



THE RELATIONSHIP BETWEEN AVOIDANCE AND PHYSIOLOGICAL SEXUAL AROUSAL IN WOMEN WITH A HISTORY OF CHILDHOOD SEXUAL ABUSE AND POSTTRAUMATIC STRESS DISORDER.

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Abstract

Researchers have hypothesized that posttraumatic stress disorder (PTSD) may mediate the relationship between a history of childhood sexual abuse (CSA) and adult sexual dysfunction. This study investigated the individual effects of the three clusters of symptoms characteristic of PTSD (i.e., re-experiencing, avoidance and hyperarousability) on the physiological sexual response after SNS activation and after SNS resting. SNS activation was achieved through intense acute exercise. The results presented in this poster provide initial evidence that avoidance behaviors are the only symptoms involved in the relationship between PTSD and lowered physiological sexual arousal in women with a history of CSA and with PTSD. In particular, high levels of avoidance were found to be negatively associated with physiological sexual response during SNS activation. No relationship was found between avoidance and subjective sexual response.



Introduction

Childhood sexual abuse (CSA) has been estimated to affect approximately 27% of the female population (Finkelhor, Hoatling, Lewis, & Smith, 1990). CSA survivors report a higher incidence of Female Sexual Arousal Disorder and Hypoactive sexual Desire Disorder compared to non-abused women (Bartoli & Kinder, 1998). In addition to sexual dysfunction, CSA survivors are also at a higher risk for posttraumatic stress disorder (PTSD; e.g., Andreotti, 1999). Researchers have hypothesized that the severity of PTSD symptoms may act as a mediating variable in the relationship between CSA and sexual problems (Lettourneau et al., 1996).

Diagnostic criteria for PTSD include the re-experiencing of traumatic events, avoidance of reminders, and hyperarousability (DSM-IV-TR, APA 2000). PTSD could be linked to sexual dysfunction in two manners. For some CSA survivors, sexual problems could be a result of the use of avoidant behaviors (Leonard & Follette, 2002). When occurring within a relationship, avoidance may manifest as dissociation or emotional numbing which may result in decreased mental sexual arousal. Indeed, avoidance of intrusive images are frequently reported by CSA survivors while engaging in sexual activities (Briere & Runtz, 1987).

The biology of trauma indicate that CSA survivors with PTSD have higher baseline sympathetic nervous system (SNS) activity than women without a history of trauma (Meston et al., 1999). SNS activity is also linked to female physiological sexual arousal in that during acute exercise enhances physiological sexual response in sexually aroused women (Meston & Gorzalka, 1996). A study by Rellini and Meston (in press) found that women with PTSD did not show a greater physical sexual response when SNS activity was activated through exercise. These results suggest that the normal physiological processes underlying sexual response may be impaired in women with a history of CSA and with PTSD.

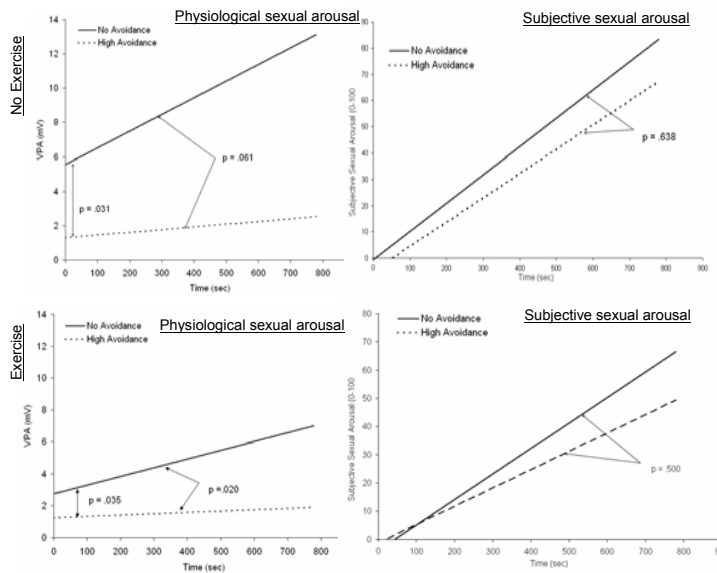
The current study investigated the relationship between avoidance, SNS activity and sexual arousal in women with a history of CSA and with PTSD.

Hypotheses:

It was expected that behaviors were expected to show a significant negative association with levels of physiological and subjective sexual response.

It was expected that as levels of avoidance were increased, levels of avoidance were expected to show an inverse relationship with physiological and subjective sexual responses to erotic material. Significant relationships were expected between the other PTSD symptoms (re-experiencing and hyperarousability) and physiological sexual response.

Figure 1. Physiological and Subjective Sexual Arousal in Women with No and High Avoidance during exercise and no exercise.



Methods

Women with a history of CSA and with PTSD (n = 26) attended 2 visits scheduled on consecutive days during the participant's luteal phase of the menstrual cycle (see Table 1 and Table 2).

Measures

Physiological sexual arousal was measured with a vaginal photoplethysmograph designed to detect changes in blood engorgement in the vaginal walls.

Subjective levels of sexual arousal was measured continuously throughout the exposure to the video sequence with the "arousometer," a lever the participant moves (0 -100) to indicate her subjective sexual arousal.

PTSD symptoms were assessed using the Clinician Administered PTSD Scale (CAPS), a standardized interview that detects frequency and intensity of symptoms clustered into the three criteria: re-experiencing, avoidance, and arousalability. The interview has shown high intercoder reliability and excellent validity.

Manipulations

Videos. The two video sequences used contained a non-erotic video (3 min) followed by an erotic video (10 min). The videos were counterbalanced between participants.

Exercise. Twenty minutes of intense exercise were used to increase SNS activity.

Procedure

- Visit 1.**
- Physiological and subjective levels of sexual arousal measured during exposure to video sequence.
 - Participants completed demographic questionnaires.
- Visit 2.**
- Intense exercise on a treadmill for 20 minutes
 - Physiological and subjective levels of sexual arousal measured during exposure to video sequence.
 - Participants completed questionnaires on sexual function and sexual history.
 - CAPS interview.

Results

Hierarchical linear modeling (HLM) was used to analyze the predictive ability of avoidance behaviors on sexual response during SNS activation and during resting (Figure 1).

- During the non-exercise condition, women with higher avoidance showed a trend towards a weaker physiological sexual response (t = -1.95, p = .061), while during the exercise condition, this trend became significant (t = -2.49, p < .05).
- During both the non-exercise (t = -.68, p = .50) and the exercise (t = -.48, p = .638) conditions, women with higher avoidance showed no significant difference in subjective sexual arousal over time than women with lower avoidance.
- Re-experiencing and hyperarousability symptoms were also statistically analyzed, however, no significant relationships were found.

Table 2. Mean Scores on FSFI for Women with a History of CSA and FSFI Controls

Domain	CSA Group		Control Group	
	M	SD	M	SD
Desire	6.12	2.2	7.72	1.7
Arousal	12.43	5.1	17.59	2.2
Lubrication	14.00	6.0	18.72	2.1
Orgasm	9.26	4.8	13.03	2.1
Satisfaction	7.24	4.4	12.30	2.2
Total	11.44	4.3	14.72	2.1
Full scale	23.72	9.1		

Table 1. Demographics Information

Variable	%	n	M	SD
Age (years)			33.35	9.6
Ethnicity				
Caucasian	69.2	18		
Non-Caucasian	41.8	8		
Education				
High school or less	15.4	4		
1+ years of college or more	84.6	22		
Income				
< \$50,000	69.2	18		
\$50,001 to \$100,000	23.1	6		
> \$100,000	7.7	2		
Marital status				
Married	26.9	7		
Number of children			1.60	1.4
BDI			13.35	8.6

Note. BDI = Beck Depression Inventory. Range of possible scores (0 - 63), score > 20 indicates severe depression (Beck et al., 1988).

Table 3. Mean Scores on CAPS for women with a History of CSA

Domain	M	SD
Re-experiencing of event	8.55	7.4
Avoidance	14.73	10.1
Hyperarousability	2.25	1.4
Total	25.36	13.5

Note. CAPS = Clinician Administered PTSD Scale. Range of possible scores (0 - 133), score > 51 indicates moderate to severe PTSD (Blake et al., 1990).

Discussion

This study examined the impact of avoidance symptoms specific to PTSD on the sexual response of women with a history of CSA and with PTSD. As expected, physiological sexual responses were significantly less in women with high avoidance symptoms. The difference was only a trend during the non-exercise condition, however, it became significant (p < .05) during the exercise condition. Avoidance was not linked to subjective sexual responses.

Possibly, sensations of physical sexual arousal may be paired with negative affect and negative memories, therefore women who have developed an avoidance coping strategy may respond to the sensations by numbing their bodies. This would explain the fact that mentally, these women were reporting feelings of arousal, while physically they exhibited significantly impaired sexual response.

Limitations of the study include the use of a convenience sample of women recruited through advertisement, and the inability to generalize laboratory studies to the real world. Finally, exercise could have caused a variety of other factors to be activated in addition to SNS.

Should future studies confirm these results, it would be important to start considering cognitive behavioral treatments designed to reduce avoidance and increase exposure to erotic material while reinforcing the association between sexual arousal and positive affect.

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