



The role of stigmatization in developing post-traumatic symptoms after experiencing child sexual abuse by a female perpetrator

Johanna Schröder ^a, Leonhard Kratzer ^b, Yasemin Yamak ^a, Peer Briken ^a and Safiye Tozdan ^a

^aInstitute for Sex Research, Sexual Medicine and Forensic Psychiatry, University Medical Centre Hamburg-Eppendorf, Hamburg, Germany;

^bDepartment of Psychotraumatology, Clinic St. Irmingard, Prien Am Chiemsee, Germany

ABSTRACT

Background: The context in which individuals are exposed to child sexual abuse (CSA) and reactions to the disclosure of such abuse experiences play a major role in post-traumatic mental health. Female-perpetrated CSA is an under-recognized issue in society and mental health care, and is therefore supposed to be a breeding ground for stigmatization.

Objective: The aim of the current study was to examine the mediating role of internalized and anticipated stigma on the effects of so-called victim-blaming experiences and the perception of abuse in the childhood of survivors of female-perpetrated CSA on their post-traumatic symptom severity.

Method: A total of 212 individuals who reported experiences of female-perpetrated CSA were assessed in an anonymous online survey. The International Trauma Questionnaire (ITQ) served as the primary outcome parameter for detecting differences in post-traumatic symptom severity within mediation analyses, where victim-blaming and abuse awareness served as predictors and anticipated as well as internalized stigma served as mediator variables.

Results: Internalized stigma fully mediated the deteriorating effect of victim-blaming on post-traumatic symptom severity, while abuse awareness and anticipated stigma showed no statistically significant effects as predictor and mediator variables. Yet, victim-blaming had a significant increasing effect on anticipated stigma.

Conclusions: Efforts to enhance awareness of female-perpetrated CSA in society are needed and mental health care professionals should pay attention to the adverse effects of victim-blaming and internalized stigma on post-traumatic symptoms in individuals affected by female-perpetrated CSA.

El papel de la estigmatización en el desarrollo de síntomas postraumáticos después de experimentar abuso sexual en la infancia perpetrado por una mujer

Antecedentes: El contexto en el cual los individuos están expuestos al abuso sexual infantil (ASI) y a las reacciones luego de revelar tales experiencias de abuso desempeñan un papel importante para la salud mental postraumática. El problema del ASI perpetrado por una mujer es poco reconocido por la sociedad y dentro de los cuidados de salud mental y, por lo tanto, se asume que es un terreno fértil para la estigmatización.

Objetivo: El objetivo de este estudio fue el evaluar el papel mediador del estigma internalizado y anticipado sobre los efectos de las denominadas experiencias de culpabilización a la víctima; además, evaluar la percepción de los sobrevivientes al ASI perpetrado por una mujer sobre la severidad de sus síntomas postraumáticos.

Método: Se evaluó a 212 individuos que experimentaron ASI perpetrado por una mujer mediante una encuesta anónima en línea. El Cuestionario Internacional de Trauma (ITQ por sus siglas en inglés) sirvió como el parámetro de resultado principal para detectar diferencias en la severidad de los síntomas postraumáticos dentro de los análisis de mediación, donde la culpabilización a la víctima y la conciencia del abuso sirvieron como predictores y el estigma anticipado e internalizado sirvieron como variables mediadoras.

Resultados: El estigma internalizado medió completamente el efecto de deterioro que la culpabilización a la víctima ejerce sobre la severidad de los síntomas postraumáticos, mientras que la conciencia del abuso y el estigma anticipado no mostraron efectos estadísticamente significativos como variables predictoras ni mediadoras. Sin embargo, la culpabilización a las víctimas generaba un incremento cada vez mayor del estigma anticipado.

Conclusiones: Se necesitan esfuerzos para aumentar la conciencia sobre el ASI perpetrado por una mujer en la sociedad; los profesionales de la salud mental deben prestar atención a los efectos adversos que la culpabilización a la víctima y el estigma internalizado ejercen sobre los síntomas postraumáticos en las personas afectadas por el ASI perpetrado por una mujer.

ARTICLE HISTORY

Received 28 June 2021

Revised 28 July 2021

Accepted 30 July 2021

KEYWORDS

Child sexual abuse; stigmatization; sexually offending women; post-traumatic stress disorder

PALABRAS CLAVES

Abuso sexual infantil; estigmatización; estrés postraumático

关键词

儿童性虐待; 污名化; 创伤后应激障碍

HIGHLIGHTS

- Child sexual abuse by women is a taboo topic.
- Victim-blaming by the female perpetrator is associated with post-traumatic symptoms in affected individuals.
- This study suggests that internalized stigma is fully accountable for this effect.

经历女性施暴者的儿童性虐待后, 污名化在发展创伤后症状中的作用

背景:个体暴露于儿童性虐待 (CSA) 的背景以及对披露此类虐待经历的反应对创伤后心理健康起着重要作用。女性实施的 CSA 是社会和心理健康护理中未被充分认识的问题, 因此被期望成为污名化的温床。

目的:本研究旨在考查女性实施 CSA 幸存者内化和预期污名对所谓受害者责备经历和童年时期虐待感以及对其创伤后症状严重性影响的中介作用。

方法:在一项匿名在线调查中对总共 212 名报告了女性实施 CSA 经历的人进行了评估。国际创伤问卷 (ITQ) 是中介分析中考查创伤后症状严重程度差异的主要结果参数, 其中受害者责备和虐待意识作为预测因素, 预期和内化污名作为中介变量。

结果:内化污名完全中介了受害者责备对创伤后症状严重程度的恶化影响, 而虐待意识和预期的污名作为预测变量和中介变量没有显示出统计学上显著效应。然而, 受害者责备对预期污名有显著增加效应。

结论:需要努力提高社会对女性实施 CSA 的认识, 心理健康保健专业人员应注意受害者责备和内化污名对受女性实施 CSA 影响的个体创伤后症状的不利影响。

1. Introduction

Child sexual abuse (CSA) includes unwanted or inappropriate sexual solicitation of, or exposure to a child by an older person (Andrews et al., 2004). Depending on the population studied and definition used, 2–62% of the females and 3–16% of the males are affected by CSA (Johnson, 2004). CSA occurs in all cultural and socioeconomic backgrounds, in various ways, and results in various severe health sequelae for those affected (Mathews & Collin-Vézina, 2019). One of these can be post-traumatic stress disorders (PTSD), a condition that is often associated with the loss of personal, social and material resources, leading to a strongly decreased quality of life (Yehuda et al., 2015). PTSD is characterized by a recurrent re-experiencing of traumatic events, avoidance of traumatic reminders, hypervigilance and a persistent sense of current threat. In complex PTSD, these symptoms are accompanied by persistent disturbances in effect regulation, self-concept and relational functioning (Reed et al., 2019). The complex manifestation of PTSD is particularly prevalent in multiply traumatized individuals such as survivors of sexual assault or refugees (Jowett, Karatzias, Shevlin, & Albert, 2020; Vang, Nielsen, Auning-Hansen, & Elklit, 2020). Factors such as trauma type, trauma severity, age at trauma, lack of social support, or additional life stress are known risk factors for the development of PTSD in trauma-exposed adults (Brewin, Andrews, & Valentine, 2000). Results from a sample of sexual assault survivors (Ullman, Townsend, Filipas, & Starzynski, 2007) suggest that negative social reactions and avoidance coping are the strongest predictors for PTSD symptoms and that negative social reactions from others may contribute to both self-blame and PTSD (see also Taylor, 2015). Findings from another study on sexual assault survivors suggest that behavioural self-blame (i.e. attributing the cause of the assault to personal peri-event behaviour) following sexual assault may be particularly relevant to the onset of PTSD symptoms, while PTSD symptoms themselves appear to intensify subsequent perceptions of behavioural self-

blame (Kline, Berke, Rhodes, Steenkamp, & Litz, 2018). One cause of these relations could be rooted in stigmatization, which is defined as a process of labelling, stereotyping, separating, and discriminating people that is associated with status loss in those affected (Link & Phelan, 2001). A study of CSA survivors showed that perceptions of stigma and self-blame mediated the relationship between the nature of the abuse experience (from touching to intercourse) and psychological distress (Coffey, Leitenberg, Henning, Turner, & Bennett, 1996). Stigma (e.g. in form of so-called victim-blaming messages either directly from sexually offending persons and other people after disclosure or indirectly from society) can further be internalized and/or anticipated among abuse survivors for example, as self-blame and shame that can also have effects on their behaviour (Kennedy & Prock, 2018) and result in a higher risk for revictimization (Langer & Neuner, 2021).

Previous research suggests that the social context in which CSA occurs is associated with stigmatization processes and stigma is in turn associated with increased post-traumatic symptom severity in several abuse contexts (Schmitt, Robjant, Elbert, & Koebach, 2021; Schneider et al., 2018). It can be assumed that stigma has a particularly strong influence on the development and maintenance of post-traumatic symptoms in the special circumstances where sexually offending persons are female instead of male. The reason for our assumption is that contrary to popular beliefs, perpetrators in the context of CSA are not necessarily male. Female-perpetrated CSA appears to be a powerful societal taboo (Tozdan, Briken, & Dekker, 2019). This taboo may be rooted in traditional sexual scripts of sexually passive and innocent women: as sexual abuse by women profoundly challenges traditional stereotypes of sexual abuse (where males abuse females) and traditional stereotypes of women (where women are sexually passive and innocent), such gendered sexual scripts form an influential barrier to recognizing or reporting female-perpetrated abuse (Denov, 2003). Study results showed that several

kinds of professionals, including psychiatrists, believe that sexual abuse by women is relatively harmless as compared to sexual abuse by men (Denov, 2001; Mellor & Deering, 2010), which illustrates this culture of more or less implicit denial. A qualitative study that examined long-term effects which are unique to being sexually victimized by a woman reveals that those affected appraised their abuse experiences as more damaging because it led to a deeper sense of betrayal than similar abuse by men (Denov, 2004). As many individuals affected by CSA do not recognize their experience as ‘abuse’ immediately (Katerndahl, Burge, & Kellogg, 2006), this could, due to the societal taboo and the described stereotypes, be especially true for individuals affected by female-perpetrated CSA. It can therefore be assumed that the previous appraisal of the abuse in individuals affected by female-perpetrated CSA as abuse versus as normality may either increase or decrease stigmatization processes and further increase or decrease post-traumatic symptom severity.

In summary, previous research suggests that the social context in which CSA occurs is associated with stigmatization processes and stigma is in turn associated with increased post-traumatic symptom severity in several abuse contexts (Schmitt et al., 2021; Schneider et al., 2018). It can be assumed that stigma has a particularly strong influence on the development and maintenance of post-traumatic symptoms in the special circumstances where sexually offending persons are female instead of male. Therefore, the aim of the current study was to examine whether internalized and anticipated stigma mediates possible influences of so-called victim-blaming by a sexually offending female and abuse awareness of the affected individual at the time of abuse on current PTSD symptom severity in individuals reporting female-perpetrated CSA. We hypothesized that (1) the experience of victim-blaming by the sexually offending female enhances post-traumatic symptom severity, either directly or mediated by internalized stigma; and that (2) the experience of victim-blaming by the sexually offending female enhances post-traumatic symptom severity, either directly or mediated by anticipated stigma. We further explored if (3) abuse awareness of the affected individual at the time of the abuse enhanced post-traumatic symptom severity, either directly or mediated by internalized stigma; and if (4) abuse awareness of the affected individual at the time of the abuse enhanced post-traumatic symptom severity, either directly or mediated by anticipated stigma.

2. Methods

2.1. Participants

The recruitment and the assessment were conducted anonymously online. Participants who have experienced

female-perpetrated CSA were recruited via multiple settings, including social media, CSA networks, mailing lists and homepages, using a standardized sheet with detailed study information. Inclusion criteria were adulthood (age ≥ 18), self-rated mental stability, the experience of female-perpetrated CSA until the age of 16 and electronic informed consent to participate in the study. The age threshold was chosen based on legal standards in German criminal law. The instruction for potential participants to appraise their mental stability before starting the survey was introduced by the following sentences: ‘The online survey may lead to psychological stress due to questions related to your experience of child sexual abuse. For this reason, we only recommend participation if you currently consider yourself to be mentally stable’. Exclusion criteria included reporting a repeated participation and/or not being a person of interest in the study (which was again examined in one item at the end of the online-survey).

The recruitment strategies reached 214 individuals of whom 212 met the delineated inclusion- and exclusion-criteria. Two participants were excluded. One of them stated that he/she is not fitting the target group at the end of the survey and the other one reported an onset of sexual abuse after the age of 16 years, which did not fit the definition of CSA in the current study. Table 1 presents demographic characteristics of the analysed sample.

2.2. Materials and procedure

This study was funded by the Independent Inquiry into Child Sexual Abuse (UKASK; Unabhängige Kommission zur Aufarbeitung Sexuellen Kindesmissbrauchs) in Germany. This group of professionals is associated with the German Federal Ministry of Family Affairs, Senior Citizens, Women and Youth (BMFSFJ; Bundesministerium für Familie, Senioren, Frauen und Jugend). The funding body had no role in the design of the study, data collection, analysis, or interpretation of the data. The study was approved by the ethics committee of the Local Psychological Ethics Committee of the University Medical-Centre Hamburg (reference number: LPEK-0110) and conducted in compliance with the Declaration of Helsinki.

The cross-sectional online survey consisted of at least 79 and at most 85 single- or multiple-choice questions as well as open questions with text boxes. The item amount presented depended on the reported experiences of the participants, while the questions addressed the following topics: Sociodemographic background, circumstances and psychological processing of the experienced sexual violence, relationship to the sexually offending female/s, personal (i.e. social, psychological, and health-related) consequences of the female-perpetrated CSA as well as psychometric instruments described below.

Table 1. Demographic sample characteristics of survivors of the female-perpetrated CSA ($N = 212$).

Age in years		
$M (SD)$	46.2	(12.5)
Sex assigned at birth		
Female ($n, \%$)	123	58.0
Male ($n, \%$)	88	41.5
Other ($n, \%$)	1	0.5
Partnership status		
No partnership ($n, \%$)	102	48.1
Partnership ($n, \%$)	110	51.9
Children		
Yes ($n, \%$)	98	46.2
No ($n, \%$)	114	53.8
Graduation		
Lower secondary school ($n, \%$)	15	7.1
Middle secondary school ($n, \%$)	45	21.2
Higher secondary school ($n, \%$)	148	69.8
Not yet completed, other or no degree ($n, \%$)	4	1.9
Employment status		
Full or part time employment ($n, \%$)	102	48.1
Marginal employment ($n, \%$)	13	6.1
No employment ($n, \%$)	16	7.5
In professional education ($n, \%$)	17	8.0
Retired or incapacitated ($n, \%$)	60	28.3

Notes. CSA: child sexual abuse; M : mean; SD : standard deviation.

The *International Trauma Questionnaire* (ITQ; Cloitre et al., 2018; German version: Lueger-Schuster, Knefel, & Maercker, 2018) is the only self-report measure enabling the assessment of both ICD-11 PTSD and complex PTSD. It has been validated across cultures, settings, and groups (Haselgruber, Sölva, & Lueger-Schuster, 2020; Karatzias et al., 2017). The questionnaire includes three PTSD symptom clusters with nine items and three symptom clusters capturing disturbances in self-organization (DSO), also with nine items. Next to a descriptive categorical analysis, we built dimensional scores, combining PTSD and DSO subscales to an ITQ total score, which was used as the primary outcome parameter with 18 items measuring general post-traumatic symptom severity. The total score of this 0 to 4 Likert-scaled instrument ranges from 0 to 36; a higher score indicates greater symptom severity. Regarding the criteria of George and Mallery (2003) the internal consistency in the current sample was excellent with Cronbach's $\alpha = .95$.

The brief version of the *Internalized Stigma of Mental Illness Scale* (ISMI-9; Hammer & Toland, 2017) was adapted in order to measure internalized stigma in individuals affected by female-perpetrated CSA (instead of mental illness) and is therefore called *Internalized Stigma Scale* (ISS) in the current study. The measured construct was defined as the subjective experience of stigma and its psychosocial effects resulting from applying negative stereotypes and stigmatizing attitudes to the self that others hold towards individuals affected by female-perpetrated CSA. This measure consists of nine items and its 4-point Likert-scale has a total score ranging from 1 to 4 (with a higher score indicating higher internalized stigma). Regarding the criteria of George and Mallery (2003), the internal consistency in the current sample was good with Cronbach's $\alpha = .86$.

Further, single items for the assessment of several process variables were used. The construct 'victim-blaming' was captured by the question 'Did the sexually offending woman convince you that you were to blame for the sexual abuse?' providing the response categories '(rather) no' and '(rather) yes'. The construct 'abuse awareness' was captured by the question 'How did you evaluate the sexual abuse by the sexually offending female at the time it took place (not today)?' providing the response categories 'I assumed it was normal', 'I was unsure.', and 'I assumed it was sexual abuse.'. The construct 'anticipated stigma in female-perpetrated CSA compared to male-perpetrated CSA' was captured by asking participants to complete the statement 'The reports of persons who have experienced CSA by females, compared to the reports of persons who have experienced CSA by males, are ...' by choosing one of the following three response categories: 'more likely taken seriously', 'taken about equally seriously', or 'taken less seriously'.

2.3. Statistical analyses

Mediation analyses are capable of revealing hidden relationships among predictor variables, for example, whether one stigmatization variable accounts for a sexual abuse context variable. In other words, the abuse context variable might have an indirect relationship with post-traumatic symptoms by influencing the stigmatization variable. In this case, the stigmatization variable would act as a so-called mediator variable (Hayes, 2013). We conducted mediation analyses (see Figure 1) in order to assess relations between the two independent variables 'victim-blaming' by the sexually offending female (no/yes) and 'abuse awareness' of the affected individual at the time of the abuse (1 = normal/2 = unsure/3 = abuse) as well as the two postulated mediator variables 'internalized stigma' (ISS) and 'anticipated stigma' or the perception of

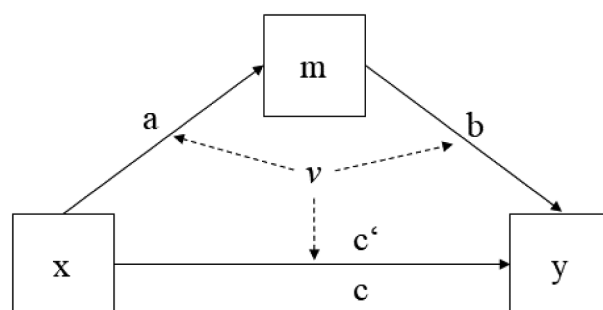


Figure 1. Statistical diagram of a simple mediation model as used in the current study. Variables are indicated in boxes: x is the independent variable, m is the mediator, and y is the dependent variable. Arrows originating from variables indicate hypothesized causal effects. Labels for these effects are regression weights. The variable in the centre represents a control variable.

female-perpetrated compared to male-perpetrated CSA as taken (1 = more seriously, 2 = equally seriously, 3 = less seriously), and the dependent variable 'post-traumatic symptom severity' (ITQ). The analyses were performed in SPSS 26 via an ordinary least-squares path analysis using a bootstrapping approach with the PROCESS macro for SPSS (Hayes, 2013). We quantified the indirect effect as the product of the effect of the independent variable on the mediator variable (effect *a*) and of the mediator variable on the dependent variable (effect *b*). The effect of the independent of the dependent variable or the total effect (*c*) is defined as the sum of the indirect effect (*ab*) and the direct effect (*c'*). The variables 'sex' (male/female/other), 'age' (in years; interval scaled), 'age of abuse onset' (in years; interval scaled), and 'duration of abuse' (in months; interval scaled) were included as covariates. Bootstrapping is estimated from the indirect point effects and associated 95% confidence intervals (CI) derived from the mean of 10.000 bootstrap samples. The bias-corrected bootstrapping method, as a non-parametric resampling procedure, was chosen as it is considered the most powerful approach for detecting statistical mediation (Fritz & MacKinnon, 2010). Indirect effects were evaluated to be statistically significant when the bias-corrected CI did not include zero (Preacher & Hayes, 2008).

3. Results

3.1. Sample characteristics

Table 2 presents the participants' reports on the abuse contexts and clinical trauma sequelae related to their CSA experiences.

Table 3 presents sample characteristics with regard to categories that served as variables for the mediation analyses.

3.2. Mediating effects of stigma on the effect of victim-blaming on post-traumatic symptoms

Table 4 shows that the variable 'victim-blaming' had a significant total effect (*c*) on post-traumatic symptoms that was fully mediated by the variable 'internalized stigma' (indirect effect *ab*), which was due to significant effects from 'victim-blaming' on 'internalized stigma' (effect *a*) and from 'internalized stigma' on post-traumatic symptoms (effect *b*). After controlling for the mediator, the direct effect (*c'*) of 'victim-blaming' on post-traumatic symptoms did not yield statistical significance.

The variable 'victim-blaming' had a significant total effect (*c*) on post-traumatic symptoms that was not influenced by the variable 'anticipated stigma' (indirect effect *ab*). There was a significant effect from 'victim-blaming' on 'anticipated stigma' (effect *a*), but no

Table 2. Reported information on the abuse contexts and clinical trauma sequelae of survivors of female-perpetrated CSA (*N* = 212).

Onset of CSA (age in years)			
<i>M</i> (<i>SD</i>), <i>Mdn</i>		6.3 (4.0)	6.0
Duration of CSA (in years)			
<i>M</i> (<i>SD</i>), <i>Mdn</i>		7.0 (7.3)	5.1
Frequency of assaults and number of female CSA perpetrators			
Once by one female CSA perpetrator (<i>n</i> , %)	17		8.0
Repeatedly by one female CSA perpetrator (<i>n</i> , %)	128		60.4
Once by several female CSA perpetrators (<i>n</i> , %)	1		0.5
Repeatedly by several female CSA perpetrators (<i>n</i> , %)	66		31.1
Relationship between sexual offending female and affected individual			
Mother (<i>n</i> , %)	132		62.3
Known perpetrator (<i>n</i> , %)	64		30.2
Unknown perpetrator (<i>n</i> , %)	50		23.6
Grandmother (<i>n</i> , %)	30		14.2
Aunt (<i>n</i> , %)	22		10.4
Sister (<i>n</i> , %)	12		5.7
Additional male-perpetrated CSA			
Yes (<i>n</i> , %)	119		56.1
No (<i>n</i> , %)	93		43.9
Organized CSA			
Yes (<i>n</i> , %)	109		51.4
No (<i>n</i> , %)	103		48.6
Mental or physical illness as consequence of CSA (lifetime)			
Yes (<i>n</i> , %)	159		75.0
No (<i>n</i> , %)	53		25.0
Indication of (complex-)post-traumatic stress disorder			
ITQ, No indication (<i>n</i> , %)	103		51.4
category PTSD (<i>n</i> , %)	19		9.0
CPTSD (<i>n</i> , %)	90		42.5

Notes. CSA: child sexual abuse; *M*: mean; *SD*: standard deviation; *Mdn*: median.

Table 3. Mental processing and clinical characteristics of female-perpetrated CSA (*N* = 212).

Victim-blaming by sexual offending female			
Victim-blaming	Yes (<i>n</i> , %)	139	65.6
	No (<i>n</i> , %)	73	34.4
Cognitive appraisal of the female perpetrated CSA in childhood			
Abuse awareness	As normal (<i>n</i> , %)	81	38.2
	Unsure (<i>n</i> , %)	90	42.5
	As sexual abuse (<i>n</i> , %)	41	19.3
Anticipated reaction to disclosure of female-perpetrated CSA (compared to male-perpetrated CSA)			
Anticipated stigma	Taken more seriously (<i>n</i> , %)	6	2.8
	Both taken equally seriously (<i>n</i> , %)	37	17.5
	Taken less seriously (<i>n</i> , %)	169	79.7
Internalized stigma			
ISS	<i>M</i> (<i>SD</i>)	20.8	(5.9)
	Minimal	77	36.3
	Mild	64	30.2
	Moderate	40	18.9
	Severe	31	14.6
Severity of (complex-)post-traumatic stress symptoms			
ITQ, dimensional	Total score (<i>M</i> , <i>SD</i>)	13.1	(6.8)

Notes. *M*: mean; *SD*: standard deviation; CSA: child sexual abuse; (C)PTSD: (complex) post-traumatic stress disorder; ISS: Internalized Stigma Scale; ITQ: International Trauma Questionnaire.

significant effect from 'anticipated stigma' on post-traumatic symptoms (effect *b*). After controlling for the mediator, the direct effect (*c'*) of 'victim-blaming'

Table 4. Mediation effects of internalized and anticipated stigma on the effects of victim-blaming and abuse awareness on post-traumatic symptom severity in victims of female-perpetrated CSA ($N = 212$).

Variables	Statistics of regression paths
Model 1	$a: \beta = 2.13, p = .015^*$
x: victim-blaming	$b: \beta = 2.22, p < .001^*$
m: internalized stigma	$c: \beta = 7.75, p = .005^*$
y: post-traumatic symptoms	$ab: \beta = 4.72, CI = 1.00-8.63,$
control variables:	$p = .016^*$
v^1 : sex, v^2 : age, v^3 : onset, v^4 : duration	$c': \beta = 3.03, p = .116$
Model 2	$a: \beta = 2.78, p < .001^*$
x: victim-blaming	$b: \beta = 0.36, p = .888$
m: anticipated stigma	$c: \beta = 7.75, p = .005^*$
y: post-traumatic symptoms	$ab: \beta = 0.02, CI = -0.35-0.74,$
control variables:	$p = .930$
v^1 : sex, v^2 : age, v^3 : onset, v^4 : duration	$c': \beta = 7.73, p = .005^*$
Model 3	$a: \beta = -0.50, p = .366$
x: abuse awareness	$b: \beta = 2.27, p < .001^*$
m: internalized stigma	$c: \beta = 0.19, p = .913$
y: post-traumatic symptoms	$ab: \beta = -1.35, CI = -3.68-0.36,$
control variables:	$p = .367$
v^1 : sex, v^2 : age, v^3 : onset, v^4 : duration	$c': \beta = 1.32, p = .268$
Model 4	$a: \beta = -0.01, p = .779$
x: abuse awareness	$b: \beta = 0.77, p = .765$
m: anticipated stigma	$c: \beta = 0.19, p = .913$
y: post-traumatic symptoms	$ab: \beta = -0.01, CI = -0.50-0.24,$
control variables:	$p = .938$
v^1 : sex, v^2 : age, v^3 : onset, v^4 : duration	$c': \beta = 0.20, p = .910$

Notes: CSA: child sexual abuse. (C)PTSD: (complex)post-traumatic disorder. Unstandardized regression coefficients related to the independent variables (x), the dependent variable post-traumatic symptom severity (y), and the mediator variables internalized and anticipated stigma (m). The a-, b-, and c-paths describe total effects. The ab-paths describe indirect effects. The c'-paths describe the direct effects of independent variables on dependent variables when controlling for the mediator variables. Statistically significant effects are marked with an asterisk (*). The mediation models are controlled for the variables (v) sex, current age, onset of CSA and duration of CSA.

on post-traumatic symptoms yielded equal statistical significance as the total effect (c).

3.3. Mediating effects of stigma on the effect of abuse awareness on post-traumatic symptoms

Table 4 further shows that the variable 'abuse awareness' had no significant total effect (c) on post-traumatic symptoms and the variable 'internalized stigma' had no mediating influence (indirect effect ab), resulting in an equally insignificant direct effect (c') of 'abuse awareness' on PTSD symptoms. There was no significant effect from 'abuse awareness' on 'internalized stigma' (effect a), but a significant effect from 'internalized stigma' on post-traumatic symptoms (effect b).

The variable 'abuse awareness' had no significant total effect (c) on post-traumatic symptoms and the variable 'anticipated stigma' had no mediating influence on this effect (indirect effect ab), resulting in an equally insignificant direct effect (c') of 'abuse awareness' on post-traumatic symptoms. There was neither a significant effect from 'abuse awareness' on 'anticipated stigma' (effect a) nor from 'anticipated stigma' on post-traumatic symptoms (effect b).

4. Discussion

This cross-sectional online study investigated the influence of abuse context, cognitive appraisal and stigmatization processes in the context of female-perpetrated CSA on a sample of affected individuals. The main findings indicate that (1) a significant effect of victim-blaming by a sexually offending female on post-traumatic symptoms is fully mediated by experiencing internalized stigma; that (2) a significant effect of victim-blaming by a sexually offending female on post-traumatic symptoms is not influenced by experiencing anticipated stigma, although victim-blaming enhances anticipated stigma; that (3) abuse awareness in childhood has no effect on post-traumatic symptoms, neither alone nor mediated by internalized stigma, although experiencing internalized stigma enhances post-traumatic symptoms; that (4) abuse awareness in childhood has no effect on post-traumatic symptoms, neither alone nor mediated by anticipated stigma.

This study facilitates a deeper understanding of which abuse setting variables and subsequent psychosocial context variables contribute to the development of trauma sequelae in persons who are confronted not only with the experience of CSA but also with the societal taboo of a female-perpetrated CSA. It adds to general findings on sexual assault, which indicate that stigma and self-blame mediate the relationship between the severity of sexual abuse and psychological distress (Coffey et al., 1996) as well as to general findings on influences of abuse context factors on PTSD (Ullman et al., 2007), by exploring abuse context variables and stigmatization processes more specifically in female perpetrated CSA.

First, the descriptive results show that the participants reported an early onset of CSA with a duration of several years. Ninety percent of the participants reported repeated experiences of abuse by one or by several female CSA perpetrators. Most of the female perpetrators belonged to the families of those affected. It is therefore no surprise that the participants – affected by experiences of multiple and enduring CSA experiences at an early age, perpetrated by family members – met probable criteria for PTSD met for CPTSD. The main findings, while preliminary, suggest that internalized stigma constitutes a particularly increased risk factor for the development of post-traumatic symptoms in this group, accounting for the adverse effects of victim-blaming by the sexually offending female. This is generally in line with results on the consequences of internalized stigma for people living with mental illness, where this kind of stigma is negatively associated with a range of psychosocial variables such as hope, self-esteem, empowerment, as well as treatment adherence and is positively

associated with psychiatric symptom severity (Livingston & Boyd, 2010). The current findings suggest that victim-blaming by a sexually offending person increases internalized stigma in the affected individuals. As a future research direction, it can be hypothesized that this effect might be especially powerful when the sexually offending person is a woman. The reason for this assumption is rooted in the described traditional sexual stereotypes of women (Denov, 2003) that may hinder affected individuals having realistic and helpful cognitions on this kind of abuse. Instead, cognitions and feelings of guilt and shame might develop, which are typically followed by CSA (Aakvaag et al., 2016; Feiring & Taska, 2005; Ginzburg et al., 2009) but might be particularly intense when the sexually offending person is a woman. In the current sample, 62% of the sexually offending females were the mothers of those affected, which might lead to even more adverse cognitions and feelings because this additionally contradicts mother stereotypes embodying an exaggeration of stereotypically feminine that are communal and caring, characteristics (Cuddy, Fiske, & Glick, 2004; Heilman & Okimoto, 2008). As a clinical implication, mental health care professionals should pay attention to the deteriorating effects of internalized stigma on post-traumatic symptoms and implement treatment methods to deconstruct this kind of stigma. Especially two symptoms of CPTSD, the feeling of being permanently damaged or worthless and the feeling as if you are completely different to other people, might be of relevance in the association between internalized stigma and post-traumatic symptoms. Beyond the multifaceted nature of the peritraumatic responses to CSA (Katz, Tsur, Talmon, & Nicolet, 2021), internalized stigma needs to be incorporated into training programmes for practitioners, who intervene with survivors of CSA. Next to replication studies, future research should focus on examining the role of guilt and shame in the associations between the variables investigated in the present study. It is important to note that the reported associations have neither been studied in samples with individuals affected by male-perpetrated CSA nor in samples with individuals affected by CSA in general. To clarify whether the described clinical implications are of importance beyond the context of female-perpetrated CSA, the analyses of this study should be replicated in samples with individuals who experienced male-perpetrated CSA. Further, it would be interesting to explore whether associations between the investigated variables would differ by the gender of the affected individuals.

It is somewhat surprising that anticipated stigma did not influence post-traumatic symptoms, since

especially the two symptoms of CPTSD, the feeling of being distrustful towards the world and the feeling that nobody can understand the traumatic experience, were assumed to be of relevance in the association of anticipated stigma and post-traumatic symptoms. However, the lack of effect might be explained by the different nature of this stigmatization process: while internalized stigma refers to cognitions and feelings about oneself that are found to be associated with guilt and shame (Russel, Birtel, Smith, Hart, & Newman, 2021; Williamson et al., 2020), anticipated stigma rather refers to beliefs about attitudes of other persons – for example, expectations of prejudice, stereotyping, and discrimination (Earnshaw, Quinn, Kalichman, & Park, 2018) – that do not seem to be directly predicted the development or maintenance of post-traumatic symptoms. It is nevertheless noteworthy that the vast majority (80%) of the current sample expects that female-perpetrated CSA is taken less seriously than male-perpetrated CSA. Such expectancies probably impede the process of disclosure of sexual abuse experiences which in turn can have serious consequences for the mental well-being of affected individuals. Research has shown that the disclosure of sexual abuse leads to social support and is further linked to improved well-being in affected individuals (e.g. Broman-Fulks et al., 2007). Moreover, an early disclosure has been shown to be a protective factor against mental distress experienced in adulthood (e.g. Easton, 2019). Thus, it seems reasonable that affected persons need to develop the feeling that their experiences are taken seriously rather than being trivialized. They need to be encouraged in order to make the process of disclosure easier and to consequently prevent them from negative long-term effects on their mental health.

That abuse awareness had no influence on post-traumatic symptoms might be explained by two different ways in which this variable could exert an effect: First, appraising the female-perpetrated CSA as normal in childhood might serve as a resilience-fostering cognition to maintain a sense of control, self-worth as well as attachment to a related perpetrator (especially the mother), and thus prevent developing psychiatric symptoms for a long term. Second, realizing, later with a more mature cognitive appraisal that one has been sexually abused by a woman, might cause emotional distress and psychiatric symptoms in the aftermath of awareness. It can be expected that there are individuals for whom the first and other individuals for whom the second assumption is true. Surprisingly, abuse awareness did neither yields a significant effect on internalized nor on anticipated stigma. A possible explanation for this might be that such cognitive appraisals of the female-perpetrated CSA in childhood are no predictor for adopting stereotypes related to this kind of abuse in the aftermath. Which peritraumatic responses

(see Katz et al., 2021) and abuse context variables might serve as moderators and mediators for possible effects of abuse awareness in childhood on post-traumatic symptoms should be further investigated in future studies. A societal implication that can be derived from the current results is that efforts have to be made to enhance awareness of female-perpetrated CSA. In fact, less than one-fifth of our participants recognized the female-perpetrated CSA as such in childhood. This is in line with previous research showing that individuals affected by female-perpetrated CSA have difficulties in recognizing their experiences as sexually abusive (e.g. Hayes & Baker, 2014). It can be hypothesized that the high rate of delayed abuse awareness might have played a role in the expanse of mental or physical health problems due to CSA (75%) and the high rate of CPTSD symptoms (43%) reported in the current sample.

Limitations of the present study requiring attention are the instruments that were used under lack of existing questionnaires on the constructs examined: The questionnaire on internalized stigma was originally constructed to capture internalized stigma in individuals with mental illness (Hammer & Toland, 2017) and was, in the current study, adapted for the use in individuals who experienced female-perpetrated CSA. Although there was no evidence of psychometric properties and feasibility of the adapted instrument, individuals with this kind of abuse experience approved its facial validity prior to the study and the post-study measure of internal consistency certified good reliability. As there were no instruments that would have constituted a good basis for adaptation, the constructs of anticipated stigma and abuse awareness were assessed with single items. Thus, it is not entirely clear if a psychometric instrument measuring these variables would have resulted in significant associations. This has to be examined in future studies. Further, due to the cross-sectional study design, the possibility to infer causal relationships between the presented variables is limited. Although the time separation of the variables within the mediation models is reflected in their measured time sequence within the current data, other explanations than ours are possible and should be investigated in the future research. Beyond that, the findings of the current study might not be generalizable to all individuals who were abused by a female offender, as the rate of reported organized abuse contexts was surprisingly high (51%). A note of caution is due here since individuals affected by organized CSA have experienced particularly intense violence (Salter & Richters, 2012) and might thus exhibit more pronounced post-traumatic symptoms. One possible explanation could be that sexually abusive females are more likely to be co-perpetrators in structures of organized CSA than single perpetrators. Another thinkable explanation could be that some of the authors of the current study are engaged in research

on organized and ritual CSA. This might somehow have led to a sampling bias in this study. Future studies from other research groups should examine whether this rate of organized CSA as well as the reported rate of additional male-perpetrated CSA (56%) is typical for female-perpetrated CSA. Further, it is unclear if this possible sampling bias would influence the current results. This too, should be investigated. Beyond that, future studies should examine whether the current results also exist in male-perpetrated CSA.

5. Conclusions

Efforts are needed to raise awareness in society that female-perpetrated CSA is existent and to no lesser degree harmful compared to male-perpetrated CSA. Special attention is required in health care settings, where professionals might come into contact with survivors of this kind of abuse. Particularly, mental health care professionals need to be aware that internalized stigma followed by so-called victim-blaming might play a major role in the development and maintenance of post-traumatic symptoms.

Acknowledgments

The authors thank all experts by experience for their participatory support.

Data availability statement

Due to privacy reasons, the data that support the findings of this study are available from the corresponding author, JS, upon reasonable request.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This study was funded by the Independent Inquiry into Child Sexual Abuse (UKASK; Unabhängige Kommission zur Aufarbeitung Sexuellen Kindesmissbrauchs) in Germany.

ORCID

Johanna Schröder  <http://orcid.org/0000-0002-0751-4720>
 Leonhard Kratzer  <http://orcid.org/0000-0002-0174-8497>
 Yasemin Yamak  <http://orcid.org/0000-0001-6346-0846>
 Peer Briken  <http://orcid.org/0000-0002-1360-014X>
 Safiye Tozdan  <http://orcid.org/0000-0001-6645-3617>

References

Aakvaag, H. F., Thoresen, S., Wentzel-Larsen, T., Dyb, G., Røysamb, E., & Olf, M. (2016). Broken and guilty since it happened: A population study of trauma-related shame

- and guilt after violence and sexual abuse. *Journal of Affective Disorders*, 204, 16–23. doi:10.1016/j.jad.2016.06.004
- Andrews, G., Corry, J., Slade, T., Issakidis, C., & Swanston, H. (2004). Child sexual abuse. In M. Ezzati, A. D. Lopez, A. Rodgers, & C. J. L. Murray (Eds.), *Comparative qualification of health risks - global and regional burden of disease attributable to selected major risk factors* (1st ed., pp. 1851–1941). Geneva: World Health Organization.
- Brewin, C. R., Andrews, B., & Valentine, J. (2000). Meta-analysis of risk factors for posttraumatic stress disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, 68(5), 748–766. doi:10.1037//0022-006x.68.5.748
- Broman-Fulks, J. J., Ruggiero, K. J., Hanson, R. F., Smith, D. W., Resnick, H. S., Kilpatrick, D. G., & Saunders, B. E. (2007). Sexual assault disclosure in relation to adolescent mental health: Results from the national survey of adolescents. *Journal of Clinical Child and Adolescent Psychology*, 36(2), 260–266.
- Cloitre, M., Shevlin, M., Brewin, C. R., Bisson, J. I., Roberts, N. P., Maercker, A., . . . Hyland, P. (2018). The international trauma questionnaire: Development of a self-report measure of ICD-11 PTSD and complex PTSD. *Acta Psychiatrica Scandinavica*, 138(6), 536–546. doi:10.1111/acps.12956
- Coffey, P., Leitenberg, H., Henning, K., Turner, T., & Bennett, R. T. (1996). Mediators of the long-term impact of child sexual abuse: Perceived stigma, betrayal, powerlessness, and self-blame. *Child Abuse and Neglect*, 20(5), 447–455. doi:10.1016/0145-2134(96)00019-1
- Cuddy, A., Fiske, S., & Glick, P. (2004). When professionals become mothers, warmth doesn't cut the ice. *Journal of Social Issues*, 60(4), 701–718. doi:10.1111/j.0022-4537.2004.00381.x
- Denov, M. S. (2001). A culture of denial: Exploring professional perspectives on female sex offending. *Canadian Journal of Psychiatry*, 43, 303–329. doi:10.3138/cjcrim.43.3.303
- Denov, M. S. (2003). The myth of innocence: Sexual scripts and the recognition of child sexual abuse by female perpetrators. *The Journal of Sex Research*, 40(3), 303–314. doi:10.1080/00224490309552195
- Denov, M. S. (2004). The long-term effects of child sexual abuse by female perpetrators: A qualitative study of male and female victims. *Journal of Interpersonal Violence*, 19(10), 1137–1156. doi:10.1177/0886260504269093
- Earnshaw, V. A., Quinn, D. M., Kalichman, S. C., & Park, C. L. (2018). Development and psychometric evaluation of the chronic illness anticipated stigma scale. *Journal of Behavioral Medicine*, 36(3), 270–282. doi:10.1007/s10865-012-9422-4
- Easton, S. D. (2019). Childhood disclosure of sexual abuse and mental health outcomes in adulthood: Assessing merits of early disclosure and discussion. *Child Abuse & Neglect*, 93, 208–214.
- Feiring, C., & Taska, L. (2005). The persistence of shame following sexual abuse: A longitudinal look at risk and recovery. *Child Maltreatment*, 10(4), 337–349. doi:10.1177/1077559505276686
- Fritz, M. S., & MacKinnon, D. P. (2010). Required sample size to detect the mediated effect. *Psychological Science*, 18(3), 233–239. doi:10.1111/j.1467-9280.2007.01882.x. Required
- George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference - 11.0 update* (4th ed.). Allyn & Bacon.
- Ginzburg, K., Butler, L. D., Giese-Davis, J., Cavanaugh, C. E., Neri, E., Koopman, C., . . . Spiegel, D. (2009). Shame, guilt, and posttraumatic stress disorder in adult survivors of childhood sexual abuse at risk for human immunodeficiency virus: Outcomes of a randomized clinical trial of group psychotherapy treatment. *The Journal of Nervous and Mental Disease*, 197(7), 536–542. doi:10.1097/NMD.0b013e3181ab2ebd
- Hammer, J. H., & Toland, M. D. (2017). Internal structure and reliability of the Internalized Stigma of Mental Illness Scale (ISMI-29) and brief versions (ISMI-10, ISMI-9) among Americans with depression. *Stigma and Health*, 2(3), 159–174. doi:10.1037/sah0000049
- Haselgruber, A., Sölva, K., & Lueger-Schuster, B. (2020). Validation of ICD-11 PTSD and complex PTSD in foster children using the International Trauma Questionnaire. *Acta Psychiatrica Scandinavica*, 141(1), 60–73. doi:10.1111/acps.13100
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis - A regression-based approach*. New York: The Guilford Press.
- Hayes, S., & Baker, B. (2014). Female sex offenders and pariah femininities: Rewriting the sexual scripts. *Journal of Criminology*, 1, 1–8. doi:10.1155/2014/414525
- Heilman, M., & Okimoto, T. (2008). Motherhood: A potential source of bias in employment decisions. *Journal of Applied Psychology*, 93(1), 189–198. doi:10.1037/0021-9010.93.1.189
- Johnson, C. F. (2004). Child sexual abuse. *The Lancet*, 364(9432), 462–470. doi:10.1016/S0140-6736(04)16771-8
- Jowett, S., Karatzias, T., Shevlin, M., & Albert, I. (2020). Differentiating symptom profiles of ICD-11 PTSD, complex PTSD, and borderline personality disorder: A latent class analysis in a multiply traumatized sample. *Personality Disorders: Theory, Research, and Treatment*, 11(1), 36–45. doi:10.1037/per0000346
- Karatzias, T., Cloitre, M., Maercker, A., Kazlauskas, E., Shevlin, M., Hyland, P., . . . Brewin, C. R. (2017). PTSD and complex PTSD: ICD-11 updates on concept and measurement in the UK, USA, Germany and Lithuania. *European Journal of Psychotraumatology*, 8(7), 1418103. doi:10.1080/20008198.2017.1418103
- Katerndahl, D., Burge, S., & Kellogg, N. (2006). Factors that predict how women label their own childhood sexual abuse. *Journal of Child Sexual Abuse*, 15(2), 43–54. doi:10.1300/J070v15n02_03
- Katz, C., Tsur, N., Talmon, A., & Nicolet, R. (2021). Beyond fight, flight, and freeze: Towards a new conceptualization of peritraumatic responses to child sexual abuse based on retrospective accounts of adult survivors. *Child Abuse & Neglect*, 112, 104905. doi:10.1016/j.chiabu.2020.104905
- Kennedy, A. C., & Prock, K. A. (2018). “I still feel like I am not normal”: A review of the role of stigma and stigmatization among female survivors of child sexual abuse, sexual assault, and intimate partner violence. *Trauma, Violence, and Abuse*, 19(5), 512–527. doi:10.1177/1524838016673601
- Kline, N. K., Berke, D. S., Rhodes, C. A., Steenkamp, M. M., & Litz, B. T. (2018). Self-blame and PTSD following sexual assault: A longitudinal analysis. *Journal of Interpersonal Violence*, 36(5), 1–16. doi:10.1177/0886260518770652
- Langer, L., & Neuner, F. (2021). The mediating processes of revictimization after child abuse in a sample of adult women. *Journal of Family Trauma, Child Custody & Child Development*, 18(2), 162–183. doi:10.1080/26904586.2021.1886221

- Link, B. G., & Phelan, J. C. (2001). Conceptualizing stigma. *Annual Review of Sociology*, 27(2001), 363–385. doi:10.1146/annurev.soc.27.1.363
- Livingston, J. D., & Boyd, J. E. (2010). Correlates and consequences of internalized stigma for people living with mental illness: A systematic review and meta-analysis. *Social Science and Medicine*, 71(12), 2150–2161. doi:10.1016/j.socscimed.2010.09.030
- Lueger-Schuster, B., Knefel, M., & Maercker, A. (2018). Der internationale trauma questionnaire – Deutsche version. Retrieved from <https://www.psychologie.uzh.ch/dam/jcr:ad66be44-4cd9-44c3-9911-488253de04cc/ITQ-Fragebogen.pdf>
- Mathews, B., & Collin-Vézina, D. (2019). Child sexual abuse: Toward a conceptual model and definition. *Trauma, Violence, and Abuse*, 20(2), 131–148. doi:10.1177/1524838017738726
- Mellor, D., & Deering, R. (2010). Professional response and attitudes toward female-perpetrated child sexual abuse: A study of psychologists, psychiatrists, probationary psychologists and child protection workers. *Psychology, Crime and Law*, 16(5), 415–438. doi:10.1080/10683160902776850
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. doi:10.3758/BRM.40.3.879
- Reed, G. M., First, M. B., Kogan, C. S., Hyman, S. E., Gureje, O., Gaebel, W., ... Saxena, S. (2019). Innovations and changes in the ICD-11 classification of mental, behavioural and neurodevelopmental disorders. *World Psychiatry*, 18(1), 3–19. doi:10.1002/wps.20611
- Russel, P. S., Birtel, M. D., Smith, D. M., Hart, K., & Newman, R. (2021). Infant feeding and internalized stigma: The role of guilt and shame. *Journal of Applied Social Psychology*, 00, 1–14.
- Salter, M., & Richters, J. (2012). Organised abuse: A neglected category of sexual abuse with significant lifetime mental healthcare sequelae. *Journal of Mental Health*, 21(5), 499–508. doi:10.3109/09638237.2012.682264
- Schmitt, S., Robjant, K., Elbert, T., & Koebach, A. (2021). To add insult to injury: Stigmatization reinforces the trauma of rape survivors – Findings from the DR Congo. *SSM - Population Health*, 13, 100719. doi:10.1016/j.ssmph.2020.100719
- Schneider, A., Conrad, D., Pfeiffer, A., Elbert, T., Kolassa, I.-T., & Wilker, S. (2018). Stigmatization is associated with increased PTSD risk after traumatic stress and diminished likelihood of spontaneous remission—A study with east-African conflict survivors. *Frontiers in Psychiatry*, 9, 423. doi:10.3389/fpsy.2018.00423
- Taylor, T. F. (2015). The influence of shame on posttrauma disorders: Have we failed to see the obvious? *European Journal of Psychotraumatology*, 6(1), 28847. doi:10.3402/ejpt.v6.28847
- Tozdan, S., Briken, P., & Dekker, A. (2019). Uncovering female child sexual offenders - needs and challenges for practice and research. *Journal of Clinical Medicine*, 8(3), 401. doi:10.3390/jcm8030401
- Ullman, S. E., Townsend, S. M., Filipas, H. H., & Starzynski, L. L. (2007). Structural models of the relations of assault severity, social support, avoidance coping, self-blame, and PTSD among sexual assault survivors. *Psychology of Women Quarterly*, 31(1), 23–37. doi:10.1111/j.1471-6402.2007.00328.x
- Vang, M., Nielsen, S., Auning-Hansen, M., & Elklit, A. (2020). Testing the validity of ICD-11 PTSD and CPTSD among refugees in treatment using latent class analysis. *Torture Journal*, 29(3), 27–45. doi:10.7146/torture.v29i3.115367
- Williamson, T. J., Ostroff, J. S., Noshin, H., Martin, C. M., Hamann, H. A., Banerjee, S. C., & Shen, M. J. (2020). Dispositional shame and guilt as predictors of depressive symptoms and anxiety among adults with lung cancer: The mediational role of internalized stigma. *Stigma and Health*, 5(4), 425–433. doi:10.1037/sah0000214
- Yehuda, R., Hoge, C. W., McFarlane, A. C., Vermetten, E., Lanius, R. A., Nievergelt, C. M., ... Hyman, S. E. (2015). Post-traumatic stress disorder. *Nature Reviews Disease Primers*, 1(October), 1–22. doi:10.1038/nrdp.2015.57