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Contributions of Physical and Sexual Abuse to Women's Experiences with Chronic Pelvic Pain

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Abstract

OBJECTIVE—To examine the roles of physical and sexual abuse in women with chronic pelvic pain using multi-dimensional pain assessment and to compare the chronic pelvic pain experiences of women with physical abuse to those of women with sexual abuse.

STUDY DESIGN—Structured questionnaires were used to measure self-reported abuse, pain severity, psychological distress, physical functioning, interpersonal functioning, and coping in 63 women attending a tertiary care gynecologic clinic for diagnosis and treatment of chronic pelvic pain.

RESULTS—Women with chronic pelvic pain who reported abuse demonstrated significantly more psychological distress than did women who reported no abuse, but there were no differences in pain severity, physical functioning, interpersonal functioning or coping. Women with physical abuse reported more overall psychological distress, depression, anxiety and somatization than women who reported no physical abuse. Women who reported sexual abuse showed more overall psychological distress and anxiety than women who reported no sexual abuse. While physical abuse was more consistently associated with psychological distress than was sexual abuse, both types of abuse were risk factors for distress.

CONCLUSION—These results suggest that both physical and sexual abuse are associated with psychological distress in women with chronic pelvic pain but not with other domains of pain experience. Additional research to improve identification and treatment of women with both chronic pelvic pain and abuse is indicated.

Keywords

pelvic pain; domestic violence; stress; psychologic; physical abuse; sexual abuse

Chronic pelvic pain, defined as noncyclic pelvic pain of 6 months' duration or more requiring medical or surgical intervention or causing functional impairment,^{1,2} has a prevalence of 3.8% in British women, similar to the prevalence of migraine headaches

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(2.1%), back pain (4.1%) and asthma (3.7%).³ A Gallup poll in the United States found that 16% of women aged 18–50 reported pelvic pain problems; 11% reported that pain limited home activity, 16% took medications and 4% missed at least 1 day of work because of pain.⁴ Chronic pelvic pain causes extensive suffering for women and their families. It is estimated to account for 10% of gynecologic referrals, 12% of hysterectomies and >40% of gynecological diagnostic laparoscopies, costing an estimated \$2 billion dollars annually in the United States in direct and indirect costs.^{2,5,6} Women with chronic pelvic pain are at increased risk of depression, anxiety, low marital satisfaction, sexual dysfunction, somatic symptoms, hostility, decreased vitality and low self-esteem.^{7–12} In addition, women with chronic pelvic pain are more likely to report abuse than women from various comparison groups.^{8,10,13–15}

As compared to women with chronic pain who were not abused, women with chronic pain and histories of abuse report greater pain, more mental health care utilization, less life control, more perceived punishing responses from others and higher levels of psychological distress, dissociation and somatic focus.^{16,17} Several studies have examined whether the association between chronic pelvic pain and a history of abuse specifically involves sexual abuse or if it involves physical abuse as well. Associations between sexual abuse specifically and chronic pelvic pain have been found in some studies^{8,10,15} but not others,^{13,14,18} and associations between physical abuse and chronic pelvic pain have also been reported.^{13–15} For example, Walling and colleagues¹¹ studied women who had chronic pelvic pain or headache and who were pain free and found that regardless of pain status, childhood physical abuse predicted depression, anxiety and somatization, while childhood sexual abuse did not. Although childhood sexual abuse correlated with depression, anxiety and somatization, those authors found that childhood physical abuse accounted for the majority of the variance in their model.

To clarify if both physical abuse and sexual abuse contribute to women's experience with chronic pelvic pain, a multidimensional approach is necessary. Pain severity, physical functioning, interpersonal functioning, and coping must be assessed, in addition to measures of psychological distress, to evaluate the pain experience comprehensively.^{12,19–22} Previous studies have investigated only 1 type of abuse or have not conducted comprehensive assessments of pain, psychological distress and physical functioning.^{10,16,17} Multidimensional assessment of pain, therefore, has the potential to address the complex and often inconsistent contributions of physical and sexual abuse to the experience of chronic pelvic pain in women.

The present study was designed to clarify the contributions of physical and sexual abuse to pain experience in women with chronic pelvic pain. While the pursuit of biomedical treatment of chronic pelvic pain is essential regardless of abuse experience status, better understanding of the experiences of women with abuse and chronic pelvic pain may improve our capacity to minimize their suffering with adjunct psychosocial interventions. We hypothesized that women with chronic pelvic pain and abuse experiences would be at higher risk of psychological distress than women with chronic pelvic pain who were not abused, as has been reported in previous studies. Second, we hypothesized that both reported physical abuse and sexual abuse would be associated with elevated psychological distress in women

with chronic pelvic pain. Last, in exploratory analyses we examined the respective contributions of physical and sexual abuse to pain severity, physical functioning, interpersonal functioning and coping to determine if there might be associations between abuse and the other domains of the pain experience.

Materials and Methods

Participants included 63 women who met the inclusion and exclusion criteria, presenting with chronic pelvic pain to a specialty-care, university hospital-based gynecology pain center. All women attending their initial consultation appointments over an 8-month period who met the inclusion criteria were identified. Inclusion criteria were (1) chronic pelvic pain present longer than 6 months, as confirmed by 1 of 2 treating gynecologists (Drs. Foster and Howard), and (2) ability to read English. Most of the women were referred by their primary care physicians because of pain that had not responded to treatment. Exclusion criteria were: (1) HIV positive or diagnosed with AIDS, (2) cancer, (3) current pregnancy, (4) < 3 months after surgery or after labor and delivery. Due to the preliminary nature of the study, data were not collected on a pain-free sample or on a sample with a different chronic pain syndrome. Women in the study had a mean age of 39.2 years (SD 11.7, range 20–73) and were primarily Caucasian (94.7%) and married (68.4%). The average number of diagnoses per woman was 1.7 (SD .9, range 1–5), with the most common diagnoses endometriosis (26) and vulvar vestibulitis (13) (Table I).

Participants completed questionnaires as part of their routine clinical care while waiting for their initial appointment. Completed forms were returned to the receptionist or nursing staff and briefly reviewed before patients met with their physician. Demographic information and medical diagnoses were obtained from patient charts. Human subjects review board approval was obtained for this chart review.

The Sexual and Physical Abuse History Questionnaire,²³ a 16-item questionnaire, was employed to assess experiences with childhood and adulthood physical and sexual abuse. Six items assess sexual abuse in childhood (age 13 and younger) and adulthood (age 14 and older) and range from unwanted exposure to rape. Two additional items assess physical abuse in childhood (age 13 or younger) and adulthood (age 14 and older), defined as having an older person hit, kick, beat or seriously threaten the life of the respondent. The test-retest reliability of this measure in women with gastrointestinal disorders is .81 for sexual abuse and .77 for physical abuse.²³ The questionnaire has been used extensively in chronic pain research, including studies of patients with back pain, gastrointestinal pain, chronic pelvic pain and fibromyalgia.^{17,24–27}

The Multidimensional Pain Inventory (MPI)^{28,29} is a 52-item measure designed to assess several core domains of the chronic pain experience. Women were instructed to respond to the items in relation to their overall perspective of the pain experience. The inventory consists of 3 parts, comprising a total of 12 scales. Part I evaluates perceived pain interference, support and concern of significant others, pain severity, self-control and negative mood. Part II examines the perceived responses of significant others to communications of pain, with scales assessing perceived negative, solicitous and distracting

responses. Part III assesses participation in daily activities, such as household chores, outdoor work, activities away from home, social activities and general activity. Internal reliability of the scales ranges from .72 to .92, and test-retest reliability ranges from .69 to .86 over a 2-week interval.²⁸

The Brief Symptom Inventory (BSI)³⁰ is a 53-item measure of psychopathology and psychological distress. The BSI provides subscales for somatization, obsessive-compulsive symptoms, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism as well as the Global Severity Index (GSI), a summary measure of overall psychological distress. Based on previous research^{11,15} and hypothesized associations, only the depression, anxiety, somatization and overall psychological distress scales were used. Alpha coefficients for the 9 subscales range from .71 to .85, and test-retest stability ranges from .68 to .91.³⁰

The 32-item Dyadic Adjustment Scale (DAS)^{31,32} was administered to assess overall relationship satisfaction with the participants' current partners. The DAS has been found to have internal consistency of .96; it is used for the assessment of relationship satisfaction and has been administered in studies of chronic pelvic pain.³³

The Index of Sexual Satisfaction (ISS),³⁴ a 25-item measure of self-reported satisfaction with the sexual aspects of an intimate relationship, was also included as sexual problems are common in women with chronic pelvic pain. Both the internal consistency and test-retest reliability of the ISS are high (> .90), and the discriminant validity has been found to be satisfactory.^{34,35} On the ISS, a lower score reflects greater sexual satisfaction.

Administration of this battery of measures provided reliable and valid assessments of 5 domains of the experience of chronic pain and its impact on quality of life: (1) pain severity, (2) psychological distress, (3) physical functioning, (4) interpersonal functioning, and (5) coping. Pain severity was assessed using the severity scale from the MPI; psychological distress was assessed with the GSI and the depression, anxiety and somatization scales; physical functioning was evaluated using the MPI general activity and pain interference scales; interpersonal functioning was assessed using the DAS—revised, ISS and MPI scale of support and concern of significant others; and coping was assessed using the MPI life-control scale.

Results

Women who participated in this study reported moderate levels of pain. On the MPI (range 0–6) they reported a mean pain score of 2.71 (SD 1.75) currently, 3.45 (SD 1.71) in the past week and 4.18 (SD 1.54) for overall suffering due to their pain. Their general psychological distress, as measured by the GSI, was slightly above average but within normal limits as compared to community norms (T-score 57.09, SD 12.31).

Of the 63 women who participated in the study, 43 responded to questions about abuse. Of these 43 women, 51.2% (n = 22) reported at least one incident of physical or sexual abuse; 23.3% (n = 10) reported both physical and sexual abuse; 11.6% (n = 5) reported sexual abuse only, and 16.3% (n = 7) reported physical abuse only. Of the women who reported

sexual abuse, the mean age was 41.4 (SD 15.1), 62.5% were married, and 100% were Caucasian. The physically abused women had a mean age of 36.7 (SD 8.1), 77.2% were married, and 94.1% were Caucasian. While the rates of reported abuse are consistent with those in the literature, 31.7% (n = 20) of participants did not respond to the Sexual and Physical Abuse History Questionnaire.

Analyses of variance and post hoc Tukey's b tests were conducted to compare women with and without a history of reported physical or sexual abuse, and women who did not respond to items about abuse (nonresponders) for each of the 5 assessment domains (Table II). The women who reported abuse had significantly higher GSI, depression, anxiety and somatization scores than the no-abuse, comparison group. Additionally, nonresponders scored significantly higher on the GSI and depression scales than did women who reported no abuse but were not significantly different from women who reported abuse. No significant differences were found between groups for pain severity, physical functioning, interpersonal functioning or coping.

Women who reported physical abuse were more likely to show elevations of psychological distress, including higher scores on the GSI, depression, anxiety and somatization scales than did women with no physical abuse (Table III). Women with physical abuse approached, but did not reach, clinical thresholds as compared to community norms for general psychological distress (GSI T-score 63.87, SD 9.61).³⁰ Rates of pain severity, physical functioning, interpersonal functioning and coping were not significantly different for women who did report abuse as compared to those who reported no abuse.

Women with sexual abuse scored significantly higher than women without sexual abuse on the GSI and anxiety scale (Table IV). Women who reported sexual abuse had a mean T-score of 63.50 (SD 8.76) on the GSI, again near, but not reaching, clinical cutoffs as compared to community norms.³⁰ Pain severity, physical functioning interpersonal functioning, and coping were not significantly different for women with and without sexual abuse.

Analyses of covariance were conducted to determine the relative contributions of physical and sexual abuse and their interactions in the prediction of psychological distress, controlling for age (Tables V and VI). Both main and interaction effects were interpreted as recommended by Howell.³⁶ In terms of main effects, physical abuse was significantly associated with each of the psychological distress variables (GSI, depression, anxiety and somatization), but sexual abuse did not make an independent contribution. The interactions between physical and sexual abuse were significant for the GSI, depression and anxiety but not for somatization.

In order to investigate further the significant interaction effects, *t* tests with Bonferroni corrections were conducted. Women who reported both physical and sexual abuse did not report increased psychological distress for any of the domains as compared to women with only physical or sexual abuse. In contrast, among women who reported no sexual abuse, physical abuse was associated with significantly increased scores on the GSI ($t(1,19) = 3.37$, $p < 0.01$), depression ($t(1,19) = 4.02$, $p < 0.01$) and anxiety ($t(1,19) = 3.18$, $p < 0.01$) scales. Similarly, among women who reported no physical abuse, sexual abuse was associated with

increased scores on the GSI ($t(1,16) = 2.73, p < 0.05$) and depression scales ($t(1,16) = 3.69, p < 0.01$) but not anxiety ($t(1,16) = 1.48, NS$).

Discussion

In this study, women with chronic pelvic pain who reported either physical or sexual abuse demonstrated significantly more psychological distress than did women who did not report abuse, nearly meeting clinical thresholds when compared to community norms. In contrast, women in the study sample with a history of abuse did not differ from those who reported no abuse history in any of the other chronic pain experience domains assessed. Based on these findings, abuse experiences in women with chronic pelvic pain may increase the risk of psychological distress but appeared not to have an added negative impact on pain severity, physical functioning, interpersonal functioning or coping.

There are at least 3 possible explanations for these results: (1) psychological distress may be associated with abuse independently of the relationships of either of these variables with chronic pain, (2) the experience of chronic pelvic pain may produce more psychological distress in women with abuse experiences than in women without abuse experiences, and (3) women who are psychologically distressed may be more likely to have abuse experiences than women who are not psychologically distressed. There is substantial evidence in the literature indicating that women who have been abused are at risk of psychological distress and revictimization.^{37,38} It is therefore likely that psychological distress is associated with abuse independently of the chronic pelvic pain experience. Additionally, it is possible that women with abuse histories are more sensitive to disruptive somatic experiences and that they may find chronic pelvic pain to be more distressing than do women without abuse histories, but this hypothesis requires further exploration. In contrast, there seems to be little evidence in the literature to suggest that psychological distress would be a risk factor for abuse among women.

Exploration of the relative contributions of physical and sexual abuse in predicting psychological distress was conducted. The prevalence of reported sexual abuse (34.9%) was approximately the same as it was for physical abuse (39.5%). Similar to the results of a study by Walling and colleagues,¹¹ when considered together, physical abuse, but not sexual abuse, was associated with general distress, depression, anxiety and somatization. The interaction of physical and sexual abuse was significant in the predictions of general distress, depression and anxiety. On further testing of the interaction it was determined that the presence of either physical or sexual abuse increased the risk of general distress, depression and anxiety, but the presence of both types of abuse did not add additional risk. Considered together, these results might suggest that physical abuse is at least as important as sexual abuse in its relation to psychological distress in women with chronic pelvic pain, but further investigation with larger sample sizes and control groups is needed. While the instrument used in this study to measure abuse provided an overall measurement of the presence or absence of reported abuse experiences, it did not capture information regarding frequency or duration of the abuse, describing the perpetrators, if others knew about the abuse or how others responded. A more extensive description of women's specific abuse experiences

might identify important differences such as the impact that the intensity and frequency of physical and sexual abuse has on women like those in this sample.

There were several limitations to the current study. For unknown reasons, nearly one-third of participants elected not to respond to items about abuse; that limited information about these respondents and decreased statistical power. One reason for the low response rate may have been related to confidentiality since women completed their questionnaires in the waiting room. However, the women who did not respond to abuse questions scored significantly higher than those who reported no abuse on measures of depression and overall psychological distress. While the implications of these findings are unclear, they suggest that women with chronic pelvic pain who opted not to respond to items regarding abuse may be experiencing levels of psychological distress and depression comparable to those in women who report a history of abuse. Thus, there may be important information to be learned from women who elect not to respond to items about abuse. In a study of sexuality and gynecologic health among rape and abuse survivors, 55% of women in a rape crisis center and 75% of women in a shelter for abused women elected not to participate.³⁹ Learning more about women's decisions not to answer items about abuse and how these women might be different from other women is worthy of further investigation.

Of those women who did report abuse, nearly half (10 of 22) had a history of both physical and sexual abuse. This overlap and the relatively small number of participants in each group limited the direct comparisons that could be made between women with physical abuse, sexual abuse and both types of abuse. Future studies will increase the sample size to provide adequate power and allow comparisons of women with physical abuse, women with sexual abuse and women with both physical and sexual abuse as 3 distinct groups.

Other limitations include our sample source. Women in this study were patients in a tertiary care setting, and their experiences may not reflect those of women with chronic pelvic pain who do not obtain treatment from specialists. Information on duration of pain was not obtained. Furthermore, other than medical diagnoses, the data are limited to retrospective self-reporting. Additionally, this study did not obtain confirmation of abuse experiences beyond self-reporting. A recent study challenged the association between chronic pain and childhood abuse in reporting a lack of association between prospectively confirmed child abuse experiences and self-reported "unexplained pain symptoms."⁴⁰

The prevalence of a history of physical or sexual abuse, or both, was high in our sample and was consistent with rates in other work.¹³⁻¹⁵ Despite the limitations described, these results, along with those of other studies, suggest that women with chronic pelvic pain should be assessed for physical abuse and psychological distress in addition to sexual abuse. As Green and colleagues⁴¹ recommended, even if a patient with chronic pelvic pain denies abuse at her initial evaluation, the physician may want to consider reassessing once rapport, trust and safety have been established. Over 90% of women who have been abused report that they have not discussed it with their gynecologist.⁴² Physicians identify many obstacles to their ability to assess for abuse, including time constraints, fear of offending their patients, feeling ill-equipped to respond and experiencing discomfort asking the questions.^{43,44} In order for

gynecologists to provide routine assessment of abuse experiences and psychological distress, appropriate training, support and referral resources must be in place.

Direct intervention may be an important component of the treatment battery for women with both chronic pelvic pain and abuse experiences. It is possible that multidisciplinary biopsychosocial treatment would improve the outcomes. Such treatments might involve close collaboration between physicians and mental health providers and utilize individual or group-based interpersonal, cognitive-behavioral or couple psychotherapy interventions.⁴⁵ Future research is needed to identify the most effective interventions for this purpose.

Understanding differences between abused women who experience greater psychological distress in association with their chronic pelvic pain experiences and abused women who do not may help to clarify what it is about abuse experiences that place women at risk. It is likely that the answer is more complex than the presence or absence of abuse. Investigation is needed to explore possible processes by which individuals and their families, health care and sociocultural contexts, and particular abuse experiences contribute to increased or decreased risk of chronic pelvic pain and psychological distress. Sharp and Harvey⁴⁶ proposed that chronic pain and posttraumatic stress disorder (PTSD) are both common sequelae of traumatic events. They suggested that PTSD and chronic pain conditions have similar symptoms and that these symptoms could lead to mutual maintenance of both conditions. Further exploration of the role PTSD may play in mediating or moderating the associations between abuse and chronic pelvic pain would therefore be worthwhile.

The present results demonstrate that both physical and sexual abuse have important associations with psychological distress in women with chronic pelvic pain. Additional exploration of the role of physical abuse is warranted, such as a detailed examination of historical and current violence and determining what impact it may have on clinical outcomes in women treated for chronic pelvic pain. The development of new methods of assessing women's experiences with abuse will also help clarify the conflicting findings in the literature. Additionally, future research should examine such variables as psychiatric diagnosis, including PTSD and mood disorders, family relationships, resiliency, social support, and health care professional characteristics. These variables may moderate or mediate the associations between abuse and chronic pelvic pain and may contribute to the prediction of treatment outcomes. Last, the development and evaluation of effective psychosocial interventions to be administered in conjunction with biomedical interventions is needed to advance treatment options for women at risk of poor outcomes.

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Table I

Gynecologists' Diagnoses of Chronic Pelvic Pain in 63 Women

Diagnosis	No.	(% Of total diagnoses)
Reproductive system (e.g., endometriosis, adhesive disease, ovarian retention syndrome)	50	(46.7)
Musculoskeletal system (e.g., short leg syndrome, fibromyalgia, sciatic hernia)	22	(20.6)
Vulvar pain (e.g., vulvar vestibulitis, lichen sclerosis)	20	(18.7)
Urinary system (e.g., interstitial cystitis)	6	(5.6)
Gastrointestinal system (e.g., irritable bowel syndrome)	3	(2.8)
Undetermined etiology	6	(5.6)
Total	107	(100)

Mean = 1.7 (SD .9, range 1–5) diagnoses per woman.

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Table II
Means, SDs and 1-Way ANOVAs for Effects of Reported Abuse on Pain Experience

Effect	No abuse (n = 21)		Abuse (n = 22)		Nonresponders (n = 20)		F (2,61)
	Mean	SD	Mean	SD	Mean	SD	
Pain severity							
Severity	3.69	1.17	3.59	1.53	3.29	1.31	0.48
Psychological distress							
GSI	46-53 _{a,b}	7.69	64.61 _a	9.73	58.85 _b	11.73	14.36
Depression	45.71 _{a,b}	5.43	61.95 _a	11.35	57.46 _b	11.23	13.27 ^{**}
Anxiety	48.00 _a	7.93	62.15 _a	8.87	55.40 _b	11.57	9.23 ^{**}
Somatization	50.75 _a	9.00	61.42 _a	11.30	56.62 _b	10.14	4.69 [*]
Physical functioning							
General activity	3.27	.84	2.94	.89	2.83	.94	.91
Interference	2.69	1.38	3.06	1.80	2.98	1.81	.16
Interpersonal functioning							
Relationship satisfaction	115.67	21.21	103.00	24.44	108.00	20.42	.53
Sexual satisfaction	34.85	15.12	41.31	18.84	27.83	12.86	1.54
Support and concern of significant others	4.65	1.23	4.25	1.63	4.10	1.52	.50
Coping							
Life control	4.38	1.13	3.37	1.83	3.55	1.57	.12

Means in a row sharing subscripts are significantly different using Tukey's b test.

* p < 0.05

** p < 0.01.

Group Differences for Pain Experience Between Women with Chronic Pelvic Pain With and Without Reported Physical Abuse

Table III

Variable	No physical abuse		Physical abuse		t(42)
	Mean	SD	Mean	SD	
Pain severity					
Severity	3.61	1.36	3.59	1.32	.05
Psychological distress					
GSI	50.06	11.28	63.87	9.61	-3.80**
Depression	48.95	9.16	61.75	12.06	-3.54**
Anxiety	51.24	10.72	61.56	8.74	-3.23**
Somatization	51.20	8.65	62.67	10.23	-3.50*
Physical functioning					
General activity	3.06	.88	3.02	.90	.12
Interference	2.74	1.58	2.83	1.62	-.15
Interpersonal functioning					
Relationship satisfaction	114.50	22.78	99.80	22.65	1.14
Sexual satisfaction	35.41	15.48	41.00	18.17	-.87
Support and concern of significant others	4.48	1.34	4.29	1.60	.39
Coping					
Life control	4.06	1.32	3.39	1.88	1.30

**
*** p < 0.01.

Table IV

Group Differences for Pain Experience Between Women with Chronic Pelvic Pain With and Without Reported Sexual Abuse

Variable	No sexual abuse		Sexual abuse		t(41)
	Mean	SD	Mean	SD	
Severity	3.65	1.31	3.60	1.51	.12
Pain severity					
GSI	52.24	12.79	63.50	8.76	-2.99**
Depression	51.88	12.07	59.15	11.25	-1.83
Anxiety	52.71	11.21	61.23	8.43	-2.61*
Somatization	54.86	12.41	60.46	9.58	-1.49
Physical functioning					
General activity	3.18	.91	2.95	.77	.73
Interference	2.58	1.46	3.31	1.87	-1.06
interpersonal functioning					
Relationship satisfaction	112.11	23.23	101.50	23.95	0.74
Sexual satisfaction	38.29	15.78	39.11	20.60	-1.1
Support and concern of significant others	4.35	1.43	4.38	1.54	-.06
Coping					
Life control	4.00	1.59	3.47	1.70	.99

* p < 0.05

** p < 0.01.

Mean Scores and SDs of Psychological Distress as a Function of Reported Physical and Sexual Abuse

Table V

Variable	Physical abuse				No physical abuse			
	Sexual abuse		No sexual abuse		Sexual abuse		No sexual abuse	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
GSI	62.75	7.87	67.60	13.24	62.50	7.78	46.53	7.69
Depression	58.00	11.61	66.00	11.05	61.00	5.66	45.40	5.26
Anxiety	60.75	7.57	64.80	11.95	62.50	14.85	46.73	7.51
Somatization	63.25	5.44	65.60	16.01	49.00	.00	50.27	9.10

Analysis of Covariance Models for GSI, Depression, Anxiety and Somatization as a Function of Reported Physical and Sexual Abuse

Table VI

Predictor variable	df	Mean square	F	ω^2
GSI				
Age (covariate)	1	137.67	1.83	.07
Physical abuse (PA)	1	555.54	7.37*	.23
Sexual abuse (SA)	1	133.03	1.76	.07
PA × SA	1	530.96	7.04*	.22
Error	36	75.41		$R^2 = .51$
Depression				
Age (covariate)	1	135.53	1.75	.07
Physical abuse (PA)	1	385.83	4.98*	.17
Sexual abuse (SA)	1	61.03	0.79	.03
PA × SA	1	674.38	8.70**	.26
Error	36	77.52		$R^2 = .45$
Anxiety				
Age	1	188.99	2.64	.10
Physical abuse (PA)	1	341.72	4.77*	.16
Sexual abuse (SA)	1	147.10	2.05	.08
PA × SA	1	491.77	6.86*	.22
Error	36	71.71		$R^2 = .46$
Somatization				
Age	1	2.72	0.03	.00
Physical abuse (PA)	1	982.60	10.28**	.29
Sexual abuse (SA)	1	14.92	0.16	.01
PA × SA	1	1.68	0.02	.00
Error	36	95.56		$R^2 = .28$

* p < 0.05

.1010 > d
**

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