Depression and Dissociation as Predictors of Physical Health Symptoms Among Female Rape Survivors with PTSD

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Abstract

Objective—To investigate the relative contributions of depression and dissociation, as well as PTSD, to physical health symptoms and to examine the relationships among somatic symptoms, PTSD, depression, and dissociation in relation to childhood and adult trauma exposure.

Method—Cross-sectional data are from 132 female rape survivors with PTSD assessed prior to engaging in a study of trauma-focused cognitive therapy for PTSD. Measures included the Pennebaker Inventory of Limbic Languidness, Clinician Administered PTSD Scale, Beck Depression Inventory, Trauma Symptom Inventory-Dissociation Subscale, Childhood Sexual Abuse Exposure Questionnaire, and Assessing Environments-III-Physical Punishment Scale.

Results—Hierarchical regression analyses revealed that only dissociative and depression symptoms contributed significantly to physical health symptoms. Similarly, among the subsample of women with either childhood sexual or physical abuse, depression and dissociation were significant predictors of somatic symptoms. However, among women without childhood abuse, only dissociation significantly predicted somatic symptoms.

Conclusion—Understanding the psychological and biological mechanisms that link childhood versus adult trauma exposure, PTSD, and comorbid depression or dissociation to physical health symptoms may aid development of individualized treatments for the physical and psychological consequences of trauma.

Keywords

Depression; dissociation; PTSD; physical health; rape survivors; sexual assault

Recent research demonstrates that trauma exposure and posttraumatic stress disorder (PTSD) are associated with negative physical health outcomes (Eadie & Runtz, 2008;

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Kimerling, Clum, & Wolfe, 2000; Wolfe, Schnurr, Brown, & Furey, 1994; Woods & Wineman, 2004). To date, negative health outcomes in trauma-exposed samples have included persistent and more severe somatic symptoms, increased medical care utilization, negative overall health perceptions, increased probability of being diagnosed with a medical condition, and increased mortality (Eadie & Runtz, 2008; Schnurr & Jankowski, 1999).

Early theoretical and epidemiological conceptualizations of the robust relationship between trauma and physical health problems suggested that development of PTSD is the primary predictor of physical health status (Schnurr & Jankowski, 1999; Schnurr & Spiro, 1999), but that related psychological and behavioral domains, as well as biological factors, might also increase risk for adverse health outcomes among individuals exposed to trauma. For women in particular, comorbid somatization, depression, and dissociation are thought to contribute to physical health problems and complaints (Tansill, Edwards, Kearns, Gidycz, & Calhoun, 2012).

Somatization is a phenomenon thought to characterize many physical health complaints associated with PTSD and is commonly defined as "the conversion of mental experiences or states into bodily symptoms" (Dorland, 2007). In the case of chronic pain, for example, somatization is said to be distinguished from tangible physical pain by a lack of a detectable physical cause for the discomfort. According to the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM–5*; American Psychiatric Association [APA], 2013), somatization or rather, "somatic symptom disorder," is said to be characterized by an individual's interpretation of somatic symptoms and the degree of distress, as well as abnormal thoughts, feelings and behaviors experienced in relation to the symptoms. Thus, having a medically unexplained symptom is no longer considered a primary feature of the disorder.

Depression, which is present in about 50% of women with PTSD (Kendler et al., 1995), is also related to somatic health complaints (e.g., Haug, Mykletun, & Dahl, 2004; Schulberg, McClelland, & Burns, 1989), chronic pain (Banks & Kerns, 1996) and pain-related disability (Ericsson et al., 2002). Of note, rates of major depression increase markedly after exposure to trauma, but almost always in the context of PTSD (with which depression symptoms overlap), prompting the suggestion that comorbid PTSD and depression may simply constitute more severe PTSD (e.g., Breslau, Davis, Peterson, & Schultz, 2000). In fact, Calhoun, Wiley, Dennis, and Beckham (2009) found that PTSD severity uniquely predicted health complaints when comorbid depressive and somatization symptoms were also considered. Eadie and Runtz (2008) also found that PTSD, but not depression, predicted physical health symptoms among undergraduate sexual assault survivors, although methodological limitations prevented the authors from drawing firm conclusions.

Dissociation, too, has been linked to physical health symptoms in populations exposed to trauma or extreme stress (Freyd, Klest, & Allard, 2005). Dissociation is defined as a "disruption of the usually integrated functions of consciousness, memory, identity or perception of the environment" (Holmes et al., 2005), and according to the *DSM-5*, includes disruption in emotion, body representation, motor control and behavior. Dissociation is considered to be most common among survivors of childhood sexual assault (CSA),

although it is also associated with other types of trauma (Johnson, Pike, & Chard, 2001; Nash, Hulsey, Sexton, Harralson, & Lambert, 1993). Farley and Keaney (1997) found a positive correlation between scores on the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986) and physical health symptoms in women with CSA, but not in women without CSA. Further, the number of physical complaints was related to the number of prior perpetrators, suggesting a relationship between physical complaints and repeated or possibly more severe or injurious trauma (Friedman & Schnurr, 1995) and perhaps additional, unmeasured psychological reactions to the trauma such as depression.

It is also important to note that individuals exposed to trauma have a greater number of "objective indicators" of medical problems when compared to other psychiatric populations, and PTSD is associated with a greater likelihood of physical health symptoms even after controlling for other psychiatric symptoms, anger and negative life events (Andreski, Chilcoat, & Breslau, 1998; Eadie & Runtz, 2008; Zoellner et al., 2000). The experience of physical trauma may contribute to such objectively quantifiable physical health problems. For example, interpersonal violence victims often experience physical assault along with sexual and emotional trauma, and may suffer from multiple musculoskeletal injuries and head trauma; female victims of sexual abuse may suffer gynecological complications (Lesserman, Li, Drossman & Hu, 1998; Woods & Wineman, 2004). Thus, interpersonal trauma can have both indirect and direct effects on women's health, and may thereby increase rates of chronic pain and other health problems (Andreski et al., 1998; Leserman, Li, Drossman, & Hu, 1998).

Evidence also suggests that trauma exposure may have a cumulative effect on PTSD risk over the lifespan (Woods & Wineman, 2004). For example, childhood physical abuse (CPA) and CSA have been linked to combat-related PTSD after controlling for the level of combat exposure in male veterans. (Bremner, Southwick, Johnson, Yehuda, & Chaney, 1993). Similarly, approximately one-half to two-thirds of battered women have a history of CPA and or CSA (Kemp, Rawlings, & Green, 1991), and those exposed to both have significantly higher rates of PTSD than those who experienced CSA alone (Schaaf & McCanne, 1998). Thus, both CPA and CSA may, in turn, increase risk for negative health outcomes in adulthood.

Given that psychological conditions in addition to PTSD have been related to physical health symptoms, we utilized an available large dataset of women with PTSD to investigate the relative contributions of depression and dissociation, as well as PTSD, to physical health symptoms. We hypothesized that depression and dissociation, in addition to PTSD, would be significant predictors of physical health symptoms. Notably, dissociative symptoms have not been previously examined as a predictor of physical health symptoms in the context of PTSD, and this is the first study to examine such issues in a large sample of women with PTSD for whom the uniform index trauma was rape. In addition, given the evidence for a cumulative effect of trauma over the life span on risk for PTSD and physical health symptoms, we explored the relationships among somatic symptoms and PTSD, depression, and dissociation in women with and without a history of CSA or CPA.

Method

Participants and Procedures

The current investigation was based upon secondary analysis of pretreatment data from a community sample of 132 female rape survivors recruited from a wide region around a large midwestern city to participate in a study of cognitive behavioral treatments (Resick, Nishith, Weaver, Astin, & Feuer, 2002). Informed consent was obtained at the time of enrollment. All participants met the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed.; *DSM–IV*; APA, 1994) criteria for PTSD, and reported at least one incident of completed rape (oral, anal or vaginal). Those who suffered marital rape must have been out of the relationship for a minimum of 6 months, in order to screen eligible. Incest survivors were included, as long as there was an additional discrete incident of completed rape. Participants were excluded if they reported being currently stalked or were in a current abusive relationship. The majority of participants had experienced multiple other traumas in addition to the index rape for which treatment was sought (Resick et al., 2002).

Exclusion criteria included any self-report of substance dependence within 6 months of study entry, current psychosis, ongoing trauma, suicidal intent, current parasuicidal behavior, and inability to read or write. Substance abuse was not exclusionary if the participant agreed to abstain from the use of substances during treatment. Participants with personality disorders, dissociative disorders or other *DSM-IV* Axis I disorders were included (Resick et al, 2002).

A total of 276 women were initially assessed for possible participation in the parent study. Of these, 171 women were included in the original intent-to-treat (ITT) sample from which data were obtained for the current study. Complete data for the measures of interest were available from 132 participants who were, on average, 32 years of age (*SD* = 10.4; range 18–70) and had 14.4 years of education (*SD* = 2.4; range 8–24). The majority (80%) had never been married or were divorced or separated. The sample was 72.7% Caucasian, 22.7% African American, 1.5% Hispanic, 0.8% Asian, and 0.8% American Indian; 1.5% of the sample specified "other" ethnicity. The average time elapsed since the index rape was 8 years (*SD* = 8.3 years; range: 3 months to 33 years). Participants on psychotropic medication (approximately 26% of the sample; medications included paroxetine, fluoxetine, sertraline, or alprazolam) were on stable doses for at least 3 months prior to study entry. The only major comorbid diagnoses were depression (current: 43.2%, *n* = 57; lifetime: 78.8%, *n* = 104) and panic disorder (current: 12.8%, *n* = 13; lifetime: 19.7%, *n* = 26). The sample included in the current analyses did not significantly differ from the larger ITT sample with respect to the above demographics.

Measures

The Clinician Administered PTSD Scale (CAPS; Blake et al., 1990) is a 30-item structured clinical interview used to diagnose *DSM-IV*-defined PTSD according to standard scoring rules described in Resick et al. (2002). In the current study, the kappa coefficient for PTSD diagnosis was .74, with 92% inter-rater agreement. When the PTSD score was evaluated as a

continuous variable, the kappa coefficient was .97 (Resick et al., 2002). Cronbach's coefficient alpha for this subsample was .84.

The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a 21-item self-report inventory that evaluates cognitive and vegetative symptoms of depression (range 0–63). The test-retest reliability for the BDI in psychiatric patients ranges from .46 to .86; the test-retest reliability over 1 week for depressed patients is .65. Cronbach's coefficient alpha for this sample was .86.

The Pennebaker Inventory of Limbic Languidness (PILL; Pennebaker, 1982) is a 54-item self-report inventory that uses a 5-point Likert scale (letters A–E) to assess the frequency of physical symptoms. The PILL is scored by adding each item response (range 0 – 216). The PILL has good internal consistency (α = .91) and acceptable reliability (r_{tt} = .83). In this sample, Cronbach's alpha coefficient was .94.

The Trauma Symptom Inventory (TSI; Briere, 1995) is a 100-item self-report measure that assesses short- and long-term sequelae of traumatic experiences. The clinical dissociation subscale (TSI-Dissociation), used in this study, measures depersonalization, cognitive disengagement, derealization, out-of-body experiences and emotional numbing. Total TSI-Dissociation scores range from 0 to 27; a cutoff of 13 is considered clinically significant. The TSI exhibits good convergent, predictive, and incremental validity in clinical and non-clinical samples. In this sample, Cronbach's coefficient alpha for the TSI-Dissociation was .80.

The Sexual Abuse Exposure Questionnaire-Part I (SAEQ; Rowan, Foy, Rodrigues, & Ryan, 1994) is a 10-item self-report measure designed to assess sexual acts experienced before the age of 16. Individual items exhibit moderate to high test-retest reliability (range = .73–.94) with an overall kappa coefficient of .88 (Ryan, Rodriguez, Rowan, & Foy, 1992). The SAEQ has been shown to distinguish PTSD diagnostic status and severity. In this sample, Cronbach's coefficient alpha for the SAEQ was .89.

The Assessing Environments III - Physical Punishment Scale (AE-III-PP; Berger, Knutson, Mehm, & Perkins, 1988) is a self-report questionnaire that includes 12 behaviorally-anchored true/false items designed to assess a range of childhood physical discipline events, from mild forms of physical discipline (e.g., spanking) to potentially injurious physical events identified in the literature as common forms of abusive parenting. The AE-III-PP has excellent test-retest reliability and discriminates between abused and non-abused individuals. A score of 4 or higher on this scale suggests a history of CPA (Zaidi, Knutson, & Mehm, 1989). In this sample, Cronbach's coefficient alpha for the AE-III-PP scale was .63.

Statistical Analyses

As a first step, Pearson correlations among the study variables (total scores on the PILL, CAPS, BDI, TSI-Dissociation, SAEQ, and AE-III-PP) were computed. A set of hierarchical multiple regression analyses were then conducted to examine the relative contributions of PTSD, depression, and dissociation symptom severity to physical health symptoms. Given that CSA and CPA relate to a range of psychopathological sequelae, including somatic

preoccupations, depression, dissociation and PTSD (e.g., Briere & Elliot, 2003), we controlled for both in the overall model. CSA (SAEQ) and CPA (AE-III PP) variables were entered into the first step, total PTSD severity scores were entered into the second step, and depression (BDI) and dissociation (TSI-Dissociation) symptom severity scores were entered into the third and fourth steps, respectively. In follow-up analyses, we repeated these regressions for participants with and without a history of CSA or CPA in order to determine whether a history of childhood abuse impacted the results. Analyses were conducted using PASW Statistics 21.

Results

All variables under investigation were significantly correlated with one another, with the exception of the AE-III-PP variable (CPA), which was only correlated with TSI-Dissociation ($r = .17$, $p = .043$), PILL ($r = .23$, $p = .007$) and SAEQ (CSA; $r = .26$, $p = .017$) scores. All correlations ranged between .16 –.54 (please see Table 1). Collinearity diagnostics were thus computed, and all tolerance levels were greater than .01, suggesting the absence of multicollinearity among the selected predictor variables. Table 2 contains the mean score and standard deviation for each variable under consideration.

Predictors of Physical Health Symptoms in the Total Sample

Results of the first hierarchical regression analysis with physical health symptoms as the dependent variable are presented in Table 3. In the first step, CSA and CPA accounted for 6% of the variance in physical health symptoms. PTSD severity accounted for 9%, while BDI and TSI-Dissociation explained an additional 9% and 7% of the variance, respectively. In the final step of the model, which included all five predictors, only BDI and TSI-Dissociation scores significantly predicted physical health symptoms. When all other independent variables were held constant, a one unit increase in the BDI was associated with a .90 unit increase in PILL scores, and a one unit increase TSI-Dissociation was associated with a 1.88 unit increase in PILL scores.

Predictors of Physical Health Symptoms in Women with and without Childhood Trauma

Among women with CSA or CPA ($n = 81$), PTSD severity accounted for 11% of the variance in physical health symptoms, while BDI and TSI-Dissociation scores explained an additional 13.6% and 5% of the variance, respectively. When all three predictors were allowed to compete, only BDI and TSI-Dissociation scores significantly predicted physical health symptoms (see Table 4). When all other independent variables were held constant, a one unit increase in the BDI was associated with a 1.38 unit increase in PILL scores, and a one unit increase TSD-Dissociation was associated with a 1.68 unit increase in PILL scores.

Among women without a history of CSA or CPA ($n = 51$), PTSD severity accounted for 7% of the variance in physical health symptoms, while BDI and TSI-Dissociation scores explained an additional 5% and 11% of the variance. When all three predictors were allowed to compete, only TSI-Dissociation scores significantly predicted physical health symptoms (see Table 5). When all other independent variables were held constant, a one unit increase in dissociation scores was associated with a 2.11 unit increase in PILL scores.

Discussion

In the current study, dissociation, depression, and PTSD symptoms were associated with physical health symptoms at the bivariate level, but only dissociation and depression accounted for a significant proportion of the variance in the multivariate model. This study thus extends previous work by Schnurr and Spiro (1999) by being the first to demonstrate an association between physical health symptoms and both comorbid depression and dissociation symptoms in female rape victims with PTSD. This study also distinguished predictors of physical health symptoms among PTSD patients with and without a history of CSA or CPA. Our finding that PTSD severity did not contribute uniquely to physical health symptoms contrasts with previous studies (Calhoun, Wiley, Dennis and Beckham, 2009; Eadie and Runtz, 2008) and our study hypothesis. Of note, previous studies included participants with and without PTSD, whereas all participants in the current study had PTSD; thus, there may not have been enough variance in PTSD symptom severity for PTSD to be a significant predictor in the current study. In any case, it becomes clear that among individuals with PTSD, additional constructs such as depression and dissociation may contribute to the prediction of physical health symptoms.

An improved understanding of the processes linking these predictors to physical health symptoms could aid in the development of better means of preventing and treating somatic problems and long-term health issues among individuals with PTSD. It will therefore be important to know whether depressive or dissociative symptoms contribute directly to the development or severity of somatic conditions, and whether they should be targeted in order to reduce somatic symptomatology. Alternatively, factors not captured in the current study may contribute to the pathophysiology of these psychological conditions, as well as to somatic conditions with which they are comorbid. For example, recent research suggests that specific neurobiological factors (Rasmusson, Schnurr, Zukowska, Scioli, & Forman, 2010; Rasmusson & Shalev, 2014; Scioli-Salter et al., 2015), as well as genetic predisposition (Diatchenko, Slade, & Nackley, 2004; Klengel et al., 2013; Savitz et al., 2007; Wolf et al., 2014; Zubieta et al., 2003) may mediate risk for somatic conditions, as well as PTSD or PTSD-related psychiatric conditions such as depression (Rasmusson et al., 2006) and dissociation (Dimoulas et al., 2007; Morgan et al., 2000, 2002). In addition, the developmental timing of trauma exposure may impact the nature of neurobiological adaptations that, in turn, influence long-term risk for PTSD, depression and somatic conditions. For example, an *FKBP* gene risk allele has been shown to interact with childhood trauma exposure to decrease glucocorticoid receptor sensitivity and increase the risk for depression, PTSD, and immune system dysfunction in adulthood (Klengel et al., 2013). An understanding of the mechanisms by which such neurobiological and genomic factors translate into PTSD-related psychiatric and somatic conditions may spur the development of new means of preventing and treating these outcomes.

There are inherent limitations of the current study. The analyses were cross-sectional, limiting our ability to identify the relationships among variables over time. Future research using a longitudinal approach is indicated. Second, the PILL is not a measure of chronic medical conditions, but rather captures a range of physical health complaints. This limited our capacity to detect specific medical syndromes potentially influenced by depression and

dissociation. Future research should consider using validated measures of chronic pain or objective measures of cardiovascular function, immune disorders, and metabolic syndrome —specific medical conditions that are highly co-prevalent with PTSD and depression (Heppner et al., 2009; Otis, Keane, & Kerns, 2003; Rasmusson et al., 2010). Third, scale-specific characteristics of the PILL and TSI-Dissociation may have impacted our results. It should be noted that different measures of dissociation and somatic symptoms were used by each of the previous studies linking dissociative and somatic symptomatology. The DES, used in the Farley and Keaney study (1997), measures the frequency and intensity of a wide range of dissociative symptoms (absorption, derealization, amnesia and depersonalization) and can assess dissociative identity disorder (Johnson et al., 2001). The Clinician-Administered Dissociative States Scale (Bremner et al., 1998), used in the study by Dimoulas et al. (2007) that linked dissociation during intense military training stress to post-training somatic symptoms in women, measures depersonalization and derealization, as well as problems with sensory fidelity in specific sensory systems (e.g., "Have sounds almost disappeared or become much stronger than you would have expected?" and "Do colors seem much brighter than you would have expected?"). As noted above, the TSI-Dissociation measure used in the current study captures depersonalization, cognitive disengagement, derealization, out-of-body experiences and emotional numbing. Even though these studies varied in their methodologies for assessing components of dissociation and used different somatic symptom rating scales, all found a strong association between dissociation and somatic symptomatology. This suggests that the relationship between broadly defined dissociative and somatic symptoms may be quite robust. Future work is still needed, however, to ascertain whether particular aspects of dissociation may best predict comorbid somatic symptomatology.

The fact that the study sample included only women who were mostly of Caucasian and African American descent and exposed to sexual and other types of trauma, may limit the generalizability of our findings to other trauma populations. Further, the high levels of PTSD symptom severity in this severely traumatized treatment-seeking sample may have produced ceiling effects. In addition, the time since the index trauma ranged widely from 3 months to 33 years; thus, future research should take into account the developmental timing of the trauma exposure relative to PTSD symptomatology assessed at a later time point. Finally, the exploratory regression analyses may have been underpowered due to the smaller sizes of the subsamples with either CSA or CPA and without a history of CSA or CPA. With the recent changes in the *DSM*, it also will be important to retest the hypotheses using the new *DSM-5* PTSD-related constructs in a larger sample.

In summary, the current report found that symptoms of dissociation and depression predicted somatic symptoms in female victims of interpersonal violence with PTSD. Among women with childhood abuse, both dissociative and depressive symptoms predicted somatic symptomatology, while only dissociation predicted somatic symptoms among women without childhood abuse. Investigation of the psychological and neurobiological processes that link trauma exposure to these PTSD-related conditions and somatic problems may yield novel treatment approaches to both the psychological and physical sequelae of trauma.

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Table 1

Bivariate correlations between symptom measures

	CAPS	BDI	PILL	TSI-Dissociation	SAEQ	AE-III-PP
CAPS	1.00					
BDI	0.54 ***	1.00				
PILL	0.32 ***	0.45 ***	1.00			
TSI-Dissociation	0.39 ***	0.48 ***	0.45 ***	1.00		
SAEQ	0.21 **	0.16 *	0.17 *	0.20 *	1.00	
AE-III-PP	0.09	0.01	0.23 **	0.17 *	0.26 **	1.00

Note. CAPS = Clinician Administered PTSD scale; BDI = Beck Depression Inventory; PILL = Pennebaker Inventory of Limbic Languidness; TSI-Dissociation = Trauma Symptom Inventory – Dissociation Subscale; SAEQ = Childhood Sexual Abuse Exposure Questionnaire; AE-III-PP = Assessing Environments-III-Physical Punishment Scale. $N = 132$.

*
$p < .05$,

**
$p < .01$,

***
$p < .001$

Table 2

Means and Standard Deviations of Variables Under Investigation

Measure	M	SD
CAPS	74.13	19.39
BDI	23.63	9.08
TSI-Dissociation	12.45	5.56
SAEQ	1.27	1.84
AE-III-PP	3.93	2.33
PILL	133.36	32.64

Note. M = mean, SD = standard deviation; CAPS = Clinician Administered PTSD Scale; BDI = Beck Depression Inventory; TSI-Dissociation = Trauma Symptom Inventory – Dissociation Subscale; SAEQ = The Childhood Sexual Abuse Exposure Questionnaire; AE-III-PP = The Assessing Environments-III-Physical Punishment Scale; PILL = Pennebaker Inventory of Limbic Languidness. N = 132.

Table 3

Hierarchical Multiple Regression Analysis Predicting Physical Health Symptoms in Total Sample

Predictor	R^2 Change	R^2	Change F	P
Step 1: SAEQ; AEIII-PP		.06	3.80	<.05
Step 2: CAPS	.09	.14	12.85	<.001
Step 3: BDI	.09	.23	15.02	<.001
Step 4: TSI- Dissociation	.07	.30	12.31	<.01

Final model	B	SE B	β	t	P
SAEQ	0.24	1.42	.013	0.17	.87
AEIII-PP	2.10	1.13	0.15	1.86	.07
CAPS	0.07	0.16	0.04	0.41	.68
BDI	0.90	0.35	0.25	2.58	.01
TSI-Dissociation	1.88	0.54	0.31	3.51	.001

Note. CAPS = Clinician Administered PTSD Scale; BDI = Beck Depression Inventory; TSI-Dissociation = Trauma Symptom Inventory – Dissociation Subscale; SAEQ = The Childhood Sexual Abuse Exposure Questionnaire; AE-III-PP = The Assessing Environments-III-Physical Punishment Scale. B = unstandardized regression coefficient; SE = standard error; β = standardized regression coefficient.. *N* = 132.

Table 4

Hierarchical Multiple Regression Analysis Predicting Physical Health Symptoms in Women with Either Childhood Physical Abuse or Childhood Sexual Abuse

Predictor	R^2 Change	R^2	Change F	p
Step 1: CAPS	–	.11	9.79	<.01
Step 2: BDI	.14	.25	14.03	<.001
Step 3: TSI-Dissociation	.05	.30	5.47	.02

Final model	B	SE B	β	t	p
CAPS	<0.01	0.22	<0.01	0.02	.99
BDI	1.38	0.50	0.36	2.76	.01
TSI-Dissociation	1.68	0.72	0.26	2.34	.02

Note. CAPS = Clinician Administered PTSD Scale; BDI = Beck Depression Inventory; TSI-Dissociation = Trauma Symptom Inventory – Dissociation Subscale. B = unstandardized regression coefficient; *SE* = standard error; β = standardized regression coefficient. *n* = 81.

Table 5

Hierarchical Multiple Regression Analysis Predicting Physical Health Symptoms in Women with Neither Childhood Physical Abuse nor Childhood Sexual Abuse

Predictor	R^2 Change	R^2	Change F	p
Step 1: CAPS	--	.07	3.61	.06
Step 2: BDI	.05	.12	2.61	.11
Step 3: TSI-Dissociation	.11	.23	6.59	.01

Final model	B	$SE\ B$	β	t	p
CAPS	.14	.24	.09	0.58	.56
BDI	.32	.47	.11	0.67	.51
TSI-Dissociation	2.11	.82	.37	2.57	.01

Note. CAPS = Clinician Administered PTSD Scale; BDI = Beck Depression Inventory; TSI-Dissociation = Trauma Symptom Inventory – Dissociation Subscale. B = unstandardized regression coefficient; SE = standard error; β = standardized regression coefficient. n = 51.