



Gender as a moderator of the relation between PTSD and disgust: A laboratory test employing individualized script-driven imagery

Bunmi O. Olatunji^{a,*}, Kimberly A. Babson^b, Rose C. Smith^b, Matthew T. Feldner^b, Kevin M. Connolly^c

^a Department of Psychology, Vanderbilt University, 301 Wilson Hall, 111 21st Avenue South, Nashville, TN 37203, United States

^b University of Arkansas, United States

^c G.V. (Sonny) Montgomery VAMC/University of Mississippi Medical Center, United States

ARTICLE INFO

Article history:

Received 23 March 2009

Received in revised form 2 July 2009

Accepted 6 July 2009

Keywords:

Gender

PTSD

Anxiety

Disgust

Emotion

ABSTRACT

The present study examines anxiety and disgust responding during exposure to trauma cues as a function of gender and posttraumatic stress disorder (PTSD). Trauma exposed adults without PTSD were compared to adults with PTSD during a script-driven imagery procedure that exposed each participant to individualized traumatic event cues. Anxiety responding during exposure to an individualized traumatic event script was not associated with gender, PTSD, or interaction of gender and PTSD in the present study. However, gender did moderate the relation between disgust responding and PTSD, such that females with PTSD reported more disgust during the script in comparison to females without PTSD and males with and without PTSD. Heart rate during the individualized trauma script was significantly higher among males with PTSD compared to males without PTSD and females with PTSD. Implications of these findings for conceptualizing how gender differences in emotional and physiological responding contribute to development and course of PTSD are discussed.

© 2009 Elsevier Ltd. All rights reserved.

Posttraumatic stress disorder (PTSD) is a psychiatric condition characterized by a failure to recover from initial symptomatic reactions to traumatic event exposure. Symptoms of PTSD include reexperiencing the traumatic event (e.g., flashbacks, nightmares), avoidance and numbing (e.g., restriction of affect, avoidance of traumatic event cues), and hyperarousal (e.g., exaggerated startle response, difficulty sleeping; American Psychiatric Association [APA], 2000). Contemporary research suggests that PTSD is characterized by a more diverse array of emotional phenomena than the traditional fear-focused conceptualization (Watson, 2005). Emerging work further suggests that women with PTSD, in particular, may experience a wide range of emotional reactions to cues of a traumatic event. For example, recent work has shown that the posttraumatic cognitive-affective network for women with PTSD may consist of a broader range of negative emotions than men (i.e., Gwadz, Nish, Leonard, & Strauss, 2007).

Disgust is a basic emotion that facilitates avoidance of various sources of contagion and a burgeoning literature suggests that women with PTSD may experience particularly elevated disgust upon exposure to traumatic event cues. Dalgleish and Power (2004) argue that some forms of PTSD involve disgust reactions to reminders of a traumatic event and physiological concomitants of

disgust such as nausea and vomiting, as well as vigilance for signs of contamination. Others have also observed that disgust may play a role in PTSD (McNally, 2002; Olatunji & Sawchuk, 2005). Rachman (2006) has suggested that sexual assault victims, who are disproportionately female (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), often feel tainted by the assault and feel dirty whenever reminded of it (Rachman, 2006). Women that develop PTSD as a result of sexual assault are also more likely to hold negative views of themselves than men (Tolin & Foa, 2002). For example, they may equate being dirty with being a bad person, being worthless, or being immoral (Rachman, 2006). Not surprisingly, the emotions accompanying exposure to trauma cues are varied and include not only fear and anxiety but also shame and guilt (Shin et al., 1999). Guilt has been viewed as a form of disgust directed toward an action one has performed, and shame as a form of disgust directed toward the self (Barret, Zahn-Waxler, & Cole, 1993; Power & Dalgleish, 1997).

Although very few studies have directly assessed disgust, several empirical studies have been conducted that are consistent with the contention that women with PTSD may experience relatively elevated disgust reactivity to traumatic event cues. Broadly, elevated disgust has generally been linked with PTSD among Vietnam veterans (Foy, Sippelle, Rueger, & Carroll, 1984) and women report higher levels of disgust than men (e.g., Arrindell, Mulkens, Kok, & Vollenbroek, 1999; Haidt, McCauley, & Rozin, 1994). More specifically, Shin et al. (1999) found that

* Corresponding author. Tel.: +1 615 322 0060; fax: +1 615 343 8449.
E-mail address: olubunmi.o.olatunji@vanderbilt.edu (B.O. Olatunji).

women with a history of childhood sexual abuse and associated PTSD reported significantly more disgust during the recollection and imagery of a traumatic event than those without PTSD. Fairbrother and Rachman (2004) found that 70% of female sexual assault victims reported an urge to wash after the assault and 25% of these women continued to wash excessively for 1–3 months after the event. Furthermore, when exposed to memories of sexual assault, women report elevated feelings related to disgust, including “feelings of dirtiness” and “urge to wash” (Fairbrother, Newth, & Rachman, 2005; Fairbrother & Rachman, 2004), and disgust is a significant predictor of feelings of dirtiness associated with imagining a sexual assault among women (Herba & Rachman, 2007). Also, feelings of repugnance and pollution appear significantly related to PTSD symptoms even when statistically controlling for symptoms of anxiety and depression (Olatunji, Elwood, Williams, & Lohr, 2008). Whereas extant studies typically suggest that women with PTSD experience elevated disgust, evidence is mixed regarding disgust reactivity among men with PTSD. For instance, evidence suggests men with PTSD do not react to traumatic event cues with more disgust relative to men without PTSD (Orr, Pitman, Lasko, & Herz, 1993), whereas men with PTSD do react to such cues with greater disgust than men with anxiety disorders other than PTSD (Pitman et al., 1990). This overall pattern of findings suggests that gender may influence (i.e., moderate) the relation between PTSD and disgust responding. Despite the promise of testing this postulation for advancing knowledge regarding the association between PTSD and disgust, direct examination of this hypothesis remains largely unexplored.

The aim of the present study was to evaluate the moderating influence of gender on disgust responding during exposure to trauma cues among those with versus without PTSD. Drawing from the available literature, the current study tested the specific hypothesis that women with PTSD would react to individualized traumatic event cues with greater disgust than men with or without PTSD and women without PTSD. A large body of research suggests that women tend to show greater stress reactivity and negative affectivity relative to their male counterparts (cf. Craske, 2003). Therefore, specificity of the hypothesis that disgust would, in particular, mark emotional reactions to traumatic events among women with PTSD, was also examined. Specifically, anxiety elicited among men and women with or without PTSD also was examined and it was expected that the hypothesized interaction between PTSD diagnostic status and gender in terms of disgust ratings would not be evident in terms of anxiety. This prediction is consistent with previous work suggesting men with PTSD do not react to traumatic event script-driven imagery procedures with elevated anxiety relative to men without PTSD (Orr et al., 1993). To complement self-reported emotional reactions, heart rate levels during exposure to the individualized traumatic event cues were

also assessed. The experience of disgust is generally associated with heart rate deceleration (Levenson, 1992). Consistent with previous research (Orr, McNally, Rosen, & Shalev, 2004; Pole, 2007; Rauch, van Der Kolk, & Fisher, 1996), it was predicted that those with PTSD would display increased heart rate during the traumatic scripts in comparison to those without PTSD. However, those experiencing elevated disgust during the traumatic script (e.g., women with PTSD) were predicted to display relatively lower heart rate responding than those without PTSD.

1. Method

1.1. Participants

Ninety-nine (71 females) adults ($M_{\text{age}} = 33.87$ years, $SD = 13.26$) were recruited via announcements and fliers placed within the community, which read as follows: “have you experienced a stressful life event? If so you may be eligible for a study to earn a \$130 gift card.” Of the total sample, 60.6% self-identified as white/non-Hispanic, 18.2% as Hispanic, 10.1% as African American, and 11.1% as “Other” or did not specify ethnicity. Inclusion criteria included being at least 18 years of age and endorsing at least one *Diagnostic and Statistical Manual—Fourth Edition Text Revision* (DSM-IV-TR; APA, 2000)-defined (i.e., met criterion A) lifetime exposure to a traumatic event. Exclusion criteria included inability to provide written, informed consent and current suicidal ideation. No participants were excluded based on these criteria. Table 1 includes additional sample descriptives.

1.2. Measures

Clinician-Administered Posttraumatic Stress Disorder Scale (CAPS; Blake et al., 1995). The CAPS is a structured clinical interview that includes measurement of criterion A of PTSD as defined by the DSM-IV-TR (A.1: exposure to a traumatic event; A.2: peritraumatic fear, helplessness, or horror). The interview also measures the frequency and intensity of 17 symptoms of PTSD that can be categorized according to the three symptom clusters outlined in the DSM-IV-TR (avoidance, reexperiencing, hyperarousal). Finally, the CAPS also measures functional impairment resulting from the posttraumatic stress syndrome. The CAPS has excellent psychometric properties, including test–retest and interrater reliability, internal consistency, as well as convergent and discriminant validity and is considered one of the gold standards in PTSD assessment (Weathers, Keane, & Davidson, 2001). The CAPS can be used to diagnosis PTSD and also provides a continuous index of symptom severity. In the current study the CAPS was used to identify participants’ most distressing traumatic event and diagnose PTSD. The CAPS was administered by a graduate level

Table 1
Demographics and responding to script-driven imagery by gender and PTSD diagnosis.

Demographic and diagnostic information	No PTSD ($n = 54$)		PTSD ($n = 45$)	
	Women ($n = 39$)	Men ($n = 15$)	Women ($n = 32$)	Men ($n = 13$)
Age	$M = 33.61$ ($SD = 13.21$)	$M = 33.00$ ($SD = 13.69$)	$M = 32.09$ ($SD = 11.75$)	$M = 38.76$ ($SD = 14.07$)
Education level	$M = 13.82$ ($SD = 3.71$)	$M = 14.03$ ($SD = 2.20$)	$M = 13.24$ ($SD = 3.61$)	$M = 12.50$ ($SD = 3.87$)
Symptom severity	$M = 2.84$ ($SD = 2.14$)	$M = 2.67$ ($SD = 2.52$)	$M = 12.06$ ($SD = 3.83$)	$M = 10.00$ ($SD = 2.09$)
Disgust: neutral script	$M = 2.49$ ($SD = 8.45$)	$M = 3.84$ ($SD = 6.53$)	$M = 6.97$ ($SD = 18.14$)	$M = 9.87$ ($SD = 17.82$)
Anxiety: neutral script	$M = 16.47$ ($SD = 21.25$)	$M = 29.16$ ($SD = 30.09$)	$M = 29.28$ ($SD = 26.41$)	$M = 36.89$ ($SD = 23.49$)
Disgust: trauma script	$M = 31.32$ ($SD = 34.75$)	$M = 37.15$ ($SD = 39.74$)	$M = 62.86$ ($SD = 34.62$)	$M = 36.75$ ($SD = 36.58$)
Anxiety: trauma script	$M = 58.29$ ($SD = 24.40$)	$M = 54.28$ ($SD = 31.75$)	$M = 67.19$ ($SD = 28.34$)	$M = 62.35$ ($SD = 32.02$)
Vividness: neutral script	$M = 70.87$ ($SD = 23.31$)	$M = 71.19$ ($SD = 16.59$)	$M = 64.37$ ($SD = 23.27$)	$M = 75.06$ ($SD = 16.76$)
Vividness: trauma script	$M = 92.56$ ($SD = 12.42$)	$M = 84.56$ ($SD = 14.55$)	$M = 92.15$ ($SD = 11.59$)	$M = 88.71$ ($SD = 13.08$)
HR: neutral script	$M = 98.88$ ($SD = 12.08$)	$M = 98.34$ ($SD = 9.82$)	$M = 93.38$ ($SD = 13.07$)	$M = 88.10$ ($SD = 13.60$)
HR: trauma script	$M = 100.48$ ($SD = 14.38$)	$M = 91.30$ ($SD = 14.96$)	$M = 92.08$ ($SD = 13.31$)	$M = 101.62$ ($SD = 18.70$)

Note: Total $n = 99$; HR = heart rate.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات