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Being Pure and Being Ashamed: Purity Culture and Sexual Shame Among Survivors of Nonconsensual Sexual Experiences

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ABSTRACT

The intertwining of religion and sex, particularly sexual shame, is a pertinent but underexplored phenomenon among survivors of nonconsensual sexual experiences (NSEs). Sexual shame, defined as shame related to one's sexual self, experiences, thoughts, and desires, is a commonly reported outcome of sexual violence and is known to negatively impact future sexual well-being. Purity culture – a strict sexual ethic rooted in Evangelical Christianity – may independently exacerbate sexual shame. The present online study examined associations between childhood purity culture exposure, adulthood acceptance of purity culture beliefs, and sexual shame in child sexual abuse survivors ($n = 100$), adult NSE survivors ($n = 101$), and controls ($n = 100$). Data were analyzed using General Additive Models with bootstrapped confidence intervals. As hypothesized, sexual shame was significantly higher among both NSE groups. Adulthood acceptance of purity culture beliefs independently predicted sexual shame for both men ($\beta = 0.01$, $p < .001$) and women ($\beta = 0.004$, $p < .001$), whereas childhood exposure to purity culture was a significant predictor only for men ($F(2.11, 114) = 4.313$, $p = .01$). These findings underscore sexual shame as a clinically relevant outcome of NSEs and highlight the influential role of religious sexual messaging in shaping that shame.

Religion and sexual behavior are two forces that often intersect at both individual and communal levels. Major religions, such as Christianity and Islam, include distinctive sexual ideals that emphasize the sacredness of sex as a spiritual and physical act – it is a "gift from God" (Lefevor et al., 2024). Given the holy importance of sexuality in these ideals, the sexual ethics that follow possess significant value and impose harsh consequences for transgressions. Often, these ethics segregate acceptable sexual acts and orientations into the confines of a monogamous marital relationship between a cisgender man and woman with an emphasis on procreation over pleasure (Lefevor et al., 2024). Deviating from these sexual ethics often comes with significant consequences, including sexual shame.

A subdimension of overall shame, sexual shame refers to shame about one's sexual self, including one's sexual experiences, thoughts, desires, and identity (Clark, 2017; Marcinechová & Záhorcová, 2020). It involves beliefs that one is sexually flawed or inferior. Research highlights its presence in the aftermath of nonconsensual sexual experiences (NSEs; Amanelahi et al., 2024; Barker et al., 2022; Kilimnik & Meston, 2021; Pulverman & Meston, 2020; Yahag et al., 2024). Levels of sexual shame accurately predicted NSE categorization (e.g., childhood sexual abuse [CSA] vs. no NSE) based on sexual dysfunction among 402 Iranian women (Amanelahi et al., 2024) and served as a key mediator between NSE status and sexual dysfunction in 120 women, accounting for nearly half of the total relationship (total effect $c = -.48$; Pulverman & Meston, 2020). In a community sample of over 700 men, Kilimnik and Meston (2021) found that sexual shame was substantially amplified among men with NSEs. The elevated levels of sexual shame were strongly related to increased sexual inhibition (i.e., hyposexuality; $\beta = .65$) and arousability (i.e., hypersexuality; $\beta = .13$), albeit more weakly. Religious teachings on sex may further heighten sexual shame by promoting harmful beliefs around sexual violence.

Purity culture, a distinct movement within Evangelical Christianity, is one such form of sexual ethics with widespread cultural presence (Ortiz et al., 2023; Schultz, 2021). Due to its relative infancy in empirical literature, purity culture lacks a standardized definition. Instead, it can be conceptualized as traditional gender and sexual standards that are extrapolated to intense moral and spiritual levels (Owens et al., 2021). Purity culture is not the only sexual ethic within Christianity nor are its themes unique to Christianity. Other religions (e.g., Islam, Hinduism) and non-religious frameworks (e.g., Moral Foundations Theory, honor codes) also possess guidelines that promote sexual ethics through strict norms and taboos (Haidt, 2012; Schultz, 2021; Uskul et al., 2019). What makes purity culture, as conceptualized in this study, unique is its role as a timebound, historical movement accompanied by specific rituals, symbols, and materials (Benton, 2022; Gish, 2018).

Emerging in the 1970s as a reaction to the sexual liberation movement of the 1960s, purity culture grew into a widespread movement by the 1990s and early 2000s through campaigns such as True Love Waits and The Silver Ring Thing (Dinse et al., 2023; Ortiz et al., 2023; Owens et al., 2021). These campaigns sought to protect youth's "purity" – namely, virginity – through vows of abstinence (i.e., purity pledges) or symbolically laden purity rings (Anderson, 2015; Benton, 2022; Cronan, 2023; Diefendorf,

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2015). In a study of 1,038 emerging adults in the Southeast, Landor and Simmons (2014) estimated that 27% of the adults had signed purity pledges at conferences, church youth groups, and public schools. These events were promoted initially by the Southern Baptist Church but quickly spread to other Evangelical Christian denominations through a booming industry of books, music, curriculums, and movies (Anderson, 2015). While abstinence was the primary goal of purity culture, other sexual ethics were embedded within its teachings.

For example, while it is generally accepted that men experience more spontaneous sexual desire than women (Dinse et al., 2023; Harris et al., 2023), purity culture expands this assumption. It teaches that women lack sexual desire (i.e., they are naturally "pure"), while men possess such intense desire that they cannot be held responsible for their own sexual behavior (Harris et al., 2023; Ortiz et al., 2023; Owens et al., 2021; Ueda et al., 2020; Younis & Abdel-Rahman, 2013). As a result, women are positioned as responsible for preventing sexual behavior within purity culture's framework (Dinse et al., 2023; Ortiz et al., 2023). While distinct, these beliefs overlap with rape myths (Klement et al., 2022). Owens et al. (2021) found that a stronger endorsement of purity culture beliefs correlated with a greater likelihood of labeling marital and acquaintance rape as consensual sex. This is in line with purity culture, where the wife belongs to her husband and is required to fulfill her "wifely duty" to satisfy his sexual appetite (Dinse et al., 2023; Ortiz et al., 2023; Owens et al., 2021).

By positioning women as responsible for men's sexual actions and promoting female obedience to male authority figures, purity culture fosters an environment ripe for grooming and sexual abuse (Colwell & Johnson, 2020; Moon & Reger, 2014; Owens et al., 2021). This environment is reinforced by purity culture's sexual education materials, which prioritize the distinction between premarital and marital sexual intercourse over the difference between consent and coercion (Allison, 2021; Moon & Reger, 2014). Consequently, purity culture has been implicated in numerous sexual abuse scandals and subsequent coverups within the Protestant Church – notably, the Southern Baptist Church (Allison, 2021; Colwell & Johnson, 2020; Moon & Reger, 2014). Falling short of purity culture's standards, whether consensually or not, has significant consequences.

Metaphors used in purity culture compare sexually active individuals to chewed gum being passed from mouth to mouth or tape that has lost its stickiness due to overuse (Cronan, 2023; Gish, 2018; Ortiz et al., 2023). The immense emphasis on purity may create deep feelings of fear and shame (Dinse et al., 2023; Ortiz et al., 2023; Owens et al., 2021). This may be heightened for individuals deemed naturally "impure" within purity culture. Cisgender and heterosexual marriages are explicitly promoted as the only "pure" sexual ethic, while non-heterosexual marriages are viewed as naturally "sinful." White women are historically associated with "purity" within Evangelical Christianity, while non-White women are stereotyped as "Jezebels," a label implying promiscuity and impurity (Benton, 2022; Natarajan et al., 2022; Schultz, 2021). Even when purity culture's strict standards are followed, shame may persist.

Purity culture teaches that premarital sex is "dirty" and shameful but marital sex is God-ordained pleasure if one has followed purity culture's teachings (Ortiz et al., 2023). This shift – from sex as taboo to sex as a sacred pleasure – can create emotional "whiplash." Interviews with married men and women raised in purity culture highlight how this switch contributes to sexual and relational difficulties (Benton, 2022; Cronan, 2023; Diefendorf, 2015). It is unsurprising, then, given the relationship between shame and religion, especially regarding sex and sexuality, that sexual shame is intertwined with purity culture (Hackathorn et al., 2016; Happel-Parkins et al., 2020; Lefevor et al., 2024; Marcinechová & Záhorcová, 2020; Woo et al., 2012).

These effects have been indirectly investigated. For example, Patanwala et al. (2020) investigated the role of religion in sexual pain in a large sample of 901 women recruited from the community and local OB-GYN clinics. While religiosity itself did not predict sexual pain, negative sexual messaging (i.e., "Wait until marriage to have sex"; $\beta = .61$; 95% CI [1.28, 1.64], "Sex is bad"; $\beta = .51$, 95% CI [1.06–2.64]) did. Notably, such messages are core pillars of purity culture. Similar results have been found in other studies on vaginismus and chronic sexual pain; participants who reported less sex education and more negative messaging about sex for religious reasons experienced more feelings of disgust toward their sexuality and genitals, as well as higher levels of fear and pain during intercourse (Çankaya & Aslantaş, 2022; Happel-Parkins et al., 2020). Aside from studies on pain during intercourse, however, the connection between purity culture and sexual shame remains relatively underexplored. Further investigation is essential, particularly for survivors of NSEs.

Purity culture beliefs intersect with religion and NSEs as a fusion of religious meaning and sexual ethics, and their interpretive framework may exacerbate outcomes of NSEs. Women who are taught that they are solely responsible for preventing sexual behavior – including their own violation – may face unique psychological and sexual consequences. Men may also struggle, as their religious background in purity culture frames them as sexual aggressors rather than victims. Given the presence of sexual shame after NSEs, its role in religious messaging about sex, and purity culture's prominent themes, purity culture may be a potential contributor to sexual shame following NSEs, both independently and as an amplifier (Pulverman & Meston, 2020).

Timing matters in understanding the relationship between NSEs, sexual shame, and purity culture. Religiously, what an individual heard as a child (i.e., purity culture *exposure*) may be different from what they believe as an adult (i.e., adult *acceptance* of purity culture; Benton, 2022; Cole, 2025; Hayward & Krause, 2013). Benton's (2022) dissertation illustrates this distinction: quantitative data showed no relationship between current purity culture acceptance and sexual shame, yet qualitative interviews revealed that childhood exposure strongly influenced adult sexual shame. By contrast, other studies of individuals who did not have an NSE suggest that religious beliefs in adulthood may enhance sexual well-being by framing sex as sacred (Lefevor et al., 2024). For adults without NSEs, purity culture ideals may not produce sexual shame if their sexual activity aligns with prescribed ethics.

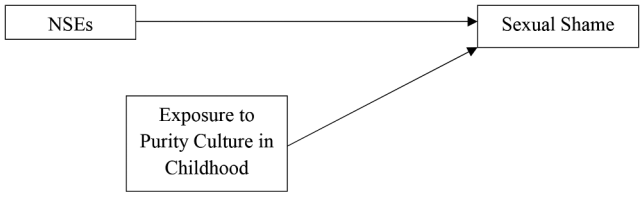

Figure 1. Directed acyclic graph of NSEs, sexual shame, and purity culture exposure in childhood.

The age at which NSE victimization occurs is also critical. While sexual shame appears in both populations (Kilimnik & Meston, 2021; Pulverman & Meston, 2020; Yahag et al., 2024), the psychiatric and relational consequences can differ depending on the type of NSE experience. A systematic review by Rowland et al. (2024) found distinct psychological profiles for CSA and adulthood NSE survivors, including differences in occupational and academic outcomes. Another review of studies on college women found that while both CSA survivors and adulthood NSE survivors report sexual dysfunction, the specific type of dysfunction differs (Bhuptani et al., 2024).

Given the prevalence of sexual shame following NSEs and the powerful potential of purity culture to amplify that relationship, a deeper analysis of these relationships is warranted.

Study Aims and Hypotheses

This study aimed to address the lack of research on the relationships between purity culture and sexual shame in NSE survivors. This goal was multifaceted: (1) to analyze the role of childhood exposure to purity culture as an independent predictor of sexual shame in NSE survivors; (2) to investigate the role of adulthood acceptance of purity culture as an independent predictor of sexual shame in NSE survivors; and (3) to examine if these relationships differ based on the timing of the NSE experience. These relationships are illustrated in Figures 1 and 2.

Because purity culture holds distinct sexual ethics for men and women, all analyses were stratified by sex. However, directional hypotheses were expected in both subsamples as stated below.

H1: Participants with a history of either CSA or adult NSEs will report higher levels of sexual shame compared to participants without such histories (i.e., controls).

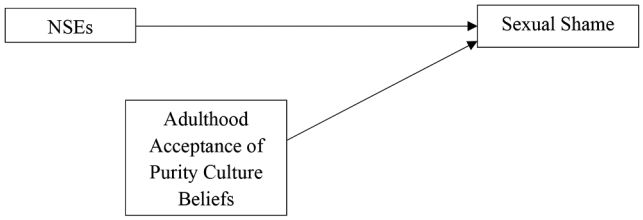

Figure 2. Directed acyclic graph of NSEs, sexual shame, and purity culture acceptance in adulthood. *Note*: While purity culture exposure and acceptance may have a moderating relationship between NSEs and sexual shame that analysis was exploratory and thus not present in this graph of confirmatory hypotheses.

H2: Greater exposure to purity culture in childhood will be associated with higher levels of sexual shame.

H3: Childhood exposure to purity culture will uniquely predict higher levels of sexual shame, with this association being stronger among CSA survivors than among other participants.

H4: Purity culture acceptance in adulthood will uniquely predict higher levels of sexual shame, with this association being stronger among adult NSE survivors than among other participants.

Method

Participants

To be eligible, participants were at least 18 years of age, born in and currently reside in the Southeastern United States (i.e., Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, South Carolina, Tennessee, Texas, Virginia, West Virginia), had engaged in vaginal or anal penetrative intercourse within the last 4 weeks, in a relationship of at least 3 months, and fluent in English. Participants were intentionally recruited from the Southeast to increase the likelihood of purity culture exposure and acceptance due to the prevalence of Evangelical Christianity and the Southern Baptist Church – a key promoter of purity culture – within this region (Allison, 2021; Bauer, 2012).

Measures

Demographics

An experimenter-derived questionnaire assessed numerous demographic variables, including age, sex and gender, sexual orientation, race and ethnicity, education, relationship status, and age of first consensual oral and penetrative intercourse. Response options are listed in Table 1.

Nonconsensual Sexual Experiences Inventory (NSEI; Kilimnik et al., 2018)

The NSEI comprehensively assesses NSEs across the lifespan. Rather than providing a scaled or total score, the NSEI is a behavioral inventory that queries multiple experiences (e.g., vaginal or anal penetration by fingers, objects, or genitals; fondling of breasts or genitals; giving or receiving oral sex) across three timeframes: childhood (ages 0–11), adolescence (12–17), and adulthood (18+). If participants endorse any NSEs, they are asked follow-up questions regarding the age of onset, use of force or violence, role of the perpetrator, perceived level of impact, and other aspects of NSEs. Participants may also report additional unwanted sexual experiences not covered by the inventory (Kilimnik & Meston, 2018). The NSEI combines multiple-choice questions with free-response items, providing a detailed picture of a participant's NSE history (Kilimnik & Meston, 2021; Kilimnik et al., 2018).

Table 1. Demographic information for the whole sample by exposure group.

Factors	Adult NSE (n = 101)	CSA (n = 100)	No NSE (n = 100)
Gender			
Man	32.7% (33)	34% (34)	45% (45)
Woman	63.4% (64)	64% (64)	54% (54)
Non-binary	2.0% (2)	2.0% (2)	1.0% (1)
Other	2.0% (2)	0	0
Sex			
Male	34.7% (35)	34% (34)	46% (46)
Female	65.3% (66)	66% (66)	54% (54)
Intersex	0	0	0
Sexual Attraction			
Only women	29.7% (30)	30% (30)	44.0% (44)
Usually women but sometimes men	4.0% (4)	5.0% (5)	3.0% (3)
Equally women and men	5.9% (6)	6.0% (6)	1.0% (1)
Usually men but sometimes women	8.9% (9)	9.0% (9)	2.0% (2)
Only men	50.5% (51)	43.0% (43)	49.0% (49)
Only non-binary folks	0	0	0
I am not attracted to men or women	0	0	0
I am attracted to any/all genders	1.0% (1)	7.0% (7)	1.0% (1)
Race			
Caucasian/White	62.4% (63)	72.0% (72)	76.0% (76)
African American/Black/African Canadian	33.7% (34)	18.0% (18)	17.0% (17)
Hispanic	0	7.0% (7)	2.0% (2)
Latin American	0	1.0% (1)	0
Native American/Aboriginal/First Nations/Indigenous	0	0	1.0% (1)
Pacific Islander/Hawaiian Native	0	0	0
Japanese	0	0	0
Chinese	0	0	1.0% (1)
Korean	0	0	1.0% (1)
South Asian	0	0	2.0% (2)
Southeast Asian	1.0% (1)	2.0% (2)	0
West Asian/Middle Eastern	0	0	0
Mixed Race	3.0% (3)	0	0
Education			
Some high school or less	0	0	0
High school graduate/GED	4.0% (4)	11.0% (11)	12.0% (12)
Some college/university	16.8% (17)	28.0% (28)	30.0% (30)
College diploma/university degree	39.6% (40)	34.0% (34)	35.0% (35)
Advanced degree	39.6% (40)	27.0% (27)	23.0% (23)
Sexual Orientation			
Heterosexual	80.2% (81)	75.0% (75)	92.0% (92)
Gay	2.0% (2)	1.0% (1)	1.0% (1)
Lesbian	3.0% (3)	5.0% (5)	2.0% (2)
Bisexual	12.9% (13)	12.0% (12)	4.0% (4)
Queer	1.0% (1)	3.0% (3)	0
Asexual	0	0	0
Questioning	0	0	0
Pansexual	1.0% (1)	4.0% (4)	1.0% (1)
Two-spirit	0	0	0
Current Relationship			
Single (not dating)	0	0	0
Single (casually dating)	0	1.0% (1)	0
In a committed relationship (with one partner)	21.8% (22)	24.0% (24)	20.0% (20)
In a committed relationship (with multiple partners)	2.0% (2)	1.0% (1)	0
Living with my partner	15.8% (16)	10.0% (10)	13.0% (13)
Married	60.4% (61)	64.0% (60)	67.0% (67)
Sought Mental Health Professional for Sex Related Concerns			
Yes	37.6% (38)	39.0% (39)	7.0% (7)
No	62.4% (63)	61.0% (61)	93.0% (93)
Religious Affiliation			
Christianity	86.2% (87)	70.0% (70)	69.0% (69)
Islam	0	0	3.0% (3)
Judaism	2.0% (2)	0	0
Hinduism	0	0	1.0% (1)
Buddhism	2.0% (2)	0	0
Atheism	3.0% (3)	5.0% (5)	9.0% (9)
Agnosticism	1.0% (1)	6.0% (6)	4.0% (4)
Humanist	0	0	0
Spiritual but not religious	4.0% (4)	6.0% (6)	5.0% (5)
Not Religious	2.0% (2)	10.0% (10)	8.0% (8)
Other	0	3.0% (3)	1.0% (1)
Age of First Consensual Oral Intercourse (years)			
0	0	2.0% (2)	3.0% (3)
7–10	0	3.0% (3)	0
11–13	3.0% (3)	5.0% (5)	2.0% (2)

(*Continued*)

Table 1. (Continued).

Factors	Adult NSE (n = 101)	CSA (n = 100)	No NSE (n = 100)
14–16	13.0% (13)	48.0% (48)	24.0% (24)
17–19	43.6% (44)	24.0% (24)	39.0% (39)
20–22	34.6% (35)	12.0% (12)	20.0% (20)
23–25	4.0% (4)	4.0% (4)	8.0% (8)
26–28	0	1.0% (1)	3.0% (3)
29–31	1.0% (1)	1.0% (1)	1.0% (1)
32–34	1.0% (1)	0	0
Age of First Consensual Penetrative Intercourse (years)			
8–10	0	3.0% (3)	1.0% (1)
11–13	2.0% (2)	11.0% (11)	0
14–16	21.7% (22)	48.0% (48)	28.0% (28)
17–19	51.7% (52)	29.0% (29)	45.0% (45)
20–22	20.8% (21)	8.0% (8)	17.0% (17)
23–25	3.0% (3)	1.0% (1)	5.0% (5)
26–28	1.0% (1)	0	3.0% (3)
29–31	0	0	1.0% (1)
Age of Marriage (years)			
Not Married	39.6% (40)	36.0% (36)	33.0% (33)
16–17	0	0	1.0% (1)
18–21	11.9% (12)	22.0% (22)	8.0% (8)
22–25	19.8% (20)	19.0% (19)	16.0% (16)
26–29	12.9% (13)	9.0% (9)	28.0% (28)
30–33	10.9% (11)	9.0% (9)	12.0% (12)
34–37	1.0% (1)	1.0% (1)	0
38–41	1.0% (1)	1.0% (1)	2.0% (2)
42–45	2.0% (2)	1.0% (1)	0
46–49	0	0	0
50–53	1.0% (1)	0	0

Note: Only endorsed religious affiliations are shown; other religious affiliations were assessed but were not present within our sample; participant with "0" as the age of first consensual intercourse was interpreted as not having had consensual oral intercourse.

Sexual Shame Inventory (The SSI; Seebeck, 2020)

SSI contains 10 items across three factors: internalized sexual shame, relational sexual shame, and sexual inferiority (Seebeck, 2020). Internalized sexual shame refers to one's thoughts and emotions regarding past sexual experiences and current sexuality (e.g., "I feel ashamed that I have been forced into uncomfortable sexual situations"), while relational sexual shame emphasizes the feelings of shame one holds regarding others (e.g., "There are some things I just can't talk about with my sexual partner(s)"). Sexual inferiority highlights feelings of sexual inadequacy and flaws (e.g., "When it comes to sex, I feel like I am never good enough").

Responses are given on a 6-point Likert scale (1 = Strongly disagree, 6 = Strongly agree). Subscales are summed, with the overall score reflecting global sexual shame. Higher scores indicate greater sexual shame. Internal consistency was good for the total score (α = .84) and subscales: sexual inferiority (α = .91), relational sexual shame (α = .82), and internalized sexual shame (α = .82).

Purity Culture Beliefs Scale (PCBS; Ortiz et al., 2023)

The PCBS includes 24 items across three factors of purity culture within Evangelical Christianity: shame and guilt, idealization, and gender roles. It is divided into two scales: (1) adult acceptance of purity culture beliefs (i.e., current agreement with purity culture messaging) and (2) childhood exposure (extent of purity culture messaging received in childhood). Responses are on a 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree), with higher scores reflecting greater acceptance or exposure.

Example items include "A woman who dresses immodestly causes her brothers to stumble" (e.g., Shame and Guilt subscale), "It is the woman's fault if sexual boundaries are crossed in a dating relationship" (e.g., Gender Roles subscale), and "Virginity is a gift you give your spouse on your wedding night" (e.g., Idealization subscale). All items were developed from material explicitly discussing purity culture and validated with samples drawn from Evangelical Christian contexts. Both the childhood exposure (α = .95) and adulthood acceptance (α = .95) demonstrated excellent internal consistency.

Procedure

All procedures were approved by the ethics committee at the University of Texas at Austin. As part of a larger study, participants were recruited from Prolific, an anonymous online research platform, to take a study on cultural and sexual backgrounds and sexual well-being. Prolific allows researchers to promote studies to participants who, based on previously answered questionnaires, match the study's inclusion criteria (e.g., being sexually active, in a relationship of 3 months). Participants were compensated $4.70 for their time (in line with Prolific's payment recommendations); the average study length was 35 minutes. After providing informed consent, participants completed a screener. Exclusion criteria included residing outside the Southeastern United States, not sexually active, not fluent in English, not in a relationship of at least 3 months, reporting NSEs across both childhood and adulthood, or failing to fit the study's quota for specific NSE categories (n = 758). Eligible participants then completed the aforementioned measures. At study completion, participants received

a debrief form explaining study aims, researcher contact information, and resources for NSE survivors.

Responses were reviewed for data integrity. Participants were excluded if they failed 60% or more of the attention checks (three out of five; $n = 7$), reported not answering honestly ($n = 1$; assessed by answers to, "Did you honestly and openly answer the questions throughout this survey? Responses to this question will not affect compensation") or showed major discrepancies between the screener and survey responses (e.g., reported sexual activity on the screener but denied it on later measures; $n = 30$).

Prior to analyses, data were checked for outliers, missingness, normal distribution, and equal variance. No significant outliers were detected; the full sample was retained. Missingness was minimal; two participants (~1%) in the female sample and eight (7%) in the male sample. A Welch two sample t-test revealed no significant differences between the missing data and other respondents on key variables ($t = 1.38$, df = 7.35, $p = .21$) in the male sample. Because missingness was low, listwise deletion was utilized ($N = 184$ women; $N = 107$ men).

Data Analyses

This study examined how childhood purity culture exposure and adulthood purity culture acceptance predicted sexual shame in three different groups: CSA survivors, adult NSE survivors, and controls. Participants were categorized into a three-level factor variable based on their NSEI results, with controls as the reference group. Post hoc analyses compared CSA and adult NSE survivors directly.

Generalized Additive Models (GAMs) were used because the functional form of the relationship between purity culture exposure or acceptance and sexual shame was unknown. GAMs are regression models that allow the relationship between predictors and outcomes to be nonlinear, letting the data determine the shape of the relationship between variables through smoothing (Hastie & Tibshirani, 1987). Smoothing utilizes splines – a smooth curve whose shape is determined by the data – instead of fitting straight lines to illustrate the relationship between variables. Within GAMs, the model's "family" specifies the probability distribution that best fits the outcome's variability, and the link function defines how the predictors relate to the nonparametric mean of that distribution.

Because sexual shame scores were skewed (female: skewness = 0.61; kurtosis = 2.83; male: skewness = 0.55, kurtosis = 2.54), strictly non-negative, and not normal (Shapiro Wilks = 0.94, $p < .001$), we used a gamma distribution with a log link. This specification is well suited for positively skewed continuous data, as it precludes variable transformation for linearity and models multiplicative predictor effects (McKeown & Sneddon, 2014).

The gamma-log model also tests linearity using estimated degrees of freedom (edf). An edf of one indicates linearity, while values of edf larger than one reflect curvilinearity. Each model first included either purity culture exposure in childhood or adulthood purity culture acceptance as smooth terms. When results indicated a linearity between variables, a second model treated the variable as linear, and Akaike's Information Criterion (AIC) was used to select the better-fitting model. Models with linear terms were preferred when fit was equivalent for interpretability.

To address non-normality and skew, 1,000 bootstrapped confidence intervals (CIs) and confidence bands were generated for each model. Because smooth terms vary across the predictor rather than yielding a single estimate, confidence bands capture the full range of uncertainty around the curve and are preferred for interpretation. Predictions were originally on the log-transformed scale due to the Gamma family with a log link, so smooth effects and their confidence bands were back-transformed by exponentiation to the original response scale. The resulting confidence bands represent the range of possible values for the smooth function at each level of purity culture and in each exposure group. Predicted values of sexual shame were plotted against levels of either purity culture exposure or acceptance for each NSE group, with that sample's mean of sexual shame plotted as a reference line. Post hoc analyses using this same process examined the interaction of NSE exposure and purity culture. These graphs are represented in Figures 3–10.

A priori power analysis (RStudio, G*Power) determined that a sample of 107 was required to detect a medium effect ($f^2 = .15$) with two predictors at 95% power. To account for splitting the samples by sex, potential participant drop-out, incomplete data, and failed attention checks, 301 participants were recruited. Four GAMs were run. The first model includes NSE and purity culture exposure predicting sexual shame in men and women, respectively, and the second model predicts sexual shame based on NSE experience and adulthood purity culture acceptance in men and women, respectively.

Results

Sample Characteristics

The final sample was 301 participants. Participants ranged in age from 19 to 79 ($M = 38.83$; SD = 11.86) and were predominantly cisgender ($n = 294$, 97.67%), female ($n = 186$, 61.79%), heterosexual ($n = 248$, 82.39%), Caucasian ($n = 212$, 70.43%), and married ($n = 192$, 63.79%). Because the sexual functioning measures in the larger study relied on genital function, non-cisgender participants ($n = 7$) were assigned to subsamples based on their specified biological sex.

Participants reported higher levels of spirituality ("How spiritual are you?," 1 = Not at All, 5 = Very; Adult NSE: $M = 3.70$, SD = 1.19; CSA: $M = 3.62$, SD = 1.37; Controls: $M = 3.42$, SD = 1.51) than religiousness ("How religious are you?"; Adult NSE: $M = 3.44$, SD = 1.19; CSA: $M = 3.1$, SD = 1.37; Control: $M = 3.04$, SD = 1.51). Religion was important to participants in childhood ("How important was religion in your life when you were growing up [before the age of 18]?," 1 = Very Important, 5 = Not Very Important; Adult NSE: $M = 2.07$, SD = 1.33; CSA: $M = 2.55$, SD = 1.51; Controls: $M = 2.66$, SD = .53) and currently, to a lesser degree ("How important is religion in your life currently?"; Adult NSE: $M = 2.60$, SD = 1.36; CSA: $M = 2.85$, SD = .52; Controls: $M = 2.84$, SD = 1.63). There were

Table 2. Kruskal–Wallis and Fisher's exact test results by NSE group.

Outcome Variable	Test Statistic	Group Medians (IQRs)	Significant Pairwise Differences (Bonferroni-corrected)
Relationship length	$H(2) = 19.06$, $p < .001$	No NSE: 120 (120); CSA: 90 (118); Adult NSE: 58 (105)	Adult NSE < No NSE ($p < .001$); Adult NSE < CSA ($p = .03$)
Age first intercourse	$H(2) = 39.21$, $p < .001$	No NSE: 18 (4); CSA: 16 (2); Adult NSE: 18 (2)	CSA < No NSE ($p < .001$); CSA < Adult NSE ($p < .001$)
Age first oral sex	$H(2) = 29.23$, $p < .001$	No NSE: 18 (4); CSA: 16 (3); Adult NSE: 19 (3)	CSA < No NSE ($p = .002$); CSA < Adult NSE ($p < .001$)
Age at marriage	$H(2) = 8.32$, $p = .02$	No NSE: 26 (5); CSA: 23 (7); Adult NSE: 25 (7)	CSA < No NSE ($p = .02$)
Sexual attraction	Fisher's exact test; $p = .01$	–	CSA group more diverse; No NSE group more heterosexual
Race	Fisher's exact test; $p < .001$	–	Higher % Black and Mixed Race in Adult NSE
Education	Fisher's exact test: $p = .03$	–	Higher % of college/graduate levels in Adult NSE group
Current relationship status	Fisher's exact test, $p = .71$	–	No significant group differences
Health professional use for sexual concerns	Fisher's exact test, $p < .001$	–	CSA & Adult NSE > No NSE

100 CSA survivors, 101 adult NSE survivors, and 100 controls. Demographic variables were broken down by NSE group.

Descriptive Statistics

A series of Kruskal–Wallis tests and post hoc Pairwise Wilcoxon tests with Bonferroni corrections were used to examine differences between the three groups on demographic comparisons and measures of sexual shame; results are in Table 2.

All but relationship length, race, and education levels are theoretically and empirically associated with sexual well-being outcomes following NSE exposure (Blackburn et al., 2024; de Jong & Bijleveld, 2015; Hailes et al., 2019; Senn et al., 2008; Starzynski et al., 2017). Race and education level are not reliably shown to impact sexual well-being, while relationship length is (del Mar Sánchez-Fuentes et al., 2014; Fallis et al., 2016; Mallory, 2022; Rausch & Rettenberger, 2021). As such, relationship length as a covariate was included in each model; however, in all but one model (i.e., Model 2; women) it was an non-significant covariate that did not improve model fit and was dropped.

Model 1: Purity Culture Exposure in Childhood and NSEs Predicting Sexual Shame

Full results, including parameter estimates and confidence intervals, are in Table 3.

Men

Experiencing an NSE significantly predicted variance in sexual shame in men. Compared to controls, adult NSE survivors ($\beta = 0.38$, $p = .001$) and CSA survivors ($\beta = 0.36$, $p = .003$) reported significantly greater sexual shame, controlling for childhood purity culture exposure. Specifically, the CSA survivor group was associated with a 43% increase in expected levels of sexual shame relative to controls, and being in the adult NSE survivor group was associated with a 46% increase in expected levels of sexual shame compared to controls. Childhood exposure to purity culture was also a significant predictor of sexual

Table 3. GAM analysis predicting variance in sexual shame by NSE grouping and purity culture.

Predictor	β	SE	*t*	95% CI for β	*p*	edf	F(df)
Males (Model 1)							
Adult NSE vs. Control	0.38	0.10	3.92	[0.17, 0.551]	.001	—	—
CSA vs. Control	0.36	0.10	3.72	[0.156, 0.577]	.003	—	—
Adult NSE vs. CSA	0.02	0.10	0.20	—	.84		
Child PC Exposure	—	—	—	—	.001	1.69	F(2.11, 114) = 4.31
Females (Model 1)							
Adult NSE vs. Control	0.33	0.08	4.325	[0.191, 0.469]	<.001	—	—
CSA vs. Control	0.41	0.08	5.39	[0.247, 0.548]	<.001	—	—
Adult NSE vs. CSA	−0.07	0.07	−0.9	—	.32	—	—
Child PC Exposure	—	—	—	—	.06	1.35	F(1,62, 186) = 2.63
Males (Model 2)							
Adult NSE vs. Control	0.36	0.10	3.75	[0.190, 0.540]	<.001	—	—
CSA vs. Control	0.38	0.09	4.11	[0.214, 0.573]	<.001	—	—
Adult NSE vs. CSA	−0.02	0.10	−0.24	—	.81	—	—
Adult PC Acceptance	0.01	0.002	3.57	[0.003, 0.011]	<.001	—	—
Females (Model 2)							
Adult NSE vs. Control	0.33	0.08	4.431	[0.178, 0.481]	<.001	—	—
CSA vs. Control	0.41	0.08	5.25	[0.238, 0.540]	<.001	—	—
Adult NSE vs. CSA	−0.09	0.07	−1.22	—	.23	—	—
Adult PC Acceptance	0.004	0.002	2.75	[0.001, 0.008]	.007	—	—

Note: Adult NSE vs. CSA comparisons were done in post hoc analysis.

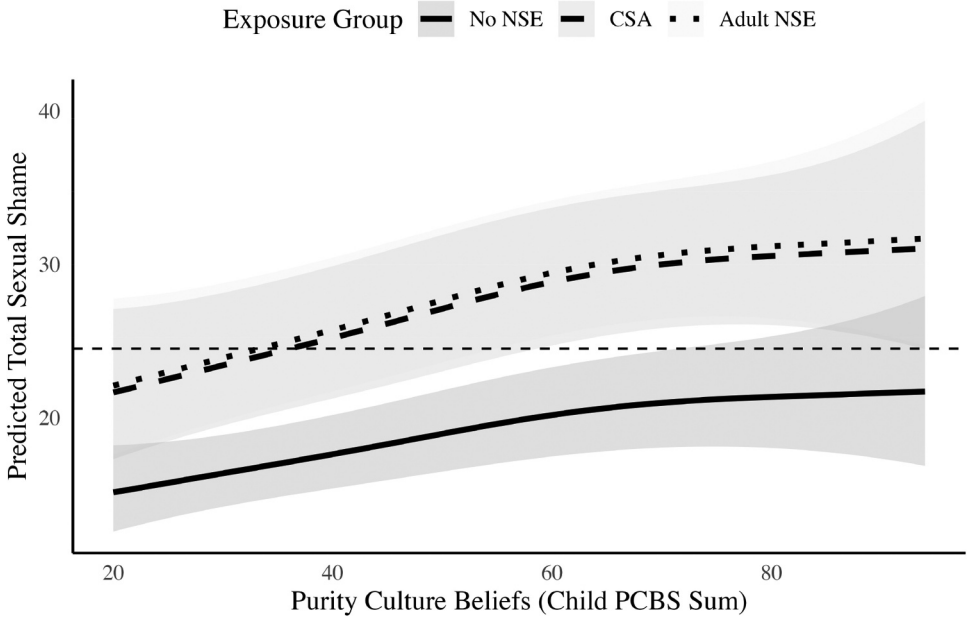

Figure 3. Predicted total sexual shame by childhood purity culture exposure and NSEs in men. *Note*: Horizontal line represents grand mean of sexual shame in Figures 3–10.

shame's variance (F(2.11, 114) = 4.313, $p = .01$). The total model accounted for a fifth of sexual shame's variance (adj-$R^2 = .22$). Post hoc analysis revealed no significant difference in sexual shame between adult NSE survivors ($\beta = 0.02$, $p = .84$) compared to the CSA survivors.

Visual inspection of the predicted sexual shame scores based on childhood purity culture exposure (Figure 3) showcases the significant difference in sexual shame between the NSE groups and controls. Sexual shame scores increased with greater childhood purity culture exposure, plateauing at higher ranges of exposure. Confidence intervals overlapped considerably between CSA and adult NSE groups, indicating no significant difference between these two groups in sexual shame.

Results from post hoc interaction analysis (Table 4) revealed a significant interaction between childhood purity culture exposure and sexual shame for the controls (F(1.00, 114) = 5.01, $p = .02$), such that childhood purity culture exposure was related to amplified levels of sexual shame. While childhood purity culture remained a significant independent predictor of sexual shame, no significant interactions were found for CSA survivors ($p = .08$) or adult NSEs survivors ($p = .72$). This model explained almost a quarter of the deviance (adj-$R^2 = .20$). Predicted values are shown in Figure 4.

Women

NSEs significantly predicted variance in sexual shame, such that the CSA group ($\beta = 0.41$, $p < .001$) was associated with a 50% increase in expected levels of sexual shame, relative to controls, and the adult NSE group ($\beta = 0.33$, $p < .001$; adult NSEs) was associated with a roughly 40% increase in expected sexual shame relative to controls. Childhood purity culture exposure approached significance (F(1.62, 186) = 2.63, $p = .06$). The model explained around 15% of the variance in sexual shame (adj-$R^2 = .15$). Post hoc comparisons revealed no significant difference in sexual shame in the adult NSE survivors ($\beta = -0.07$, $p = .32$) compared to the CSA survivors. Visual inspection of the predicted

Table 4. Post hoc interaction analysis of models 1 and 2.

Group	edf	F(edf)	*p*
Males (Childhood PC x Sexual Shame)			
Controls	edf = 1.00	F(1.00, 114) = 5.01	.02
Adult NSE	edf = 1.00	F(1.00, 114) = 0.13	.08
CSA	edf = 1.14	F(1.263, 114) = 3.26	.08
Females (Childhood PC x Sexual Shame)			
Controls	edf = 2.32	F(2.91, 186) = 2.58	.08
Adult NSE	edf = 1.00	F(1.00, 186) = 0.75	.40
CSA	edf = 1.001	F(1.001, 114) = 1.87	.17
Males (Adulthood PC x Sexual Shame)			
Controls	edf = 1.00	F(1.00, 114) = 5.47	.02
Adult NSE	edf = 1.00	F(1.00, 114) = 1.83	.18
CSA	edf = 1.001	F(1.001; 114) = 5.35	.02
Females (Adulthood PC x Sexual Shame)			
Controls	edf = 2.13	F(2.67, 185) = 1.65	.19
Adult NSE	edf = 1.35	F(1.62, 185) = 0.323	.78
CSA	edf = 1.001	F(1.001, 185) = 9.81	.002

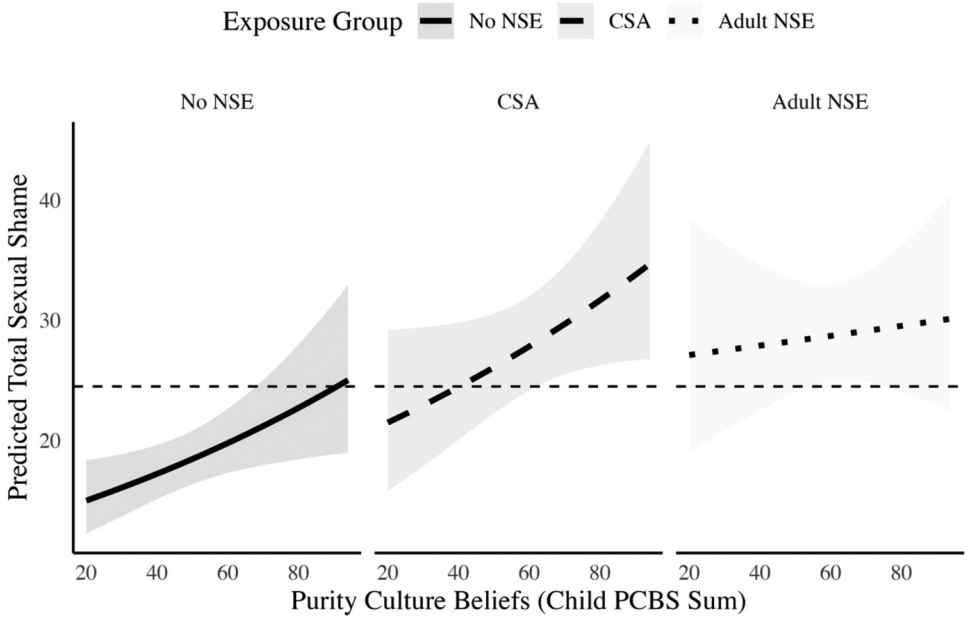

Figure 4. Predicted sexual shame moderated by childhood purity culture exposure and NSEs in men.

sexual shame scores based on childhood purity culture exposure in Figure 5 revealed a slight nonlinear pattern.

In the post hoc analysis of interaction terms, CSA survivors ($\beta = 0.43$, $p < .001$) and adult NSE survivors ($\beta = 0.36$, $p < .001$) had significantly more sexual shame than controls (Figure 6). While an independent predictor, childhood purity culture exposure was not a significant moderator for sexual shame in all groups: controls ($p = .08$), CSA ($p = .17$), and adult NSEs survivors ($p = .39$). This model explained close to a fifth of the deviance (adj-$R^2 = .15$). Predicted trend lines (Figure 6) indicate generally higher sexual shame in NSE groups compared to controls, with a linear relationship between childhood purity culture exposure and sexual shame. There was a curvilinear relationship between childhood purity culture exposure and sexual shame for the controls.

Model 2: Adult Acceptance of Purity Culture and NSEs Predicting Sexual Shame

Men

Variance in sexual shame was significantly predicted by all variables. Specifically, the CSA group ($\beta = 0.38$, $p < .001$) was

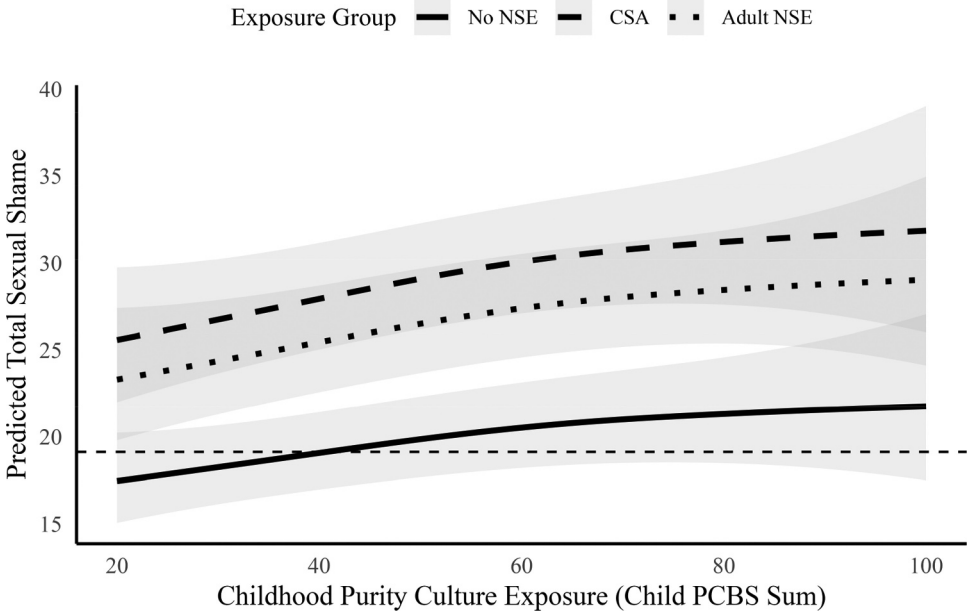

Figure 5. Predicted total sexual shame by childhood purity culture exposure and NSEs in women.

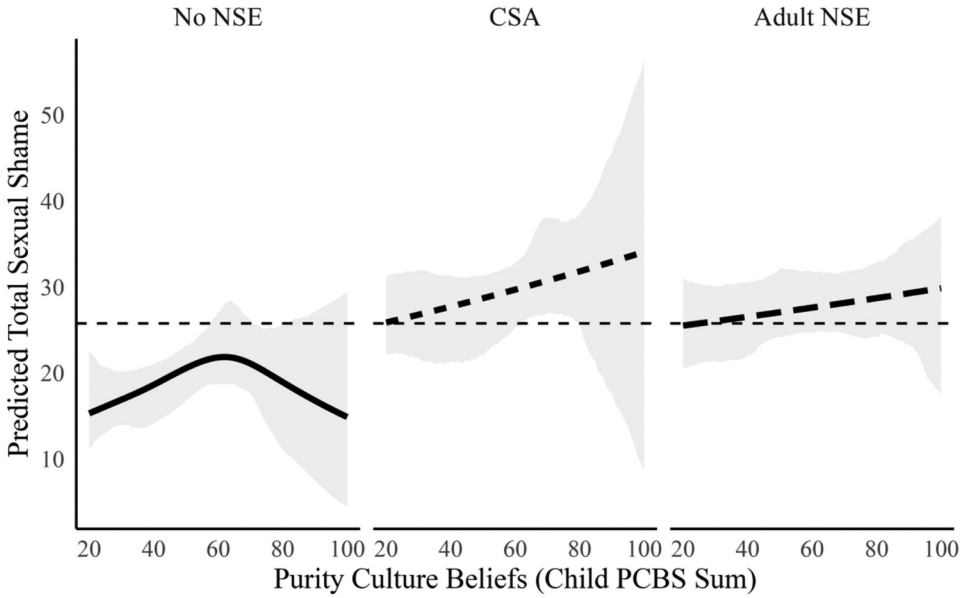

Figure 6. Predicted sexual shame moderated by childhood purity culture exposure and NSEs in women.

associated with a 47% increase in expected sexual shame levels compared to controls, and the adult NSE group (β = 0.36, $p < .001$) was associated with a roughly 43% increase in sexual shame levels compared to controls, both holding adulthood acceptance of purity culture constant. Adulthood acceptance of purity culture beliefs was also significantly predictive of sexual shame (β = 0.01, $p < .001$), such that a one unit increase in acceptance corresponded to a 0.7% increase in sexual shame. While small, these increases accumulate quickly given the wide range of adulthood acceptance of purity culture scores. The full model explained a quarter of the variance in sexual shame (adj-R^2 = .25). Post hoc comparisons revealed no significant difference between adult NSE survivors (β = −0.02, $p = .81$) and CSA survivors on sexual shame or adulthood acceptance of purity culture.

Visual inspection of Figure 7 shows both NSE groups with higher predicted sexual shame than controls; CSA and adult NSE groups showed similar predicted levels. Most controls fell below the average level of sexual shame, with only participants at the highest level of adulthood acceptance trending above.

In the post hoc analysis of interaction terms, NSEs significantly predicted sexual shame (CSA: β = 0.28, $p < .001$; adult NSE: β = 0.37, $p < .001$). The interaction term between experiencing an NSE and adulthood acceptance of purity culture was significant for controls ($F(1.00, 114) = 5.47$, $p = .02$) and CSA survivors ($F(1.001; 114) = 5.35$, $p = .02$) but not adult NSEs ($p = .18$). This

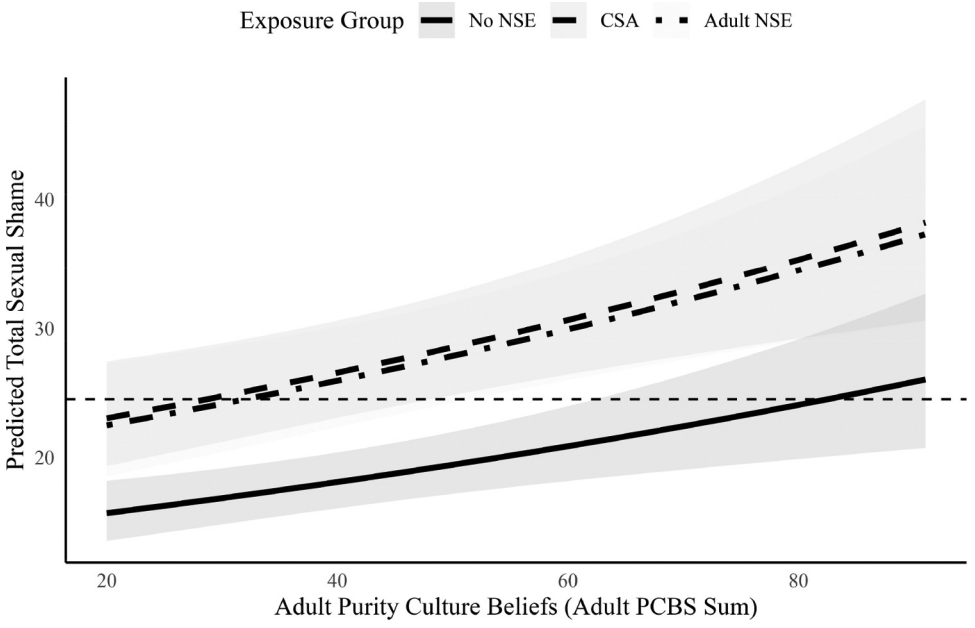

Figure 7. Predicted total sexual shame by adulthood acceptance of purity culture and NSEs in men.

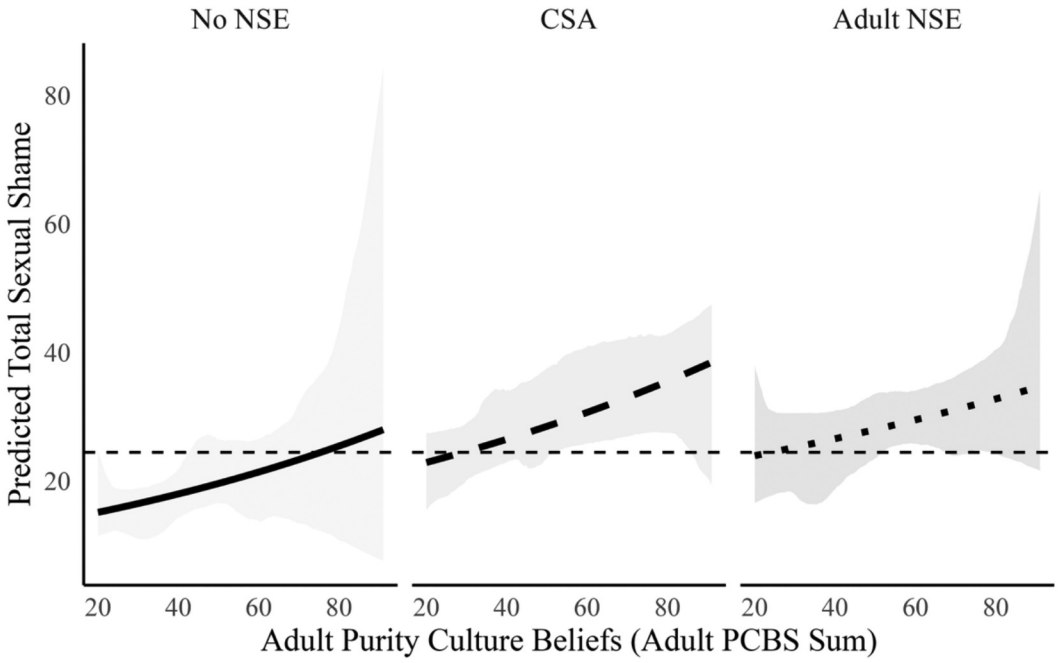

Figure 8. Predicted sexual shame moderated by adulthood acceptance of purity culture and NSEs in men.

model explained a quarter of the deviance (adj-R^2 = .24). Inspection of Figure 8 revealed overall linear relationships between adulthood acceptance of purity culture and sexual shame (Figure 8). The controls were mainly below the mean level of sexual shame.

Women

While significant in the first model, relationship length had a very small effect (β = −0.0007, p = .02), such that a one unit increase in relationship length (i.e., one month) translated to a roughly 0.07% decrease in sexual shame. Bootstrapped (1,000 replicates) confidence intervals revealed that relationship length was not significant (95% CI [−0.00013, 0.0000]), so it was dropped. In the final model, variance in sexual shame was significantly predicted by NSEs, such that CSA survivors (β = 0.395, p < .001) had 48.4% higher predicted sexual shame than controls and adult NSE survivors (β = 0.331, p < .001) had 39.2% higher sexual shame than controls, holding adulthood acceptance of purity culture constant. Adulthood acceptance of purity culture was also significant (β = 0.004, p < .001) but small, with a one unit increase in acceptance related to a 0.44% predicted increase in sexual shame. The total model explained

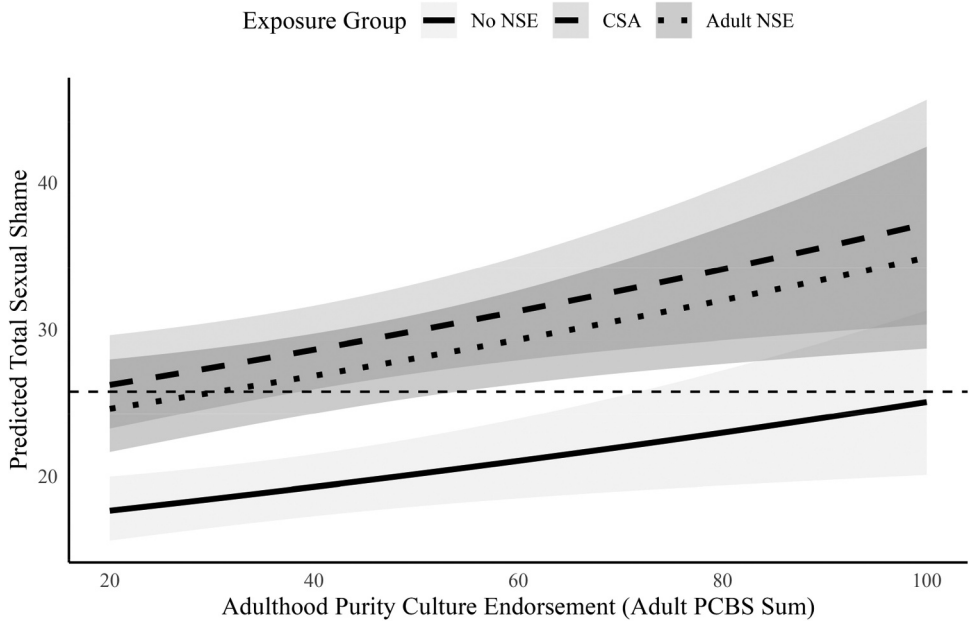

Figure 9. Predicted total sexual shame by adulthood acceptance of purity culture and NSEs in women.

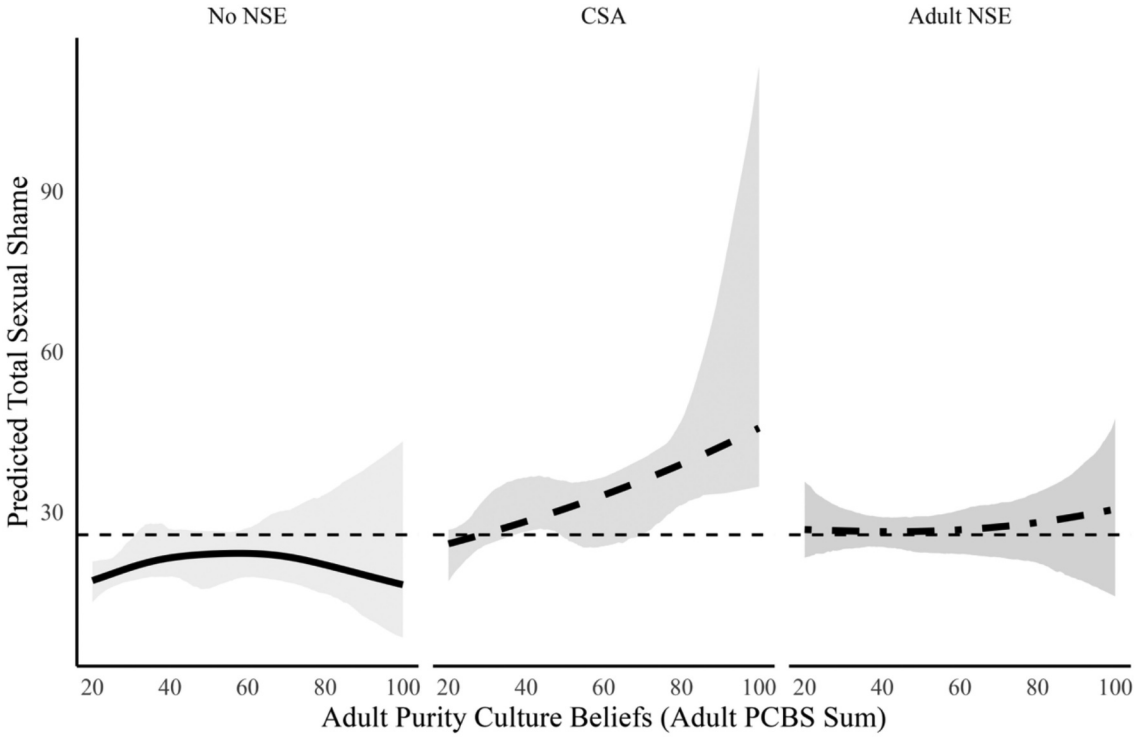

Figure 10. Predicted sexual shame moderated by adulthood acceptance of purity culture and NSEs in women.

17% of the variance in sexual shame (adj-R^2 = .17). Post hoc comparisons revealed no significant difference between adult NSE survivors (p = .23) and CSA survivors.

Figure 9 revealed a linear relationship between adulthood acceptance of purity culture and sexual shame across all groups, with both adult NSE and CSA groups starting at higher levels of sexual shame compared to controls. Controls' predicted trend line did not cross the average of sexual shame for the overall sample, and the majority of observed data point controls were below the mean line.

In post hoc interaction analyses, experiencing an NSE significantly predicted sexual shame (CSA: β = 0.36, p < .001; adult NSE: β = 0.28, p < .001), as did relationship length (β = –0.0001, p = .01) which was included due to its initial significance. There was a significant interaction between adulthood acceptance of purity culture and CSA (F(1.001, 185) = 9.81, p = .002) but not for adult NSEs (p = .78) or controls (p = .19). For CSA survivors, adulthood acceptance of purity culture was connected to amplified sexual shame as acceptance increased. This model accounted for 22% of the deviance (adj-R^2 = .22). Plotted confidence bands revealed mainly linear relationships between adulthood acceptance of purity culture and sexual shame in the NSE groups while there was a curvilinear relationship among the controls (Figure 10).

Discussion

Sexual shame is a known consequence of NSEs and predictor of future sexual dysfunction (Amanelahi et al., 2024; Barker et al., 2022; Kilimnik & Meston, 2021; Pulverman & Meston, 2020; Pulverman et al., 2018; Yahag et al., 2024). Religious messaging may exacerbate sexual shame through strict sexual ethics and warnings of severe spiritual repercussions for falling short (Dinse et al., 2023; Ortiz et al., 2023; Owens et al., 2021). To the authors' knowledge, this is the first study to examine the role of purity culture, a specific form of Evangelical Christian messaging about sex, as an independent contributor to sexual shame in NSE survivors and controls across different timeframes (i.e., childhood exposure vs. adulthood acceptance; CSA vs. Adult NSEs). Findings revealed that purity culture, in both childhood and adulthood, was a significant independent predictor of sexual shame, even after accounting for NSEs, in most models. This is notable, given that the average levels of purity culture exposure (M = 55.79, SD = 21.40) and purity culture acceptance (M = 44.19, SD = 19.54) were below the midpoint (range 20–120).

Consistent with the first hypothesis, both CSA and adult NSE survivors reported significantly higher levels of sexual shame than controls, replicating prior work (Kilimnik & Meston, 2021; Pulverman & Meston, 2020; Yahag et al., 2024). Importantly, levels of sexual shame did not differ between CSA and adult NSE groups, suggesting that sexual shame may represent a general outcome of NSEs overall, despite differences in other psychological or behavioral sequelae (Bhuptani & Messman, 2023; Rowland et al., 2024).

The second hypothesis was partially supported. Childhood purity culture exposure significantly predicted sexual shame among men and approached significance among women. Notably, purity culture continued to predict sexual shame even after accounting for the established effect of NSEs. This sex difference may be due to purity culture's distinct messaging for men and women. Women are told that they are naturally "pure" (i.e., without sexual desire), unlike men who are always seeking sex, while men are told that they are meant

to be sexually dominant (Cronan, 2023; Ortiz, 2023). For women, an NSE may reinforce these messages of male sexual aggression. For men, however, an NSE may directly conflict with purity culture's script of male sexual dominance, making integration especially difficult. This dynamic has been observed in prior research on male rape survivors and may similarly hinder help-seeking among this population (Hlavka, 2017; Masho & Alvanzo, 2010; Thomas & Kobel, 2023). The differential effects of purity culture messaging on men and women warrant future study and clinical awareness.

Post hoc analyses suggested that exposure to purity culture messaging also related to elevated sexual shame in male controls. Men without NSEs exposed to higher levels of purity culture may experience increased sexual shame as they struggle to reconcile their sexuality with rigid expectations of hypersexualization and masculinity, whereas men with NSEs already experience elevated sexual shame. For male survivors, purity culture messages may contribute to increased sexual shame by framing NSEs as moral or spiritual failings – even though they were not consensual experiences. Importantly, these messages were heard in childhood (ages 0–17), not necessarily endorsed, but had lasting effects well into adulthood ($M_{age} = 38.83$). Future qualitative research should explore which purity culture messages are especially harmful to men with and without NSEs to clarify these distinctions.

Adulthood acceptance of purity culture messaging significantly predicted sexual shame for both men and women, partially supporting the third hypothesis. Endorsing purity culture beliefs may heighten sexual shame by creating dissonance between one's convictions and lived experience, similar to the role of rape myth acceptance among survivors. Survivors who internalize rape myths often report greater self-blame and post-traumatic symptoms (Bernstein et al., 2024; Witherspoon et al., 2024), and self-blame is a known correlate of trauma-related shame in both CSA and adult NSE survivors (Bhuptani & Messman, 2023; Robinson et al., 2024; Salim et al., 2023). Likewise, purity culture messages may intensify self-blame, thereby compounding sexual shame. Future research should explicitly test self-blame as a mediating factor.

Post hoc analyses further revealed that adulthood acceptance of purity culture was associated with amplified sexual shame in male controls and both male and female CSA survivors. For male controls, acceptance of purity culture may function similarly to childhood purity culture exposure by emphasizing the gap between beliefs and lived experiences. The timing of the NSEs may explain why this moderation effect emerged for CSA survivors but not for adult NSE survivors. Adults typically have more consolidated worldviews and stable sexual identities (Hewitt-Stubbs et al., 2016; Lodi-Smith et al., 2017). An NSE in adulthood is thus filtered through a preexisting identity framework, whereas CSA becomes integrated into an emerging sense of self and worldview (Guyon et al., 2022). If CSA survivors adopt purity culture in adulthood, they may retroactively reframe their CSA in ways that reinforce sexual shame.

These findings have important implications for research and clinical practice. Traditionally, religion's impact on sexual well-being has been operationalized via church attendance, denominational affiliation, or theological orientation. Yet these results suggest that the specific content of religious messages may be more impactful than religious affiliation alone. For example, while purity culture messages are rooted in Evangelical Christianity, its influence cannot be generalized to all Christians, and its expression may differ across denominations or geographical locations (Benton, 2022). While this study focused on the Southeast, purity culture may be expressed differently in rural mountain towns than metropolitan cities within the same state. Further, similar sexual ethics may exist in other religious traditions (e.g., Islam, Judaism) or value systems. Researchers should therefore measure specific beliefs and messages, not merely religious identity or practice. Clinicians, likewise, should ask about religious messaging shaping sexual beliefs across the lifespan, rather than focusing solely on family or denominational background (Happel-Parkins et al., 2020).

Purity culture influenced sexual shame through multiple pathways, with distinctions between childhood exposure and adulthood acceptance. Except for women exposed in childhood, both factors predicted sexual shame in survivors of both CSA and adult NSEs. Clinicians and researchers should continue to differentiate these pathways, as mechanisms may differ. Further, these mechanisms may be influenced by abuse-specific factors. While none of our participants reported a religious figure as their perpetrator, experiencing sexual abuse from a religious figure has significant consequences for survivors' psychopathology, spiritual well-being, and relationships (McGraw et al., 2019). Purity culture exposure or acceptance may exacerbate these outcomes by compounding messages of irreparable sexual and spiritual damage. While the impact of clerical sexual abuse continues to be empirically examined, clinicians should remain attentive to the potential heightened spiritual and sexual ramifications for survivors (Pooler & Droesch, 2025).

Moreover, even though empirical and theoretical work on purity culture has largely focused on women (Benton, 2022; Crut, 2021; House & Moslener, 2023; Natarajan et al., 2022; Thomas & Kobel, 2023), the present findings show that men are also deeply affected – though possibly through different mechanisms tied to masculinity and sexual scripts. For example, male victims with purity culture exposure or acceptance may experience heightened sexual shame depending on their perpetrator's gender. Victimization by another man may intensify sexual shame by violating multiple sexual ethics within purity culture – namely, virginity and homosexuality. Conversely, men victimized by women may experience amplified sexual shame due to the disconnect between purity culture's emphasis on female sexual passivity and the victims' lived experience. As future research continues to examine these mechanisms, clinicians should remain aware that dissonance between a male NSE survivor's lived experience and religious messages – whether encountered or internalized – may pose a significant barrier to help-seeking (Wingender & Olsen, 2024).

Limitations must be acknowledged. The study's cross-sectional, self-report design prevents causal inference, and the data may be susceptible to recall and social desirability biases. Operationalizing childhood as ages 0–17 to more

cleanly compare two groups of NSE survivors (i.e., CSA vs. Adult NSE) may obscure differences in earlier developmental stages. Indeed, this may explain why there was no significant difference in sexual shame between the CSA and adult NSE survivors in this study. Participants who experienced victimization in both childhood and adulthood were excluded from this study. Given that revictimization is common (Scoglio et al., 2023), the relationship between purity culture and sexual shame in this group remains unknown.

Culture plays a significant role in how sexual shame is experienced and expressed (Clark, 2017). As such, the generalizability of these results may be limited by the sample's demographics – namely, White, heterosexual, cisgender, and well educated. The effects of purity culture on sexual shame may be exacerbated in minority groups (e.g., non-White, non-heterosexual) that are historically considered "impure" within Evangelical Christianity (Schultz, 2021). Replication studies recruiting participants from regions outside of the Southeastern United States may yield different results, as purity culture beliefs may be less prevalent or expressed differently. Additionally, other non-religious frameworks (e.g., honor-based cultures) may communicate similar sexual standards. Future research could delineate the shared and distinct contributions of religious and non-religious sexual norms in sexual shame.

Additionally, the measures used (PCBS: Ortiz et al., 2023; SSI: Seebeck, 2020) are relatively new and require further validation. Finally, while the analyses were robust and explained 14–25% of the variance in sexual shame, purity culture's effect sizes were small, underscoring the role of additional trauma-related (e.g., self-blame) or sexual (e.g., satisfaction, functioning) factors.

In conclusion, this study emphasizes the need to move beyond broad indicators of religiosity to the specific content of religious messages when considering their impact on sexual well-being. For NSE survivors, where sexual shame is already prevalent, purity culture represents a significant and enduring contributor. Future research should examine how purity culture intersects with other aspects of sexual well-being, such as desire and satisfaction, to better capture its multifaceted impact.

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