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PRELIMINARY INVESTIGATION OF THE ROLE OF PREVIOUS EXPOSURE TO POTENTIALLY TRAUMATIZING EVENTS IN GENERALIZED ANXIETY DISORDER

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Theories of generalized anxiety disorder (GAD) highlight the relevance of stressful life events to this disorder's etiology. However, little empirical work has addressed the stressful events that may act as historical contributors to the development or maintenance of GAD. The present study provides an initial exploration of the association between exposure to potentially traumatizing events and GAD. In both analogue and clinical samples, GAD individuals were found to be more likely than nonanxious controls to report exposure to a potentially traumatizing event. These findings are discussed within the context of current theories of worry and GAD. Depression and Anxiety 4:134–138, 1996/1997. © 1997 Wiley-Liss, Inc.

Key words: *trauma; etiology; maintenance; worry; stressors*

INTRODUCTION

Over the past decade, the diagnostic nature of generalized anxiety disorder (GAD) has become more clearly defined on the basis of empirical evidence. With this work, GAD has evolved from a residual category (as in DSM-III) to a separate category centrally defined by chronic, excessive, uncontrollable, and pervasive worry (American Psychiatric Association, 1994). The majority of research during this time has focused on the future-focused and pervasive nature of worry (Borkovec, 1994), with little attention paid to the possible historical contributors to the etiology and maintenance of chronic worry and GAD.

The fact that worry in GAD appears to be chronic, pervasive, and future-focused does not, however, preclude the possibility that focal past events play a role in this disorder. Theories of GAD (and anxiety disorders in general) have proposed that stressful life events play a causal role in the development of two of its central characteristics: chronic anxious apprehension (Barlow, 1988) and perceptions of the world as a threatening place (Beck and Emery, 1985). Indeed, it has been proposed that exposure to a single, potentially traumatizing event is one pathway to the development of GAD (Beck and Emery, 1985). Furthermore, stressful or traumatic events occurring after the origins of GAD would reasonably contribute to its maintenance or further strengthening, given that such events may well reinforce perceptions of danger in the world. Although few empirical studies have specifically investigated the occurrence of stressful or potentially traumatizing events in the history of GAD individuals, indirect evidence is available from two different areas of research that indicates that such events may be a factor contributing to the development and/or maintenance of GAD.

Two early descriptive studies found preliminary evidence for a high prevalence of stressful life events in individuals diagnosed with GAD. In one study, GAD individuals were more likely than those with panic disorder to report the death of a parent before age 16 (Torgersen, 1986). In another study, GAD was found to be more prevalent among persons who experienced at least one unexpected, major negative life stressor (Blazer et al., 1987). Although these two studies provide some indication that stressful life events may play a significant role in the development of GAD, the use of the less reliable DSM-III GAD criteria (Barlow and

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DiNardo, 1991) in both studies necessitates further research using more stringent methods of diagnosis to validate these findings. Also, the Torgersen (1986) study investigated the occurrence of a narrow example of a stressful life event (death of parent), whereas Blazer et al. (1987) used a very broad definition which included common occurrences such as changes in residence. Thus questions still remain as to the contributory role of potentially traumatizing events,[1] a specific subcategory of stressful life events, in GAD.

Research on the after-effects of specific potentially traumatizing events (e.g., rape, war, natural disasters) provides some empirical evidence to support the contention that exposure to such events is one type of historical event that increases risk for generalized anxiety as well as the development of GAD. Generalized anxiety has been reported prevalent among individuals exposed to a variety of potentially traumatizing events (e.g., rape, Steketee and Foa, 1987; combat, the Centers for Disease Control Vietnam Experience Study, 1988; disaster victims, Shore et al., 1986).

As a preliminary investigation of the role of such events in GAD, the present studies assessed the occurrence of potentially traumatizing events among carefully diagnosed samples of both analogue and clinical GAD and among nonanxious individuals. These studies improve upon previous research in this area using the more reliable diagnostic criteria of DSM-III-R (as opposed to DSM-III) and a more circumscribed classification of a type of stressful life event (i.e., potentially traumatizing event).

STUDY 1

METHOD

Participants. Undergraduate students (N = approximately 1,600) enrolled in an introductory psychology course completed a self-report questionnaire packet which included the GAD Questionnaire, a self-report measure of GAD based on DSM-III-R criteria that produces a relatively low rate of false-positives and no incidence of false-negatives (Roemer et al., 1995). Participants were classified as GAD if they met DSM-III-R (American Psychiatric Association, 1987) criteria for the disorder. Participants were classified as Nonanxious if they (1) did not experience excessive or unrealistic worry, (2) did not experience worry often over the last 6 months, and (3) endorsed less than six of eighteen associated symptoms often when feeling anxious over the last 6 months. From the large sample, 137 participants were identified who met GAD criteria; 120 participants classified as Nonanxious were randomly selected from a larger sample of those identified. The Nonanxious participants were matched for gender proportion with the GAD group; females made up approximately 75% of the sample.

Measures. Exposure to potentially traumatizing events was assessed from participants' written entries in response to the following item on the questionnaire: "Do you remember experiencing any extremely stressful, life-threatening, or traumatic event(s) such as serious physical injury, rape, assault, combat, or seeing someone badly hurt or killed? What was the event(s)?" This question was adapted from DSM-III-R (American Psychiatric Association, 1987) post-traumatic stress disorder criterion A.

RESULTS

An alpha level of .05 was used for all statistical tests. ANOVA comparing the two groups on the number of past potentially traumatic events revealed a significant difference F (1,255) = 15.02, $P < .001$; GAD participants reported more frequent potentially traumatic events (M = 0.85, SD = 0.98) than did nonanxious participants (M = 0.43, SD = 0.72). A Chi-square analysis was conducted on the frequency of reporting any past potentially traumatic event. Of the GAD participants, 53% indicated that they had experienced a past potentially traumatic event, compared to 30% of nonanxious participants, $\chi^2(1) = 13.36$, $P < .001$

STUDY

In order to determine whether these patterns would be evident in a clinical population, a similar investigation was conducted with GAD patients and a nonanxious control group.

METHOD

Participants. Ninety-four patients (62 female, M age = 36.5 years) were selected from two consecutive therapy outcome studies. All patients (1) had been assigned a principal diagnosis of GAD by two independent assessors conducting separate Anxiety Disorders Interview Schedule-Revised (ADIS-R, DiNardo and Barlow, 1988) interviews, (2) did not meet criteria for panic disorder (due to exclusionary criteria of the clinical trial), (3) were not taking anti-depressant medication, and (4) reported no severe depression, substance abuse, psychosis, organic brain syndrome, or medical contributions to anxiety symptoms and did not have a comorbid diagnosis of PTSD. Forty-eight nonanxious participants (30 female, M age = 33.5 years) were selected who had no past history of psychopharmacological or psychosocial treatment and did not meet criteria for any anxiety or mood disorders in an ADIS-R interview. Groups did not differ significantly on age or gender.

Measures. Exposure to potentially traumatizing events was assessed from written entries by the diag-

[1]We use the term, "potentially traumatizing events" to describe extremely stressful life events that meet the Criterion A definition of "traumatic events" in the DSM-IV. Our intention is to attempt to disentangle the report of events from subsequent responses (traumatization). We do not assume, for example, because an individual reports a Criterion A event, that he/she was traumatized by it; we only assume that the event occurred.

nostic assessor recording participant responses to the following ADIS-R question: "Has there been any extremely stressful, life-threatening, or traumatic event such as serious physical injury, rape, assault, combat, or seeing someone badly hurt or killed, which happened to you? What were the events?

RESULTS

An alpha level of .05 was used for all statistical tests. ANOVA comparing the number of past potentially traumatic events reported by the two groups revealed a significant difference, $F(1,143) = 5.17$, $P < .05$, with GAD patients reporting more frequent events ($M = 0.62$, $SD = 0.77$) than nonanxious participants ($M = 0.30$, $SD = 0.75$). Chi-square analysis conducted on the frequency of reporting any past potentially traumatic event found that patients (52%) were significantly more likely to report a past potentially traumatizing event than were nonanxious participants (21%), $\chi^2(1) = 10.27$, $P < .001$.

DISCUSSION

In two separate studies using analogue and clinical samples, GAD participants reported a greater likelihood of potentially traumatizing events than did nonanxious groups. Although there are internal validity issues that limit the conclusions that can be drawn from these data, in order to place these findings in context, we propose a heuristic framework that can guide future research exploring exposure to potentially traumatizing events as a factor that may contribute to the etiology and/or maintenance of generalized anxiety disorder.

Current theories of worry, the central defining feature of GAD (American Psychiatric Association, 1994), provide a potential explanation of how exposure to potentially traumatizing events can lead to establishing or maintaining GAD in some instances. Based on empirical evidence that worry reduces physiological arousal in response to phobic stimuli (Borkovec and Hu, 1990) and that worriers report worrying in order to distract themselves from more distressing events more than do nonanxious controls (Borkovec and Roemer, 1995), it has been proposed that worry leads to suppression of unwanted somatic activation and is thereby negatively reinforced (Roemer and Borkovec, 1993). However, such reductions in arousal potentially interfere with emotional processing and thereby serve to maintain anxious meanings (Borkovec, 1994). A cluster of symptoms observed in posttraumatic stress disorder (PTSD) that entail avoidance and numbing of general responsiveness (e.g., avoidance of trauma-related cues, restricted range of affect, detachment) has been hypothesized to function in a similar fashion. These avoidance symptoms reduce the distress associated with the trauma but subsequently interfere with successful emotional processing or resolution of the trauma (e.g., Horowitz, 1986; Litz, 1992). Exposure to a potentially traumatizing event motivates one to reduce distress and decrease arousal. It may be that some individuals exposed to such events who do not develop the full symptomatology of PTSD begin or continue to use worry in order to similarly avoid painful emotional meaning. This initially adaptive response (in that it reduces the overwhelming affect and arousal associated with the event) would then lead to the cycle of worry and maintenance of anxiety associated with GAD.

The data presented in this paper indicate that further exploration of the mechanisms that may underlie the relationship between exposure to potentially traumatizing events and the development of worry and GAD could be beneficial. However, limitations of the present study must be noted, namely: (1) The retrospective nature of the report of potentially traumatizing events, (2) an absence of data on the temporal relationship between potentially traumatizing events and GAD, and (3) the absence of a psychiatric control group for comparison.

Given that GAD patients are more likely to attend to threat and to perceive ambiguous situations as threatening than are nonanxious participants (Mathews, 1990), more frequent retrospective report of traumatic events among GAD patients might be an artifact of that tendency. However, research has not supported hypotheses of biased recall among GAD participants (Mathews, 1990). It appears that anxiety interferes with information-processing more at the input than the recall level. Still, GAD individuals may be more likely to report potentially traumatizing events in an attempt to attribute their current distress to painful life events or may be more likely to perceive events as traumatic when they occur than are nonanxious individuals. Assessment of exposure to potentially traumatizing events following successful treatment of GAD would provide some indication of whether in fact this is the case.

The absence of information regarding the dates of potentially traumatizing events and the onset of GAD precludes the establishment of a causal link between potentially traumatizing events and the etiology of GAD. Given the chronic nature of GAD and the fact that many GAD patients report being unable to recall specifically the beginnings of their difficulties (Rapee, 1985), it will be challenging to link potentially traumatizing events to the onset of GAD. Our results do, however, suggest that careful backtracking in a clinical interview in order to assess the temporal relationship between the onset of GAD and potentially traumatizing events would be useful in future research. The possibility remains that exposure to such events contributes to the maintenance or exacerbation of GAD symptomatology, even if not to initial onset.

Given the absence of a psychiatric control group for comparison, these data do not address the question of whether a history of exposure to potentially traumatizing events is unique to GAD individuals. In fact, po-

tentially traumatizing events have been implicated in the etiology of many psychiatric disorders (Herman et al., 1989; Jordan et al., 1991), and trauma has been reported across the anxiety disorders (Fierman et al., 1993). However, the present findings replicate previous results, indicating that for some individuals, the psychological sequelae of such exposure may involve the creation or strengthening of GAD. Similarly, given that not all GAD individuals reported experiencing a potentially traumatizing event, it can be assumed that such exposure represents only one potential risk factor for GAD (as proposed by Beck and Emery, 1985).

CONCLUSION

Our findings indicate that potentially traumatizing events may be relevant to the development or maintenance of GAD. Future research is needed to corroborate this finding and to explore the specific relationship between exposure to potentially traumatizing events, worry, and GAD. For example, a careful analysis of the relationship between worry and PTSD symptomatology would help determine whether worry is indeed related to avoidant symptomatology and leads to a reduction in intrusive re-experiencing and hyperarousal symptoms, as proposed by the theory elaborated above. Future research endeavors should specify dates of potentially traumatizing events and onset of GAD symptomatology as well as prospectively explore the development of GAD symptomatology in individuals exposed to such events. Given that exposure to potentially traumatizing events represents, at best, a risk factor for GAD in some individuals, it will also be important to examine the individual differences (e.g., in coping styles) that may affect whether such stressful life events initiate (or maintain) GAD symptomatology.

Finally, the proposed relationship between exposure to potentially traumatizing events and GAD has implications for the treatment of GAD. One of the primary challenges in the treatment of GAD has stemmed from the diffuse nature of the cognitive and emotional characteristics of the disorder, resulting in difficulties identifying distinct targets for treatment (Barlow, 1988). It may be that the focus on diffuse, varying topics of worry characteristic of this disorder (Borkovec et al., 1991) contributes to distraction from a more focalized, index traumatic event in some individuals. If so, successful treatment may need to address the index event and facilitate the emotional processing that has been avoided. This possibility indicates the importance of careful assessment of potentially traumatizing events among GAD individuals.

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