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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

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ABSTRACT

Few studies have been conducted on psychological disorders other than post-traumatic stress disorder (PTSD) in war survivors. The aim of this study was to examine PTSD, social anxiety disorder (SAD), and major depressive disorder (MDD) and their associations with distress and quality of life in 174 Albanian civilian survivors of the Kosovo War. This included testing of conceptual models suggesting that experiential avoidance might influence associations between anxiety and mood disorders with psychological functioning. Each of the three psychiatric disorders was associated with greater experiential avoidance and psychological distress, and lower quality of life. Being a refugee was associated with a higher likelihood of having SAD and MDD. We found evidence for experiential avoidance as a partial mediator of the respective effects of SAD and PTSD on quality of life; experiential avoidance did not mediate the effects of disorders on global distress. We also found support for a moderation model showing that only war survivors without SAD and low experiential avoidance reported elevated quality of life; people with either SAD or excessive reliance on experiential avoidance reported compromised, low quality of life. This is the third independent study, each using a different methodology, to find empirical support for this moderation model [Kashdan, T. B., & Breen, W. E. (2008). 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*, *39*, 1–12; Kashdan, T. B., & Steger, M. F. (2006). Expanding the topography of social anxiety: an experience sampling assessment of positive emotions and events, and emotion suppression. *Psychological Science*, *17*, 120–128]. Overall, we provided initial evidence for the importance of addressing PTSD, SAD, MDD, and experiential avoidance in primarily civilian war survivors.

Individuals exposed to war zone-related traumatic events are at heightened risk for a variety of psychological problems, including post-traumatic stress disorder (PTSD) (e.g., Erickson, Wolfe, King, King, & Sharkansky, 2001; Kulka et al., 1990; Solomon, Weisemberg, Schwarzwald, & Mikulincer, 1987). These psychological difficulties have the potential to last long after wartime. PTSD-related symptoms among combat veterans served as the central focus of most psychological examinations of the effects of war. However, since the First World War where opposing armies had static lines of defense (i.e., trench warfare), the nature of warfare has drastically changed with the consequence that in the modern wars civilians make up the absolute majority of casualties (International Federation of Red Cross and Red Crescent Societies, 1993).

Civilians surviving exposure to a war zone often suffer from the lack of basic needs such as food and shelter. Furthermore, the new warfare bears in its wake the loss of social and cultural foundations that are meant to provide connectedness and stability (Murray, King, Lopez, Tomijima, & Krug, 2002). These hardships have long-lasting effects on the mental health of civilian war survivors even after the war (Johnson & Thompson, 2008). In post-war societies, social adjustment can be difficult when people are uprooted from friends and family through forced separation, displacement, imprisonment, and death. This is what happened to residents of Kosovo during 10 years of segregation and ethnic cleansing imposed by the Milosevic-led Serbian government (Malcolm, 1998).

Although PTSD is important in understanding reactions to and recovery from war, other psychological processes may be equally

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disruptive. In this study, we examined PTSD, social anxiety disorder (SAD), and major depressive disorder (MDD) in Kosovo War survivors and their influence on mental health and quality of life. We tested theoretical models on how experiential avoidance might operate independently and together with these disorders to account for health related outcomes.

1. Experiential avoidance as a contributor to distress and quality of life

Psychiatric disorders widely studied in relation to trauma exposure include PTSD (by definition; American Psychiatric Association, 1994), social anxiety disorder (e.g., Kashdan, Frueh, Knapp, Hebert, & Magruder, 2006; Green, Lindy, Grace, & Leonard, 1992; Orsillo, Heimberg, Juster, & Garrett, 1996), and depression (e.g., O'Donnell, Creamer, & Pattison, 2004; Shalev et al., 1998). Despite high rates of comorbidity among these conditions, there is evidence for some degree of independent onset and consequences in trauma survivors (Yehuda, McFarlane, & Shalev, 1998).

Civilians exposed to trauma and life disruptions as a result of civil war confront severe challenges in attempts to manage unpleasant emotions, thoughts, and memories. In addition to feared external stimuli, people may fear and avoid unwanted private events such as unpleasant emotions (e.g., feeling anxious), thoughts (e.g., "I am going to make a fool of myself"), and bodily sensations (e.g., increased heart rate). This notion of experiential avoidance refers to tendencies to negatively evaluate unwanted feelings, thoughts, and sensations; an inability to tolerate these private events; and the desire to control and extinguish these events (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996).

These avoidance based regulatory strategies can be distinguished from more approach based strategies that involve working with emotions and thoughts such as acceptance. Often, experiential avoidance and acceptance are viewed and operationalized as endpoints on a single bipolar continuum (Bishop et al., 2004; Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Acceptance involves flexible, efficient responding because people stay in contact with their emotions and thoughts and attend to the information they provide as opposed to expending finite attention, stamina, and time to get rid of these internal experiences. Acceptance leads to a broadening of responses whereas experiential avoidance reflects rigid thinking and behavior, and an unwillingness (or in some cases, inability) to capitalize on the important information provided by emotional experiences. The enormous time and effort devoted to experiential avoidance diminishes contact with present experiences and interfere with progress toward valued goals (Hayes et al., 2006). Essentially, a person's life space is constricted by concerns about the possible rise of emotional states that are viewed as unmanageable and a source of suffering.

There is evidence for experiential avoidance being prominent in the maintenance of anxiety and mood disorders (Forsyth, Eifert, & Barrios, 2006; Starr & Moulds, 2006; Zettle & Rains, 1989). Experiential avoidance has been theorized to result from learned associations built from connecting internal experiences with strong threat/danger appraisal patterns (Hayes et al., 1996). It is not redundant with the presence of emotional disturbances as many individuals with anxiety conditions report rates of emotional and thought suppression and avoidance attempts that are similar to their less anxious peers (e.g., Craske & Hazlett-Stevens, 2002; Kashdan & Steger, 2006). Moreover, the internal experiences that are evaluated negatively and avoided are not wed to the content of any particular disorder.

Avoiding exposure to feared private events interferes with potential disconfirming evidence and increases anticipatory anxiety for situations where these unwanted internal events might arise (Barlow, 2000; Salters-Pedneault, Tull, & Roemer, 2004). Despite problems linked to experiential avoidance, people focus on the short-term effectiveness of alleviating discomfort (by avoiding contact with the feared stimuli) with insufficient consideration of the longer-term consequences of habitual use.

A small body of work has shown that experiential avoidance is important to the mental health of trauma survivors. For example, experiential avoidance predicted the long-term maintenance of PTSD (Marx & Sloan, 2005) and following traumatic events, experiential avoidance was a more robust predictor of PTSD symptom severity over time than trauma severity and initial distress (Plumb, Orsillo, & Luterek, 2004). In addition, experiential avoidance has been shown to be positively related to anxiety, depression, and general distress above the contributions of trauma exposure and severity, PTSD severity and diagnoses, and emotion expressiveness (e.g., Marx & Sloan, 2002; Morina, 2007; Tull, Gratz, Salters, & Roemer, 2004). Other work found experiential avoidance to partially (Polusny, Rosenthal, Aban, & Follette, 2004) or fully mediate (Orcutt, Pickett, & Pope, 2005; Reddy, Pickett, & Orcutt, 2006) the effects of trauma on psychological distress. Experiential avoidance may be adaptive in the immediate aftermath of a trauma, but the learned association of threat to particular thoughts and feelings can translate into an inability to cope with natural negative emotions that arise during challenging situations in everyday life. In turn, experiential avoidance is proposed to interfere with the recovery of trauma survivors.

Most of the work on experiential avoidance in trauma survivors has focused on PTSD. We were interested in the existence and operation of other psychiatric conditions, in civilian survivors of the Kosovo War. Specifically, SAD and MDD have each been shown to be highly prevalent and costly in trauma survivors (Kashdan, Barrios, Forsyth, & Steger, 2006; Simms, Watson, & Doebbeling, 2002) and functionally linked to experiential avoidance (e.g., Kashdan, 2007; Zettle & Rains, 1989). Along with PTSD, SAD and depression are defined by disrupted interpersonal processes and diminished positive experience (e.g., Joiner & Coyne, 1999; Kashdan, 2007; Litz, Orsillo, Kaloupek, & Weathers, 2000). This is relevant because satisfying social relationships and positive emotions appear to be integral to the recovery process of trauma survivors in post-war Kosovo (Ahern et al., 2004), displaced civilians from other countries (e.g., Schweitzer, Melville, Steel, & Lacherez, 2006), and other trauma survivors (e.g., Fredrickson, Tugade, Waugh, & Larkin, 2003; King, King, Fairbank, Keane, & Adams, 1998).

2. Psychiatric conditions and experiential avoidance operating together in Kosovo War survivors

Existing data suggest that several psychiatric conditions and experiential avoidance contribute to the mental health of trauma survivors. Yet, nearly all of this work has been limited to the study of American male combat veterans. Despite several empirical studies of whether experiential avoidance mediates or moderates adverse consequences associated with psychiatric conditions, only a small body of work has focused on trauma survivors (Batten, Orsillo, & Walser, 2005).

To address gaps in the literature, the present study examined PTSD, SAD, MDD, and experiential avoidance in Kosovar Albanian survivors of a 10-year apartheid, ending with a full-scale war beginning in mid-1998 and ending by NATO air strikes in June 1999 (Malcolm, 1998). Elevated prevalence rates of PTSD have been found in Kosovo War survivors (estimates of 25%, Cardozo, Kaiser, Gotway, & Agani, 2003; Morina & Ford, in press). Psychiatric conditions associated with the health and recovery of other populations of trauma survivors, such as depressive disorders and SAD, may be relevant to Kosovo War survivors.

Residents of Kosovo have a long tradition of being a collectivistic society where maintaining meaningful social relationships and attending to family are core values. During war, Kosovars were exposed to intense social disruptions including the death of family members, being forcefully separated from home and family (whose destiny was unknown) to go to unfamiliar places. These wartime social stressors might exacerbate pre-existing psychiatric conditions or influence their onset. People's need for social support intensified at the same time that their support system was disrupted. The presence of psychiatric disorders and chronic use of experiential avoidance were expected to disrupt the process of trauma recovery and increase the difficulty of building the elements linked to high quality of life.

Our first objective was to examine prevalence of PTSD, SAD, and MDD in Albanian civilian war survivors. Our second objective was to examine how these conditions were related to experiential avoidance, general distress, and quality of life. Examining multiple disorders within the same study allowed for tests of whether SAD or MDD show equal or greater importance than PTSD in trauma survivors in terms of positive associations with experiential avoidance and general distress, and negative associations with quality of life.

Our third objective was to test competing mediation and moderation models, in the same study, of whether and how experiential avoidance influences the effects of anxiety and mood disorders on health outcomes. Our mediation model was based on theory and empirical evidence suggesting that experiential avoidance appears to be an important maintenance factor for problematic outcomes associated with anxiety disorders (e.g., Ehlers & Clark, 2000; Forsyth et al., 2006) and mood disorders (e.g., Ottenbreit & Dobson, 2003; Zettle & Rains, 1989). Of those studies examining experiential avoidance as a mediator of PTSD effects on psychological outcomes, the primary focus has been on convenience samples of college students in the United States (Orcutt et al., 2005; Polusny et al., 2004; Reddy et al., 2006). Using a sample of Kosovar Albanian civilian war survivors, we hypothesized that one mechanism responsible for the association of anxiety and mood disorders with elevated general distress and diminished quality of life would be an over-reliance on experiential avoidance as a regulatory strategy that interferes with meaningful goal-directed activity (other than controlling emotions and thoughts; Hayes et al., 1996, 2006).

Mediation models are one approach to examining the potential operation of experiential avoidance in trauma survivors. Instead of focusing on mechanisms, a moderation model would account for omitted variables that explain heterogeneous outcomes associated with PTSD, SAD, and MDD in trauma survivors. For example, effect sizes for SAD and MDD on the psychological health of trauma survivors has been shown to be in the small to moderate range, and many trauma survivors without disorders do not appear to be living satisfying, engaging, and meaningful lives. This suggests that other processes may be important in addition to the presence/absence of disorders. We argue that one of these processes is experiential avoidance, or at the other end of the continuum, experiential acceptance. The degree to which disorders are associated with global distress and quality of life may be dependent on how people regulate their emotional experiences. Emotions can be attended to for the meaningful information they provide in everyday life and in the pursuit of meaningful life goals. Failing to attend to this important source of information or carefully attending to and using this information is relevant to the successful pursuit of goals that rely on this information (Carver & Scheier, 1998).

There is tentative support for a model suggesting that disorders and experiential avoidance might interact to predict the worst outcomes of trauma survivors. In the presence of PTSD, SAD, or MDD, habitual tendencies to avoid unwanted internal experiences might be particularly maladaptive. As support for this model, people possessing both high anxiety sensitivity and an over-reliance on experientially avoidant emotion regulation strategies report the most frequent and intense anxiety pathology (i.e., experiential avoidance enhances the risks associated with anxiety sensitivity; Kashdan, Zvolensky, & McLeish, 2008). Similarly, people possessing high anxiety sensitivity report less anxiety pathology when they carefully attend to the information provided by emotional experiences with a stance of openness and acceptance (i.e., the impact of anxiety sensitivity was dampened; Vujanovic, Zvolensky, Bernstein, Feldner, & McLeish, 2007).

In other work, there is support for emotional disturbances and experiential avoidance working together to predict the best and worst outcomes over varying time spans. Of people with elevated trait social anxiety, frequency of positive events was lowest on days characterized by high levels of social anxiety and greater attempts to conceal these unwanted emotions whereas the frequency of positive events was highest on days characterized by low levels of social anxiety and a greater willingness to express emotions openly regardless of valence or intensity (Kashdan & Steger, 2006). That is, presence of emotional disturbances (in this case, elevated trait social anxiety) was insufficient for predicting quality of life. Emotional disturbances and a reliance on experiential avoidance as a regulatory strategy operated together leading to the lowest quality of life, and the absence of emotional disturbances and a tendency to be accepting of emotions led to the greatest quality of life. As additional support for an interactive model to predict best outcomes, people with low trait social anxiety with a general willingness to express their emotions openly (as opposed to concealing them) showed the greatest frequency of positive emotions over the course of a 3-month assessment period (Kashdan & Breen, 2008).

A similar framework is relevant to trauma survivors. The greatest psychological health is theorized to be the result of both the absence of disorder and the ability to adapt to changing life circumstances—acceptance and psychological flexibility (see Keyes, 2005, 2007 for related ideas). Two studies (Kashdan & Breen, 2008; Kashdan & Steger, 2006) provide empirical support for the combination of no disorder and experiential acceptance in predicting the greatest health outcomes.

In the current study of Kosovar War survivors, we tested mediation models with experiential avoidance accounting for links between PTSD, SAD, and MDD with global distress and quality of life. We also tested interactive models with experiential avoidance moderating the effects of PTSD, SAD, and MDD on global distress and quality of life. These interactive models have never focused on emotional disturbances other than social anxiety. As a result, our hypotheses compete against alternative "main effect" models suggesting that people with disorders will report poor health outcomes regardless of experiential avoidance and people without disorders will report elevated quality of life regardless of experiential acceptance. Despite intuitive appeal, much of the empirical work to support our hypotheses was conducted in regions of the world other than Kosovo and often in populations other than trauma survivors. The current study, thus, had several broad aims to extend the literature on trauma survivors and experiential avoidance.

3. Method

3.1. Procedure and participants

The current study is part of a larger IRB-approved non-related project (Priebe et al., 2008). Our data collection occurred in 2006, 7

years after the war, across different regions of Kosovo. A random walk-in technique was utilized in the general population that had been exposed to war-related traumatic experiences in 1998 and 1999. First, 6 out of 30 possible administrative units or municipalities in Kosovo were randomly chosen. These six regions were Prishtina, Gllogovc, Fushë Kosova, Podujeva, Vushtrri, and Lipjan. The majority of the 825,000 inhabitants in these units lived in the capital of Kosovo, Prishtina (ca. 500,000). Altogether, the population of these regions constituted 41.3% of the Kosovar population (about 2 million altogether). In each of these regions a list of settlements (i.e., the particular town and the villages) was secured and three were randomly chosen for further sampling. Then, a street was randomly chosen to begin recruitment. Every fourth house on the right was approached until a maximum of 15 interviews for that particular street were completed. If a building with many flats rather than a house was approached then the number of flats in the building was identified and one flat was randomly chosen to start an interview. In one particular building up to six participants were interviewed.

The potential participants were directly contacted at home without advance notification for the following reasons. There exists telephone and postal communication in Kosovo, however, they still do not function effectively, especially when it comes to the inhabitants living in the country side. Furthermore, the Kosovars have the habit of visiting each other without prior notification and the Kosovar team of this study decided that direct contacting at home is in accordance with Kosovo customs.

The interview was conducted with an adult member of the family whose birthday was closest to the date of interviewing and no substitutes were acceptable. The researchers made up to three attempts to interview the specific participant. At the end of the interview participants were given 5 € for participation in this research. Inclusion criteria were the report of at least one war-related traumatic event and being older than 23 years old; indicative of being at least 16 years old during the war. For study inclusion, the required war-related traumatic event had to match the stressor criterion 1A of PTSD described by DSM-IV (e.g., events such as "siege" or "torture").

The interviews were conducted by four masters-level psychology students. Prior to conducting the actual study interviews, the research assistants conducted more than 450 interviews using the MINI for the purpose of the large non-related project mentioned above. The interviewers were intensively trained by the second author in use of the Albanian version of *The MINI International Neuropsychiatric Interview* (MINI; Sheehan et al., 1997). First, the research assistants completed 2 days of training under the guidance of the second author. Following this training, they each completed five interviews each with war survivors. Any difficulties were discussed in individual and group supervision. The training process was completed until adequate inter-rater reliability was reached with more senior interviewers (kappa values greater than .80; the final range was .84–.97). Unfortunately, we did not evaluate inter-rater reliability for interviews with participants in the field for this study. This was due to ethical reasons as we did not want to try to persuade survivors or organized violence to record interviews. Concerns about potential societal consequences are not unreasonable.

The assessment instruments were completed in an interview format by the interviewer, including the self-report questionnaires. First, the Life Stressor Checklist-Revised (LSL; Wolfe & Kimerling, 1997) was administered. Then, the interviewer conducted the MINI International Neuropsychiatric Interview (MINI; Sheehan et al., 1997). Finally, three questionnaires were administered: the Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983); the Manchester Short Assessment of Quality of Life (MANSA; Priebe, Huxley, Knight, & Evans, 1999); and the Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004). All the interviews were conducted at the respondent's home in the absence of any other individuals besides the respondent and the interviewer.

As reported above, the current study is part of a larger multinational project with more than 4100 respondents. Approximately 650 of these were interviewed in Kosovo and the rest were conducted in other countries. We circumscribed our attention to those participants completing the AAQ, administered to the final 209 potential participants contacted in Kosovo (added in once the data gathering already began). Of these, 16 (7.7%) reported no war-related traumatic events and were thus not interviewed. Of the remaining 193 potential participants, 19 individuals reporting exposure to war-related traumatic events refused participation (10%). Among the reasons mentioned, the majority reflected lack of time or interest. We had a final sample of 174 Albanian civilian survivors (108 women, 66 men) of the Kosovo War. They had an average age of 39.52 (S.D. = 11.17). The majority was married (79.9%) and unemployed (70.7%). The high unemployment rate among our sample might be somewhat higher than the general population. Unfortunately, there is an absence of accurate statistics regarding the unemployment rate in Kosovo, with rates ranging from 44.4% (United Nations Interim Administration Mission in Kosovo, 2005) to 70% (Organization for Security and Cooperation in Europe, 2007). Only 1.1% of our sample remained at home during the war; 52.6% were refugees and 46.2% were internally displaced during the war.

3.2. Diagnostic interview

The MINI International Neuropsychiatric Interview (MINI; Sheehan et al., 1997) is a structured diagnostic interview designed conjointly by scientists in the United States and Europe to assess psychiatric diagnoses according to DSM-IV (APA, 1994) and ICD-10 (WHO, 1992) criteria. The diagnostic algorithm of the MINI is based on DSM-IV and ICD-10 criteria. To obtain a diagnosis, using close-ended questions, the interviewer needs to find a fixed number of symptoms with particular periods of duration, and clear evidence of impairment in social or daily functioning. The MINI has two to four screening questions per disorder and additional symptom questions within each disorder are asked only if the screening questions are passed.

The clinician-rated format of the MINI has demonstrated good reliability and validity in comparison with the Structured Clinical Interview for DSM-III-R (SCID) and Composite International Diagnostic Interview (Lecrubier et al., 1997; Sheehan et al., 1998). The diagnostic modules of the MINI demonstrated satisfactory inter-rater reliability with all *ks* > .80 and acceptable test–retest reliability ranging from *ks* = .63 (current Mania) and 1.00 (Bulimia), respectively. Compared to the SCID, the MINI diagnostic modules exhibited sensitivity rates from .62 (Obsessive-Compulsive Disorder) to .96 (Major Depressive Disorder) and all specificity rates were greater than .85. The two modules of most interest for the current study, Social Phobia (which we refer to as SAD) and PTSD, demonstrated high inter-rater reliability (*ks* = .94 and .95, respectively) and acceptable test–retest reliability (*ks* = .65 and .73, respectively). Compared to the SCID, the MINI SAD module was shown to exhibit sensitivity of .81, specificity of .86, positive predictive value of .46, and negative predictive value of .97; the PTSD module was shown to exhibit sensitivity of .85, specificity of .96, positive predictive value of .82, and negative predictive value of .97 (Sheehan et al., 1998).

The Albanian version (Morina, 2006) was developed in collaboration between the second author of this paper and the

authors of the original MINI. The authors of the original MINI coordinated the back translation process. To date, however, other data do not exist on the validity of Albanian version of the MINI. The PTSD module of the MINI has been used before among Kosovar students where 16.4% of the participants met criteria for PTSD (Morina & Stangier, 2007); the authors did not report further results related to the diagnosis of PTSD. In another study (Morina, Prigerson, Rudari, & Bleichhardt, submitted for publication), the use of the MINI module of MDD revealed that 38.3% of bereaved war survivors from Kosovo met diagnostic criteria. The diagnosis of MDD was strongly associated with comorbid PTSD (as measured by the Post-traumatic Diagnostic Scale by Foa, Cashman, Jaycox, and Perry (1997); OR = 3.72, 95% CI: 1.20–11.58), prolonged grief disorder (OR = 6.80, 95% CI: 2.12–21.71), and anxiety as measured with the anxiety subscale of the Brief Symptom Inventory (OR = 16.04, 95% CI: 3.10–82.96).

In this study, no data were collected on eating disorders, leaving a total of 13 psychiatric disorders for analysis.

3.3. Self-report questionnaires

We used existing Albanian versions of all measures. These instruments were translated by the second author and back translated by bilingual individuals. However, often the only psychometric data available in prior studies are internal consistency rates. Therefore, we report psychometric characteristics for the English versions. If available, we also report correlational data with variables of interest from studies using Albanian versions of instruments. Both, the MINI and the self-report measures were completed at the same time.

A modified version of *the Life Stressor Checklist-Revised* (LSL; Wolfe & Kimerling, 1997) was used to assess potentially traumatic events before, during and after the war. The LSL contains a list of 26 war-related events (such as "lack of food or water", "shelling", or "life threatening illness") for participants to report as present or absent. In addition, participants report the frequency and degree of distress at the time of the first, last, and most stressful event. The LSL was translated by the second author for use in the current study. The LSL was used to determine study eligibility (the presence of at least one war-related event) and was not used in analyses for this particular study.

The Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004) is a nine-item scale of experiential avoidance. Items assess tendencies to negatively evaluate unwanted feelings, thoughts, and sensations, an inability to tolerate these private events, the desire to alter the nature of these events, and the unwillingness to pursue valued actions because of them. Responses range from 1 ("never true") to 7 ("always true") with higher scores reflecting greater experiential avoidance. Hayes et al. (2004) reported a single-factor solution as the best model fit and a moderate internal consistency of .70. Test–retest reliability of the AAQ over 4 months was .64. The AAQ has moderate to high concurrent validity with self-report and interview based measures of psychopathology and quality of life, and experimental inductions of acceptance and avoidance based regulatory processes (e.g., Hayes et al., 2004, 2006). The AAQ has been translated and used in a study with Kosovar War survivors (Morina, 2007). The author reports an internal consistency of .70 and the AAQ was positively correlated with the Impact of Event Scale-Revised (r = .36), the anxiety, depression, and somatization subscales of the Brief Symptom Inventory (rs = .35–.42), and negatively correlated with the Manchester Short Assessment of Quality of Life (r = −.24). In the current study, the internal consistency of the Albanian version of the AAQ was .76.

The Brief Symptom Inventory (BSI; Derogatis & Melisaratos, 1983) is a 53-item scale of global distress experienced during the prior week. The nine dimensions of the BSI are somatization, interpersonal sensitivity, obsession-compulsion, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism. A general severity index was calculated by summing all scores. All scales range from 0 ("not at all") to 4 ("extremely"). The original authors report good test-retest reliability for the general severity index (.90) and the nine BSI subscales (.68–.91). The BSI has been used before among Kosovar participants (Morina, 2007; Morina & Ford, in press; Morina et al., submitted for publication). Morina and Ford report an internal consistency of the BSI of .95 and a correlation of .69 between the BSI and PTSD severity. The anxiety, depression, and somatization subscales of the BSI were also positively correlated with the Impact of Event Scale-Revised (r = .60–.66) and negatively correlated with the Manchester Short Assessment of Quality of Life (r = −.38) (Morina, 2007). In the current study, the internal consistency of total BSI (or general severity index) was .96.

The Manchester Short Assessment of Quality of Life (MANSA; Priebe et al., 1999) was used to assess subjective quality of life. The MANSA is a short and modified version of the Lancashire Quality of Life Profile (LQLP, Oliver, 1991–1992) containing 12 questions to assess subjective quality of life including social relationships, family relationships, work, leisure, sex life, financial situation, living situation, personal safety, and physical and mental health. The scales range from 1 ("couldn't be worse") to 7 ("couldn't be better"), thus the total score ranging from a minimum of 12–84. Rakib et al. (2005) reported total quality of life scores of 42 for first-admission patients with depressive disorders, 49.2 with chronic fatigue syndrome, 52.8 with substance use disorders, 55.2 for schizophrenia, and 63.6 for a comparison group of medical students. An examination of the concurrent validity of the MANSA with the LQLP yielded coefficients $\geq$.83 and the satisfaction mean score had a coefficient of .94. Furthermore, the association with the Brief Psychiatric Rating Scale was similar to the results achieved with the LQLP. The satisfaction ratings of the MANSA showed high internal consistency (α = .74). The MANSA has been applied before in a study with Kosovar War survivors (Morina, 2007) where a mean score of 59.6 (S.D. = 9.6) and an internal consistency of .76 was reported. As reported above, Morina (2007) reports convergent validity with the AAQ and BSI. For the current study, the 12 items measuring general and facet levels of quality of life were used (α = .81).

4. Results

4.1. Preliminary analyses

As reported above, the current study is part of a larger multinational project with more than 4100 respondents. For the 174 participants in the present study, only one data point was missing. We imputed the missing value with the mean item score for the specific questionnaire in question (BSI). Missing data was a minor problem in the study as a function of the interview format used to collect data. The entire interview was read to the participants by interviewers who at the end of the interview checked for missing values.

For the current study, we examined all of the continuous measures in the study for outliers and assumption violation for subsequent analyses. The skewness and kurtosis statistics for ratings of traumatic life events, experiential avoidance, global distress, and quality of life ranged from −.81 to 1.21, suggesting normal curves. We failed to find outliers as defined by scores greater than three standard deviations from the mean except for two participants with relatively low quality of life scores. Because

these two participants were in the normal range on all other variables and they had a negligible influence on the parameter estimates in primary analyses, we elected to retain these participants in the dataset.

4.2. Trauma history

All participants reported having been exposed to multiple traumatic events, with an average of 12 (S.D. = 7.95) events per respondent. When broken down according to timing, participants reported an average of .59 (S.D. = 1.32) events before the war, 11.01 (S.D. = 7.37) events during the war, and .39 (S.D. = .69) events after the war. In terms of subjective distress for war-time trauma, participants consistently reported the highest scores on a scale from "not at all" (0) to "Extremely, I could barely stand it" (4).

4.3. Prevalence of psychiatric disorders

The point prevalence rates of meeting diagnostic criteria included 8.6% for SAD, 26.4% for PTSD, and 41.4% for MDD. We asked the participants to think about the most stressful or traumatic event in their lives prior to interviewing about PTSD symptoms. In every single case, the event selected was war-related and thus, our PTSD diagnoses entirely reflect the result of war-related traumas. Unfortunately, the data collected did not allow us to determine the prevalence rates of these disorders before the war (this would have required an assessment at least 7 years prior to our data collection).

We found strong relations between the likelihood of meeting criteria for PTSD and other diagnoses. This included SAD, χ^2 (1, 174) = 9.51, p = .004, η = .23 (60% with SAD had PTSD whereas 23% without SAD had PTSD; 20% with PTSD had SAD whereas 5% without PTSD had SAD); and MDD, χ^2 (1, 174) = 14.65, $p < .001$, η = .29 (42% with MDD had PTSD whereas 16% without MDD had PTSD; 65% with PTSD had MDD whereas 33% without PTSD had MDD). Also, there was a strong relation between the likelihood of meeting SAD and MDD, χ^2 (1, 174) = 13.88, $p < .001$, η = .28 (87% with SAD had MDD whereas 37% without SAD had MDD; 18% with MDD had SAD whereas 2% without MDD had SAD).

4.4. Demographic characteristics associated with psychiatric disorders

We examined demographic characteristics associated with PTSD, SAD, and MDD. A greater percentage of people with SAD were refugees during the war (80%) as opposed to being internally displaced (20%), whereas similar percentages were found for people without disorder (51% vs. 49%); χ^2 (1, 171) = 4.74, p = .03, η = .17; and a greater percentage of people with MDD were refugees during the war (66%) as opposed to being internally displaced (34%) whereas similar percentages were found for people without disorder (44% vs. 56%); χ^2 (1, 171) = 8.22, p = .05, η = .22; no significant differences were found for PTSD. Also, for people suffering from PTSD, less income was reported, t (166) = 2.14, p = .03, and people were older, t (169) = 2.50, p = .01; no significant relations were found with SAD or MDD. Each psychiatric condition was not significantly related to gender, marital status, education, employment status, or combat experience status.

4.5. Group differences in experiential avoidance, global distress, and quality of life

To interpret the magnitude of effects, medium and large effect sizes are arguably defined as $\eta_p^2 = .06$ and .14, respectively (Cohen, 1977). Using a series of multivariate linear models, one for each disorder, we examined whether people with and without disorder differed in experiential avoidance (AAQ), global distress (BSI), and quality of life (MANSA). Results are reported in Table 1. Presence of PTSD (partial $\eta_p^2 = .16$), SAD (partial $\eta_p^2 = .21$), or MDD (partial $\eta_p^2 = .30$) was associated with greater experiential avoidance and global distress, and lower quality of life ($ps < .005$).

4.6. Conservative tests of construct specificity

To extend the prior results, we examined the construct specificity of PTSD, SAD, and MDD. We constructed three separate hierarchical regression models with experiential avoidance, global distress, and quality of life as respective dependent variables. At step one, combat experience status, home displacement during war, and gender, age, income, and employment status were entered. At step two, PTSD, SAD, and MDD status were entered. Results are reported in Table 2. After controlling for model covariates, presence of MDD was associated with significantly greater experiential avoidance, p = .002, with trends for PTSD, p = .06, and SAD, p = .08; PTSD, SAD, and MDD were each uniquely associated with greater global distress, $ps < .005$; and SAD and MDD were each uniquely associated with lower quality of life, $ps < .05$.

Table 1
Diagnostic group differences in experiential avoidance, psychological distress, and quality of life

Outcomes	SAD (mean ± S.E.)	Non-SAD (mean ± S.E.)	Between-subjects effects, F (1, 171)	Partial η_p^2
AAQ	43.73 ± 1.98	36.85 ± .61	11.05*	.06
BSI	81.73 ± 7.13	32.06 ± 2.20	44.31*	.21
MANSA	56.01 ± 2.42	63.35 ± .75	8.41*	.05
Outcomes	PTSD (mean ± S.E.)	Non-PTSD (mean ± S.E.)	Between-subjects effects, F (1, 171)	Partial η_p^2
AAQ	41.26 ± 1.12	36.06 ± .67	15.94*	.09
BSI	55.74 ± 4.23	29.35 ± 2.55	28.56*	.14
MANSA	59.16 ± 1.38	64.01 ± .83	9.04*	.05
Outcomes	MDD (mean ± S.E.)	Non-MDD (mean ± S.E.)	Between-subjects effects, F (1, 171)	Partial η_p^2
AAQ	40.99 ± .87	34.98 ± .73	28.09*	.14
BSI	55.94 ± 3.12	22.75 ± 2.60	66.80*	.28
MANSA	59.04 ± 1.08	65.28 ± .90	19.74*	.10

Degrees of freedom for tests were 172 for AAQ and MANSA and 171 for BSI. AAQ: Acceptance and Action Questionnaire; BSI: Brief Symptom Inventory; MANSA: Manchester Short Assessment of Quality of Life; SAD: Social Anxiety Disorder; PTSD: Post-Traumatic Stress Disorder; MDD: Major Depressive Disorder.
* $p < .01$. All p values were two-tailed.

Table 2
Hierarchical regression models with diagnoses as predictors of experiential avoidance, psychological distress, and quality of life

Step	*b*	S.E.$_b$	*pr*	*t*	ΔR^2	ΔF
Outcome: AAQ Scores						
1						
Combat experience status	.11	.42	.02	.25	.09	2.71*
Home displacement during war	.38	.15	.20	2.56*		
Gender	−.07	.17	−.03	−.38		
Age	.01	.01	.10	1.24		
Income	−.00	.00	−.22	−2.82**		
Employment status	−.01	.07	−.01	−.10		
2						
SAD diagnosis	.46	.27	.14	1.73+	.14	9.33***
PTSD diagnosis	.33	.17	.15	1.91+		
MDD diagnosis	.50	.16	.24	3.12**		
Outcome: BSI Scores						
1						
Combat experience status	20.04	13.30	.12	1.51	.06	1.61
Home displacement during war	8.35	4.66	.14	1.79+		
Gender	.70	5.44	.01	.13		
Age	−.03	.22	−.01	−.14		
Income	−.03	.02	−.13	−1.70		
Employment status	.11	2.13	.00	.05		
2						
SAD diagnosis	33.50	7.10	.35	4.72***	.38	35.50***
PTSD diagnosis	13.09	4.53	.22	2.89**		
MDD diagnosis	23.59	4.18	.41	5.64***		
Outcome: MANSA Scores						
1						
Combat experience status	−.73	3.80	−.02	−.19	.19	6.40***
Home displacement during war	−2.07	1.33	−.12	−1.56		
Gender	5.66	1.54	.28	3.67***		
Age	−.03	.06	−.04	−.46		
Income	.02	.34	.33	4.50***		
Employment status	−.98	.60	−.13	−1.63		
2						
SAD diagnosis	−4.91	2.45	−.16	−2.01*	.10	7.63***
PTSD diagnosis	−1.78	1.56	−.09	−1.14		
MDD diagnosis	−4.21	1.44	−.23	−2.93**		

All *p* values were two-tailed. SAD: Social Anxiety Disorder; PTSD: Post-Traumatic Stress Disorder; AAQ: Acceptance and Action Questionnaire; BSI: Brief Symptom Inventory; MANSA: Manchester Short Assessment of Quality of Life.
+ $p < .10$.
* $p < .05$.
** $p < .01$.
*** $p < .001$.

4.7. Mediation and moderation models with experiential avoidance

Finally, we examined whether any effects of PTSD, SAD, and MDD on global distress and quality of life were mediated or moderated by the degree of experiential avoidance. To test this, we conducted separate hierarchical regression models with global distress and quality of life as dependent variables for each psychiatric condition. At step one, a diagnosis and experiential avoidance were entered. A formal test of mediation was conducted if there was evidence that experiential avoidance added significant variance to predicting outcome variables over and above the diagnosis in the model (Baron & Kenny, 1986).

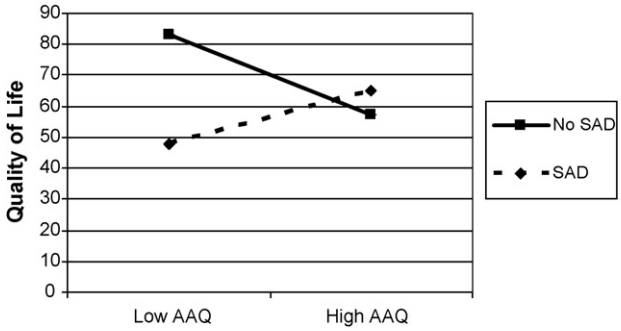
To test moderation, we included all three diagnoses at step one and added a second step to our hierarchical regression models such that PTSD × Experiential Avoidance, SAD × Experiential Avoidance, and MDD × Experiential Avoidance interactions were entered. Experiential avoidance and interaction terms were centered and significant results were explored with simple effect analyses (Aiken & West, 1991).

4.7.1. Global distress

Following guidelines of Baron and Kenny (1986), the first and second conditions of mediation were supported by results in Table 1 showing that each psychiatric disorder was related to the mediator (experiential avoidance) and outcome (global distress) variables. As support for the third condition, even after controlling for diagnoses, experiential avoidance was consistently positively related to global distress (*ps* < .001).

The final condition required evidence of a significant reduction in the effects of diagnoses (independent variables) on the dependent variable after accounting for experiential avoidance. After inclusion of experiential avoidance at the second step, the respective effects of PTSD, SAD, and MDD diagnoses on global distress remained statistically significant (*ps* < .001). Thus, there was no support for experiential avoidance as a mediator of any effects of anxiety and mood disorders on global distress.

As for our test of moderation, including PTSD × Experiential Avoidance, SAD × Experiential Avoidance, and MDD × Experien-Experiential Avoidance interactions failed to account for significant variance in models to predict global distress ($R^2\Delta = .01$,



Notes. * $p < .05$. ** $p < .01$. *** $p < .001$. All p-values were two-tailed. SAD = Social Anxiety Disorder; AAQ = Acceptance and Action Questionnaire. The outcome variable of quality of life was defined by total scores on the Manchester Short Assessment of Quality of Life.

Fig. 1. Quality of life as a function of social anxiety disorder and experiential avoidance (SAD = social anxiety disorder; AAQ = Acceptance and Action Questionnaire). *Notes*: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. All p values were two-tailed. The outcome variable of quality of life was defined by total scores on the Manchester Short Assessment of Quality of Life.

$p = .28$). Thus, there was no support for experiential avoidance as a mediator or moderator of anxiety and mood disorder effects on global distress.

4.7.2. Quality of life

Support for the first two steps of mediation is reported in Table 1, showing that each psychiatric disorder was related to the mediator (experiential avoidance) and outcome (quality of life) variables. As support for the third condition, experiential avoidance was consistently negatively related to quality of life ($ps < .001$). Inclusion of experiential avoidance reduced the effects of SAD and PTSD diagnoses to non-significance; in contrast, the effect of MDD diagnoses on quality of life remained statistically significant ($p < .005$). Thus, we only conducted formal tests of mediation for SAD and PTSD models.

A statistically rigorous, bootstrap approach to mediation was used (Preacher & Hayes, 2004) with estimates for 3000 resampling iterations. The primary aim is to determine whether the indirect effect accounts for a meaningful portion of variance (the mediator accounts for the influence of an independent variable on a dependent variable). Statistically significant results imply that the true indirect effect is greater than zero, as determined by absence of zero in the 95% confidence interval (CI). As evidence of partial mediation, experiential avoidance accounted for the significant effects of SAD, bootstrap mean = 2.44 (95% CI = .66, 4.51), $p < .05$, and PTSD, bootstrap mean = 1.81 (95% CI = .61, 3.19), $p < .05$, on MANSA scores. Since people might not be familiar with these techniques, support for partial mediation was also evidenced by traditional, significant Sobel z scores for both SAD ($z = 2.48$, $p = .01$) and PTSD ($z = 2.70$, $p = .007$) (Baron & Kenny, 1986; MacKinnon, Warsi, & Dwyer, 1995).

In support of a moderation model, including PTSD × Experien-Experiential Avoidance, SAD × Experiential Avoidance, and MDD × Experiential Avoidance interactions in our hierarchical regression at step three accounted for significant variance to predict quality of life, $F\Delta$ (3, 166) = 5.88, $R^2\Delta = .08$, $p = .001$. The SAD × Experiential Avoidance interaction on quality of life was significant, t (166) = 4.10, $p < .001$; no other interaction effects were statistically significant ($ps = .39$–$.88$). Upon decomposing the SAD × Experiential Avoidance interaction, for people without SAD, experiential avoidance was significantly associated with lower quality of life; $R^2\Delta = .07$, $p = .001$; t (146) = −3.04, $p = .003$, $pr = -.24$. In contrast, people with SAD reported low quality of life that was not contingent on experiential avoidance scores. Simple slopes and the nature of this interaction are presented in Fig. 1.

5. Discussion

Drawing on a community sample of Albanian civilian survivors of the Kosovo War, we examined whether PTSD, SAD, MDD, and experiential avoidance were associated with mental health and quality of life outcomes. Extending previous findings on PTSD (e.g., Plumb et al., 2004; Valentiner, Foa, Riggs, & Gershuny, 1996), SAD (e.g., Frueh et al., 2006; Kashdan, Julian, Merritt, & Uswatte, 2006), and depression (e.g., Ottenbreit & Dobson, 2003; Zettle & Rains, 1989), each of these conditions was associated with greater experiential avoidance, global distress, and compromised quality of life.

There was some empirical support for recent conceptualizations of anxiety disorders (Forsyth et al., 2006; Kashdan, 2007; Salters-Pedneault et al., 2004), as experiential avoidance partially mediated the effects of PTSD and SAD on compromised quality of life (but not global distress). In addition, experiential avoidance moderated the effects of SAD on quality of life such that being without disorder and low in experiential avoidance was associated with extremely high quality of life (as compared to healthy comparison groups; Rakib et al., 2005); the absence of SAD was not sufficient to predict high quality of life. As evidence for a distinction between the overlapping conditions of SAD and MDD, experiential avoidance did not mediate or moderate the effects of MDD on quality of life or general distress. Overall, data from this sample adds to the small literature showing that in various models, PTSD, SAD, and MDD contribute to the distress and quality of life of Kosovo War survivors. In turn, we found support for experiential avoidance as a mechanism that partially accounts for relations between PTSD and SAD with quality of life.

As an extension of past work, we compared models of experiential avoidance as a potential mediator or moderator of various anxiety and mood disorders. There was tentative support for the role of experiential avoidance in theoretical conceptualizations of PTSD and SAD. The construct of experiential avoidance overlaps with the use of safety behaviors as a regulatory strategy to minimize contact with anxious feelings, thoughts, and behaviors in social situations (e.g., looking down to minimize eye contact; see SAD model by Clark & Wells, 1995) and methods to cope with potential exposure to trauma triggers (e.g., Ehlers & Clark, 2000). As such, the current findings encourage further investigation of the

generalizability of this model to understand the development, maintenance, and sequelae of PTSD and SAD. This includes the impact on everyday functioning as a complement to subjective distress and quality of life. In this regard, encouraging research suggests that both social anxiety and experiential avoidance are inversely related to the day-to-day frequency of positive life events and positively related to the frequency of negative life events (Kashdan et al., 2006; Kashdan & Steger, 2006). Other studies show that acts of experiential avoidance adversely impact performance on subsequent tasks that require intention and effort (Baumeister, 2002; Baumeister, Bratslavsky, Muraven, & Tice, 1998). Researchers have shown that people with anxiety disorders who avoid their emotions require a longer time to recover from the unpleasant effects of aversive stimuli (Campbell-Sills, Barlow, Brown, & Hofmann, 2006; see Feldner, Zvolensky, Stickle, Bonn-Miller, & Leen-Feldner, 2006).

Experiential avoidance may be an integral mechanism in the pathological operations of PTSD and SAD. However, we should reiterate that experiential avoidance only mediated the effects of these conditions on quality of life and not global distress. The effects of PTSD and SAD on global distress were large; the effects on quality of life were moderate (Cohen, 1977). Our measure of quality of life assessed specific levels of functioning in various domains of everyday life, possessing greater differentiation from disorder, scope, and ecological validity compared with our measure of global distress (Priebe et al., 1999). As a result, we are more confident in findings using quality of life as an outcome. To arrive at more definitive conclusions, this area of research will benefit from multi-method assessment approaches in longitudinal and experimental designs, and growth curve modeling, which can allow investigators to better evaluate whether experiential avoidance is causally related to SAD and PTSD outcomes. In addition, experiential avoidance requires comparison to alternative plausible mechanisms such as the direction of attentional focus, perceived probability and cost of danger cues (e.g., social situations, trauma triggers), the availability and marshalling of social resources, and social skills.

Additional work needs to address more complete temporal models of how particular disorders and experiential avoidance operate in the recovery of trauma survivors. More research is needed on the antecedents to chronic experiential avoidance and the intermediary steps leading to compromised quality of life. As mentioned in the introduction, experiential avoidance may be a maintaining factor for disorders such as PTSD, SAD, and depression in trauma survivors by leading to shifts in the types of goals pursued (e.g., avoidance vs. approach oriented), the devotion of substantial effort to emotion regulation at the expense of other meaningful pursuits, interpersonal problems, diminished reward responsiveness, and problems creating and capitalizing on social resources (e.g., Joiner & Coyne, 1999; Kashdan, 2007; Litz et al., 2000). Individuals have a limited amount of physical energy, attention, and self-control at any given point of time and overexertion can essentially drain this pool of resources (Baumeister, 2002). Experiential avoidance is a useful starting point in the development of models accounting for this resource drain and its role in affecting quality of life. However, other transdiagnostic and disorder-specific factors need to be addressed in future work.

As a complement to our mediation model, our moderation models provided insight into one set of conditions for healthy functioning. Recent data suggest that markers of psychopathology (i.e., presence of anxiety and mood disorders) are inversely related but independent from positive affect, psychological well-being (e.g., purpose in life, self-determination), and social well-being (Keyes, 2005). This fits with a statement in the 1948 constitution of the World Health Organization that "health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity."

As a comprehensive measure of health, we relied on total scores from The Manchester Short Assessment of Quality of Life (Priebe et al., 1999), which assessed general life satisfaction and in the domains of physical and mental health, social relationships, family relationships, work, leisure, sexuality, finances, living situation, and personal safety. Supporting our moderation model, healthy states were only found in civilian survivors when both SAD was absent and experiential avoidance was low. Low scores on the AAQ were indicative of being accepting of emotional experiences as they naturally arise, making effort and progress toward valued goals regardless of particular thoughts and feelings, and flexibility in response to varying situational contexts and demands (Hayes et al., 2004). It could be argued that attributes of acceptance, valued activity, and psychological flexibility are the essence of psychological health (the converse of experiential avoidance). The present findings map onto findings from prior daily diary and longitudinal studies showing that low social anxiety is only sufficient for frequent and intense positive experiences in the presence of a willingness to accept and express one's emotions (Kashdan & Breen, 2008; Kashdan & Steger, 2006). Thus, this is the third study – each using different methodologies – to find support for a model wherein the absence of social anxiety problems and general tendencies to be high in experiential acceptance lead to the healthiest functioning. The next stage of work requires a thorough examination of the mechanisms responsible in the chain of events from trauma exposure to compromised quality of life (integration with other models; e.g., Clark & Wells, 1995).

Focusing on the alleviation of psychological distress and disorder fails to address the full continuum of health. With the appropriate configuration of psychological traits, a subset of civilian survivors of war was able to reach this highly desirable outcome. However, we failed to find support for any statistically significant moderation effects on global distress. This may be partially attributed to the substantial variance accounted for by PTSD, SAD, and MDD in predicting global distress (41%) compared with quality of life (13%). This is not unexpected, as quality of life can be considered further downstream and more independent from disorder than ratings of global distress.

It was somewhat unexpected that levels of experiential avoidance did not influence the quality of life of people suffering from SAD. Our first assumption was that the variability of experiential avoidance might be minimal in people with SAD, with the majority reporting excessive experiential avoidance, compared with people without SAD. An examination of the data supported this interpretation. Although the skewness of experiential avoidance was less than 1.0 in both groups, the range on our measure of experiential avoidance was truncated in the SAD group (28–54) compared with people without SAD (16–53). Of people with SAD, 66.7% scored 44 or greater compared with 11.9% in people without SAD. These findings suggest that most people with SAD score high in experiential avoidance, providing a potential explanation for the maintenance of SAD disorder—7 years after the war ended.

In Kosovar Albanians, SAD (8.6%) and MDD (41.4%) were shown to be considerable problems that warrant consideration similar to the more widely studied diagnosis of PTSD (26.4% in our sample). The higher rates of MDD compared with PTSD in our sample might be a result of factors related to post-war hardships that go beyond the objectives of the current study. In addition, there may be biases in the reporting of diagnoses due to the data collection procedure (e.g., unemployed people may be more likely to be home when recruiting door-to-door) and cultural factors (e.g., social norms for particular conditions). Additionally, constructs such as SAD might

not be easily applied to the culture and people of Kosovo and if so, this would add non-random error. Although this is a reasonable hypothesis, the observed prevalence rate of SAD in our sample was nearly identical to the base rate found in epidemiological studies conducted in other countries (Kessler, Berglund, et al., 2005; Offord et al., 1996; Stein, Torgrud, & Walker, 2000; Stein, Walker, & Forde, 1994). These similarities mitigate concerns about cultural influences affecting diagnostic thresholds. The prevalence rates of MDD and PTSD in our current sample converge with other epidemiological studies of Kosovo War survivors (Cardozo et al., 2003; Morina & Ford, in press) and are substantially higher than prevalence rates of these conditions in a nationally representative sample of the United States (Kessler, Chiu, Demler, & Walters, 2005). Considering the extensive conflict and social upheaval in Kosovar Albanians, the divergence in psychiatric disorders should not be surprising.

We found that the only disorders associated with being a refugee during the time of the Kosovo War were SAD and MDD. Yet, without pre-trauma assessments, we could not evaluate which survivors developed SAD and mood disorders before, during, or after becoming a refugee. Regardless of whether being a refugee is a risk factor for these conditions or pre-existing SAD or MDD increases the probability of being a refugee, there is a sad irony that SAD and MDD increases the difficulty of making friends and developing a secure social base in new surroundings (when the physical and economic hardships are difficult enough on their own). Health care for conditions such as SAD and depression may be essential to the resilience and recovery of refugees. Nonetheless, conclusions to be drawn from the current study are limited by the cross-sectional design.

It is important to note that the homogeneity of the current sample (Albanian, mainly civilian war survivors) may ultimately limit the generalizability of these findings. Yet, this is one of the first studies to examine psychiatric conditions such as SAD in trauma survivors other than American male combat veterans. The target population is arguably an important one for whom PTSD, SAD, MDD, and experiential avoidance are especially salient given the stress of adjusting in a post civil war environment. Although our measures demonstrate good reliability and construct validity, the sole reliance on interview and self-report measures is a methodological limitation. In addition, there are minimal published data on the Albanian versions of instruments. All data were cross-sectional which does not allow us to draw conclusions on causal relations between variables. The use of broader assessment strategies would allow for determination of whether the current pattern of findings replicates across response systems (cognitive and neurological activity) and context (behavioral assessments). This includes experimentally inducing states of social anxiety or depression and providing instructional sets for participants to avoid or accept unwanted negative experiences, or to think more positively. The artificial nature of laboratory tasks raises external validity concerns. Thus, as an initial entry point in studying complex models in a foreign high-risk population, there is value in focusing on interview and self-report methodologies.

This study demonstrated links between several anxiety and mood disorders, experiential avoidance, and trauma, with important implications for theory and research. In Albanian civilian survivors of the Kosovo War, PTSD, SAD, and MDD were each associated with greater experiential avoidance and global psychological distress, and lower quality of life; controlling for shared variance, each condition was uniquely related to global distress. Associations between SAD and PTSD with lower quality of life outcomes were shown to be a partial function of experiential avoidance. As a complementary model, experiential avoidance also moderated the effects of SAD on quality of life such that the only trauma survivors at high functioning were those without disorder and low in experiential avoidance; this is the third empirical study to support this model, each with different outcome variables and methodologies (Kashdan & Breen, 2008; Kashdan & Steger, 2006). Dovetailing with prior work, the interpersonal problems, diminished positive experiences, and self-regulatory resource drain linked to SAD appears to be a neglected consideration in the study and treatment of trauma survivors (e.g., Frueh et al., 2006; Green et al., 1992; Julian et al., 2006; Orsillo et al., 1996). The current study represents an important, albeit preliminary step toward identifying more complete models of vulnerability and resilience in trauma survivors of war.

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