Demographic Characteristics and Sense of Danger Predicting New Measure of Individual Resilience Following a War

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Abstract

Four months after Israel's war with the Gaza Strip (2014) we distributed questionnaires to 510 adults: 251 civilians who live in southern Israel and have recently been threatened by massive missile fire, and 259 adults who live in northern Israel, which has not been under missile fire for the last eight years. The current study focuses on two issues: first, a new index to measure individual resilience based on recovery to distress symptoms ratio; second, examining five demographic characteristics and sense of danger as predictors of individual resilience. Path analysis indicated that individual resilience significantly correlated negatively with sense of danger and exposure (β=0.34), and positively with level of religiosity (β=0.24) and income (β=0.17). Sense of danger mediated the associations between area of living, community size and level of exposure and individual resilience. Results are discussed in terms of the role of demographic characteristics with respect to individual resilience.

Introduction

This study took place five months after the end of the war between Israel and Gaza (Operation Protective Edge) during the summer of 2014. Half of the participants lived in southern Israel and have recently been threatened by massive missile fire, and half lived in northern Israel, which has not been under missile fire for the last eight years, since the end of the Second Lebanon War (summer 2006).

Our study examines two major issues: first, the prediction of a new suggested index of individual resilience (strength vs. vulnerability ratio) by five predictors: geographical area (living in the south vs. living in the north of Israel), size of the community, level of religiosity, income and level of exposure to terror/war experience, as well as sense of danger. Second, we examined the role of sense of danger as a mediator between the above variables and individual resilience measured by the ratio between strength and vulnerability (individual SVR).

The theoretical framework of this paper is based on the following main assumptions:

- Overall, resilience refers to people's ability to overcome adversity and return to their pre-adversity functioning as soon as possible [1-3].
- Our major theoretical position is that resilience cannot refer only to people's ability to cope with stress and it should reflect the balance between a person's strength and vulnerability [4].
- Resilience is a dynamic process which is affected by many supporting and risk factors [5].
- Measuring resilience after adversity (such as a natural disaster or war) can be based on current individual and group differences even when pre-adversity data are missing. Furthermore, this is often the only way to study resilience to unexpected potentially traumatic events [6].

Strength vs. vulnerability (SVR) as a new index to measure individual resilience

The original concept of resilience comes from the physics of materials and is defined as the maximum energy that can be absorbed within the elastic limit, without creating a permanent distortion [7]. Social scientists have borrowed the concept and use it to describe people's ability to properly adapt to stress and adversity. A literature survey regarding psychological resilience clearly indicates that there is no consensus regarding the definition of resilience as a concept [4,5]. For example, according to Egeland and associates, resilience constitutes “the capacity for successful adaptation, positive functioning or competence… despite high-risk status, chronic distress, or following prolonged or severe trauma” [8]. Recently, the concept of resilience has often been used in discussing people's ability to withstand stress and adversity [1,3,9].

A common indicator of individual resilience is level of stress symptoms following a potential traumatic event (PTE) [1,10]. Yet some researchers indicate that resilience is not the absence of pathology [11]. Charles's theoretical model claims that well-being before, throughout, and after stressful situations is determined by individual strengths and vulnerabilities simultaneously [12]. According to Richardson, resilience theory has shifted its focus "from looking at risk factors that led to psychosocial problems to the identification of strengths of an individual" [13], but practically, this shift has ignored the contention that strength as well as vulnerability are embedded in any resilience. In the current study we have defined resilience as the current psychological outcome of the ongoing struggle between individual strength and vulnerability, following a potentially traumatic experience [14].

In earlier studies we examined a new index for measuring resilience using both individual strength and vulnerability. To assess individual resilience
strength, we used ‘post war recovery’ which pertained to the level of returning to everyday life, compared with the prewar situation [14,15]. To assess individual vulnerability we used the level of distress symptoms. Resilience was measured as the strength vs. vulnerability ratio (SVR).

This approach is similar to Masten’s argument that understanding resilience to extreme adversity requires a concurrent examination of positive adaptation and pathological processes [4]. In an earlier study [16] we examined over 800 Israeli civilians who were under intensive missile attacks throughout the 2006 war of Israel with Lebanon. Results indicated that resilience promoting factors, such as sense of coherence, sense of well-being, and better economic condition positively predicted SVR, whereas sense of danger, which is a resilience suppressing factor, was inversely associated with SVR. Somewhat similar results regarding the role of SVR were obtained in a study of 230 Druze high school students whose hometown was damaged by the 2010 Mount Carmel wildfire [17]. Along that line, we assumed that SVR reflects a dynamic process which can vary, depending on factors such as the length of time that has passed since the PTE, the severity of PTE, and other demographic variables, four of which are examined in this study.

Distress symptoms: War and terror attacks are considered among the most painful and traumatic events for people of all ages. A large research body indicates that they shake the basic sense of security and give rise to posttraumatic symptoms among adults [18,19] and teens [20]. These symptoms include delayed emotional and behavioral problems [21], posttraumatic stress disorders (PTSD), and depression, anxiety and grief [18]. In the current study, distress symptoms signify the vulnerability aspect of individual SVR.

Recovery from adversity: People generally recover from adversities and traumas and return to their pre-trauma functioning [22]. A large study of Israeli adolescents who were exposed to the 2006 war with Lebanon showed that post-traumatic recovery was positively correlated with family cohesiveness and negatively correlated with distress symptoms, sense of post-war danger, and exposure to war adversities [23]. In this study participants were requested to compare their present situation with their pre-war situation in eight important domains, such as social life, hobbies, and working. It was found that post-war recovery was negatively associated with distress symptoms, whereas growth scores were positively correlated with these symptoms (Authors, 2009). Furthermore, a substantial number of participants (44%) reported returning to the same level of functioning as before the war, while only a small minority (4.4%) reported better functioning or post-traumatic growth.

In addition, assessment of individual resilience can provide important tool for helping people to cope with adversity such as chronic disease which serves as a major stressor [24]. For example, Ciccone et al. [25] have presented Project Leonardo which examined the Chronic Care Model developed by Wagner et al. [26] based on partnership between the patient and health professionals. This model offers the opportunity to empower patients to become more active in managing their health. In line with this model, it is possible to suggest that studying demographic predictors of resilience may assist the evaluation and preparing intervention plan to promote individual empower.

Predictors of individual resilience

Fletcher et al. argue that individual resilience represents a dynamic process that changes over time and in different person-environment circumstances [5]. Previous research has indicated accordingly that demographic factors predict individual resilience to various potentially traumatic events [17,27-29]. Based on these earlier studies, in the current study we have examined five demographic characteristics and sense of danger as predictors of individual SVR.

Geographical region: The current study examined people who live in two geographical areas in Israel. The southern area includes communities of different sizes which were all under the missile attack during the last war with Gaza (July 8 to August 26, 2014). The northern area includes communities of different sizes which were under missile attack during the Second Lebanon War (summer 2006), but not during the Gaza war.

Level of exposure to distressing experiences: Exposure to distressing events has been studied intensively as a predictor of negative impacts of PTE such as distress symptoms and PTSD symptoms [20,30,31]. Results have indicated that the higher the level of exposure, the higher the reported stress symptoms. However, exposure has rarely been investigated in relation to the measure of resilience in terms of both strength and vulnerability [17]. In the current study we examine exposure as a predictor of individual SVR and sense of danger as a mediating variable of this prediction.

Community size: Very little research has been done on the size of community as a predictor of individual resilience. An earlier study in Israel [29] revealed that higher community communality was associated with higher community resilience. Similarly, Braun-Lewensohn et al. [27] examined stress reactions among people who lived in cities and different types of small rural villages during summer 2011 while missiles were being fired from Gaza to the southern part of Israel. Results indicated that the most resilient group was composed of people who lived in the rural and communal communities, compared with people who lived in major cities. Based on these studies we assumed that people living in larger sized communities, such as big cities, would report a higher level of sense of danger and a lower level of individual resilience compared with smaller communities.

Level of religiosity: According to James level of religiosity mainly represents a person’s lifestyle in addition to the extent to which he/she believes in a supernatural entity of ultimate reality [32]. Ben-Rafael et al. claim that ethnicity, class and religion provide important foci for social cleavages, identifications, and consciousness in many societies, including Israeli society [33]. Earlier studies have indicated that the level of religiosity associated positively with resilience [28,34,35] and frequency of attending religious services is negatively associated with loneliness among a national representative sample of older U.S. veterans [36]. The current study examines level of religiosity as a potential predictor of individual SVR and we hypothesized that a higher level of religiosity would predict a higher level of resilience.

Economic condition: Research has shown that negative post-war assessment of one’s economic level is directly [37,38] or indirectly [39] associated with vulnerability to stress, and has a great impact on war victims’ post-war adjustment [40]. We therefore hypothesized that higher economic conditions would be associated with a higher level of individual SVR.

Sense of danger: Sense of danger has been broadly studied as an important factor regarding coping with distress [41]. Some studies have examined the association between sense of danger and individual resilience and have indicated significant negative association [14]. Moreover, in an earlier study [42], we found that sense of danger served as a mediator between gender and level of exposure, and
individual resilience. According to the cognitive appraisal model [43], the impact of war reflects neither the direct effect of gender nor level of exposure to traumatic experiences, but rather individual perception of these stressful events [44,45]. In this study, we have further examined the importance of cognitive appraisal as mediating between demographic characteristics, level of exposure and individual resilience SVR. Thus, the impact of demographic characteristics examined in our study depends on one's sense of danger (i.e. the extent to which a person perceives either him/herself or his/her family or his/her country as being under threat). In the current study we assumed that sense of danger would mediate the associations between demographic characteristics (geographical region, community size, level of religiosity and income), level of exposure and individual resilience SVR.

Based on the above, the following hypotheses are investigated:

Higher sense of danger, living in the south, living in larger communities and higher level of exposure to distressing experiences will be negatively associated with individual resilience SVR, whereas higher levels of religiosity and better economic conditions will be positively associated with individual resilience SVR.

Sense of danger will mediate the effects of the above five demographic characteristics on individual SVR.

These effects will characterize those who are living in the south as well as those who are living in the north.

Method

Data collection and sampling

Recruiting of participants to this study was conducted by an Israeli online survey research organization, which employs a panel of over 30,000 subjects, representing every geographic and demographic sector of Israel [46]; for the validity of internet questionnaires [47]. The internet organization uses the stratified sampling method, based on data published by the Israeli Central Bureau of Statistics, and determines quotas by age and gender [48]. Each participant who filled out the questionnaire signed an informed consent form. The questionnaire was approved by the Ethics Committee of Tel Hai College. The present random stratified sample consisted of 510 adult Jewish civilians: 259 live in northern Israel, and 251 comparable adults living in the south and the north revealed two significant differences: Southern participants reported a higher level of religiosity (t=3.28, p=.001) and living in larger communities (t=2.68, p=.01), but no significant differences in standard deviations. These differences in religiosity are to be expected according to the Central Bureau Statistics in Israel [49] due to the fact that there are more highly religious communities in the south of Israel. The populations of the investigated communities ranged from between a few hundred to over 100,000 people. The study was conducted four months after the 2014 'Protective Edge' war between Israel and the Gaza Strip. The research questionnaire, which was carefully pilot-tested, was administered via the internet, between December 10th and December 20th 2014.

Instruments

Distress symptoms: The Brief Symptom Inventory [50], relating to anxiety, depression, and somatization symptoms was used. This 18-item inventory is scored on a Likert scale ranging from "not suffering at all" (1), to "suffering to very much" (5). Participants were requested to note the extent to which they had recently suffered from these symptoms, for example, "nervousness", "feelings of sudden fear with no reason", "lack of interest in anything". The scale's current Alpha Cronbach reliability was α=0.90. Distress symptom scores revealed asymmetric right distribution: 71% reported low levels of distress symptoms, 22% reported medium low distress symptoms, 3% reported medium high distress symptoms and only 0.04% reported high levels of distress symptoms.

Post-war recovery: Perceived recovery from war effects was assessed by a scale devised by Author and associates [23,31]. This eight-item scale requested that respondents compare their present situation with their pre-war situation in eight domains: physical health, morale, social activity, work, hobbies or sports, personal emotional state, level of optimism, and hope for a better future. The response scale ranged from 1= "much worse than before the war", 3= "the same as before the war" to 5= "much better than before the war". A higher score indicated a higher level of recovery. The scale's current Alpha Cronbach reliability was α=0.82. Recovery scores revealed normal distribution centered around the average: 71% reported their present functioning at the same level as before the war, 23% reported functioning at a lower level and 6% reported functioning at a higher level compared with their functioning before the war.

Stress symptoms to recovery ratio (SVR): In order to compute individual SVR we first changed recovery and distress symptom scales into standardized scores (we have added 4 to each of the two standardized score, in order to have only positive scores). Next, we calculated mean standardized post-war recovery score by mean standardized level of distress symptoms (BSI) score. Individual SVR scores revealed normal distribution. Standardized scores ranged from 0.07 to 2.73, and the mean tended slightly toward the lower part of the distribution (M=1.06, SD=0.365). The higher the score the higher level of individual SVR.

Level of exposure to war and terror experience: Level of exposure to terror/war experience in the last three years was based on [51]. The scale included five items on 1-5 Likert scale (not at all to very much). The items included the following options: personally injured, family member injured, personally emotionally injured, family member emotionally injured and friend physically injured. The sum of the items (ranged from 5 to 25) served as the exposure grade. Previous research has found that higher exposure to adversity was associated with higher stress [31], as well as a higher sense of danger [42]. Exposure scores revealed asymmetric right distribution: 78% reported low levels of exposure, 20% reported medium low exposure, 2% reported medium high exposure and only 0.04% reported high levels of exposure.

Sense of danger: Level of sense of danger was examined by Solomon et al. [52] pertaining to post-war perceived personal, familial and national danger was employed. The scale consist of six-item rated on a Likert-like scale ranging from 1 (not at all) to 5 (very much). For example, ‘To what extent are you afraid that Israel will experience future acts of terror’. The current scale's reliability was α=0.81. Sense of danger scores revealed normal distribution with a tendency to the right: 35% reported low level of sense of danger, 45.5% reported...
medium low level, 14% reported medium high level of sense of danger and 4.5% reported high level of sense of danger.

Demographic characteristics: Demographic characteristics included the following: (a) Geographical area included two areas (division into districts by the Central Bureau of Statistics in Israel): 1=south (exposed to missile attacks in 2014), 2= north (not exposed to missile attacks in 2014). (b) Community size based on the Central Bureau of Statistics in Israel on a one to ten scale, from 1=less than 1000 residents, to 10=100,000 and above. (c) Level of religiosity was measured by one item: 1=secular, 2=traditional, 3=religious, 4=very religious or ultra-orthodox. (d) Income was measured by one item: family income compared to average family income in Israel (12,345 NIS): 0=no income at all, 1=much less than average, 2=below average, 3=average, 4=above average, 5=much more than average. Studies done in Israel have indicated that this item is a valid measure for income [53] and does not result in refusal to answer a direct question on this private issue.

Results

The current study examined individual resilience in terms of level of recovery from adversity to distress symptoms ratio. Five predictors of individual SVR were employed: geographical area, level of exposure to distressing experiences, community size, level of religiosity and economic condition. An additional variable, sense of danger, was examined as mediator of the associations of these five predictors and individual SVR.

As a first step we calculated Pearson correlations among the research variables (Table 1). Results indicated the following: individual SVR significantly correlated negatively with sense of danger and level of exposure and positively with level of religiosity and economic condition. Sense of danger significantly correlated positively with exposure and community size.

<table>
<thead>
<tr>
<th>Variables</th>
<th>1 Range/scale</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Individual SVR</td>
<td>0.07 to 2.73</td>
<td>-0.430***</td>
<td>0.050</td>
<td>-0.302***</td>
<td>-0.066</td>
<td>0.200***</td>
<td>0.183***</td>
</tr>
<tr>
<td>2. Sense of danger</td>
<td>1-5</td>
<td>--</td>
<td>-0.055</td>
<td>0.450***</td>
<td>0.123**</td>
<td>-0.012</td>
<td>-0.086</td>
</tr>
<tr>
<td>3. Geographical area</td>
<td>1-2</td>
<td>--</td>
<td>-0.317***</td>
<td>-0.129**</td>
<td>-0.149***</td>
<td>0.036</td>
<td></td>
</tr>
<tr>
<td>4. Exposure</td>
<td>5 to 25</td>
<td>--</td>
<td>0.057</td>
<td>0.083</td>
<td>-0.066</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Community size</td>
<td>1-10</td>
<td>--</td>
<td>0.094*</td>
<td>-0.046</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Religiosity</td>
<td>1-4</td>
<td>--</td>
<td>-0.136**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Income</td>
<td>1-5</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>1.06</td>
<td>2.47</td>
<td>--</td>
<td>8.01</td>
<td>7.51</td>
<td>1.65</td>
<td>2.66</td>
</tr>
<tr>
<td>S.D</td>
<td>0.36</td>
<td>0.79</td>
<td>--</td>
<td>3.24</td>
<td>3.07</td>
<td>0.92</td>
<td>1.15</td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01, ***p<0.001

Table 1: Pearson correlations among the investigated variables (N=510).

A path model [54] was employed to examine hypotheses 1 and 2, and to estimate direct, indirect and total effects of the five predictors (geographical area, level of exposure, community size, level of religiosity and economic condition) on individual SVR, as well as the role of sense of danger as a mediator of these links (Figure 1). Analyzing the saturated model (no model fit since it is a saturated model) indicated the following: (a) Seven of the paths in the model, were significant (p<0.01) while four of the paths were not significant (the path from religiosity and income to sense of danger, and from community size and area to individual SVR), (b) Sense of danger and exposure negatively predicted individual SVR: The lower the sense of danger and the lower the level of exposure, the higher individual SVR and vice versa. (c) Religiosity and income positively predicted individual SVR: The higher the level of religiosity and income, the higher the individual SVR and vice versa. (d) The six predictors explained 27% of individual SVR variance. Overall our results indicated that, either directly or indirectly via sense of danger, the examined five demographic variables in the current study significantly predicted individual SVR for the whole sample. These results mainly supported our first hypothesis.
As a second step we calculated bootstrapping analysis, a common method for studying mediation effects [55], (N=2000) with 95% confidence intervals estimating the mediating effects of sense of danger on individual SVR (Table 2). Exposure, religiosity and income had a significant direct effect on individual SVR, while area, exposure and community size had a significant indirect effect on individual SVR through sense of danger. Table 2 delineates the direct, indirect and total effects of the five predictors on individual SVR. Results indicate that sense of danger significantly mediated the associations between three independent variables (geographical area, level of exposure and community size) and individual SVR. These results mainly support our second hypothesis.

<table>
<thead>
<tr>
<th>IV</th>
<th>DV</th>
<th>Effect (standardized)</th>
<th>Bootstrap 95% CI</th>
<th>P values of standardized indirect effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>Individual SVR</td>
<td>Direct: 0.017</td>
<td>Indirect: -0.037#</td>
<td>Total: -0.020</td>
</tr>
<tr>
<td>Exposure</td>
<td></td>
<td>-0.150#</td>
<td>-0.163#</td>
<td>-0.313#</td>
</tr>
<tr>
<td>Community size</td>
<td></td>
<td>-0.028</td>
<td>-0.038#</td>
<td>-0.066</td>
</tr>
<tr>
<td>Religiosity</td>
<td></td>
<td>0.237#</td>
<td>0.019</td>
<td>0.256#</td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td>0.174#</td>
<td>0.020</td>
<td>0.195#</td>
</tr>
</tbody>
</table>

\# significant (p<0.01)

**Table 2:** Standard and bootstrap estimates and confidence intervals for mediation effect of sense of danger.

In order to examine the advantage of using SVR as an index for measuring individual resilience, we conducted two path analyses for the effects of area, exposure, community size, religiosity, income and sense of danger separately on recovery (strength) and distress symptoms (vulnerability). The six predictors explained 13% of recovery variance and 23% of distress symptoms variance in each of these two models. The explained variance of distress symptoms is practically a bit smaller than the explained variance of individual SVR, whereas the explained variance of recovery from adversity is half this size. These results support the advantage of SVR as a measure over recovery alone and to some degree over distress symptoms alone.

As a third step, we calculated separate path models for southern and northern samples in order to examine our third hypothesis. Results indicated that for both southern and northern samples, four paths were significant: exposure, religiosity, income and sense of danger to individual SVR. Results also indicated that sense of danger significantly mediated the associations between exposure and community size for both samples. Sense of danger mediated the path from religiosity to individual SVR only for the southern sample. These results mainly support hypothesis three.

Lastly, we examined differences between north and south samples (Table 3). Results indicated that respondents who live in the south reported higher levels of exposure to distressing experiences, lived in larger communities, and reported a higher level of religiosity, compared with participants from the north. However, no significant differences were found with respect to income, sense of danger and individual SVR.

<table>
<thead>
<tr>
<th>Variable</th>
<th>South (n=259)</th>
<th>North (n=252)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Exposure</td>
<td>9.04</td>
<td>3.63</td>
</tr>
<tr>
<td>Community size</td>
<td>7.86</td>
<td>3.17</td>
</tr>
<tr>
<td>Religiosity</td>
<td>1.78</td>
<td>0.93</td>
</tr>
</tbody>
</table>

**Table 3:** Southern and northern participants: mean, standard deviation and T-test.

**Discussion**

This study included two groups of participants. One group included people from the south of Israel who have recently been threatened by massive missile fire. The second group included people who live in northern Israel, which was not under missile fire during the last war with Gaza, but went through massive missile fire during the Second Lebanon War, ten years ago (2006). The current study examined two main issues: first, exploration of a new measure of individual resilience, and second, examining demographic variables as predictors of individual resilience among all participants, and separately among the northern and the southern groups. Based on previous studies [4], we have argued that adaptive responses to adversity are not sufficient to represent the complex domain of individual resilience. Individual strength and vulnerability should concurrently determine resilience. Resilient people do not return to pre-trauma levels of functioning because they are free from post-adversity distress symptoms. They go on living their lives despite being bothered by some level of distress symptoms which may linger for a long time [37].

The current study results mainly supported our contention that individual SVR is a good indicator of individual resilience. This measure of resilience weighs strength and vulnerability, and offers a new measure which represents the balance between them. However, more research is needed to further support our suggested measure for individual resilience.
Our results corroborate earlier studies using individual SVR as an indicator for individual resilience (14,15,56). Overall, it can be suggested that this ratio will change due to possible different adversities: a more positive ratio (less distress symptoms and a higher level of recovery) if the situation is calmer, and a more negative ratio if the situation deteriorates. One explanation for the medium low level of individual resilience reported in our study is that the study took place only a short time after a war (summer of 2014). Further research is needed to explore possible future changes in the level of individual SVR as a result of a longer time period since the adversity took place and/or a larger scale adversity.

Our results regarding sense of danger and individual SVR corroborate earlier studies which demonstrated the role of sense of danger as a mediator: (a) Between sense of coherence, well-being, family support and economic situation, and individual SVR [15]; (b) Between well-being, exposure, community and national resilience, and individual SVR [56]. The present study found that three of the five associations between predictor variables and individual SVR were mediated by sense of danger, where sense of danger represented a negative cognitive appraisal of future threats. With regard to both living in the south and living in the north, level of exposure, level of religiosity, community size and family income predicted individual SVR either directly or via sense of danger as a mediator. One should keep in mind that sense of danger only significantly mediated the relationship between religiosity and individual SVR in the path model for the southern sample. One possible explanation is the fact the southern participants reported a higher level of religiosity. The central role of sense of danger in this study can be explained by Lazarus et al. [43] According to these authors, responses to stress are explained 27% of individual resilience SVR. Taking into account the four demographic variables and exposure examined in our study explained 27% of individual resilience SVR. Taking into account the complexity and the large numbers of factors affecting resilience, such as psychological, biology, social, and cultural factors [3], it seems that this percentage is an important contribution for better understanding of individual resilience. Overall, these studies have indicated that demographic characteristics play an important role in both individual strength and vulnerability, following a potentially traumatic experience.

To the best of our knowledge, the association between community size and individual resilience based on the ratio between strength and vulnerability has hardly been explored. In this study we divided communities into ten sizes. As expected, the majority of participants in our study came from cities larger than one hundred thousand residents (43%). Results indicated that there is a significant positive path between community size and sense of danger (higher community size, higher sense of danger) and a significant negative path between sense of danger and individual resilience SVR. Sense of danger significantly mediates the association between community size and individual SVR. Earlier studies examining the association between type of community and resilience indicated that higher communality (higher structured cooperation among members and more structured communal life) of the community was associated with higher community resilience [29,58]. One should keep in mind that more communal communities are smaller. Based on the above and the extensive research connecting coping with stress and social support [59] it may be argued that the larger the community, the lower the feeling of cohesiveness and social support, the higher the sense of danger and the lower the individual resilience. This explanation needs further research support.

Our results indicated that participants in the southern sample who were threatened by massive missile attacks reported a higher level of exposure to war adversities in comparison with the northern sample. However, the southern sample did not differ significantly from the northern sample on sense of danger and individual resilience SVR. One way to explain these results is to claim, based on Bonanno [1,60], that the vast majority of people retrieve a sufficient degree of resilience following adversity, although they suffer from a small degree of stress reactions for some time. In Israel, the ongoing conflict is present all the time and security threats are not considered as distinct actions. Accordingly, when missiles fell on southern Israel (summer 2014), the situation reactivated prior war experience that had taken place less than ten years earlier, among the northern participants.

**Limitations of the Study**

Three major limitations of this study deserve to be mentioned. The first is the lack of a comparison group which was not affected by war at all. Terror acts and war have reached all parts of Israel, and since all young Jewish men and women serve in the Israel Defense Forces, and later in the reserve forces, practically every family has worried about family members and friends who were endangered by war. Accordingly, participants from the north do not represent a “true” comparison group. The second limitation is the use of online survey which automatically ruled out people without internet access. These people may have lower SES and be more vulnerable to the stress of the war. The third limitation is the use of self-report measurements of resilience. A future study should include behavioral measures for both stress and recovery.

One implication of the present results is that community and governmental authorities should prepare in advance care managers whose role is to empower individuals who were exposed previously to terror and war, and who feel higher sense of danger. Care managers should concentrate on empowering individuals characterized by low income, as well as those who are not protected by religious faith.

**References**


