interval; *r* = mean effect size (Pearson's correlation); Sig = significance; % Var lev 1 = percentage of variance explained at level 1 (sampling variance of extracted effect sizes); Lev 2 var = within study sampling variance; Lev 3 var = between study variance; I^2 = percentage of heterogeneity; *Q* = Q-statistic; *df* = degrees of freedom; NA = not applicable; CASV = child/adolescent sexual violence; AASV = adult/adolescent sexual violence.

[a] Univariate meta-analyses with only one effect size per study; variance was not accounted for by a three-level model for univariate analyses.

* $p < .05$ ** $p < .01$ *** $p < .001$.

Table 3

Critical Findings

• SV survivors experience greater shame than individuals not exposed to SV, regardless of SV timing and shame subtype. • SV severity and shame severity were moderately correlated and more severe CASV was linked to stronger trauma-related shame.

Note. SV = sexual violence; CASV = child/adolescent sexual violence.

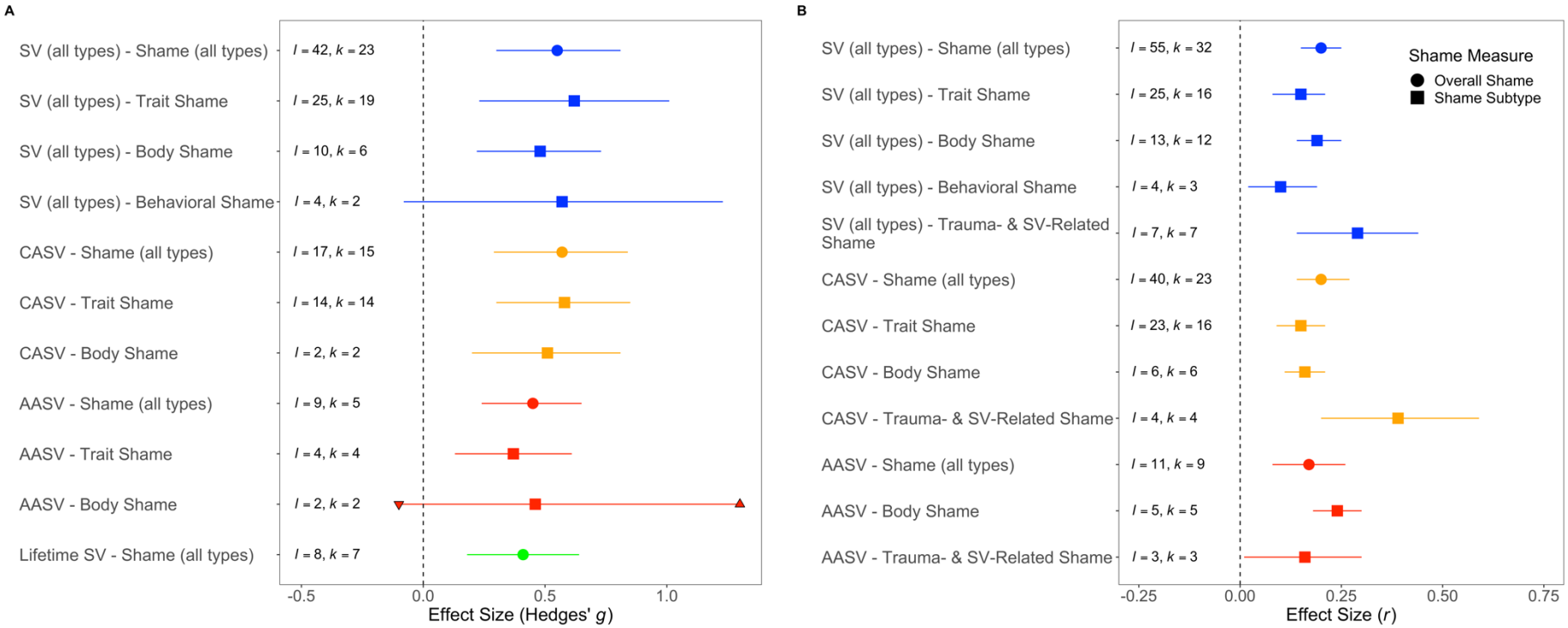
Table 4

Implications for Practice, Policy, & Research

Practice	• Interventions that target shame-related distress may help normalize and reduce survivors' mental health burden.
Policy	• Public service programs that dismantle rape myths and encourage service-seeking could reduce shame and increase survivor service-utilization.
Research	• Future studies should sample diverse survivor populations, including racial/ethnic minorities, to assess shame's role across demographics. • Research should explore sexual violence characteristics such as relationship to the perpetrator, revictimization, occurrence of penetration or injury, and tactics used, as these may be critical correlates of shame-related distress.

Figure 1

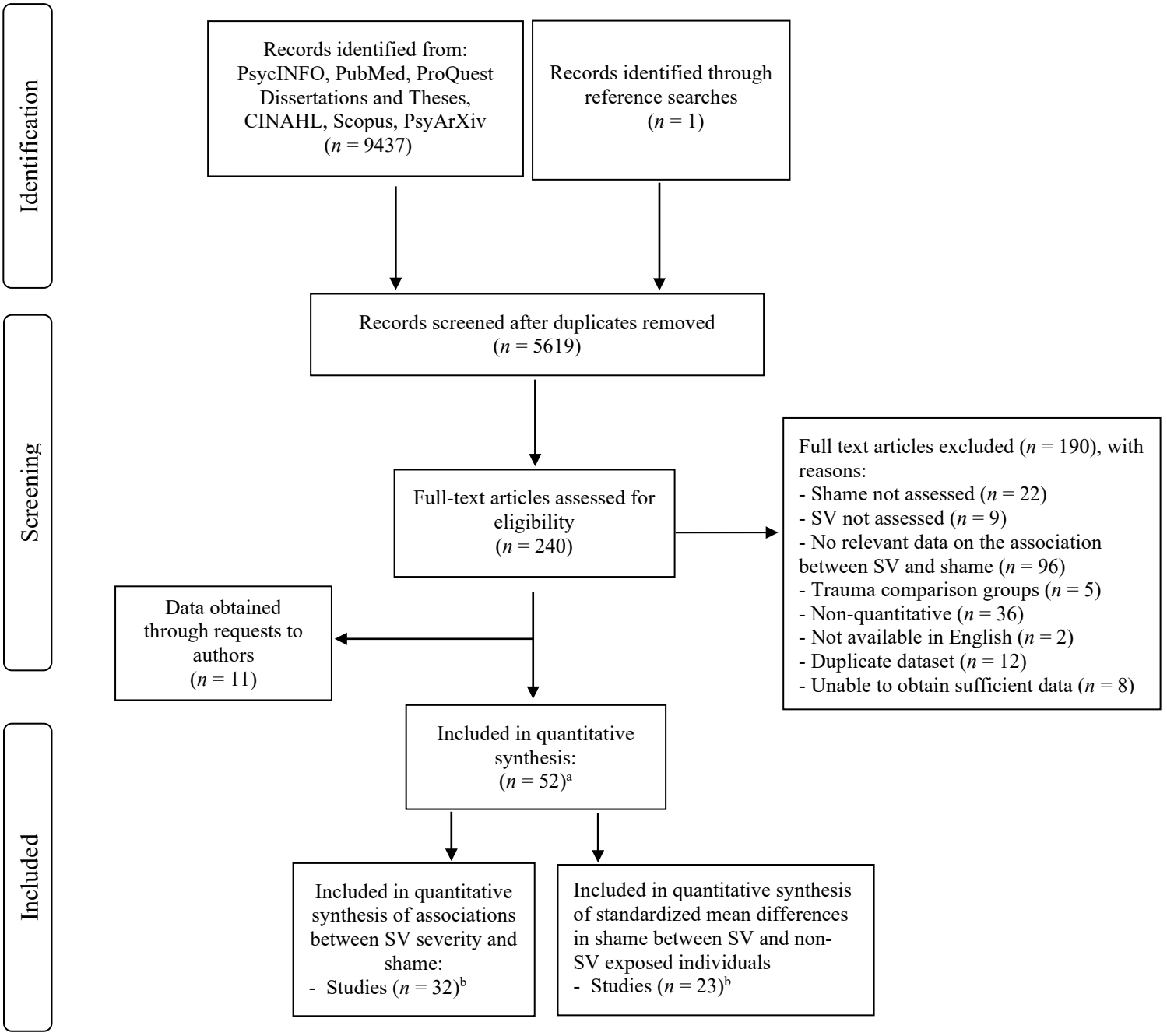
Forest Plots of Effect Sizes for Timing of Sexual Violence Exposure and Shame



Note. Panel A: Standardized mean differences in shame subtypes between individuals with and without sexual violence (SV) exposure. Panel B: Mean effect sizes for associations between timing of SV exposure and shame subtypes. Colors indicate timing of SV exposure: blue for models that include all SV types, orange for models that include child/adolescent SV (CASV), red for models that include adult/adolescent SV (AASV), and green for models that include lifetime SV. Arrows indicate that the error bars extend beyond plot range. l = number of effects; k = number of studies.

Appendix A

PRISMA Diagram Outlining Study Selection



Note. Preferred reporting items for systematic reviews and meta-analyses (PRISMA) flow diagram for study selection. SV = sexual violence; *n* = number of studies.
[a] 53 independent samples.

[b] Two studies used in both meta-analyses.

Appendix B

Search Terms and Databases

Searches involved combinations of keywords related to “sexual violence” and “shame” including “rape”, “nonconsensual sex”, “sexual assault”, “sexual coercion”, “coerced sex”, “forcible sex”, “forced sex”, “sexual abuse”, “sexual violence”, “sexual victim”, “sexual trauma”, “sexual victimization”, “shame”, “shame*”, “shaming”, “self-blame”, “self-conscious”, “self-worth”, “stigm*”, “humiliation”, “humiliate”.

Initial search date: October 21, 2021

Second and final search date: June 6, 2023

PubMed

("rape"[MeSH Terms] OR rape [Title/Abstract] raped [Title/Abstract] OR rapes [Title/Abstract] OR raping [Title/Abstract] OR “non-consensual sex” [Title/Abstract] OR “non-consensual sexual” [Title/Abstract] OR “nonconsensual sex” [Title/Abstract] OR “nonconsensual sexual” [Title/Abstract] OR “sexual attack*” [Title/Abstract] OR “sexual coercion” [Title/Abstract] OR “coerced sex” [Title/Abstract] OR “forcible sexual” [Title/Abstract] OR “forced sex” [Title/Abstract] OR “sexual abuse” [Title/Abstract] OR “sexual victim*” [Title/Abstract] OR "sexual violence" [Title/Abstract] OR "sexual trauma"[MeSH Terms] OR "survivor*"[Title/Abstract] OR "sexual assault*" [Title/Abstract] OR "rape victim" [Title/Abstract] OR “sexual victimization” [Title/Abstract] OR “rape victim” [Title/Abstract] OR “sexual assault” [Title/Abstract] OR “sexually assaulted” [Title/Abstract] OR “sexual victimization” [Title/Abstract] OR “rape victim” OR “sexual victimisation” [Title/Abstract] OR “survivor” [Title/Abstract]) AND ("shame" [MeSH Terms] OR shame [Title/Abstract] OR shames [Title/Abstract] OR shaming [Title/Abstract] OR shamed [Title/Abstract] OR shameful [Title/Abstract] OR shamefulness [Title/Abstract] OR "self-blame" [Title/Abstract] OR "self-conscious" OR "self-worth" [Title/Abstract] OR stigm* [Title/Abstract] OR humiliation [Title/Abstract] OR humiliat* [Title/Abstract])

PsycINFO/CINAHL

(TI shame OR TI sham* OR TI humiliation or TI humiliat* OR TI “self-blame” OR TI stigma OR TI stigm* OR TI embarrassment OR TI embarrass* OR TI self-worth OR AB shame OR AB sham* OR AB humiliation OR AB humiliat* OR AB “self-blame” OR AB stigma OR AB stigm* OR AB embarrassment OR AB embarrass* OR AB self-worth OR TI self-conscious OR AB self-conscious OR TI shameful* or AB shameful*) AND (TI “sexual assault” OR TI “sexually assaulted” OR TI rape OR TI rapes OR TI raped OR TI “sexual violence” OR TI “sexual trauma” OR TI “sexual victimization” OR TI “rape victim” OR AB “sexual assault” OR AB “sexually assaulted” OR AB rape OR AB rapes OR AB raped OR AB “sexual violence” OR AB “sexual

trauma” OR AB “sexual victimization” OR AB “rape victim” OR TI “sexual victimisation” OR AB “sexual victimisation” OR TI “survivor” or AB “survivor” OR TI “sexual abuse” OR AB “sexual abuse” OR TI “sex attack” OR AB “sex attack” OR TI “nonconsensual sex” OR AB “nonconsensual sex” OR TI “non-consensual sex” OR AB “non-consensual sex” OR OR TI “non consensual sex” OR AB “non consensual sex” TI “forced sex” OR AB “forced sex” OR TI “forcible sex” OR AB “forcible sex” OR TI “coerced sex” OR AB “coerced sex” OR TI “sexual coercion” OR AB “sexual coercion” OR TI “sexual coersion” OR AB “sexual coersion”)

ProQuest Search

ti,ab(shame OR shames OR shaming OR shamed OR shameful* OR humiliat* OR "self-blame" OR stigm* OR embarrass* OR "self-worth" OR “self-conscious”) AND ti,ab("sexual assault*" OR “sexually assaulted” OR “non-consensual sex” OR “nonconsensual sex” OR “non consensual sex” OR “non-consensual sexual” OR “non consensual sexual” OR “nonconsensual sex” OR “sex attack” OR “sexual attack” OR “sexual coercion” OR “sexual coersion” OR “coerced sex” OR “forcible sexual” OR “forcible sex” OR rape OR raped OR rapes OR raping OR "sexual violence" OR "sexual trauma" OR "sexual victim*" OR survivor* OR "sexual abuse*" OR “sexual coercion” OR “sexually assaulted” OR “sexual victim*” OR “rape victim”)

<u>Updated search June 6, 2023</u>

***Sans “survivor”**

PsycINFO

(TI shame OR TI sham* OR TI humiliation or TI humiliat* OR TI “self-blame” OR TI stigma OR TI stigm* OR TI embarrassment OR TI embarrass* OR TI self-worth OR AB shame OR AB sham* OR AB humiliation OR AB humiliat* OR AB “self-blame” OR AB stigma OR AB stigm* OR AB embarrassment OR AB embarrass* OR AB self-worth OR TI self-conscious OR AB self-conscious OR TI shameful* or AB shameful*) AND (TI “sexual assault” OR TI “sexually assaulted” OR TI rape OR TI rapes OR TI raped OR TI “sexual violence” OR TI “sexual trauma” OR TI “sexual victimization” OR TI “rape victim” OR AB “sexual assault” OR AB “sexually assaulted” OR AB rape OR AB rapes OR AB raped OR AB “sexual violence” OR AB “sexual trauma” OR AB “sexual victimization” OR AB “rape victim” OR TI “sexual victimisation” OR AB “sexual victimisation” OR TI “sexual abuse” OR AB “sexual abuse” OR TI “sex attack” OR AB “sex attack” OR TI “nonconsensual sex” OR AB “nonconsensual sex” OR TI “non-consensual sex” OR AB “non-consensual sex” OR OR TI “non consensual sex” OR AB “non consensual sex” TI “forced sex” OR AB “forced sex” OR TI “forcible sex” OR AB “forcible sex” OR TI “coerced sex” OR AB “coerced sex” OR TI “sexual coercion” OR AB “sexual coercion” OR TI “sexual coersion” OR AB “sexual coersion”)

PubMed

("rape"[MeSH Terms] OR rape [Title/Abstract] raped [Title/Abstract] OR rapes [Title/Abstract] OR raping [Title/Abstract] OR “non-consensual sex” [Title/Abstract] OR “non-consensual sexual” [Title/Abstract] OR “nonconsensual sex” [Title/Abstract] OR “nonconsensual sexual” [Title/Abstract] OR “sexual attack*” [Title/Abstract] OR “sexual coercion” [Title/Abstract] OR “coerced sex” [Title/Abstract] OR “forcible sexual” [Title/Abstract] OR “forced sex” [Title/Abstract] OR “sexual abuse” [Title/Abstract] OR “sexual victim*” [Title/Abstract] OR "sexual violence" [Title/Abstract] OR "sexual trauma"[MeSH Terms] OR "sexual assault*" [Title/Abstract] OR "rape victim" [Title/Abstract] OR “sexual victimization” [Title/Abstract] OR “rape victim” [Title/Abstract] OR “sexual assault” [Title/Abstract] OR “sexually assaulted” [Title/Abstract] OR “sexual victimization” [Title/Abstract] OR “rape victim” OR “sexual victimisation” [Title/Abstract]) AND ("shame" [MeSH Terms] OR shame [Title/Abstract] OR shames [Title/Abstract] OR shaming [Title/Abstract] OR shamed [Title/Abstract] OR shameful [Title/Abstract] OR shamefulness [Title/Abstract] OR "self-blame" [Title/Abstract] OR "self-conscious" OR "self-worth" [Title/Abstract] OR stigm* [Title/Abstract] OR humiliation [Title/Abstract] OR humiliat* [Title/Abstract])

CINAHL

(TI shame OR TI sham* OR TI humiliation or TI humiliat* OR TI “self-blame” OR TI stigma OR TI stigm* OR TI embarrassment OR TI embarrass* OR TI self-worth OR AB shame OR AB sham* OR AB humiliation OR AB humiliat* OR AB “self-blame” OR AB stigma OR AB stigm* OR AB embarrassment OR AB embarrass* OR AB self-worth OR TI self-conscious OR AB self-conscious OR TI shameful* or AB shameful*) AND (TI “sexual assault” OR TI “sexually assaulted” OR TI rape OR TI rapes OR TI raped OR TI “sexual violence” OR TI “sexual trauma” OR TI “sexual victimization” OR TI “rape victim” OR AB “sexual assault” OR AB “sexually assaulted” OR AB rape OR AB rapes OR AB raped OR AB “sexual violence” OR AB “sexual trauma” OR AB “sexual victimization” OR AB “rape victim” OR TI “sexual victimisation” OR AB “sexual victimisation” OR TI “sexual abuse” OR AB “sexual abuse” OR TI “sex attack” OR AB “sex attack” OR TI “nonconsensual sex” OR AB “nonconsensual sex” OR TI “non-consensual sex” OR AB “non-consensual sex” OR OR TI “non consensual sex” OR AB “non consensual sex” TI “forced sex” OR AB “forced sex” OR TI “forcible sex” OR AB “forcible sex” OR TI “coerced sex” OR AB “coerced sex” OR TI “sexual coercion” OR AB “sexual coercion” OR TI “sexual coersion” OR AB “sexual coersion”)

ProQuest Dissertations and Theses Global

ti,ab(shame OR shames OR shaming OR shamed OR shameful* OR humiliat* OR "self-blame" OR stigm* OR embarrass* OR "self-worth" OR “self-conscious”) AND ti,ab("sexual assault*" OR “sexually assaulted” OR “non-consensual sex” OR “nonconsensual sex” OR “non consensual sex” OR “non-consensual sexual” OR “non consensual sexual” OR “nonconsensual sex” OR “sex

attack” OR “sexual attack” OR “sexual coercion” OR “sexual coersion” OR “coerced sex” OR “forcible sexual” OR “forcible sex” OR rape OR raped OR rapes OR raping OR "sexual violence" OR "sexual trauma" OR "sexual victim*" OR "sexual abuse*" OR “sexual coercion” OR “sexually assaulted” OR “sexual victim*” OR “rape victim”)

Web of Science

TS=((rape* OR raping OR "non-consensual sex" OR "non-consensual sexual" OR "non-consensual sex" OR "sexual coercion" OR "coerced sex" OR "forcible sexual" OR "forced sex" OR "sexual abuse" OR "sexual victim" OR "sexual violence" OR "sexual trauma" OR "sexual assault" OR "sexually assaulted" OR "sexual victimization" OR "sexual victimisation") AND (sham* OR self-blame OR self-conscious OR self-worth OR stigma* OR humiliat*))

Scopus

TITLE-ABS-KEY((rape* OR raping OR "non-consensual sex" OR "non-consensual sexual" OR "sexual coercion" OR "coerced sex" OR "forcible sexual" OR "forced sex" OR "sexual abuse" OR "sexual violence" OR "sexual trauma" OR "sexual assault" OR "sexually assaulted" OR "sexual victimization" OR "sexual victimisation") AND (sham* OR self-blame OR self-conscious OR self-worth OR stigma* OR humiliat*))

Appendix C

Study Characteristics

Study Characteristics for Group Differences in Shame Between SV-Survivors vs Non-Survivors (k = 23)

Author(s) & Year	N (Srv; Comp)	Pub status	Country	Sample type	SV Measure	Shame measure	Mean age (SD)	% Women /girls	Majority race/ethnicity (>50%)	% Stranger perp	% Family/kin perp	% Revic	Time since most recent assault for majority of sample
Albrecht (1999)	30 (30)	Dissertation	US	Combination of samples	CSA disclosed by the child; substantiated through sex abuse evaluation	TOSCA-C	N/R	50	Hispanic	3	80	33	N/R
Bernstein (1997)	19 (20)	Dissertation	US	People seeking treatment	Study designed CSA measure	TOSCA-C	44.2 (10.8)	100	White	0	100	74	N/R
Boldon (1998)	51 (47)	Dissertation	Canada	Combination of samples	Study designed CSA measure	ISS	40 (10.9)	100	N/A (non-US)	N/R	N/R	N/R	N/R
Eakin (1995)	43 (38)	Dissertation	US	Combination of samples	Study designed CSA measure	ISS	40.2 (10.6)	100	White	0	100	N/R	N/R
Flynn et al. (2023)	75 (MST); 25 (CSA); 29 (MST & CSA) (267)	Journal article	US	People seeking treatment	Two items assessing MST; One item assessing CSA	ESS	49.79 (14.66)	16.2	White	N/R	N/R	N/R; 29	N/R
Glow (1993)	64 (259)	Dissertation	US	College	Study designed CSA measure	ISS	N/R	66.8	White	N/R	N/R	N/R	N/R
Kemish (2007)	32 (126)	Dissertation	UK	College	Study designed CSA measure	ISS	N/R	100	N/A (non-US)	N/R	N/R	N/R	N/R
Knowles – Sample 1 (2012)	57 (159)	Dissertation	US	College	SLESQ-R	OBCS-BS	20.61 (3.92)	100	White	N/R	N/R	N/R	N/R

Knowles – Sample 2 (2012)	45 (6)	Dissertation	US	People seeking treatment	SLESQ-R	OBCS-BS	33.22 (10.24)	100	White	N/R	N/R	N/R	N/R
Laaksonen (2016)	400 (379)	Dissertation	US	College	SES-SFV	TOSCA-3; OAS	20.22 (3.96)	63	African American	N/R	N/R	N/R	N/R
Laaksonen et al. (2015)	216 (159)	Unpublished dataset	US	College	SES-LFV	TOSCA-3; RAQ	21.81 (8.59)	71	African-American	N/R	N/R	N/R	N/R
Lanious (2019)	87 (75)	Dissertation	US	Community members	SAEQ	TOSCA-3	35.6 (8.2)	55.6	White	N/R	N/R	N/R	N/R
Manel (2009)	54 (25)	Dissertation	Canada	People seeking treatment	Corroborated via survivor services	SCEMAS	8.13 (2.18)	53	N/A (non-US)	N/R	N/R	N/R	N/R
Miles-McLean et al. (2015)	133 (198)	Journal article	US	Community members	LTVH	OBCS-BS	31.41 (11.26)	100	White	N/R	N/R	N/R	N/R
Murray & Waller (2002)	141 (73)	Journal article	US	College	SEQ-2	ISS	21.6 (4.1)	100	N/R	N/R	17.7	N/R	N/R
Pisoni (1993)	172 (748)	Dissertation	US	People seeking treatment	Study designed CSA measure	ISS	N/R	100	N/R	3[a]	74 [a]	86 [a]	23% reported abuse stopped between ages of 7-12, 48% by the ages of 13-18, 9% had not stopped at time of study.[a]
Tripp (1999)	29 (CSA); 108 (ASA); 45 (Lifetime) (119)	Dissertation	US	College	SAHQ; CTQ-SA	Six item body shame measure	21.19 (5.32)	100	White	N/R	N/R	78	N/R

Van Benschoten (1995)	47 (56)	Dissertation	US	People seeking treatment	Study designed SV measure	ISS	38.28 (N/R)	100	White	28	N/R	N/R	N/R
Vidal & Petrak (2007)	25 (163)	Journal article	UK	Combination of samples	Study designed measure assessing most recent ASA	ESS	29.8 (N/R)	100	N/A (non-US)	20	N/R	56	2 wks-25 yrs
Walsh & Lowe (2017)	236 (531)	Unpublished dataset	US	College	MSES; CTQ-SA	SI; ISS	21.06 (3.56)	73	White	0	0	24	6%: 1-12 mo 24.5%: 1-5+ yrs
Wiechelt (1999)	32 (17)	Dissertation	US	People seeking treatment	CTI-SA	ISS-5	40 (8.84)	100	White	64	36	N/R	N/R
Wolfgang (1998)	99 (132)	Dissertation	US	College	Study designed CSA measure	ISS	22.62 (6.17)	100	N/R	N/R	N/R	N/R	N/R
Yilmaz (2017)	60 (CSA); 64 (ASA); 116 (Lifetime) (171)	Dissertation	US	College	SES-SFV	ISS-5	21.19 (3.17)	100	No majority	N/R	N/R	48.3	N/R

Note. k = Number of studies; CAAV = Childhood Abuse–Adult Victimization Questionnaire, CTI-SA = Childhood Trauma Interview–Sexual Abuse (Fink, Bernstein, Handlesman, Foote, & Lovejoy, 1995), CTQ-SA = Childhood Trauma Questionnaire–Sexual Abuse (Bernstein, Fink, Handelsman, Foote, Lovejoy, Wenzel, Sapareto, & Ruggiero, 1994), ESS = Experience of Shame Scale (Andrews, Qian, & Valentine, 2002), ISS = Internalized Shame Scale (Cook, 1994), LTVH = Lifetime Trauma and Victimization History (Widom, Dutton, Czaja, & DuMont, 2005), OBCS-BS = Objectified Body Consciousness Scale–Body Shame subscale (McKinley & Hyde, 1996), OAS = Other As Shamer scale (Goss, Gilbert, & Allen, 1994), SAEQ = Sexual Abuse Exposure Questionnaire (Rowan, Foy, Rodriguez, & Ryan, 1994), SAHQ = Sexual Abuse History Questionnaire (Leserman, Drossman, & Li, 1995), SCEMAS = Self-Conscious Emotions: Maladaptive and Adaptive Scales (Stegge & Ferguson, 1994), SEQ-2 = Sexual Events Questionnaire-2 (Callam, Griffiths, & Slade, 1997), SES-SFV = Sexual Experiences Survey–Short Form Victimization (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2012), SLESQ-R = Stressful Life Events Screening Questionnaire–Revised (Goodman, Corcoran, Turner, Yuan, & Green, 1998), TOSCA = Test of Self-Conscious Affect (Tangney, Wagner, & Gramzow, 1989), TOSCA-3 = Test of Self-Conscious Affect-3 (Tangney, Dearing, Wagner, & Gramzow, 2000), TOSCA-C = Test of Self-Conscious Affect-Children's Scale (Tangney, Wagner, Burggraf, Gramzow, & Fletcher, 1990).

[a]Based on data from 156 participants. ASA = Adult sexual assault; CSA= Child sexual abuse; MST = Military sexual assault; N/R = Not reported. Srv = number of survivors. Comp = number of individuals who did not report experiencing SV (comparison group), Perp = perpetrator. Revic = percentage of participants who have experienced revictimization (2 or more assaults). Semicolons have been placed in columns to denote separate samples.

Study Characteristics for Associations Between SV Severity and Shame (k = 33)

Author(s) & Year	N	Publication status	Country	Sample type	Study type	SV measure	Shame measure	Mean age (SD)	% Women /girls	Majority race/ethnicity (>50%)	% Stranger perp	% Family/kin perp	% Revic	Time since most recent assault for majority of sample
Alexander et al. (1999)	86	Journal article	UK	People seeking treatment	Cross-sectional (correlational)	CECAI	GSGS	N/R	66	N/A (non-US)	N/R	N/R	N/R	N/R
Barker et al. (2022)	732	Journal article	US	Community	Cross-sectional (correlational)	SBS	KISS	36.8 (11.68)	58	White	N/R	N/R	N/R	N/R
Barlow et al. (2017)	427	Journal article	US	College	Cross-sectional (correlational)	CATS-SS	TAQ	21.21 (5.83)	69	White	N/R	N/R	N/R	N/R
Carcirieri & Osman (2011)	99	Journal article	US	College	Cross-sectional (correlational)	SES	OBCS-BS	N/R	100	White	N/R	N/R	N/R	1-12 mo.
Carr & Szymanski (2011)	289	Journal article	US	College	Cross-sectional (correlational)	SES-R	OBCS-BS	20.03 (2.31)	100	White	N/R	N/R	N/R	N/R
Davidson & Gervais (2015)	499	Journal article	US	College	Cross-sectional (correlational)	SES-SFV	OBCS-BS	19.89 (2.09)	100	White	N/R	N/R	N/R	N/R
DeCou et al. (2019)	164	Journal article	US	College	Cross-sectional (correlational)	SES-SFV	TRSI	23.59 (7.61)	80	White	N/R	N/R	88.4	N/R
Dorahy et al. (2015)	71	Journal article	New Zealand	People seeking treatment	Cross-sectional (correlational)	CTQ-SA	PFQ-2	42.6 (10.4)	92	N/A (non-US)	N/R	N/R	N/R	N/R
Feiring et al. (2002)	147	Journal article	US	People seeking treatment	Longitudinal (T1: at start of study; T2: 1 year later)	Study designed measure for CSA	Four items developed for study	N/R	73	No majority	3	60	69	<12 weeks

Flynn et al. (2023)	369; 367	Journal article	US	People seeking treatment	Cross-sectional (correlational)	Two item measure for MST; Single item question for CSA	ESS	49.79 (14.66)	16	White	N/R	N/R	29	N/R
Gerber (2005)	166	Dissertation	US	College	Cross-sectional (correlational)	API-SEH	TOSCA	21.56 (4.74)	100	White	N/R	N/R	N/R	N/R
Holmes et al. (2021)	164	Journal article	US	College	Cross-sectional (correlational)	SES-SFV	OBCS-BS	21 (3.55)	100	White	N/R	N/R	N/R	N/R
Hunziker (2013)	612	Dissertation	US	College	Cross-sectional (correlational)	CATS-SS	TOSCA-3	N/R	62	White	8	2.8	N/R	N/R
Jenkins et al. (2013)	118	Journal article	UK	College	Cross-sectional (correlational)	CATS-SS	YSQ-SV	23.2 (3.55)	100	N/A (non-US)	N/R	N/R	N/R	N/R
Kealy et al. (2018)	99	Journal article	Canada	People seeking treatment	Cross-sectional (correlational)	CTQ-SA	PFQ-2	36.17 (11.99)	69.7	N/A (non-US)	N/R	N/R	N/R	N/R
Kim et al. (2009)	129	Journal article	US	Community	Cross-sectional (correlational)	CTQ-SA	DES	34.25 (6.7)	100	Black	N/R	N/R	N/R	N/R
King (2008)	40	Dissertation	US	Incarcerated	Cross-sectional (correlational)	CMQ-SA-NP; CMQ-SA-P	TOSCA-3	37 (11)	100	White	N/R	N/R	N/R	N/R
Marsden (2010)	49	Dissertation	US	Incarcerated	Cross-sectional (correlational)	CMQ-SA-NP; CMQ-SA-P	TOSCA-3	37 (10)	0	Black	N/R	N/R	N/R	N/R
Milligan & Andrews (2005)	89	Journal article	UK	Incarcerated	Cross-sectional (correlational)	CAI	ESS	31.8 (9.37)	100	N/A (non-US)	N/R	N/R	N/R	N/R
Nolin et al. (2022)	294	Journal article	Canada	Combination	Cross-sectional (correlational)	SES	ASSQ	30.27 (10.07)	100	N/A (non-US)	7.4	3.3	>50	N/R
O'Loghlen et al. (2023)	530	Journal article	Multiple	Community	Cross-sectional (correlational)	ACE	ISS; OAS-2; BISS	28.35 (9.47)	76	N/A (non-US)	N/R	N/R	N/R	N/R

Oliver (2022)	463	Dissertation	US	Community	Cross-sectional (correlational)	CTQ-SA	SSTAQ	20.02 (1.4)	43.2	White	N/R	N/R	N/R	Less than 5 yrs old 21.0%; 6-9 yrs old 22.2%; 10-13 yrs old 22.7%; 14-17 yrs old 34.1%
Robinson (2006)	467	Dissertation	US	Combination	Cross-sectional (correlational)	SAS	ISS	37.5 (9.91)	100	White	26.8	57.5	N/R	N/R
Sáez et al. (2022)	63	Journal article	Spain	College	Cross-sectional (correlational)	SCIRS (Abb)	OBCS-BS (Spanish version)	19.81 (1.35)	100	N/A (non-US)	N/R	N/R	N/R	N/R
Schalkwijk et al. (2023)	57	Journal article	Netherlands	Combination	Cross-sectional (correlational)	CTQ-SA (Dutch version)	CSS	47.4 (14.3)	53	N/A (non-US)	N/R	N/R	N/R	N/R
Swanson & Szymanski (2022)	440	Journal article	US	Combination	Cross-sectional (correlational)	SES-SFV	ASSQ	33.43 (12.26)	100	White	N/R	N/R	N/R	N/R
Talmon & Ginzburg (2017)	531	Journal article	Israel	College	Cross-sectional (correlational)	CTQ-SA	ESS	25.28 (4.82)	100	N/A (non-US)	N/R	N/R	N/R	N/R
Talmon & Ginzburg (2019)	470	Journal article	Israel	Community	Cross-sectional (correlational)	CTQ-SA	ESS	30.67 (4.49)	100	N/A (non-US)	N/R	N/R	N/R	N/R
Van Ness (2016)	218	Dissertation	US	College	Cross-sectional (correlational)	CAMI	ASS-SRM	24.36 (3.03)	100	White	N/R	35.44	55.83	N/R
Walsh & Lowe (2017)	745	Unpublished dataset	US	College	Cross-sectional (correlational)	CTQ-SA; MSES	TOSCA-3; The Shame Inventory	21.06 (3.56)	73	White	0	0	N/R	N/R
Watson et al. (2012)	536	Journal article	US	College	Cross-sectional (correlational)	CTQ-SA	OBCS-BS	20.22 (4.53)	100	No majority	N/R	N/R	N/R	N/R

Weaver et al. (2020)	61	Journal article	US	Combination	Cross-sectional (correlational)	RCTS	ESS	34 (8.47)	100	Black	N/R	N/R	N/R	N/R

Note: k = Number of studies; ACE = Adverse Childhood Experiences Questionnaire (Felitti, 1998), API-SEH = Abuse and Perpetration Inventory–Sexual Experiences History (Lisak, Conklin, Hopper, Miller, & Smith, 1997), ASSQ = Abuse-Specific Shame Questionnaire (Feiring & Taska, 2005), BISS = Body Image Shame Scale (Duarte, Pinto-Gouveia, & Ferreira, 2015), CAI = Childhood Abuse Interview (Andrews, 1995), CAMI = Computer Assisted Maltreatment Inventory (DiLillo, Hayes-Skelton, Fortier, Perry, Evans, Messman Moore, & Fauchier, 2010), CATS–SS = Child Abuse and Trauma Scale–Sexual Abuse Subscale (Sanders & Becker-Lausen, 1995), CECAI = Childhood Experience of Care & Abuse Interview (Bifulco, Brown, & Harris, 1994), CMQ-SA-NP = Childhood Maltreatment Questionnaire–Sexual Abuse Questionnaire, Non-Parental Version (Demare, 1996), CMQ-SA-P = Childhood Maltreatment Questionnaire–Sexual Abuse Questionnaire, Parental Version (Demare, 1996), CSS = Compass of Shame Scale (Elison, Lennon, & Pulos, 2006), CTQ-SA = Childhood Trauma Questionnaire—Sexual Abuse (Bernstein & Fink, 1998; Bernstein, Stein, Newcomb, Walker, Pogge, Ahluvalia, & Zule, 2003), CTQ (Dutch version) = Childhood Trauma Questionnaire (Bernstein, Ahluvalia, Pogge, & Handelsman, 1997), CTQ-SFSA = Childhood Trauma Questionnaire–Short Form, Sexual Abuse (Bernstein & Fink, 1998), DES-IV = Differential Emotions Scale (Izard, Libero, Putnam, & Haynes, 1993), ESS = Experience of Shame Scale (Andrews, Qian, & Valentine, 2002), GSGS = Gilbert's Shame and Guilt Scale (Gilbert, Allan, & Pehl, 1991), ISS = Internalized Shame Scale (Cook, 1991), KISS = Kyle Inventory of Sexual Shame (Kyle, 2013), OAS-2 = Other As Shamer Scale-2 (Matos, Pinto-Gouveia, Gilbert, Duarte, & Figueiredo, 2015), OBCS-BS (Spanish version) = Objectified Body Consciousness Scale–Body Shame subscale (Moya-Garófano, Megías, Rodríguez-Bailón, Moya, 2017), OBCS-BS = Objectified Body Consciousness Scale–Body Shame subscale (McKinley & Hyde, 1996), PFQ-2 = Personal Feelings Questionnaire-2 (Harder & Zalma, 1990), RCTS = Revised Conflict Tactics Scale (Straus, 1996), SAS = Severity of Abuse Scale (Wilkin, 1992), SBS = Sexual Behavior Scale (Kreuter, Sullivan, & Siösteen, 1996), SCIRS (Abb) = Sexual Coercion in Intimate Relationship—Abbreviated Version (Shackelford & Goetz, 2004), SES = Sexual Experiences Survey (Koss, Gidycz, & Wisniewski, 1987; Koss, 2006), SES-R = Sexual Experiences Survey–Revised (Testa, VanZile-Tamsen, Livingston, & Koss, 2004), SES-SFV = Sexual Experiences Survey Short–Form Victimization (Koss, Abbey, Campbell, Cook, Norris, Testa, Ullman, West, & White, 2012), TAQ = Trauma Appraisal Questionnaire (DePrince, Zurbriggen, Chu, & Smart, 2010), TOSCA = Test of Self-Conscious Affect (Tangney, Wagner, & Gramzow, 1989), TOSCA-3 = Test of Self-Conscious Affect-3 (Tangney, Dearing, Wagner, & Gramzow, 2000), TRSI = Trauma-Related Shame Inventory (Øktedalen, Hagtvet, Hoffart, Langkaas, & Smucker, 2014), YSQ-SV = Young Schema Questionnaire–Short Version (Young, 1998), N/R = Not reported, MST = Military sexual assault, CSA = Child sexual abuse. Srv = number of survivors. Comp = number of individuals who did not report experiencing SV (comparison group), Perp = perpetrator. Revic = percentage of participants who have experienced revictimization (2 or more assaults). Semicolons have been placed in columns to denote separate samples

Study	Were the aims/objectives of the study clear?	Was the study design appropriate for the stated aim(s)?	Was the sample size justified?	Was the target/reference population clearly defined? (Is it clear who the research was about?)
Albrecht (1999)	1	1	0	1
Alexander et al. (1999)	1	1	0	1
Barker et al. (2022)	1	1	0	1
Barlow (2017)	1	1	0	1
Bernstein (1997)	1	1	0	1
Boldon (1998)	1	1	0	1
Carcirieri & Osman (2011)	1	1	0	1
Carr & Szymanski (2011)	1	1	1	1
Davidson & Gervais (2015)	1	1	1	1
DeCou et al. (2019)	1	1	0	1
Dorahy et al. (2015)	1	1	0	0
Eakin (1995)	1	1	0	0
Feiring et al. (2002)	1	1	0	1
Flynn et al. (2023)	1	0	0	1
Gerber (2005)	1	1	0	1
Glow (1993)	1	1	0	0
Holmes et al. (2021)	1	1	1	1
Hunziker (2013)	1	1	1	1
Jenkins et al. (2013)	1	1	0	0
Kealy et al. (2018)	1	1	0	1
Kemish (2007)	1	1	1	1
Kim et al. (2009)	1	1	0	1
King (2008)	1	1	0	1
Knowles_Sample 1 (2012)	1	0	0	0
Lanious (2019)	1	0	1	1
Manel (2009)	1	1	1	1
Marsden (2010)	1	1	0	1
Miles-McLean et al. (2015)	1	1	1	1
Milligan & Andrews (2005)	1	1	0	1
Murray & Waller (2002)	1	1	0	1
Nolin et al. (2022)	1	0	0	1
O'Loghlen et al. (2023)	1	1	0	1
Oliver (2022)	1	1	1	1
Pisoni (1993)	1	1	0	0
Robinson (2006)	1	1	0	1
Sáez et al. (2022)	1	1	0	1

Schalkwijk et al. (2023)	1	1	0	1
Swanson & Szymanski (2022)	1	1	1	1
Talmon & Ginzburg (2017)	1	1	0	1
Talmon & Ginzburg (2019)	1	1	0	1
Tripp (1999)	1	1	0	1
Van Benschoten (1995)	1	1	0	1
Van Ness (2016)	1	1	1	1
Vidal & Petrak (2007)	1	1	0	1
Watson et al. (2012)	1	1	1	1
Weaver et al. (2020)	1	1	0	1
Wiechelt (1999)	1	0	0	1
Wolfgang (1998)	1	1	0	1
Yilmaz (2017)	1	0	1	1

Was the sample frame taken from an appropriate population base so that it closely represented the target/reference population under investigation?	Was the selection process likely to select subjects/participants that were representative of the target/reference population under investigation?	Was sexual violence measured with a valid and reliable instruments/measurements that had been trialled, piloted or published previously?	Was shame measured with a valid and reliable instruments/ measurements that had been trialled, piloted or published previously?	Is it clear what was used to determined statistical significance and/or precision estimates? (e.g. p-values, confidence intervals)
1	1	0	1	1
1	1	1	0	1
1	1	0	1	1
0	1	1	1	1
1	1	0	1	1
0	1	0	1	1
1	1	1	1	1
1	0	1	1	1
1	1	1	1	1
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1	0	1	1	1
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0	0	0	1	1
1	0	1	1	1
1	0	1	1	1

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1	1	1	1	1
1	0	1	1	1
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1	1	1	1	1
1	1	0	1	1
1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
0	0	0	1	1
0	1	1	1	1

Were the methods (including statistical methods) sufficiently described to enable them to be repeated?	Were the basic data adequately described?	Were the results internally consistent?	Were the results presented for all the analyses described in the methods?	Were the limitations of the study discussed?
1	1	1	0	1
1	0	1	1	1
1	1	1	1	1
1	0	1	1	1
0	1	1	0	1
1	1	1	1	1
1	0	1	1	1
1	1	1	1	1
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1	1	1	1	1
0	1	1	0	1
0	1	0	0	1
1	0	1	1	1
1	0	1	1	0
1	1	1	1	1
1	0	1	1	1
1	1	1	1	1
1	0	1	1	1
1	0	1	1	1
1	0	1	1	1
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1	1	1	1	1
1	1	1	1	1
1	1	1	1	1
0	0	1	1	1
1	1	1	1	0
1	1	0	1	0

1	0	1	0	1
1	1	1	1	1
1	0	1	1	1
1	1	0	1	1
1	1	1	1	1
1	0	1	1	1
1	1	1	1	1
1	0	1	1	1
1	1	1	1	1
1	1	1	1	0
1	1	1	1	1
1	0	1	1	1
1	1	1	1	1

Was ethical approval or consent of participants attained?	study_bias_rating
1	12
1	12
1	13
1	12
1	11
1	12
1	13
1	14
1	15
1	14
1	9
1	9
1	12
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1	14
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1	12
1	14
1	15
0	7
0	11
1	11

	1	12
	1	15
Unclear		12
	1	12
	1	14
	1	12
	1	15
	1	12
	1	15
	1	13
	1	13
	1	10
	1	13

Appendix D

Study Quality Ratings

The quality of included samples was independently rated by PH, AHPM and SW using a *15*-item adapted version of the Appraisal Tool for Cross-Sectional Studies (AXIS; Downes et al., 2016). Like the original assessment tool, items were rated as 1 = Yes, 0 = No, or Other (Unclear or Not Applicable). Discrepancies in coding were resolved by discussion. Higher scores indicate higher methodological quality, while lower scores indicate lower methodological quality.

Item	Percentage of samples coded as "yes"
Introduction	
1. Were the aims/objectives of the study clear?	100%
Methods	
2. Was the study design appropriate for the stated aim(s)?	86%
3. Was the sample size justified?	26%
4. Was the target/reference population clearly defined? (Is it clear who the research was about?)	86%
5. Was the sample frame taken from an appropriate population base so that it closely represented the target/reference population under investigation?	78%
6. Was the selection process likely to select subjects/participants that were representative of the target/reference population under investigation?	72%
9. Was sexual violence measured with a valid and reliable instrument/measurement that had been trialed, piloted or published previously?	74%
9. Was shame measured with a valid and reliable instrument/measurement that had been trialed, piloted or published previously?	98%
10. Is it clear what was used to determined statistical significance and/or precision estimates? (e.g. p-values, confidence intervals)	100%
11. Were the methods (including statistical methods) sufficiently described to enable them to be repeated?	90%
Results	
12. Were the basic data adequately described?	64%
15. Were the results internally consistent?	82%
16. Were the results presented for all the analyses described in the methods?	84%
Discussion	

18. Were the limitations of the study discussed?	82%
Other	
20. Was ethical approval or consent of participants attained?	94%

Note. Item numbering in the following table corresponds to the numbering of item in original tool. Items not listed were removed due to a lack of relevance for the current meta-analysis. Underlined text indicates wording changes from original items.

To determine whether a study's sample size was justified, we first assessed whether a rationale for the sample size and the methods used to determine the sample size (i.e., a power analysis, powered to at least 80%) were present. To assess whether studies used an appropriate study design, we evaluated whether a justification for a mediation model was provided.

To assess whether SV measurements were valid and reliable, we looked for whether a study used a previously published and validated measurement for any type of SV. Studies that assessed SV using a study designed measure (n = 8), a single-item measure that was also study designed (n = 1), and SV assessed via corroborations from survivor services (n = 2) were rated as having high bias. One study (Barker et al., 2022) in the current review measured SV via sexual behavior (e.g., Sexual Behavior Scale, Krueter et al., 1996) and was rated as having high bias for the SV measure as sexual behavior scales do not ask about SV. Additionally, samples that did not assess SV in comparison groups were rated as high in bias for selection process.

To assess bias in the sample selection process, we considered whether the samples aligned with the populations studies made assertions about. If authors drew conclusions about one population (e.g., people seeking treatment) but only sampled a specific population (e.g., college students), they were rated as having high bias for sample selection process.

References

Downes, M. J., Brennan, M. L., Williams, H. C., & Dean, R. S. (2016). Development of a critical appraisal tool to assess the quality of cross-sectional studies (AXIS). *BMJ Open*, 6(12), e011458.

Appendix E

Sensitivity Analyses

Standardized Mean Differences in Shame Between SV and Non-SV Exposed Individuals

A sensitivity analysis was conducted on the SV (all types) to shame (all types) model to evaluate the influence of isolated SV and shame types on the overall model. First, a potential outlier (Van Benschoten, 1996) was removed to examine whether it was unduly influencing the effect size. The effect sizes for the overall model $g = .55$ ($p < .001$) and model without the outlier $g = .52$ ($p < .001$) were similar and the significance test did not differ, so we retained it. This outlier had undue influence for specific meta-analyses and was also removed, such as lifetime SV to shame (all types) (with outlier $g = .94$, $p = .136$; without outlier, $g = .42$, $p = .003$); AASV to shame (all types) (with outlier $g = .72$, $p = .031$; without outlier, $g = .451$, $p < .001$; AASV to trait shame (with outlier $g = .78$, $p = .090$; without outlier, $g = .37$, $p = .015$). Further analyses involved excluding specific SV and shame types where there was only one shame or SV type. First, we removed the effect for military sexual trauma ($g = .56$, $p = < .001$), followed by external shame ($g = .56$, $p = < .001$), global shame ($g = .55$, $p = < .001$), and finally, SV-related shame ($g = .54$, $p = < .001$). Sensitivity analyses revealed minimal change to the overall effect size.

Associations Between SV Severity and Shame

To evaluate the influence of specific SV and shame types on the overall model, we conducted sensitivity analyses excluding specific SV and shame types where there was only one effect or contextual distinctions (e.g., military sexual trauma vs other SV types; global vs other shame). We found no for the overall effect size when excluding a study on military sexual

assault (g = .566, 95% CI [299, .834], p = <.001), external shame (g =.561, [300 .821], p = <.001), and global shame (0.549, [.290 .808], p = <.001).

Appendix F

Included Studies

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Appendix G

Publication Bias Tables

Table 1

Results for Assessing Bias in Standardized Mean Differences

Model		*g* [95% CI]	Type of Egger's test	Trim-and-fill analysis	Egger's test
SV (all types)	Shame (all types)	0.55 [0.30, 0.81]	Adapted[a]	—	β = 4.41, *p* = .008**
	Trait	0.62 [0.23, 1.01]	Adapted	—	β = 6.59, *p* = .027*
	Body	0.48 [0.22, 0.73]	Adapted	—	β = -0.57, *p* = .639
	Behavioral	0.57 [-0.08, 1.23]	Adapted	—	β = 3.10, *p* = .494
CASV	Shame (all types)	0.57 [0.29, 0.84]	Adapted	—	β = -0.53, *p* = .852
	Trait[c]	0.58 [0.30, 0.85]	Classical[b]	Underestimation (3 ES missing)	β = -1.28, *p* = .506
	Body[c]	0.51 [0.20, 0.81]	Classical	NA	NA
AASV	Shame (all types)	0.45 [0.24, 0.65]	Adapted	—	β = 3.13, *p* = .072
	Trait[c]	0.37 [0.13, 0.61]	Classical	Overestimation (2 ES missing)	β = 2.61, *p* = .129
	Body[c]	0.46 [-3.13, 4.06]	Classical	NA	NA
Lifetime SV	Shame (all types)	0.41 [0.18, 0.64]	Adapted	—	NA

Note. *g* = Hedges' *g* (standardized mean difference); CI = confidence interval; SV = sexual violence; CASV = child/adolescent sexual violence; AASV = adolescent/adult sexual violence; ES = effect size; NA = not available as only two effect sizes corresponded to this shame type or due to overparameterization (more parameters than studies).

[a] Adapted Egger's test = effect sizes regressed on standard errors in a three-level meta-analytic model that accounts for random effects.

[b] Classical Egger's test = effect sizes regressed on standard errors. [c] Indicating univariate meta-analyses with only one effect size per study; variance was not accounted for by a three-level model for univariate analyses.

* = $p < .05$ ** = $p < .01$ *** = $p < .001$.

Table 2

Results for Assessing Bias in Associations Between SV Severity and Shame

Model		*r* [95% CI]	Type of Egger's test	Trim-and-fill analysis	Egger's test
SV (all types)	Shame (all types)	.20 [.15, .25]	Adapted	—	β = 0.68, *p* = .280
	Trait	.15 [.08, .21]	Adapted	—	β = 1.48, *p* = .069
	Body	.19 [.14, .25]	Adapted	—	NA
	Behavioral	.10 [.02, .19]	Adapted	—	NA
	Trauma- or SV-related[a]	.29 [.14, .44]	Classical	Underestimation (2 ES missing)	β = -8.72, *p* = .215
CASV	Shame (all types)	.20 [.14, .27]	Adapted	—	β = 0.62, *p* = .423
	Trait	.15 [.09, .21]	Adapted	—	β = 1.41, *p* = .075
	Body[a]	.16 [.11, .22]	Classical	NA	β = 4.72, *p* = .044*
	Trauma- or SV-related[a]	.39 [.20, .59]	Classical	Underestimation (1 ES missing)	β = -10.96, *p* = .117
AASV	Shame (all types)	.17 [.08, .26]	Adapted	—	β = 1.28, *p* = .421
	Body[a]	.24 [.18, .30]	Classical	NA	β = -.01, *p* = .987
	Trauma- or SV-related[a]	.16 [.01, .30]	Classical	NA	β= -2.61, *p* = .819

Note. SV = sexual violence; *r* = mean effect size (Pearson's correlation); CI = confidence interval; CASV = child/adolescent sexual violence; AASV = adolescent/adult sexual violence; ES = effect size; NA = not available as only two effect sizes corresponded to this shame type or due to overparameterization (more parameters than studies).

[a] Adapted Egger's test = effect sizes regressed on standard errors in a three-level meta-analytic model, that accounts for random effects. [b] Classical Egger's test = effect sizes regressed on standard errors. [c] Indicating univariate meta-analyses with only one effect size per study; variance was not accounted for by a three-level model for univariate analyses.

* = $p < .05$.

Appendix H

Moderator Results

Moderators for Standardized Mean Difference Effects for Shame Between SV-Survivors and Individuals Who Report No-SV Exposure

Model	Moderator	*l*	*k*	β [95% CI]	*p*	Intercept [95% CI]	*F*(*df*1, *df*2)	Level 2 var.	Level 3 var.
SV (all types) and Shame (all types)	% Women/girls	42	23	0.00 [-0.00, 0.01]	0.432	0.51 [0.23, 0.79]	0.62 (1, 40)	0.08	0.28
	% White	42	23	0.95 [-0.37, 2.29]	0.153	-0.12 [-1.01, 0.77]	5.84 (14, 27)	0.12	0
	Sample type								
	Combination of samples	42	23	0.18 [-0.48, 0.85]	0.588	0.40 [0.03, 0.77]	1.05 (3, 38)	0.09	0.25
	Community members	42	23	-0.08 [-1.03, 0.85]	0.851	0.40 [0.03, 0.77]	1.05 (3, 38)	0.09	0.25
	People seeking treatment	42	23	0.52 [-0.10, 1.14]	0.102	0.40 [0.03, 0.77]	1.05 (3, 38)	0.09	0.25
	Risk of bias	38	21	-0.04 [-0.19, 0.11]	0.58	0.57 [0.28, 0.87]	0.31 (1, 36)	0.10	0.32
	Publication type	42	23	-0.16 [-0.73, 0.40]	0.566	0.60 [0.29, 0.91]	0.33 (1, 40)	0.083	0.287
SV (all types) and Trait shame	% Women/girls	25	19	0.00 [-0.00, 0.02]	0.283	0.61 [0.22, 1.00]	1.21 (1, 23)	0.342	0.343
	% White	18	12	0.01 [-0.01, 0.03]	0.218	-0.11 [-1.52, 1.30]	1.64 (1, 16)	0.52	0.46
	Sample type								
	Combination of samples	25	19	0.17 [-0.84, 1.18]	0.73	0.38 [-0.22, 0.98]	0.91 (3, 21)	0.387	0.323

Model	Moderator	*l*	*k*	β [95% CI]	*p*	Intercept [95% CI]	*F*(*df*1, *df*2)	Level 2 var.	Level 3 var.
	Community members	25	19	-0.01 [-1.89, 1.87]	0.989	0.38 [-0.22, 0.98]	0.91 (3, 21)	0.387	0.323
	People seeking treatment	25	19	0.73 [-0.21, 1.67]	0.125	0.38 [-0.22, 0.98]	0.91 (3, 21)	0.387	0.323
	Risk of bias	23	17	-0.04 [-0.29, 0.21]	0.725	0.66 [0.21, 1.11]	0.12 (1, 21)	0.393	0.422
	Publication type	25	19	-0.35 [-1.23, 0.53]	0.419	0.72 [0.26, 1.18]	0.67 (1, 23)	0.352	0.353
CASVShame (all types)	% Women/girls	17	15	0.00 [-0.00, 0.01]	0.489	0.54 [0.25, 0.83]	0.50 (1, 15)	0	0.223
	% White	12	10	0.00 [-0.08, 0.02]	0.32	0.07 [-0.98, 1.14]	1.08 (1, 10)	0	0.27
	Sample type								
	Combination of samples	17	15	0.11 [-0.65, 0.87]	0.755	0.40 [-0.08, 0.90]	0.62 (3, 13)	0	0.233
	Community members	17	15	-0.03 [-1.24, 1.16]	0.946	0.40 [-0.08, 0.90]	0.62 (3, 13)	0	0.233
	People seeking treatment	17	15	0.41 [-0.29, 1.13]	0.226	0.40 [-0.08, 0.90]	0.62 (3, 13)	0	0.233
	Risk of bias	17	15	-0.06 [-0.20, 0.07]	0.346	0.57 [0.30, 0.85]	0.94 (1, 15)	0	0.212
	Publication type	17	15	0.04 [-1.05, 1.15]	0.928	0.56 [0.26, 0.86]	0.00 (1, 15)	0	0.234
	Contact SV	12	12	-0.62 [-1.41, 0.17]	0.124	0.50 [0.29, 0.70]	2.36 (1, NA)	NA	NA
CASVand Trait shame[a]	% Women/girls	14	14	0.00 [-0.00, 0.01]	0.391	0.58 [0.30, 0.86]	0.73 (1, NA)	NA	NA
	% White	9	9	0.00 [-0.01, 0.02]	0.345	0.07 [-1.13, 1.28]	1.02 (1, 7)	0.16	0.16
	Sample type								

Model	Moderator	*l*	*k*	β [95% CI]	*p*	Intercept [95% CI]	*F*(*df*1, *df*2)	Level 2 var.	Level 3 var.
	Combination of samples	14	14	0.09 [-0.67, 0.87]	0.801	0.42 [-0.11, 0.95]	1.43 (3, NA)	NA	NA
	Community members	14	14	-0.05 [-1.23, 1.13]	0.934	0.42 [-0.11, 0.95]	1.43 (3, NA)	NA	NA
	People seeking treatment	14	14	0.40 [-0.32, 1.13]	.282	0.42 [-0.11, 0.95]	1.43 (3, NA)	NA	NA
	Risk of bias	14	14	-0.06 [-0.20, 0.08]	.412	1.26 [-0.38, 2.91]	0.67 (1, NA)	NA	NA
	Publication type	14	14	-0.01 [-1.12, 1.10]	.983	0.58 [0.28, 0.88]	0.00 (1, NA)	NA	NA
	Contact SV	11	11	-0.63 [-1.45, 0.19]	.132	0.51 [0.28, 0.73]	2.27 (1, NA)	NA	NA
SV (all types) and Body shame	% Women/girls	10	6	-0.00 [-0.00, -0.00]	.009**	0.49 [0.36, 0.63]	11.99 (1, 8)	0.005	0
	% White	9	5	-0.01 [-0.04, 0.02]	0.442	1.12 [-0.91, 3.17]	0.66 (1, 7)	0.004	0.057
	Sample type								
	Combination of samples	10	6	0.41 [-0.15, 0.98]	.123	0.35 [0.15, 0.55]	5.68 (3, 6)	0	0
	Community members	10	6	-0.10 [-0.44, 0.23]	.494	0.35 [0.15, 0.55]	5.68 (3, 6)	0	0
	People seeking treatment	10	6	0.41 [0.10, 0.71]	.017*	0.35 [0.15, 0.55]	5.68 (3, 6)	0	0
	Risk of bias	10	6	-0.04 [-0.16, 0.07]	.386	0.49 [0.24, 0.74]	0.84 (1, 8)	0.006	0.039
	Publication type	10	6	0.26 [-0.24, 0.77]	.267	0.33 [-0.04, 0.71]	1.42 (1, 8)	0.007	0.042

Model	Moderator	*l*	*k*	β [95% CI]	*p*	Intercept [95% CI]	*F*(*df*1, *df*2)	Level 2 var.	Level 3 var.
AASV and Shame (all types)	% Women/girls	10	6	0.01 [-0.02, 0.05]	.427	0.69 [0.00, 1.38]	0.70 (1, 8)	0.014	0.499
	% White	6	4	-0.00 [-0.02, 0.00]	.367	0.58 [-0.02, 1.19]	1.03 (1, 4)	0.012	0
	Sample type								
	Combination of samples	10	6	0.39 [0.05, 0.74]	.03*	0.37 [0.24, 0.50]	25.39 (2, 7)	0.008	0
	People seeking treatment	10	6	1.84 [1.20, 2.49]	.0003***	0.37 [0.24, 0.50]	25.39 (2, 7)	0.008	0
	Risk of bias	8	5	-0.67 [-1.59, 0.23]	.119	0.90 [0.20, 1.61]	3.30 (1, 6)	0	0.363
	Publication type	10	6	-0.19 [-1.74, 1.36]	.786	0.79 [-0.11, 1.70]	0.07 (1, 8)	0.014	0.586

Note. SV = sexual violence; CASV = child/adolescent sexual violence; AASV = adolescent/adult sexual violence; *l* = number of effect sizes; *k* = number of studies; β = Beta coefficient; CI = confidence interval; *p* = p-value; *F* = F-value; Level 2 var. = variance between effect sizes extracted from the same study; Level 3 var. = variance between studies. The estimated intercept value in represents the effect of shame that was tested against the null hypothesis of no effect to determine its significance. NA = Not applicable for univariate models.

[a] Indicating univariate meta-analyses with only one effect size per study; variance was not accounted for by a three-level model for univariate analyses.

* = $p < .05$ ** = $p < .01$ *** = $p < .001$.

Moderators for Associations Between SV Severity and Shame

Model	Moderator	*l*	*k*	β [95% CI]	*p*	Intercept [95% CI]	*F*(*df*1, *df*2)	Level 2 var.	Level 3 var.
SV (all types) and Shame (all types)	% Women/girls	56	32	-0.00 [-0.00, 0.00]	.572	0.20 [0.15, 0.26]	0.32 (1, 54)	0.003	0.014
	% White	30	19	-0.00 [-0.00, 0.00]	.824	0.26 [-0.02, 0.54]	0.05 (1, 28)	0.004	0.018
	Sample type								
	Combination of samples	56	32	-0.03 [-0.18, 0.10]	.597	0.19 [0.11, 0.27]		0.003	0.015
	Community members	56	32	0.05 [-0.09, 0.20]	.485	0.19 [0.11, 0.27]	0.50 (4, 51)	0.003	0.015
	Incarcerated individuals	56	32	0.09 [-0.10, 0.30]	.343	0.19 [0.11, 0.27]	0.50 (4, 51)	0.003	0.015
	People seeking treatment	56	32	0.00 [-0.16, 0.18]	.936	0.19 [0.11, 0.27]	0.50 (4, 51)	0.003	0.015
	Risk of bias	50	31	0.01 [-0.01, 0.05]	.297	0.20 [0.14, 0.25]	1.11 (1, 48)	0.001	0.015
	Publication type	56	32	-0.06 [-0.19, 0.06]	.307	0.25 [0.14, 0.36]	1.06 (1, 54)	0.003	0.014
SV (all types) and Trait shame	% Women/girls	25	16	0.00 [-0.00, 0.00]	.57	0.14 [0.08, 0.21]	0.33 (1, 23)	0	0.009
	% White	11	8	-0.00 [-0.00, 0.00]	.439	0.22 [-0.07, 0.52]	0.65 (1,9)	0	0.01
	Sample type								

Model	Moderator	*l*	*k*	β [95% CI]	*p*	Intercept [95% CI]	*F*(*df*1, *df*2)	Level 2 var.	Level 3 var.
	Combination of samples	25	16	0.03 [-0.15, 0.22]	.707	0.09 [-0.00, 0.20]	0.80 (4, 20)	0	0.009
	Community members	25	16	0.06 [-0.13, 0.26]	.49	0.09 [-0.00, 0.20]	0.80 (4, 20)	0	0.009
	Incarcerated individuals	25	16	0.17 [-0.04, 0.38]	.112	0.09 [-0.00, 0.20]	0.80 (4, 20)	0	0.009
	People seeking treatment	25	16	0.08 [-0.08, 0.25]	.303	0.09 [-0.00, 0.20]	0.80 (4, 20)	0	0.009
	Risk of bias	23	15	-0.02 [-0.07, 0.01]	.175	0.16 [0.10, 0.22]	1.96 (1, 21)	0	0.006
	Publication type	25	16	0.03 [-0.10, 0.16]	.642	0.12 [0.01, 0.24]	0.22 (1, 23)	0	0.009
SV (all types) and Body shame	% Women/girls	13	12	-0.00 [-0.00, 0.00]	.294	0.19 [0.14, 0.24]	1.21 (1, 11)	0.001	0.002
	% White	7	6	-0.00 [-0.00, 0.00]	.573	0.29 [0.06, 0.52]	0.36 (1, 5)	0	0
	Sample type								
	Combination of samples	13	12	0.12 [-0.19, 0.44]	.392	0.18 [0.12, 0.24]	2.88 (4, 8)	0.001	0
	Community members	13	12	-0.06 [-0.17, 0.04]	.217	0.18 [0.12, 0.24]	2.88 (4, 8)	0.001	0
	Incarcerated individuals	13	12	0.25 [-0.01, 0.51]	.062	0.18 [0.12, 0.24]	2.88 (4, 8)	0.001	0
	People seeking treatment	13	12	0.08 [-0.03, 0.19]	.148	0.18 [0.12, 0.24]	2.88 (4, 8)	0.001	0
	Risk of bias	13	12	0.00 [-0.03, 0.04]	.801	0.19 [0.13, 0.25]	0.06 (1, 11)	0	0.004

Model	Moderator	*l*	*k*	β [95% CI]	*p*	Intercept [95% CI]	*F*(*df*1, *df*2)	Level 2 var.	Level 3 var.
CASVand Shame (all types)	% Women/girls	40	23	-0.00 [-0.00, 0.00]	.585	0.21 [0.14, 0.27]	0.30 (1, 38)	0.002	0.019
	% White	17	12	-0.00 [-0.00, 0.00]	.825	0.27 [0.12, 0.68]	0.05 (1, 15)	0.005	0.028
	Sample type								
	Combination of samples	40	23	-0.05 [-0.27, 0.16]	.621	0.19 [0.07, 0.30]	0.39 (4, 35)	0.002	0.021
	Community members	40	23	0.05 [-0.13, 0.23]	.561	0.19 [0.07, 0.30]	0.39 (4, 35)	0.002	0.021
	Incarcerated individuals	40	23	0.10 [-0.14, 0.34]	.407	0.19 [0.07, 0.30]	0.39 (4, 35)	0.002	0.021
	People seeking treatment	40	23	0.00 [-0.20, 0.21]	.952	0.19 [0.07, 0.30]	0.39 (4, 35)	0.002	0.021
	Risk of bias	37	22	0.01 [-0.03, 0.05]	.529	0.21 [0.14, 0.28]	0.40 (1, 35)	0	0.021
	Publication type	40	23	-0.06 [-0.20, 0.08]	.39	0.25 [0.12, 0.37]	0.75 (1, 38)	0.002	0.018
	Contact SV	37	20	-0.15 [-0.29, -0.01]	.037*	0.26 [0.17, 0.34]	4.72 (1, 35)	0	0.01
CASVand Trait shame	% Women/girls	23	16	0.00 [-0.00, 0.00]	.643	0.15 [0.08, 0.21]	0.22 (1, 21)	0	0.009
	% White	9	8	-0.00 [-0.00, 0.00]	.425	0.23 [-0.08, 0.55]	0.716 (1, 7)	0	0.01
	Sample type								
	Combination of samples	23	16	0.03 [-0.16, 0.22]	.712	0.09 [-0.00, 0.20]	0.82 (4, 18)	0	0.009
	Community members	23	16	0.06 [-0.13, 0.27]	.495	0.09 [-0.00, 0.20]	0.82 (4, 18)	0	0.009

Model	Moderator	*l*	*k*	β [95% CI]	*p*	Intercept [95% CI]	*F*(*df*1, *df*2)	Level 2 var.	Level 3 var.
	Incarcerated individuals	23	16	0.17 [-0.04, 0.38]	.115	0.09 [-0.00, 0.20]	0.82 (4, 18)	0	0.009
	People seeking treatment	23	16	0.09 [-0.08, 0.27]	.268	0.09 [-0.00, 0.20]	0.82 (4, 18)	0	0.009
	Risk of bias	22	15	-0.03 [-0.07, 0.01]	.144	0.16 [0.10, 0.22]	2.31 (1, 20)	0	0.006
	Publication type	23	16	0.03 [-0.10, 0.17]	.611	0.12 [0.01, 0.24]	0.26 (1, 21)	0	0.009
	Contact SV	21	14	-0.07 [-0.20, 0.05]	.237	0.17 [0.09, 0.25]	1.48 (1, 19)	0	0
AASV to Shame (all types)	% Women/girls	11	9	0.00 [-0.00, 0.01]	.121	0.161 [0.07, 0.24]	2.92 (1, 9)	0	0.007
	% White	9	7	0.00 [-0.00, 0.00]	.199	-0.01 [-0.39, 0.35]	2.01 (1, 7)	0	0.006
	Sample type								
	Combination of samples	11	9	-0.00 [-0.21, 0.20]	.965	0.180 [0.06, 0.30]	0.00 (1, 9)	0	0.012
	Risk of bias	8	8	0.05 [0.00, 0.10]	.028*	0.174 [0.11, 0.23]	8.26 (1, 6)	0	0

Note. SV = sexual violence; CASV = child/adolescent sexual violence; AASV = adolescent/adult sexual violence; *l* = number of effect sizes; *k* = number of studies; β = Beta coefficient; CI = confidence interval; *p* = p-value; *F* = F-value; Level 2 var. = variance between effect sizes extracted from the same study; Level 3 var. = variance between studies. The estimated intercept value in represents the effect of shame that was tested against the null hypothesis of no effect to determine its significance.

[a] Indicating univariate meta-analyses with only one effect size per study; variance was not accounted for by a three-level model for univariate analyses.

* = $p < .05$ ** = $p < .01$ *** = $p < .001$.