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Posttraumatic distress and the presence of posttraumatic growth and meaning in life: Experiential avoidance as a moderator

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Abstract

Existing models of trauma suggest that for recovery to occur, trauma related cues and emotions require awareness and openness while survivors continue committing action toward valued life aims (other than regulating emotions). Based on this theoretical framework, an unwillingness to be in contact with distressing thoughts and feelings (experiential avoidance) might operate together with posttraumatic distress to predict when people find benefits and meaning in the aftermath of trauma. We hypothesized that people reporting posttraumatic distress and less reliance on experiential avoidance would report greater posttraumatic growth and meaning in life compared with other trauma survivors. We administered questionnaires to 176 college students reporting at least one traumatic event. Results supported these moderation models. This is the fourth study (with different samples, measures, and methodologies) to provide evidence that a combination of excessive anxiety and a heavy reliance on experiential avoidance leads to attenuated well-being. We discuss the implications for understanding heterogeneous trauma reactions.

Keywords

Trauma; Anxiety; Purpose in Life; Experiential Avoidance

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Based on epidemiological data, approximately 61% of men and 51% of women in the United States report at least one traumatic event during their lives (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). The lifetime occurrence of Post-Traumatic Stress Disorder (PTSD) ranges between 6 and 9% (Kessler et al., 2005). Thus, the majority of trauma survivors do not develop PTSD; in fact, a majority report finding personal growth in the aftermath of traumatic exposure (Sears, Stanton, & Danoff-Burg, 2003; Tedeschi & Calhoun, 2004). We sought to explore symptom profiles that offer insight into when trauma has an impact on meaning-making and personal growth.

Tedeschi and Calhoun (1996) used the term posttraumatic growth to refer to the experience of positive adjustment resulting from how a person responds and rebuilds following a life altering

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event. The common manifestations of reported posttraumatic growth include a greater appreciation of life and refined sense of priorities; strengthening of significant, close relationships; recognition and elaboration of personal strengths; recognition of new possibilities or a sense of purpose for one's life; and spiritual development. By definition, recognized or actual personal growth is initiated by the same set of events and cognitive processing that increase the risk of distress and functional impairment (Calhoun, Cann, Tedeschi, & McMillan, 2000; Calhoun & Tedeschi, 1998).

Theory and research suggests that the experience and exploration of negative aspects of a trauma are often necessary for the reconstruction of disrupted meaning systems (Affleck & Tennen, 1996; Davis, Nolen-Hoeksema & Larson, 1998). We explored the conditions that facilitate helpful and unhelpful responses to trauma related distress.

Findings are mixed on whether reports of distress after adversity are relevant to recovery and well-being. Several researchers found that people with greater posttraumatic distress report greater posttraumatic growth (Aldwin, Levenson, & Spiro, 1994; Frazier, Conlon, & Glaser, 2001), others found an inverse relation between posttraumatic distress and growth (Park et al., 1996), still others found no relation (Cordova, Cunningham, & Carlson, 2001; Widows, Jacobsen, Booth-Jones, & Fields, 2005). Mixed findings suggest that the relation between posttraumatic distress and outcomes such as growth and meaning in life may be more nuanced than previously believed.

Potential Moderating Role of Experiential Avoidance

Post-trauma processing theories suggest that recovery from trauma requires people to process the trauma-related information until it can be integrated into a coherent model of the self (Foa & Kozak, 1986). Attempts to integrate the trauma often require some variant of exposure to aversive thoughts, emotions, and images related to the trauma (Batten, Orsillo, & Walser, 2005). When such processing occurs, it is often associated with benefit finding following trauma (Park et al., 1996).

The basic assumption of these theories is that to successfully process traumatic events, one must be willing to be in contact with private events such as emotions, memories, images, and bodily sensations that often elicit painful reactions. Fusion with the literal content of unwanted thoughts and feelings (e.g., self-doubt, panic symptoms), and spending an inordinate amount of time avoiding these thoughts and feelings hinders the ability to pursue long-term values and goals (Hayes et al., 2006). According to Acceptance and Commitment Therapy (ACT) theorists (Hayes et al., 2006), individuals need to be flexible in how behavioral action is dependent on private thoughts, emotions, and bodily sensations. Experiential avoidance is the overarching ACT term for a lack of psychological flexibility (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Avoiding exposure to feared thoughts, feelings, and sensations interferes with potential disconfirming evidence of danger in the environment (Barlow, 2000) and reduces sensitivity to natural, healthy reinforcement contingencies in the environment such that individuals are unable to exploit opportunities for generating positive experiences and meaning (Hayes et al., 2006).

Experiential avoidance can be differentiated from the highly studied construct of avoidance coping in the stress literature. Avoidance coping is an umbrella term that reflects how people manage stressful life events. In an avoidance coping framework (e.g., Lazarus & Folkman, 1984), diverting attention away from a stressor is designed to reduce arousal associated with stressors or build personal abilities to handle stressors. In this framework, cognitive appraisals precede avoidance coping. Initially, individuals create primary appraisals of the personal threat in the environment including the potential to compromise well-being. Subsequently, individuals create secondary appraisals concerning what can be done to prevent or handle harm.

Perceptions about available personal resources and the controllability of an event determine whether a person resorts to avoidance coping. Depending on the particular theory or measure, avoidance coping entails a broad array of strategies including seeking out other people as a social diversion, engaging in another task as a distraction, denial, repression, and suppression.

Experiential avoidance extends this coping literature in several ways. First, the literature on avoidance coping has been focused on external stressors; experiential avoidance also includes the unwillingness to experience particular thoughts, feelings, and bodily sensations–with regular attempts to alter their form or frequency (Hayes et al., 1996). Much of the pain that individuals cope with is a result of internally generated experiences that are often viewed as literal representations of reality instead of products of the human brain. Within ACT, clients are taught skills for how to defuse from internal experiences along with skills to undermine avoidance and build approach processes (Hayes et al., 2006). Second, experiential avoidance reflects the inability to commit action toward valued life aims due to an unwillingness to experience particular private events. That is, experiential avoidance is contextualized. Avoidance outside the context of the pursuit of goals aligned with valued life aims is less of a concern with an ACT perspective. This is because any self-regulatory strategy, avoidance or approach related, can be healthy or unhealthy depending on the demands of a situation (Kashdan & Rottenberg, in press). Third, avoidance coping has been narrowly focused on the down regulation of negative experiences following external stressors. Experiential avoidance is a broader construct that addresses how individuals respond to unwanted internal events of negative, neutral, or positive valence. Individuals often want to down-regulate negative internal events but there are situations when people seek to avoid positive experiences (e.g., positive feedback from others heightens expectations for the next interaction).

Experiential avoidance can also be differentiated from the avoidance symptoms of PTSD. The emotional numbing and avoidance symptoms of PTSD are “best characterized as a deficit in emotional processing arising from episodes of hyperemotionality brought on by exposure to trauma cues” (Litz, Orsillo, Kaloupek, & Weathers, 2000, p. 26). Experiential avoidance, in contrast, reflects the repetition of unworkable patterns of behavior that prevent people from acting in ways that are congruent with their central values. A trauma survivor can avoid experiences that have nothing to do with ongoing emotional episodes or their trauma history. For instance, people can avoid the generation or expression of positive emotions out of concern of losing control. Experiential avoidance can be viewed as a broader construct than emotional numbing and avoidance symptoms.

Individuals with PTSD vary in their reliance on experiential avoidance. Research has shown that experiential avoidance in trauma survivors contributes to the maintenance of PTSD (Marx & Sloan, 2005) and lack of reactivity to rewarding environmental stimuli (Litz et al., 2000; Orsillo, Batten, Plumb, Luterek, & Roessner, 2004). Organizing one’s life around attempts to regulate unwanted emotions can limit personal growth opportunities and diminish well-being. When asked what they think about, plan for, and try to accomplish in their daily lives, combat veterans with PTSD endorsed more idiographic strivings related to controlling and avoiding emotions (Kashdan, Breen, & Julian, 2010). Importantly, regulatory efforts failed to translate into discernible benefits such as joy or meaning in life. Conversely, veterans without PTSD were more likely to endorse strivings unrelated to avoidance or regulating emotions, and subsequently experienced greater psychological benefits from their striving effort and progress. The inefficient allocation of finite time and energy to suppress traumatic material, conceal emotions, avoid events that might elicit unwanted feelings, and regulate responses to trauma cues have a compound effect on attempts to be mindfully present, extract pleasure and meaning from events, or realize one’s strengths (Ehlers & Clark, 2000; Hayes et al., 2006). These findings shed light on how actions made with the intention to protect the self by avoiding

unpleasant thoughts and feelings interfere with positive outcomes such as the detection of meaning in life and personal growth.

For an individual to acquire positive outcomes from a traumatic event, direct confrontation with sources of distress is required (e.g., Janoff-Bulman, 1992). Existing theories suggest a sequential model with post-trauma distress and experiential avoidance as precursors to possible growth and meaning in life. When trauma survivors are distressed, we hypothesized that psychological flexibility (i.e., less reliance on experiential avoidance) would be associated with greater reports of posttraumatic growth and meaning in life. In contrast, we hypothesized that the combination of excessive emotional distress and experiential avoidance would be linked to compromised well-being. This moderation model has been supported in three prior studies (Kashdan & Breen, 2008; Kashdan, Morina, & Priebe, 2008; Kashdan & Steger, 2006)– showing that when an individual is willing to be in contact with and openly express their emotions, anxiety fails to impede their positive emotions and events in daily life. Of the studies exploring this model, only one used a sample of trauma survivors (Kashdan et al., 2008). The current study is the first to explore posttraumatic growth and meaning in life as outcomes.

Method

Participants

Participants consisted of 176 college students (136 women, 40 men) with an average age of 21.52 (*SD* = 7.19) from a mid-Atlantic public four-year college. Students were recruited through an online advertisement that included a screening question, asking students only register if they experienced at least one traumatic event. Approximately 48% of participants identified themselves as Caucasian, 18% as Asian; 16% as African-American, 7% as Hispanic, 10% as Middle-Eastern, and 1% as another category.

Number of trauma events—We used an adapted version of the Traumatic Life Events Questionnaire (TLEQ; Kubany et al., 2000). The TLEQ is a 23-item self-report questionnaire that assesses exposure to a broad spectrum of traumatic events (American Psychiatric Association, 2000). The total number of events experienced was used as a covariate. This scale has been shown to converge with response rates to semi-structured clinical interviews (Kubany et al., 2000).

Posttraumatic distress—Based on DSM–IV criteria for PTSD, we used the 17-item PTSD Checklist-Civilian version (PCL-C; Weathers, Litz, Herman, Huska, & Keane, 1993). Respondents rated symptoms over the past month on a 5-point Likert scale ranging from 1 (not at all) to 5 (extremely). Most respondents endorsed multiple traumatic events in multiple categories on the TLEQ. Thus, responses to the PCL-C reflected symptoms resulting from any accessible, intrusive, traumatic events. The PCL-C has shown good construct validity when compared with the Clinician Administered PTSD Scale (CAPS) (Weathers et al., 1993).

Experiential Avoidance—The Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004) is a 9-item self-report measure of experiential avoidance. Participants rate the degree to which each statement applies to them using a Likert scale from 1 (never) to 7 (always). High scores correspond to greater use of experiential avoidance. Evidence for the reliability and validity of the AAQ has been shown in experimental studies and treatment response (Hayes et al., 2006).

Posttraumatic Growth—The 21-item Posttraumatic Growth Inventory (PTGI; Tedeschi & Calhoun 1996) was used to measure personal growth in the following domains: relationships with others; realization of new possibilities; increased personal strength; spirituality; and

appreciation of life. Participants rated items on a 6-point Likert scale, ranging from 0 to 5 with higher scores indicating a greater degree of change as a result of the crisis. The PTGI has shown good convergent validity, correlating well with spouses' reports of partner posttraumatic growth (r = .51) (Weiss, 2002).

Meaning in Life—To assess meaning, participants completed the 5-item presence of meaning subscale of the Meaning in Life Questionnaire (MLQ; Steger, Frazier, Oishi, & Kaler, 2006). This subscale assesses the general belief that one's life has meaning. Participants responded on a seven-point Likert scale ranging from 1 (absolutely untrue) to 7 (absolutely true). The MLQ has good convergent validity with prior measures of purpose in life and test-retest reliability (Steger et al., 2006).

Results

Preliminary analyses

The most frequently reported traumas reported by participants were sudden death of a loved one (70%), motor vehicle accident (54%), witnessing violence in the home (37%), and natural disaster (34%). The majority of participants endorsed more than one traumatic event in more than one category—justifying our approach to focusing on the number of different trauma events rather than comparisons between types of traumatic events.

Means, standard deviations, and correlation coefficients for all scales are reported in Table 1. Prior empirical research has lead to a recommended cutoff score of 50 on the PCL-C for probable PTSD (Weathers et al., 1993). Using this cutoff, individuals scoring above one standard deviation in our sample (M = 37.00, SD = 13.32) met a probable diagnosis of PTSD–reflecting over 16% of our sample. These data suggest that our sampling led to the full range of PTSD symptoms.

Past work has been inconsistent on whether posttraumatic distress is related to positive outcomes such as meaning in life and posttraumatic growth. In this study, posttraumatic distress was unrelated to posttraumatic growth, (r = −.01), and negatively related to meaning in life, (r = −.23; p < .05). These small relations set up our interest in examining experiential avoidance as a potential moderator of when posttraumatic distress is associated with positive outcomes.

Analytic approach

We conducted hierarchical regression models, for posttraumatic growth and meaning in life outcomes, with number of traumatic events as a covariate in step one, experiential avoidance and posttraumatic distress main effects in step two, and the Experiential Avoidance × Posttraumatic Distress interaction entered in the final step. Main and interaction effects were centered to minimize multicollinearity (Aiken & West, 1991).

Primary results

In our first model, we found support for an Experiential Avoidance × Posttraumatic Distress interaction effect in predicting posttraumatic growth, $F\Delta$ (1, 173) = 23.29, $R^2\Delta$ = .12, p < .001. Conditioned at 1 standard deviation below the mean on experiential avoidance, distress was positively related to posttraumatic growth, t (173) = 3.33, p = .001, whereas when conditioned at 1 standard deviation above the mean on experiential avoidance, distress was inversely related to posttraumatic growth, t (173) = −2.94, p =.004. Thus, in the presence of experiential avoidance, posttraumatic distress was linked to less growth, however; when experiential avoidance was absent, distress was linked to greater reporting of growth. Data are presented in Table 2 and Figure 1.

In our second model, we found support for an Experiential Avoidance × Posttraumatic Distress interaction effect in predicting presence of meaning in life, $F\Delta$ (1, 174) = 4.55, $R^2\Delta$ = .02, p = .03. Conditioned at 1 standard deviation below the mean on experiential avoidance, distress had no relationship with meaning in life, t (174) = −.15, p = .88, whereas when conditioned at 1 standard deviation above the mean on experiential avoidance, greater distress was related to less meaning in life, t (174) = −2.92, p =.004. Thus, in the presence of experiential avoidance, posttraumatic distress was linked to less reporting of meaning in life. Data are presented in Table 2 and Figure 2.

Discussion

We found evidence to suggest that in the aftermath of trauma, people reporting greater distress and a low reliance on experiential avoidance reported the greatest growth and meaning in life. Of people with a heavy reliance on experiential avoidance, posttraumatic distress was associated with minimal reporting of growth. These effects could not be accounted for by the number of trauma events reported.

Thus far, research has provided few answers as to how distress relates to posttraumatic growth and meaning in life in trauma survivors. Theories of the development of benefits after trauma suggest that some level of distress is necessary initially and perhaps throughout the entire process of reorganizing the self system (Tedeschi & Calhoun, 2004). Our results support this theory and suggest that a willingness to be in contact with distressing thoughts, feelings, and images might serve as a catalyst for benefit finding after trauma. Although stressful, confrontation and defusion from trauma reminders might enable people to interpret traumatic experiences in personally meaningful terms, integrate the experience into a coherent framework, and eventually allow for an altered personal narrative encapsulating redemption and growth (Lepore, Ragan & Jones, 2000). Experiential avoidance might represent one of the links to explain when posttraumatic distress is helpful or unhelpful in the trauma sequelae.

Existing models of trauma indicate that survivors are most likely to recover when trauma related cues are met with awareness, openness, and the continuation of behaviors directed toward the pursuit of valued life aims (rather than mere regulation of emotions) (Batten et al., 2005; Kashdan et al., 2010). Rigid behavioral responses to stimuli appraised to be negative prevents trauma survivors from understanding that feared situations are not as threatening as believed, and might lead to underestimations of distress tolerance. That is, individuals that over-rely on avoidance establish a behavioral pattern that interferes with their ability to recover and return to a life devoted to personally meaningful pursuits (Hayes et al., 2006).

The present results provide additional support for an interactive model with experiential avoidance as a moderator of when anxiety symptoms lead to the greatest diminishment of well-being. This model, rooted in ACT (Hayes et al., 2006), has been supported in three other studies with different samples, measures, and methodologies. Kashdan & Steger (2006) found that of people with elevated trait social anxiety, frequency of positive events was lowest on days characterized by elevated social anxiety and greater attempts to conceal emotions, whereas the frequency of positive events was highest on days characterized by low social anxiety and greater emotion expressiveness. Studying people varying in social anxiety over three months, Kashdan & Breen (2008) found that people with low trait social anxiety with a greater willingness to express emotions openly showed the greatest frequency of positive emotions over the assessment period. Based on interviews with trauma survivors of the Kosovo War, Kashdan, et al. (2008) found that people without an anxiety disorder and psychological flexibility (i.e., low experiential avoidance) had the greatest quality of life. Together, prior findings and the current study suggest that emotion generation, regulation, and vulnerabilities operate synergistically to predict everyday functioning.

Limitations and future directions

The cross-sectional nature of the current investigation prevents us from examining causality. Obtaining information on when the trauma occurred would have added to our understanding of how experiential avoidance operates in recovery. Biases and inaccuracies inherent in self-reports are of particular concern when studying posttraumatic growth. It would be more appropriate to conceptualize posttraumatic growth in this study as positive adjustment. This is because *growth* cannot be established without evidence of a person's pre-trauma trajectory (Bonanno, 2004). With few exceptions (Manne, Ostroff, & Winkel, 2004; Milam, 2004; Sears et al., 2003), studies have failed to address this issue of temporality. The present study is no different. Nonetheless, research suggests that perceptions may be of greater importance than actual change. Length of time since the traumatic event is an important variable when evaluating both symptom severity and meaning-finding after a traumatic event. By failing to include this variable in our analyses, we cannot rule out the possibility that this accounts for findings associated with positive adjustment. Future studies should move beyond relatively well-adjusted college students to examine the generalizability of the current findings to community samples around the world.

Conclusion

Trauma survivors often experience negative outcomes including disruptions in relationships, challenges to core beliefs and values, and PTSD. Though difficult, attending to and exploring negative experiences can also promote broadened perspectives, new coping skills, and the development of personal and social resources, namely, benefit finding after trauma (Park & Fenster, 2004). Recent research suggests that benefit finding after trauma is common (Sears et al., 2003). We found that greater distress appears to be a springboard to post-trauma adjustment (e.g., meaning in life) when trauma survivors exhibit flexible responses to unwanted mental content (e.g., anxious sensations, self-doubt). This research extends the empirical foundation for ACT related approaches to trauma survivors–targeting experiential avoidance and committed action toward valued life aims. Our findings show that the specific strategies employed by trauma survivors play an important role in perceiving meaning and growth.

References

Affleck G, Tennen H. Construing benefits from adversity: Adaptational significance and dispositional underpinnings. Journal of Personality 1996;64:899–922. [PubMed: 8956517]

Aiken, LS.; West, SG. Multiple regression: Testing and interpreting interactions. London: Sage; 1991.

Aldwin C, Levenson M, Spiro A. Vulnerability and resilience to combat exposure: Can stress have lifelong effects? Psychology and Aging 1994;9:34–44. [PubMed: 8185866]

American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th Edition. Washington, DC: Author; 2000. Revised

Barlow DH. Unraveling the mysteries of anxiety and its disorders from the perspective of emotion theory. American Psychologist 2000;55:1247–1263. [PubMed: 11280938]

Batten, SV.; Orsillo, SM.; Walser, RD. Acceptance and mindfulness-based approaches to the treatment of posttraumatic stress disorder. In: Orsillo, SM.; Roemer, L., editors. Acceptance and mindfulness-based approaches to anxiety: Conceptualization and treatment. New York: Springer; 2005. p. 241-271.

Bonanno GA. Loss, trauma and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? American Psychologist 2004;59:20–28. [PubMed: 14736317]

Calhoun LG, Cann A, Tedeschi RG, McMillan J. A correlational test of the relationship between posttraumatic growth, religion, and cognitive processing. Journal of Traumatic Stress 2000;13:521–527. [PubMed: 10948491]

Calhoun L, Tedeschi R. Beyond recovery from trauma: Implications for clinical practice and research. Journal of Social Issues 1998;54:357–371.

Cordova MJ, Cunningham LL, Carlson CR. Posttraumatic growth following breast cancer. Health Psychology 2001;20:176–185. [PubMed: 11403215]

Davis CG, Nolen-Hoeksema S, Larson J. Making sense of loss and benefiting from the experience: Two construals of meaning. Journal of Personality and Social Psychology 1998;75:561–574. [PubMed: 9731325]

Ehlers A, Clark DM. A cognitive model of posttraumatic stress disorder. Behaviour Research and Therapy 2000;38:319–345. [PubMed: 10761279]

Foa EB, Kozak MJ. Emotional processing of fear: Exposure to corrective information. Psychological Bulletin 1986;99:20–35. [PubMed: 2871574]

Frazier PA, Conlon A, Glaser T. Positive and negative life changes following sexual assault. Journal of Consulting and Clinical Psychology 2001;69:1048–1055. [PubMed: 11777108]

Hayes SC, Luoma JB, Bond FW, Masuda A, Lillis J. Acceptance and Commitment Therapy: Model, processes, and outcomes. Behaviour Research and Therapy 2006;44:1–25. [PubMed: 16300724]

Hayes SC, Strosahl K, Wilson KG, Bissett RT, Pistorello J, Toarmino D, et al. Measuring experiential avoidance: a preliminary test of a working model. The Psychological Record 2004;54:553–578.

Hayes SC, Wilson KG, Gifford EV, Follette VM, Strosahl K. Experiential avoidance and behavioral disorders: A functional dimensional approach to diagnosis and treatment. Journal of Consulting and Clinical Psychology 1996;64:1152–1168. [PubMed: 8991302]

Janoff-Bulman, R. Shattered assumptions: Towards a new psychology of trauma. New York: Free Press; 1992.

Kashdan TB, Breen WE. Social anxiety and positive emotions: A prospective examination of a self-regulatory model with tendencies to suppress or express emotions as a moderating variable. Behavior Therapy 2008;39:1–12. [PubMed: 18328865]

Kashdan TB, Breen WE, Julian T. Everyday strivings in combat veterans with posttraumatic stress disorder: Problems arise when avoidance and emotion regulation dominate. Behavior Therapy 2010;41:350–363. [PubMed: 20569784]

Kashdan TB, Morina N, Priebe S. Post-traumatic stress disorder, social anxiety disorder, and depression in survivors of the Kosovo War: Experiential avoidance as a contributor to distress and quality of life. Journal of Anxiety Disorders 2008;23:185–196. [PubMed: 18676121]

Kashdan TB, Rottenberg J. Psychological flexibility as a fundamental aspect of health. Clinical Psychology Review. (in press).

Kashdan TB, Steger M. Expanding the topography of social anxiety: An experience sampling assessment of positive emotions and events, and emotion suppression. Psychological Science 2006;17:120–128. [PubMed: 16466419]

Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. Archives of General Psychiatry 2005;62:593–602. [PubMed: 15939837]

Kessler RC, Sonnega A, Bromet E, Hughes M, Nelson CB. Posttraumatic stress disorder in the National Comorbidity Survey. Archives of General Psychiatry 1995;52:1048–1060. [PubMed: 7492257]

King DW, King LA, Gudanowski DM, Vreven DL. Alternative representations of war zone stressors: Relationships to posttraumatic stress disorder in male and female Vietnam veterans. Journal of Abnormal Psychology 1995;104:184–196. [PubMed: 7897042]

Kubany ES, Haynes SN, Leisen MB, Owens JA, Kaplan AS, Watson SB, Burns K. Development and preliminary validation of a brief broad-spectrum measure of trauma exposure: The Traumatic Life Events Questionnaire. Psychological Assessment 2000;12:210–224. [PubMed: 10887767]

Lazarus, RS.; Folkman, S. Stress, appraisal, and coping. New York: Springer; 1984.

Lepore SJ, Ragan JD, Jones S. Talking facilitates cognitive-emotional processes of adaptation to an acute stressor. Journal of Personality and Social Psychology 2000;78:499–508. [PubMed: 10743876]

Litz BT, Orsillo SM, Kaloupek D, Weathers F. Emotional processing posttraumatic stress disorder. Journal of Abnormal Psychology 2000;109:26–39. [PubMed: 10740933]

Manne S, Ostroff J, Winkel G. Posttraumatic growth after breast cancer: Patient, partner, and couple perspectives. Psychosomatic Medicine 2004;66:442–454. [PubMed: 15184709]

Marx BP, Sloan DM. Experiential avoidance, peritraumatic dissociation, and post-traumatic stress disorder. Behaviour Research and Therapy 2005;43:569–583. [PubMed: 15865913]

Milam JE. Posttraumatic growth among HIV/AIDS patients. Journal of Applied Social Psychology 2004;34:2353–2376.

Orsillo SM, Batten SV, Plumb JC, Luterek JA, Roessner BM. An experimental study of emotional responding in women with posttraumatic stress disorder related to interpersonal violence. Journal of Traumatic Stress 2004;17:241–248. [PubMed: 15253096]

Park CL, Cohen LH, Murch RL. Assessment and prediction of stress-related growth. Journal of Personality 1996;64:71–105. [PubMed: 8656319]

Park CL, Fenster J. Stress-related growth: Predictors of occurrence and correlates with psychological adjustment. Journal of Social and Clinical Psychology 2004;23:195–215.

Ryff CD. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. Journal of Personality and Social Psychology 1989;57:1069–1081.

Sears SR, Stanton AL, Danoff-Burg S. The yellow brick road and the emerald city: Benefit finding, positive reappraisal coping, and posttraumatic growth in women with early-stage breast cancer. Health Psychology 2003;22:487–497. [PubMed: 14570532]

Steger M, Frazier P, Oishi S, Kaler M. The meaning in life questionnaire: Assessing the presence of and search for meaning in life. Journal of Counseling Psychology 2006;53:80–93.

Tedeschi R, Calhoun L. The posttraumatic growth inventory: Measuring the positive legacy of trauma. Journal of Traumatic Stress 1996;9:455–471. [PubMed: 8827649]

Tedeschi R, Calhoun L. Posttraumatic growth: Conceptual foundations and empirical evidence. Psychological Inquiry 2004;15:1–18.

Weathers, F.; Litz, B.; Herman, D.; Huska, J.; Keane, T. The PTSD Checklist (PCL) – Civilian version. Reliability, validity and diagnostic utility; Poster session presented at the annual meeting of the International Society for Traumatic Stress Studies; San Antonio, TX. 1993.

Weiss T. Posttraumatic growth in women with breast cancer and their husbands: An intersubjective validation study. Journal of Psychosocial Oncology 2002;20:65–80.

Widows MR, Jacobsen PB, Booth-Jones M, Fields KK. Posttraumatic growth following bone marrow transplantation for cancer. Health Psychology 2005;24:266–273. [PubMed: 15898862]

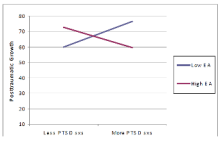

Figure 1. Posttraumatic growth as a function of experiential avoidance and posttraumatic distress

Notes. Simple effects were represented with posttraumatic stress symptoms and experiential avoidance defined as at least +1 and −1 standard deviations from the mean, respectively.

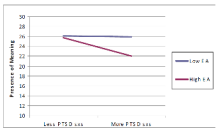

Figure 2. Presence of meaning as a function of experiential avoidance and posttraumatic distress

Notes. Simple effects were represented with posttraumatic stress symptoms and experiential avoidance defined as at least +1 and −1 standard deviations from the mean, respectively.

Table 1

Descriptive statistics and zero-order relations between variables

Variable	*Mean*	*SD*	α	1.	2.	3.	4.	5.
1. Post-traumatic Distress	37.00	13.32	.92	—				
2. Experiential Avoidance	36.32	7.01	.63	−.36**	—			
3. Posttraumatic Growth	64.59	21.18	.93	−.04	.13	—		
4. Meaning in Lie	24.51	6.15	.85	−.23**	.25**	.28**	—	
5. Number of Traumatic Events	4.75	2.81	N/A	.28**	.07	.04	−.02	—

Notes:

** $p < .01$; p-values were two tailed.

Table 2

Hierarchical regression models of posttraumatic distress and use of experiential avoidance on posttraumatic growth and meaning in life

Variables	β	*t*	ΔR^2	ΔF
Outcome: Posttraumatic Growth				
Step 1			.00	.30
Number of trauma events	.04	.55		
Step 2			.01	.41
Post-trauma distress	.02	.25		
Experiential Avoidance	.08	.95		
Step 3			.12**	23.29
PTSD*EA	−.35**	−4.83**		
Outcome: Meaning in Life				
Step 1			.00	.11
Number of trauma events	−.03	−.33		
Step 2			.09**	8.46
Post-trauma distress	−.17*	−2.11*		
Experiential Avoidance	−.19*	−2.38*		
Step 3			.02*	4.55
PTSD*EA	−.15*	−2.13*		

Notes. N = 175.

* $p < .05$,

** $p < .001$.