

Dissociation fully mediates the relationship between childhood sexual and emotional abuse
and DSM-5 PTSD in a sample of treatment-seeking adults

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Conflict of interest:

The authors declare no conflict of interest.

Abstract:

Introduction: Child-abuse and neglect are associated with increased risk of adult PTSD and dissociation. Recent research suggests that dissociation mediates the relationship between child maltreatment and PTSD, however, there is a lack of clarity regarding the mediating role of dissociation for different types of child abuse.

Objective: The aim of the current study was to investigate dissociation as a mediator between 5 typologies of child-maltreatment and post-traumatic stress severity.

Method: In a sample of highly symptomatic, treatment-seeking females (N=99), structural equation modelling was used to test 3 different models of mediation: direct effect, indirect effect, and direct and indirect effect.

Results: The 5 typologies of child maltreatment were significantly related to dissociation and post-traumatic stress. Dissociation mediated the effect of childhood sexual abuse and childhood emotional abuse on post-traumatic stress severity. The indirect effect model fit the data best.

Conclusion: Dissociation fully mediated the relationship between childhood sexual and emotional abuse and post-traumatic stress severity. The results are limited by the use of retrospective self-report measures and a small sample size.

Dissociation fully mediates the relationship between childhood sexual and emotional abuse and DSM-5 PTSD in a sample of adult female treatment-seeking trauma-survivors

1. Introduction

Child abuse and neglect are associated with multiple adverse physical and mental health outcomes: Externalizing behaviour and internalizing symptoms in childhood (Moylan et al., 2010), physical health problems in adulthood (Shevlin et al., 2017) as well as substance abuse disorders (Oshri et al., 2016) and mental health problems in adulthood (Infurna et al., 2016; Smolak & Murnen, 2002). One of the most common consequences of child abuse and neglect (hereafter referred to collectively as “childhood maltreatment”) is post-traumatic stress disorder (PTSD) which has been reported in both clinical samples (McElroy et al., 2016) and community samples (Kessler, Sonnega, Bromet, Hughes & Nelson, 1995) following child maltreatment.

PTSD treatment-resistance is frequently reported among adult survivors of child maltreatment with dissociation suggested as an underlying mechanism for poor treatment response (Sar, 2015; Schimmenti & Caretti, 2014). Pierre Janet (1889) originally described dissociation as a pathological process by which the integrated functions of memory, consciousness and emotions become disintegrated or function outside of conscious awareness (Van der Kolk & Van der Hart, 1989). One way of currently understanding dissociation is as a psychological defence-mechanism against traumatic material, a substantiated maintaining factor of PTSD (Kratzer et al., 2017; Johnson, Pike & Chard, 2001; Lanius et al., 2012). Childhood abuse is one of the most robust predictors of pathological dissociation in clinical and community samples alike (Chu & Dill, 1990; Kessler & Bieschke, 1999), although the prevalence in clinical samples seems to be higher (Dorahy et al., 2014).

Comorbid dissociative symptoms are consequently of high importance to interventions targeting adult PTSD in survivors of child-abuse (Cloitre, Petkova, Wang & Lu, 2012).

Dissociation has also been found to mediate the association between childhood abuse and other negative outcomes such as dysfunctional coping, suicidal tendencies, self-harm and eating disorders (Kisiel & Lyons, 2001; Low et al., 2000; Moulton et al., 2015).

Kratzer et al (2017) investigated dissociation and mindfulness as mediators of the relationship between child sexual abuse (CSA) and child physical abuse (CPA) and adult PTSD according to the ICD-10 criteria, finding that dissociation and mindfulness fully mediated the relationship. However, further research is required in this area as follows: :

- 1) In Kratzer et al. (2017), CSA and CPA were aggregated into a single variable, and other forms of child abuse and neglect such as childhood emotional abuse (CEA) and childhood neglect (CN) were not tested in the mediation model. This precludes the possibility of discerning unique effects of different types of child maltreatment. Different types of child-abuse and neglect tend to co-occur (Shevlin & Elklit, 2007), introducing the risk of statistically displacing effects of types of abuse and neglect that are unaccounted for. For example, CN and CEA are the most common forms of child maltreatment (Hildyard & Wolfe, 2002; Stoltenborgh et al., 2012), and both CN and CEA are associated with increased risk of dissociation (Sar, Islam & Ozturk, 2000; Vogel, Spitzer, Kuwert, Möller, Freyberger & Grabe, 2009). Some research suggests that CEA is more detrimental than CPA, with CPA only being a significant predictor of negative mental health effects in conjunction with additional risk-factors such as family instability (Mullen et al., 1996). Taken altogether, this suggests that research

investigating the impact of child abuse and neglect should account for the specific impact of CEA and CN if possible.

- 2) In Kratzer et al. (2017), dissociative experiences were operationalised using the Dissociative Experiences Scale – Taxon (DES-T, Waller, Putnam & Carlson, 1996). While the DES-T is designed to assess pathological dissociative symptoms, it has been criticized for its' lack of ability to identify pathological dissociative experiences in clinical samples (Leavitt, 1999), thus inflating the risk of false negatives.

The primary aim of the current study was to investigate dissociation as a mediator between different child maltreatment-typologies and adult PTSD. The Childhood Trauma Questionnaire (Bernstein & Fink, 1998), a comprehensive assessment of childhood maltreatment that assesses CPA, CSA and CEA as well as emotional and physical neglect, was employed for the assessment of childhood maltreatment. This allows for the examination of differential effects of different forms of maltreatment on dissociation and posttraumatic stress severity. Posttraumatic stress was operationalised as a latent variable measured by the scores on the four DSM-5 symptom-clusters, thus correcting for measurement error and allowing for more accurate estimates of associations across different symptom clusters (Bollen, 1989). Lastly, dissociation was operationalised using the Dissociative Symptoms Scale (DSS, Carlson, Waelde, Palmieri, Macia, Smith & McDade-Montez, 2016). The DSS is a validated measure of moderate to severe symptoms of dissociation that are of clinical relevance. Based on the findings from Kratzer et al., (2017) and McLaughlin et al. (2017), we hypothesised that dissociation would mediate the relationship between all forms of childhood abuse and neglect and posttraumatic stress severity.

2. Methods

2.1 Participants and procedures

Participants were referred by general practitioners, psychiatrists, or psychologists for psychological therapy to a National Health Service trauma centre in Scotland ($N = 99$).

Consent to participate was sought prior to treatment. The sample was a consecutive series of patients who were referred for psychological therapy following exposure to traumatic life events and subsequent distress. All assessments were carried at pre-treatment. Although all assessments were self-report, a research assistant was available during completion to answer any questions in relation to the questionnaires. Assessments included only self-report measures and were the same for all patients referred to the centre. The sample was primarily of British origin (90.6%) with a mean age of 38.96 years ($SD = 10.78$, range = 19-62). The majority had finished post-secondary education (69.7%), were currently unemployed (58.2%), and single (59.4%). The most commonly reported types of trauma were: Physical assault ($N=92$), sexual assault ($N=82$), other unwanted/unpleasant sexual experience ($N=79$), severe human suffering ($N=64$) and assault with weapon ($N=55$).

2.2 Measures

2.2.1 Childhood Trauma: The Childhood Trauma Questionnaire (CTQ; Bernstein and Fink, 1998) is a 28-item, self-report questionnaire that assesses exposure to a range of different types of child maltreatment. The scale produces five subscales, each with five items: Emotional Abuse, Physical Abuse, Sexual Abuse, Emotional Neglect, and Physical Neglect. Items are responded to using a 5-point scale ranging from “never true” (1) to “very often true” (5). The mean scores for each subscale were calculated. The continuous scores for subscales were used in the main analysis and the clinical cut-off scores indicating the

presence of significant abuse and neglect were used to interpret the mean scores (Walker et al., 1999). The measure has previously demonstrated good internal consistency, test-retest reliability, and convergent validity (Bernstein & Fink, 1998). In the present study, high levels of internal consistency were found for each of the sub-scales, (emotional abuse $\alpha = .79$ physical abuse $\alpha = .80$, sexual abuse $\alpha = .97$, emotional neglect $\alpha = .90$, physical neglect, $\alpha = .69$) and for the total scale ($\alpha = .87$).

2.2.2 PTSD symptoms: The Posttraumatic Checklist for DSM-5 (PCL-5: Weathers, Litz, Keane, Palmieri, Marx & Schnurr, 2013) is a self-report measure of the 20 DSM-5 PTSD symptoms. It includes four subscales: Intrusions (I: 5 items), avoidance (Av: 2 items), negative alterations in cognition and mood (NACM: 7 items), and alterations in arousal (Ar: 6 items).

Respondents are asked to indicate how often they have been bothered by each symptom over the past month along a five-point Likert scale (0 = 'Not at all', 1 = 'A little bit', 2 = 'Moderately', 3 = 'Quite a bit', and 4 = 'Extremely'). Studies have reported acceptable psychometric properties for the PCL-5 (Blevins, Weathers, Davis, Witte, & Domino, 2015) and reliability of the PCL-5 in the current sample was excellent ($\alpha = .86$). A cut-off score of 33 was used to identify probable PTSD (Weathers et al., 2013).

2.2.3 Dissociation: The Dissociative Symptoms Scale-Brief (DSS-8: Carlson, Waelde, Palmieri, Macia, Smith & McDade-Montez, 2016) is an 8-item self-report measure of moderately severe dissociation. The abbreviated scale was developed from the longer 20-item version of the Dissociative Symptoms Scale (DSS) including the two items with the highest factor loadings on each of the 4 dimension: 1. Depersonalization/Derealization, 2. Gaps in Awareness or Memory Sensory, 3. Misperceptions, 4. Cognitive Behavioral Re-experiencing. Each item is responded to on a 5-point scale (0, not at all, 1, once or twice, 2, almost every

day, 3, about once a day, 4, more than once a day) and the mean was calculated with possible scores ranging from 0 to 5 with higher scores representing more frequent dissociative symptoms. Carlson et al (2016) reported high correlations between scores on the DSS and the DSS-8 (.93 - .96 in clinical samples and .92 - .96 in non-clinical samples). The reliability of the DSS-8 in the current sample was high ($\alpha = .80$).

2.3 Data Analysis

Descriptive statistics were produced using the Statistical Package for Social Sciences (SPSS) version 23 and the mediation model was specified and estimated using Mplus 7.1 (Muthén & Muthén, 2013). The mediation model is shown in Figure 1. Posttraumatic stress severity (PTSS) is a latent variable with the four PCL-5 subscale scores used as indicators. The model specified direct effects from the 5 CTQ subscales (Emotional Abuse (a1), Physical Abuse (a2), Sexual Abuse (a3), Emotional Neglect (a4), Physical Neglect (a5)) to the mediating variable, scores on the DSS-8. The mediating variable predicted the PTSS latent variable (b1). Each of the 5 CTQ subscales predicted the PTSS latent variable ($c'1 - c'5$) while controlling for the other variables in the model.

Insert Figure 1 about here

The mediation model was tested using the approach proposed by Preacher and Hayes (2008) and was specified and estimated using Mplus 7 (Muthén & Muthén, 2013) based on maximum likelihood estimation and 1000 bootstrap draws. Maximum likelihood estimation provides estimates that are not biased under conditions of non-normality, but the associated test-statistics may be incorrect (Bollen, 1989). Therefore, the statistical significance of the mediated effects was calculated using 95% bootstrapped bias-corrected and accelerated percentile based confidence intervals (Efron, 1987; Efron & Tibshirani, 1993). The

empirically based confidence intervals used in this study should avoid making incorrect inferences about statistical significance. Confidence-intervals of the indirect effects that do not include zero are considered to be statistically significant ($p < .05$).

To find the optimal model that balances parsimony and explanatory power, three models were tested. First, the 'Direct only' model was tested, where the 'a' and 'b' paths were constrained to zero. Second, the 'Indirect only' model was tested where the 'c' paths were all constrained to zero. Finally, the 'Direct and Indirect' model was tested where all paths were estimated. The following criteria were used to assess model fit (Hu & Bentler, 1998; 1999): a non-significant chi-square (χ^2), Comparative Fit Index (CFI: Bentler, 1990) and Tucker Lewis Index (TLI: Tucker & Lewis, 1973) values above .90 indicate acceptable fit; Root-Mean-Square Error of Approximation (RMSEA: Steiger, 1990) with 90% confidence intervals with values less than .08 indicating acceptable fit. The Standardized Root-Mean-Square Residual (SRMR: Joreskog & Sorbom, 1996) was also used with values less than .08 indicating acceptable fit. The Bayesian Information Criterion (BIC: Schwarz, 1978) was used to compare models, with the smallest value indicating the best fitting model. For the BIC a difference between two models exceeding 10 indicates strong evidence that the model with the lower value is statistically superior (Raftery, 1995). Importantly, the RMSEA and the BIC both include strict penalties for increasing model complexity.

3. Results

Most of the current sample (94.9%) met probable diagnostic requirement for PTSD based on PCL-5 scores. 87 participants had a confirmed history of child-abuse and/or neglect. Table 1 shows the descriptive statistics for the main study variables.

Table 1 about here

The subscales scores from the PCL-5 were all high. The mean DSS-8 was 1.50 and this corresponds to the symptoms being reported between 'once or twice' (1) and 'almost every day' (2). The mean scores on the CTQ subscale all exceed the clinically significant cut-off scores. The correlations among all the study variables are reported in Table 2. All correlations were statistically significant ($p < .05$).

Table 2 about here

All PCL-5 subscales were positively correlated with scores on the CTQ subscales. The correlations ranged from $r = .203$ to $r = .478$. Generally, the NACM subscale was most strongly associated with the CTQ subscales.

The fit statistics for the mediation models are reported in Table 3.

Table 3 about here

The 'Direct Only' model did not fit the data as it failed to meet any of the criteria for acceptable model fit. The RMSEA for 'Indirect Only' and 'Direct and Indirect Only' models were slightly higher than .08. However, RMSEA over-rejects correctly specified models in small sample-sizes (Chen, Curran, Bollen, Kirby & Paxton, 2008), and upon inspecting RMSEA in conjunction with additional fit-statistics, both models were deemed to meet all criteria for acceptable model fit, and the fit of both models was similar. The BIC was lower for the 'Indirect Only' by more than 10 points. This indicates that the 'Indirect Only' should be considered the better model based on the principle of parsimony. The factor loadings for the PTSS latent variable showed that the Intrusions ($\lambda = .809$, $p < .05$), Avoidance ($\lambda = .603$, $p < .05$), NACM ($\lambda = .765$, $p < .05$), and Arousal ($\lambda = .785$, $p < .05$) were all high, positive and statistically significant.

The estimates of the direct effects are presented in Table 4.

Table 4 about here

DSS-8 scores were moderately, positively and significantly predicted by the CTQ Emotional abuse and sexual abuse subscales. The PTSS latent variable was significantly predicted by DSS-8 scores and this relationship was strong (.733). The R-squared for the DSS-8 variable was .359 ($p < .05$), and the R-squared for the PTSS variable was .552 ($p < .05$).

The estimates of the indirect effects are presented in Table 5.

Table 5 about here

The indirect effects of CTQ Emotional abuse and Sexual abuse subscales had a significant indirect effect on PTSS through DSS-8. These indicated that that higher levels of sexual and emotional abuse were associated with higher levels of PTSS through higher levels of dissociation.

4. Discussion

The purpose of the current study was to investigate dissociation as a mediator between childhood abuse and neglect and adult PTSD as defined by the DSM-5-criteria in a treatment-seeking sample of adult survivors of child-abuse. Most of the sample (94.9%) met probable diagnostic requirement for PTSD and mean scores on PCL-5 were high, indicating high post-traumatic stress severity. The levels of dissociation were high with an average report of experiencing dissociative symptoms between 'once or twice' and 'almost every day'. Finally, the average-scores on the CTQ indicated that participants had been subjected

to clinically significant childhood abuse and neglect. Taken altogether, the current sample must be regarded as a highly victimized and highly symptomatic clinical sample.

Before testing a mediation model, all predictor-variables (child abuse and neglect variables) must be significantly correlated with the outcome-variable (post-traumatic stress severity, PTSS). It was found that CEA was the child-abuse typology most strongly correlated to all symptom-clusters of PTSS, and that all PTSS dimensions were positively related to all CTQ subscales. The newly introduced NACM-symptom cluster was most strongly correlated with child abuse and neglect in general and emotional abuse and neglect in particular. The NACM subscale of DSM-5 PTSD has been suggested to be related to depressive or dysphoric symptomatology that is non-specific to PTSD (Hoge et al., 2014). Recent research on the relationship between specific types of child abuse and neglect and adult depression suggests that CEA is one of the best predictors of adult depression (Infurna et al., 2016; Gibb, Chelminski & Zimmerman, 2007; Negele et al., 2015), suggesting that the association between CEA and adult depressive symptomatology might account for some of the relationship between CEA and adult PTSD as defined by DSM-5 criteria.

Likewise, before a mediation model can be tested, the predictor and the mediator (child maltreatment and dissociation), as well as the mediator and the outcome-variable (dissociation and post-traumatic stress severity) must be significantly correlated. In the present study, dissociative symptoms were moderately, positively and significantly predicted by the CEA and CSA. The PTSS latent variable was significantly and strongly predicted by dissociation, meaning that all requirements for a mediation model were met.

Out of the three models tested, the “indirect effects only”-model was the best description of the data: There was moderate effect of severe interpersonal trauma (CSA and CEA) on

post-traumatic stress severity through dissociation. Childhood emotional neglect (CEN) and childhood physical neglect (CPN) were not related to pathological dissociation, and neither was CPA, contrary to what was expected based on earlier findings (Kratzer et al., 2017). However, earlier studies investigating this association did not account for the co-occurrence of different abuse and neglect typologies or for the differing effect of these. Thus, the findings of the current study imply that the failure to account for the co-occurrence of different types of child-abuse and neglect might misplace variance explained by one type of child maltreatment into another. On the other hand, the current sample size might be too small to replicate a mediated effect of CPA on post-traumatic stress severity. However, we suspect that any effect is unlikely to be detected in a larger sample-size as the effect-sizes for CPA, CEA and CPN in the current study were small in addition to being non-significant. Finally, the findings of the current study suggest that the role of dissociation and consequently, the pathway to negative adult mental health outcomes, might differ depending on whether the child maltreatment was actively (CSA, CPA, CEA) or passively (CPN, CEN) perpetrated.

Childhood adversity is a consistent predictor of negative adult physical and psychological health outcomes (Shevlin et al., 2017; Springer et al, 2003). The current study adds to the evidence by suggesting that adult negative physical and psychological health outcomes is insufficiently modelled if ascribed to childhood adversity alone, thus supporting precautions against overemphasising child maltreatment when investigating causes for mental and physical health problems in adulthood (Finkelhor, 2017; Mullen et al., 1996). However, future studies examining this claim are warranted, as this effect might be sample-specific. A recent study by Terock et al. (2016) demonstrated that PTSD mediated the effect of childhood abuse and neglect on dissociation in adulthood, suggesting that highly severe

cases of PTSD (such as the current sample) are characterized by additional symptoms of dissociation, but this might not be true of less severe cases.

Lastly, the current study contributes to highlighting potential discrepancies in diagnosing PTSD per ICD-11 or DSM-5 criteria (for an elaborate discussion, please see Hyland et al., 2016) as the diagnostic criteria used might influence the mediated relationship between some types of child maltreatment and adult PTSD (Kratzer et al., 2017). This warrants further research into the implications of diagnosing and treating adult PTSD within the DSM-5 and ICD-11 framework.

4.1 Clinical implications and directions for future research

The results of the current study suggest that dissociation can be targeted as a therapeutic goal when treating severe PTSD in adult survivors of child maltreatment. Considering the high associations between dissociation and traumatic symptomatology, it might be worthwhile to explore in future research, whether dissociation is a core feature of PTSD. Nevertheless, given that the current sample was highly traumatised, presenting with severe levels of PTSD and dissociative symptomatology, further longitudinal research and research with other populations is required. Considering the forthcoming publication of ICD-11 and the introduction of Complex PTSD as a new condition, further research is required to investigate dissociation as a mediator between child abuse and neglect and adult post-traumatic stress severity in large clinical and community samples using both ICD-10 and DSM-5 criteria to explore possible associations between traumatic stress and dissociation following exposure to child maltreatment.

4.2 Limitations

The current study has been conducted in a small, clinical sample. Thus, the possibility of insufficient power to detect mediated effects of CPA, CPN and CEN on adult post-traumatic stress severity cannot be ruled out. Furthermore, the current data provided no opportunity to control for later victimization that might co-explain the high prevalence of PTSD in the sample (95.3 %). As child maltreatment is related to further risk of additional victimization thorough life (Messman-Moore & Bhuptani, 2017), further research should account for this in the mediation model. Lastly, the variables included in this study was limited to the measures included in the intake form at the National Health Service trauma centre in Scotland.

5. Conclusion

The aim of the current study was to investigate the mediating effect of dissociation between child maltreatment and adult post-traumatic stress severity. Dissociation fully mediated the relationship between CSA and CEA and post-traumatic stress severity. Our findings indicate that dissociation is a worthwhile therapeutic target in adults with DSM 5 PTSD following exposure to child maltreatment, particularly CSA and CEA.

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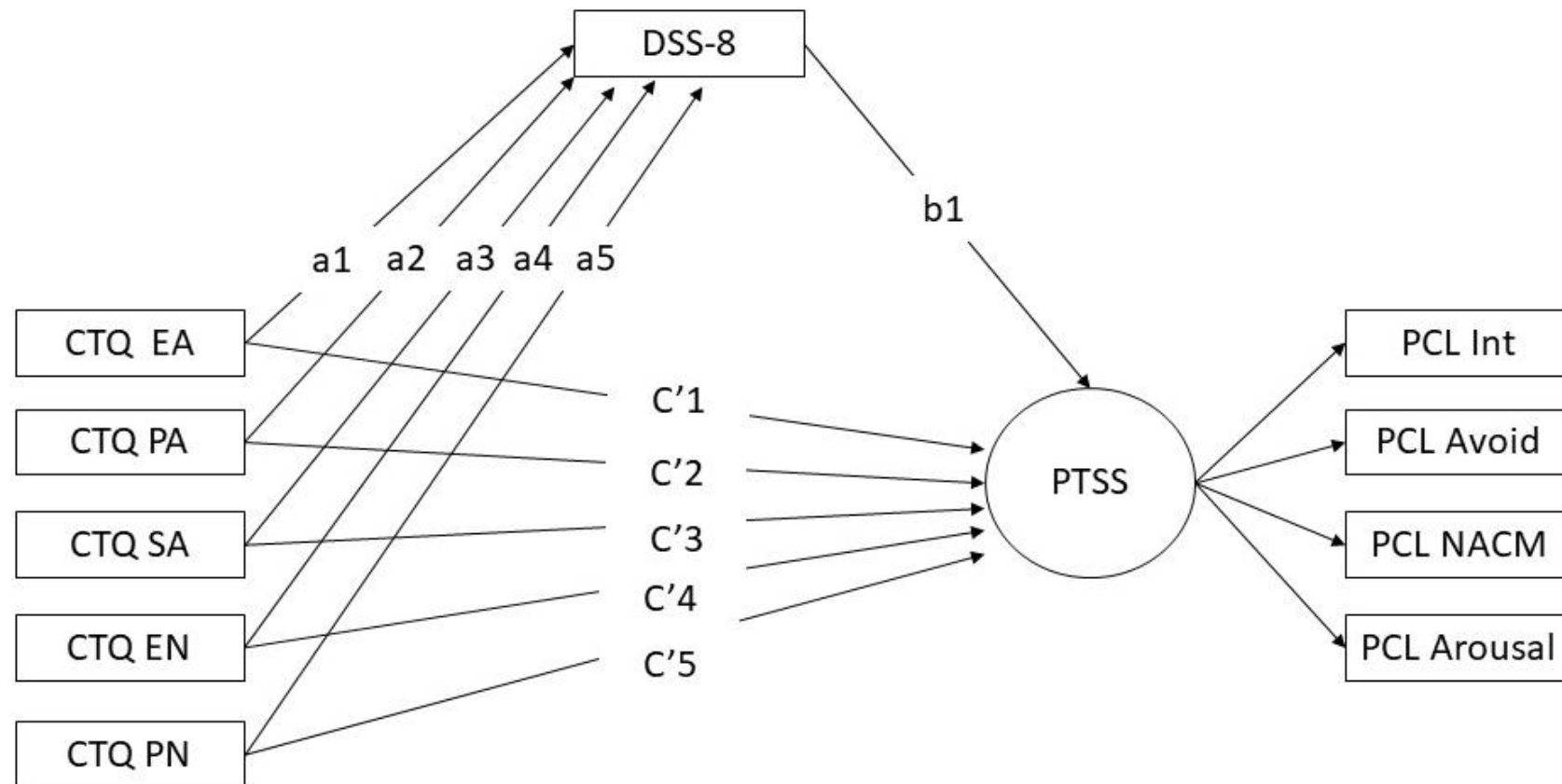
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Figure 1: The mediation model



Note: EA=Emotional Abuse, PA=Physical Abuse, SA=Sexual Abuse, EN=Emotional Neglect, PN=Physical Neglect, DSS-8= Total Dissociative Symptoms Scale- Brief scores, Int = Intrusion, Avoid=Avoidance, NACM= Negative alterations in cognition and mood.

Table 1. Descriptive Statistics for Main Study Variables.

Measure	Mean (SD)	Possible score range
PTSD	56.58 (13.51)	0 – 80
Intrusion	13.99 (4.63)	0 – 20
Avoidance	6.04 (1.77)	0 – 10
NACM	20.60 (5.14)	0 – 28
Arousal	15.95 (4.64)	0 – 24
Dissociation		
DSS-8	1.53 (.83)	0 – 4
Childhood Trauma		
CTQ: Emotional abuse	17.16 (6.47)	0 – 25
CTQ: Physical abuse	11.64 (5.53)	0 – 25
CTQ: Sexual abuse	15.02 (8.45)	0 – 25
CTQ: Emotional neglect	16.72 (6.13)	0 – 25
CTQ: Physical neglect	11.55 (5.08)	0 – 25

Note: CTQ cut-off scores are 13 or higher for emotional abuse, 10 or higher for physical abuse, 8 or higher for sexual abuse, 15 or higher for emotional neglect, and 10 or higher for physical neglect (Bernstein & Fink, 1998). A cut-off score of 33 on for PCL-5 has been suggested as a reasonable indicator of PTSD (Bovin et al., 2016). 94.9 % of participants exceeded this value.

Table 2. Bivariate Correlations for all Study Variables.

	1	2	3	4	5	6	7	8	9
1. PCL: Intrusion	1.00								
2. PCL: Avoidance	.508	1.00							
3. PCL: NACM	.567	.483	1.00						
4. PCL: Arousal	.630	.451	.658	1.00					
5. DSS-8	.632	.353	.492	.470	1.00				
6. CTQ: Emotional Abuse	.318	.323	.478	.367	.455	1.00			
7. CTQ: Physical Abuse	.270	.264	.435	.273	.238	.619	1.00		
8. CTQ: Sexual Abuse	.307	.247	.290	.349	.393	.412	.432	1.00	
9. CTQ: Emotional Neglect	.270	.203	.467	.352	.302	.498	.397	.271	1.00
10. CTQ: Physical Neglect	.291	.307	.375	.301	.255	.487	.519	.414	.599

Note: All correlations significant $p < .05$.

Table 3. Model fit statistics for the alternative models of childhood trauma, dissociation, and posttraumatic stress.

Models	χ^2	<i>df</i>	P	CFI	TLI	RMSEA (90% CI)	SRMR	BIC
1: Direct only	98.916	26	.000	.731	.638	.168 (.134 - .204)	.178	2677.052
2: Indirect only	42.058	25	.018	.937	.912	.083 (.035 - .126)	.072	2630.965
3: Direct and indirect	33.440	20	.030	.950	.913	.082 (.026 - .130)	.035	2644.373

Note: χ^2 = Chi-square Goodness of Fit statistic; *df* = degrees of freedom; p = probability; CFI = Comparative Fit Index; TLI = Tucker Lewis Index; RMSEA (90% CI) = Root-Mean-Square Error of Approximation with 90% confidence intervals; SRMR = Standardized Root Mean Square Residual; BIC = Bayesian Information Criterion;

Table 4. Estimates of Effects From the Mediation Model.

	Path	β (S.E)	p
Direct Effects to DSS-8 from..			
CTQ: Emotional abuse	a1	0.441 (.115)	.000
CTQ: Physical abuse	a2	-0.173 (.130)	.185
CTQ: Sexual abuse	a3	0.256 (.071)	.000
CTQ: Emotional neglect	a4	0.159 (.128)	.213
CTQ: Physical neglect	a5	0.020 (.152)	.897
Direct Effect from DSS-8 to..			
PTSS	b1	.733 (.058)	.000

Table 5. Estimates of Indirect Effects From the Mediation Model.

	Path	Indirect effect	95% CI
Indirect effects to PTSS from-			
CTQ EA: Emotional abuse	a1b1	.297	(0.158 - .437)*
CTQ PA: Physical abuse	a2b1	-.100	(-0.243 - .044)
CTQ SA: Sexual abuse	a3b1	.225	(0.106 - .344)*
CTQ EN: Emotional neglect	a4b1	.102	(-0.054 - .258)
CTQ PN: Physical neglect	a5b1	.010	(-0.147 - .168)

Note: * indicates statistical significance.