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Personality and Individual Differences 29 (2000) 921–932

PERSONALITY AND
INDIVIDUAL DIFFERENCES

www.elsevier.com/locate/paid

Sensation seeking, wartime performance, and long-term adjustment among Israeli war veterans

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Received 18 June 1999; received in revised form 7 October 1999; accepted 12 November 1999

Abstract

The current study explored the implications of sensation seeking in immediate and long term adjustment to war-related traumatic events. More specifically, the associations between sensation seeking, performance under war stress and long term emotional adjustment were examined. Three groups of Israeli veterans of the 1973 Yom Kippur war were studied: 112 combat stress reaction (CSR) casualties, 98 veterans who received medals for bravery and 189 controls. Eighteen years after the war subjects filled out a battery of questionnaires. Findings indicated that sensation seeking plays a significant role in both performance during the war and subsequent long-term adjustment. Decorated war veterans were found to be higher-sensation seekers than CSR casualties and controls. In addition, high-sensation seekers suffered from lower levels of war-related intrusion and avoidance tendencies and PTSD symptoms than low-sensation seekers. The implications of these findings are discussed. © 2000 Elsevier Science Ltd. All rights reserved.

Keywords: Sensation seeking; Stress; Acute stress disorder; Heroism; Posttraumatic stress disorder (PTSD)

1. Introduction

Participation in combat is a recognized pathogenic stressor. There is, however, a considerable variance in the human reactions to war related traumatic events. While most combatants are able to cope adequately, some of the soldiers, between 10–30% (Belenky, Noy & Solomon, 1987; Glass, 1973), are unable to marshal effective coping mechanisms to deal

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with the onslaught of threatening stimuli, and exhibit immediate psychological dysfunction known as combat stress reaction (CSR). CSR consists of a wide range of labile and polymorphic manifestations, including restlessness, psychomotor deficiencies, withdrawal, increased sympathetic nervous system activity, stuttering, confusion, nausea, vomiting and paranoid responses (Bartemeier, 1946; Grinker & Spiegel, 1945; Solomon, 1993). The defining feature is that the soldier ceases to function militarily, and acts in a manner that endangers himself and his fellow combatants (Kormos, 1978).

In many cases, CSR is not merely a transient episode. Various studies have shown that CSR casualties are more prone than other combatants to develop long term psychiatric disorders, especially posttraumatic stress disorder (PTSD), anxiety and depression, as well as significant impairment in marital, parental, occupational and social functioning (Archibald, Long & Miller, 1962; Solomon, 1993).

At the other end of the continuum of wartime performance are soldiers that due to exceptional performance are recognized as war heroes. These include behaviors that are characterized by self-sacrifice, persistence and leadership (Gal, 1987; Blake & Butler, 1976).

McMillan and Rachman (1987) define bravery as persistence in the face of fear. These authors and others emphasize that heroes are not those who are fearless, but those who act despite the fear (Rachman, 1990). The implication of decorated combatants' readiness to face danger, take risks and, if need be, to sacrifice their lives has been little studied. To the best of our knowledge there are no studies on the long term adjustment of wartime decorated heroes.

The literature is divided regarding the contribution of personal characteristics to the explanation of the nature of immediate coping and long term adjustment to war-induced stress. While some authors claim that the role of the pre-war personality is limited (Cavenar & Nash, 1976), others suggest that personal characteristics, such as history of emotional difficulties (Brill & Beebe, 1955), neuroticism (Swank, 1949), and low sense of self-efficacy (Solomon, 1993) may serve as risk factors. On the other hand, personal qualities such as high intelligence, emotional stability, self-confidence and high motivation to attain a goal, have been found to contribute to courageous behavior (Gal, 1987, 1995; Egberd et al., 1957; Rachman, 1983, 1990). None of these studies had examined CSR casualties and decorated war heroes simultaneously, to identify a construct that may relate to the whole spectrum of immediate and long-term adjustment to war stress. This study is focused on sensation seeking, examining its implication for wartime performance and subsequent adjustment.

1.1. Sensation seeking

Sensation seeking, a term coined by Zuckerman (1969), is defined as 'seeking of varied, novel, complex, and intense sensations and experiences, and the willingness to take physical, social, legal, and financial risks for the sake of such experience' (Zuckerman, 1994). According to Zuckerman (1969), individuals differ in their optimal levels of arousal and stimulation. High-sensation seekers need higher levels of stimulation to maintain optimal levels of arousal, while low-sensation seekers feel more comfortable in a less stimulating environment. This interpersonal variance, associated with psychophysiological and biochemical differences, is manifested as a personality dimension (Zuckerman, 1984, 1994), and has been described as a motivational construct (Novacek & Lazarus, 1990).

Sensation seeking was found to have various mental and behavioral manifestations. High-sensation seekers tend to look for the novel and non-conventional. They are more likely to be non-conformists, and have a more intense need for autonomy and independence than low-sensation seekers (Zuckerman, Bone, Neary, Mangelsdorff & Brustman, 1972). Positive correlations have been found between sensation seeking and extraversion (Eysenck & Zuckerman, 1978), impulsivity and psychopathy (Blackburn, 1969), as well as for the perceptual and cognitive preference for complexity, creativity and flexibility (Zuckerman, 1978).

Extensive research indicates that sensation seeking is related to risk-taking behaviors. High-sensation seekers are more prone to engage in risky activities such as high-risk sports (Zarevski, Marusic, Zolotic, Bunjevac & Vukosav, 1998; Jack & Ronan, 1998), risky driving (McMillen, Smith & Wells-Parker, 1989) and gambling (Zuckerman, 1994). Jobe, Holgate and Sorapansky (1983) found that US army volunteers for a hazardous combat task were characterized by a risk-taking personality. Similarly, Hobfoll et al. (1989; in Zuckerman, 1994) found a correlation between sensation seeking and the tendency to volunteer for combat units, among Israeli soldiers. This tendency could be explained by lower levels of anxiety among high-sensation seekers (Zuckerman, 1994) and by their tendency to perceive the world as less threatening and less likely to lead to negative outcomes as compared with low-sensation seekers (Franken, Gibson & Rowland, 1992).

However, the literature is inconclusive regarding the role of sensation seeking as a stress mediator. Some authors claim that when exposed to stressful life events, high-sensation seekers exhibit lower vulnerability than low-sensation seekers (Smith, Johnson & Sarason, 1978; Cooley & Keeseey, 1981; Smith, Ptacek & Small, 1992; Solomon, Ginzburg, Neria & Ohry, 1995). Others contend the opposite, claiming that high-sensation seekers display more emotional distress as a result of life stress, than low-sensation seekers (Clarke & Innes, 1983). Others did not find evidence for the mediating role of sensation seeking on the association between stress and emotional adjustment (Cohen, 1982; Cooper & Livingston, 1991).

Most of these studies are focused on immediate or short-term adjustment to stress. That is, most studies investigated the implication of sensation seeking on adjustment to recent stressful life events (Cohen, 1982; Cooley & Keeseey, 1981; Smith et al., 1978, 1992). To the best of our knowledge, only one study, conducted by Solomon et al. (1995), examined the implications of sensation seeking on long term adjustment following traumatic stress. According to this study, high-sensation seekers adjusted better than low-sensation seekers to the stress of war captivity, reporting lower levels of PTSD and other psychiatric symptoms, as evidenced almost two decades after the captivity.

The current study aims to examine both the short-term and long-term implications of sensation seeking on adjustment to traumatic stress. It explores the role of sensation seeking in both immediate and long-term adjustment of Israeli soldiers exposed to war-stress. Three groups of veterans of the 1973 Yom Kippur war were studied: soldiers diagnosed by mental health professionals as CSR casualties during or immediately after battle; soldiers decorated for heroism, and controls — soldiers who neither received medals nor ‘broke down’.

It is hypothesized that high- and low-sensation seekers differ in the way they cope and adjust to the stresses of war. That is, high-sensation seekers will tend to take risks in the face of danger and conduct heroic actions in facing danger, and display less subsequent long-term war-related emotional distress, than low-sensation seekers.

2. Method

2.1. Subjects

This study examined 399 Israeli veterans of the 1973 Yom Kippur War from three groups:

2.1.1. Decorated veterans

150 soldiers received medals for bravery in the 1973 Yom Kippur War. Of these, 16 were abroad at the time of the study. Of the remaining 134, 98 participated in the study, constituting a 73% response rate.

2.1.2. CSR casualties

The research team obtained the medical records of a treatment installation where clinicians diagnosed and treated a total of 178 combat stress reaction casualties during the Yom Kippur War. Nine of these men were abroad at the time of the research. Of the remaining 169, 112 participated in the study, constituting a 66% response rate.

2.1.3. Controls

A group of 280 combat veterans of the Yom Kippur War was sampled from IDF computerized data banks. Twenty were abroad at the time of the research and five were deceased. Of the remaining 255, 189 participated in the study, constituting a 74% response rate.

Examination of sociodemographic variables revealed that the groups differed in age, ethnic background, marital status, educational background, and military rank during the war (Table 1). CSR casualties and decorated veterans were older during the war ($M = 25.27$, $SD = 3.85$; $M = 26.79$, $SD = 6.96$, respectively) than the controls ($M = 22.30$, $SD = 3.60$; $F(2,370) = 30.71$; $P < 0.001$). There were more CSR casualties whose origin was from Asia or Africa, had fewer years of education, and were of lower ranks, than the controls and decorated veterans. Father's country of origin of most of the decorated veterans was Israel. Most of the decorated heroes had high education and more than half were officers during the war. These background differences will be considered in analyzing the results.

2.2. Measures

2.2.1. Impact of Event Scale (IES)

The IES was devised by Horowitz, Wilner and Alvarez (1979) to assess the emotional sequelae of extreme stress. The questionnaire includes 15 items, tapping intrusion and avoidance. Intrusion refers to the penetration into consciousness of thoughts, images, feelings and nightmares and to a variety of repetitive behaviors (e.g. 'Last week I had dreams about the war'; 'Last week I thought about the war even when I did not mean to'). Avoidance reflects tendencies to psychic numbing, conscious denial of meanings and consequences, behavioral inhibition, and counterphobic activities related to the stressful event (e.g. 'I tried not to talk about the war'; 'I can not feel anything about the war'). The respondent is asked to indicate on a 4-point scale (0 = 'Not at all'; 1 = Seldom; 3 = Sometimes; 5 = Often), how

frequently he experienced each reaction during the previous week. Two total scores — IES-Intrusion and IES-Avoidance — were computed by summing the items corresponding to each scale.

This is an accepted measure among survivors of trauma, with proven psychometric qualities (Sack, Seeley, Him & Clarcke, 1998). A previous study with a similar sample of combatants indicated high reliability and validity of the Hebrew version (Schwarzwald, Solomon, Weisenberg & Mikulincer, 1987).

2.2.2. Post Traumatic Stress Disorder (PTSD) Inventory

The PTSD Inventory used in this study is a self-report scale based on DSM-III-R criteria (American Psychiatric Association (APA), 1987). The scale (Solomon et al., 1993) enables a decision as to whether or not a person is suffering from PTSD, and it measures both the intensity (number of symptoms) and the differential symptom profile of the syndrome. The questionnaire consists of 17 statements corresponding to the 17 PTSD symptoms listed in the DSM (APA, 1987). Subjects are asked to indicate for each statement whether or not they had the symptom ‘during the last month’.

Internal consistency among the 17 items is high, and the scale was found to have a high convergent validity when compared with diagnoses based on structured clinical interviews (Solomon et al., 1993).

Table 1
Frequencies of sociodemographic variables by group^a

	CSR casualties		Controls		Decorated veterans		
	N	%	N	%	N	%	
Ethnic background							$\chi^2 = 22.11^{***}$, df = 4
Israel	58	52	108	59	75	81	
Asia/Africa	47	42	63	34	12	13	
America/Europe	7	6	13	7	6	6	
Marital status							$\chi^2 = 35.51^{***}$, df = 2
Bachelor	44	39	134	74	49	53	
Married	68	61	48	26	44	47	
Education							$\chi^2 = 19.70^{***}$, df = 2
Less than 12 years	46	41	47	25	13	14	
12 years and more	65	59	136	75	87	86	
Military rank							$\chi^2 = 83.39^{***}$, df = 8
Privates	88	81	116	65	31	34	
Corporals/Sergeants	9	8	18	10	4	3	
1st/2nd Lieutenants	10	9	41	23	36	39	
Lt. col./Majors	2	2	4	2	21	22	

^a $***P < 0.001$.

2.2.3. SCL-90

This questionnaire is a self-report measure that inquires about 90 psychiatric symptoms during the two weeks preceding the assessment. Using the SCL-90, one can examine the severity of general psychiatric symptomatology (Derogatis, 1977). In the current study we assessed the Global Severity Index (GSI), which reflects the clinical severity of all symptoms, and is computed by averaging subjects' answers on the 90 symptoms.

The SCL-90's proven psychometric properties have consistently been reported (Derogatis & Clearly, 1977; Derogatis, Rickles & Rock, 1976), and it is widely used among survivors of traumatic events (Kamphuis & Emmelkamp, 1998).

2.2.4. Sensation Seeking

The current version of the Sensation Seeking Scale was the short version developed by Madsen, Das, Bogan and Grossman (1987). This self-report scale consists of 10 pairs of items of opposed attitudes (e.g. 'I would like to take up the sport of water-skiing' vs 'I would not like to take up water-skiing'). Subjects are asked to indicate which of the two describes their preferences. Based on the responses, a mean score was computed ($M = 1.53$; $SD = 0.21$), as a high score reflects a high tendency to sensation seeking.

Madsen et al. (1987) demonstrated satisfying test-retest reliability ($r = 0.78$) and high correlations with drug- and sex-related behavior.

2.3. Procedure

Subjects were sent letters inviting them to participate in the study. A few days after the letters were sent, a telephone call was made to all potential subjects to once again explain the purpose of the study and to schedule their assessments.

Subjects were seated in groups of 30 to 50 to fill out a battery of questionnaires. This took approximately 2 h including a short break. Some of the veterans, who were unable to attend at the hospital, had questionnaires administered at home. Prior to their filling out questionnaires, subjects were assured that the data would remain confidential and would in no way affect their status in military or civilian life.

3. Results

3.1. Sensation seeking and performance in combat

Firstly we explored the relationship between sensation seeking and wartime performance. That is, we examined whether CSR casualties, decorated heroes, and controls, differ in their tendency to seek sensation. One way analysis of variance revealed a significant group effect ($F(2,381) = 9.55$; $P < 0.01$), indicating that wartime performance was related to sensation seeking.

Scheffe contrasts were conducted to ascertain the source of the group differences in sensation seeking. These indicated that, as hypothesized, decorated war veterans ($M = 1.60$; $SD = 0.18$)

were higher-sensation seekers than CSR casualties ($M = 1.48$; $SD = 0.22$) and controls ($M = 1.52$; $SD = 0.20$). CSR casualties and controls did not differ significantly in sensation seeking.

Since the three groups differed in their sociodemographic background, we examined whether the associations between wartime performance and sensation seeking were influenced by the background variables. For this, MANCOVA analyses for age and education as covariant and MANOVA analyses for rank and father's country of origin were carried out.

The analyses indicated that age and education did not affect the group differences in sensation seeking. That is, the association between sensation seeking and wartime performance was not related to subjects' age and education.

However, a significant interaction between ethnic background and wartime performance ($F(2,376) = 3.62$; $P < 0.05$) was found. Simple main effects for each group revealed significant effects among CSR casualties ($F(1,107) = 8.90$; $P < 0.001$) and controls ($F(1,181) = 6.47$; $P < 0.05$): In both groups, veterans originating from Asian or African countries were lower-sensation seekers ($M = 1.40$, $SD = 0.21$; $M = 1.47$, $SD = 0.22$, respectively) than veterans with other ethnic backgrounds ($M = 1.53$, $SD = 0.22$ for CSR casualties; $M = 1.55$, $SD = 0.19$ for controls). The relation between sensation seeking and ethnic background among the decorated heroes was not significant.

In addition, significant main effect of rank ($F(1,367) = 13.54$; $P < 0.001$) and interaction of rank and wartime performance ($F(2,367) = 3.78$; $P < 0.05$) were found. Officers were higher-sensation seekers ($M = 1.57$, $SD = 0.20$) than non-officers ($M = 1.50$, $SD = 0.21$). Simple main effects for each group revealed that the differences between officers and non-officers were significant only among the CSR casualties ($F(1,104) = 14.08$; $P < 0.001$; $M = 1.63$, $SD = 0.22$ for officers; $M = 1.44$, $SD = 0.21$ for non-officers). The relations between sensation seeking and rank among the decorated heroes and the controls were not significant.

3.2. Sensation seeking and long term adjustment

To examine whether sensation seeking is also associated with subsequent long term adjustment, the subjects were divided to high- and low- sensation seekers, based on the median score (1.5). The data on the subjects' current mental health status (PTSD symptoms, war-related intrusion and avoidance tendencies; and GSI- general psychiatric symptomatology) were analyzed by two-way multivariate analysis of variance for wartime performance (CSR casualties, controls, decorated veterans) and sensation seeking (high, low). Table 2 presents the means and standard deviations for these analyses.

The MANOVA yielded a significant main effect for sensation seeking ($F(4,336) = 4.53$; $P < 0.001$). Univariate analyses of variance indicated significant main effects for three of the dependent measures: number of PTSD symptoms ($F(1,339) = 7.49$; $P < 0.01$), IES intrusion ($F(1,339) = 12.30$; $P < 0.001$), and IES avoidance tendency ($F(1,339) = 14.17$; $P < 0.001$). That is, low-sensation seekers reported more PTSD symptoms and stronger war-related intrusion and avoidance tendencies than high-sensation seekers. High- and low-sensation seekers did not differ in severity of psychiatric symptomatology, as measured by the SCL-90.

The MANOVA also yielded a significant main effect for wartime performance ($F(8,672) = 3.68$; $P < 0.001$). Univariate analyses of variance, conducted for each outcome measure separately, indicated significant main effects for all dependent measures: PTSD

Table 2
Mean and standard deviation of outcome measures by group and sensation seeking

	CSR		Controls		Decorated	
	HSS ^a	LSS ^b	HSS	LSS	HSS	LSS
PTSD						
<i>M</i>	2.32	4.12	1.57	1.88	1.10	1.82
SD	3.56	4.30	2.42	2.91	1.74	2.69
Intrusion						
<i>M</i>	0.95	1.56	0.66	0.89	0.63	0.97
SD	1.08	1.39	0.76	0.91	0.68	1.04
Avoidance						
<i>M</i>	0.65	1.30	0.48	0.71	0.43	0.67
SD	0.79	1.10	0.67	0.92	0.65	1.09
GSI						
<i>M</i>	0.45	0.61	0.33	0.37	0.24	0.25
SD	0.44	0.70	0.42	0.39	0.22	0.26

^a HSS = High-sensation seekers.

^b LSS = Low-sensation seekers.

symptoms ($F(2,339)=9.58$; $P < 0.001$), IES intrusion tendency ($F(2,339)=7.82$; $P < 0.001$), IES avoidance tendency ($F(2,339)=7.16$; $P < 0.001$), and severity of psychiatric symptomatology ($F(2,339)=9.61$; $P < 0.001$). CSR casualties reported more PTSD symptoms, stronger war related intrusion and avoidance tendencies, and more severe psychiatric symptomatology than decorated war veterans and controls.

The interaction effect between wartime performance and sensation seeking was not significant ($F(8,672)=0.70$; NS). That is, the effect of sensation seeking on PTSD symptoms, IES intrusion and avoidance tendencies, and severity of psychiatric symptomatology was similar among CSR casualties, decorated war veterans and controls.

4. Discussion

The findings of the present study suggest that sensation seeking plays a significant role both in immediate and long term adjustment to traumatic stress. According to our findings, sensation seeking is related to wartime performance. High-sensation seekers tend to be initiators, take risks, and even sacrifice their lives, in the face of danger. For this readiness to act, they were decorated for bravery. Sensation seeking was also related to long term adjustment following exposure to traumatic stress. High-sensation seekers suffered less than low-sensation seekers from war-related intrusion and avoidance tendencies, and PTSD symptoms. On the whole, our findings support the hypothesis that sensation seeking is a trait that can serve as an indicator of resiliency to stress.

It is important to note that while high- and low-sensation seekers differed in their war-related long term distress, they did not differ in their general distress, as manifested by similar levels of the general psychiatric symptomatology. This is consistent with prior findings that indicated that sensation seeking is a normal trait of personality, which by itself is not related to any specific mental health disorder (Zuckerman, 1994). That is, it seems that the implications of sensation seeking are not related to mental health or quality of life in general, but are specific to stress-related disorders. In other words, while in general, high- and low-sensation seekers do not differ in their proneness to emotional symptoms, they do differ in their tendency to develop trauma-specific symptoms following exposure to stressful events.

The relation between sensation seeking and conduct under war stress could be explained by findings of a previous study conducted by our research team among Israeli exPOWs (Solomon et al., 1995). In this study, in examining the coping styles of POWs during captivity, we found that POWs who were high-sensation seekers were more likely to employ active problem-focused coping strategies, while low-sensation seekers tended to employ more emotion-focused coping strategies, such as detachment and denial. In addition, during captivity, high-sensation seekers reported fewer feelings of helplessness and loss of control than low-sensation seekers. Therefore it could be that the difference we found in the current study, between high- and low-sensation seekers in their conduct during war stress, reflects, in accordance with Lazarus and Folkman's coping theory (Folkman & Lazarus, 1980; Folkman, Lazarus, Dunkel-Schetter, DeLongis & Gruen, 1986), a difference in the immediate appraisal process. That is, during exposure to stressful events, high-sensation seekers tend to evaluate the situation as challenging and themselves as having effective coping resources to deal with it, while low-sensation seekers tend to evaluate situations as more stressful and uncontrollable, and themselves as lacking adequate or effective coping resources. This hypothesis is supported by findings reported by Smith et al. (1992), which found that young athletes, categorized as high-sensation seekers were more likely to appraise pressure situations as challenging, and perceived themselves as having better stress management coping skills than low-sensation seeker athletes. The results of this appraisal process may lead high-sensation seekers to be active, initiative and act heroically during war, and afterwards to adjust better in the long term.

While the exact psychological mechanism by which sensation seeking may serve as a personal resource has not been established, Taylor and Hamilton (1997) suggest that sensation seeking may serve a self-regulatory motive. According to these authors, when confronted with discrepancies between one's ideal situation (e.g., one's goals), and one's actual situation (i.e. current status), sensation seeking may serve as a means of fulfilling two possible psychological functions. The first is to escape from self-awareness. By turning attention away from the self, the person is avoiding the negative affect that accompanies the recognition of these discrepancies. The second function has a compensatory role: maintenance of sense of well being and self-esteem by being engaged in heroic evaluated activities. These functions may explain the association between sensation seeking and the conduct of heroic actions under fire, and subsequent long-term adjustment.

While previous findings indicated a steady decline in sensation seeking with age, beginning in late adolescence (Zuckerman, Eysenck & Eysenck, 1978; Ball, Farnill & Wangeman, 1984), we did not find a significant association between sensation seeking and age. This could be explained by the relative homogeneity of our sample in this variable.

Sensation seeking was related, however, to ethnic background among the CSR casualties and controls. More specifically, in both groups, veterans originating from Asian or African countries were lower-sensation seekers than veterans from Israel or western countries. The lack of a significant effect of ethnic background among the decorated veterans, could be related to the fact that only a minority of them (13%) were of eastern origin. These findings are consistent with others that indicated that white Americans are higher sensation seekers than black Americans (Kurtz & Zuckerman, 1978; Jaffe & Archer, 1987).

Ethnic background, in the Israeli society, is considered to be a reliable indicator of socioeconomic background. Due to the Israeli historic sequelae, people originating from eastern countries, were considered to belong to a less privileged ethnic group, have generally less economic resources and political clout than Israelis of western origin. Although today this is less marked, these social differences were at their peak when our subjects were in their formative years.

While extensive research was devoted to the psychophysiological basis of sensation seeking, the effects of environmental influences have not yet been established. According to Zuckerman (1994), environmental forces, such as parental or peer modeling and reinforcement, have a certain effect on children, especially on those who are of moderate or average sensation seeking disposition. Nonetheless, the environment in general, and its socioeconomic aspects in particular, determines the channels through which the predisposition is expressed. That is, while sensation seeking is mainly biologically determined, the environment may affect the manner in which it is manifested. In this study we focused on ‘positive’ and socially-evaluated manifestations of sensation seeking, that is acts of heroism during war, but the same trait could also be expressed in less desirable modes.

By nature, survivors of real life traumatic events, like wars, can not be studied easily prospectively. Therefore, our study suffers from its retrospective design limitations. More specifically, due to its retrospective nature, one can not rule out the possibility of a reversal relationship. Accordingly, sensation seeking is not a preceding feature that affects performance under stress and long term adjustment, but rather an outcome of these factors. This contention is somewhat negated by numerous studies suggesting that sensation seeking is genetically determined and is a fairly consistent characteristic (Zuckerman, 1978, 1994).

In conclusion, the findings of the present study suggest that sensation seeking serves as a stress-buffering personal resource that is implicated in both immediate coping and long term adjustment following war stress. These findings should be replicated in other populations, in other cultures, following other types of traumatic events. Prospective studies that will examine the exact mechanism by which sensation seeking is acting, are still needed.

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