Orit Nuttman-Shwartz Sapir College

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Continuous Exposure to Life Threats Among Different Age Groups in Different Types of Communities

Rachel Dekel Bar-Ilan University; Sapir College

Irit Regev Sapir College

The current study compared levels of posttraumatic symptoms (PTS) resulting from continuous exposure to missile attacks among residents of 2 types of communities (urban vs. rural) in 2 different age groups (elderly persons vs. young adults). We also took into account the contribution of individual resources (sociodemographic variables) and community resources (type of community of residence and sense of belonging to the community). The results revealed that, in general, the elderly residents were classified as suffering from more posttraumatic stress disorder (PTSD) and reported more PTS. Nonetheless, type of community of residence as well as individual and social resources contributed more to PTS symptoms than did the participants' age. The results are analyzed in light of the current literature on PTS, and in light of literature dealing with the impact of developmental life stage among populations that are continuously exposed to traumatic events.

Keywords: continuous exposure, life cycle, posttraumatic stress, sense of belonging, type of community

Developmental theories have argued that stress and traumatic situations have a differential impact on individuals of different ages, owing to differences in levels of emotional, cognitive, and behavioral maturity, life experiences, and attitudes, as well as differences relating to motivation, social interactions, and emotional state (Scott, Poulin, & Silver, 2012; Whitbourne, 1985). In addition, age may be associated with responses to collective stressors, because such events can have different implications for different cohorts (Baltes & Nesselroade, 1984; Baltes, Reese, & Lipsitt, 1980).

Besides these theoretical approaches, comparative studies conducted among different age groups have revealed conflicting findings regarding the responses of young versus elderly populations to traumatic situations. On the one hand, there is research evidence indicating that elderly people tend to have fewer personal and social resources in addition to lower sense of mastery than their younger counterparts. Older people are also more vulnerable to distress, express more health complaints, and show higher levels of posttraumatic stress, as well as lower rates of recovery than do young adults and adolescents (e.g., Carballo et al., 2004; Cohen Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002; Ohta et al., 2003).

In contrast, other researchers have claimed that elderly people are more resistant because they are less prone to fear, despair, and concern than younger people (Knight, Gatz, Heller, & Bengtson, 2000; Norris et al., 2002). It has also been argued that elderly people are no different than their younger counterparts, and that both populations show similar responses to traumatic events (Chung, Werrett, Easthope, & Farmer, 2004; Kohn et al., 2005). Such contradictions have been found in studies conducted in United States following the events of September 11th (e.g., Galea et al., 2002), and in Israel following war and terror attacks (Bleich et al., 2005; Cohen, 2008). The inconsistent effects of age can be attributed to the large variability in the traumatic events and in the contexts of these events. As Norris et al. (2002) concluded, "there was no consistent effect of age; rather, it depended upon the social, economic, cultural, and historical context of the disaster-stricken setting" (Norris et al., 2002, p. 235).

In light of this complexity, the current study examined the differences in posttraumatic symptoms (PTS) among older versus young adults in Israel who are exposed to a continuous security threat, taking into account individual differences in age and sociodemographic variables, as well as contextual differences, which were measured in the current study through objective and subjective community variables.

Trauma and Community Resources

In light of Conservation of Resources (COR) theory (e.g., Hobfoll, Dunahoo, & Monnier, 1995) and ecological theory (Ungar, 2008), the ability to cope and continue with one's routine at times of stress is based not only on personal resources, but also on national and community resources. National resources are salient in situations of political conflict, which have been defined by Kira,

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Orit Nuttman-Shwartz, Israeli National Council for Social Work, School of Social Work, Sapir College; Rachel Dekel, School of Social Work, Bar-Ilan University; Irit Regev, School of Social Work, Sapir College.

Correspondence concerning this article should be addressed to Orit Nuttman-Shwartz, Israeli National Council for Social Work, School of Social Work, Sapir College, D. N. Hof Ashkelon 79165, Israel. E-mail: orits@sapir.ac.il

Fawzi, & Fawzi (2013) as the third trauma paradigm. National resources are reflected by collective identity, and community resources include the type of residential community and a sense of belonging to the community.

Place of residence represents community resources and the feelings of individuals toward the community they live in, which reflect the ability of communities and individuals to cope with traumatic events (Norris et al., 2008; Ungar, 2008). Specifically, community resources are defined as the objective structure of the community, and individual resources reflect the subjective perspective of individuals regarding their relationships with their community (Norris et al., 2008).

Consistent with that argument, it has been claimed that residents of poor communities (Ahern & Galea, 2006) or people with limited economic resources (Adger, 2000; Cutter et al., 2006) are more vulnerable to stressful conditions. Furthermore, it has been argued that war and political violence can cause or worsen stressful social and material conditions, such as social marginalization, isolation, inadequate housing, and changes in the structure and functioning of families (Miller & Rasmussen, 2010), which, in turn, can exacerbate psychological problems. In fact, previous research conducted in Israel has revealed that under stressful conditions, residents of rural communities fared better than did residents of urban communities (Blumstein et al., 2004; Kaplan et al., 2005), including residents of the Gaza area (Dekel & Nuttman-Shwartz, 2009), as we will describe later.

Although the objective aspect is quite clear, the subjective aspect, which is usually coined as "sense of community" or "sense of belonging," reflects an attitude of bonding (trust and connection) with other members of one's group or locale (Perkins et al., 2002). Sense of community includes mutual concerns and shared values, and depends on the subjective interpretation that individuals have regarding their relationships with the community. Sense of community is characterized by high concern for community issues, respect for and service to others, sense of connection, and fulfillment of needs, and it is assumed to be a dimension of community capacity (Goodman et al., 1998).

With regard to traumatic events, Kawachi and Berkman (2001) have highlighted the importance of the availability of social connections as a buffer against the impact of disasters. More specifically, research on the effects of traumatic events has revealed that a sense of belonging can protect individuals from or buffer the negative consequences of adversity (Fisher, Sonn, & Bishop, 2002; Perkins, Hughey, & Speer, 2002; Perkins & Long, 2002; Saegert & Winkel, 2004). Previous research in Israel has revealed that in continuous stressful conditions, people with a high sense of belonging to their communities (their nation, country, place of residence, or educational setting such as school or college) can cope better with traumatic events than those with a low sense of belonging to their communities (Billig, Kohn, & Levav, 2006; Dekel & Tuval-Mashiach, 2012; Henrich & Shahar, 2008; Kovatz, Kutz, Rubin, Dekel, & Shenkman, 2006).

In addition, research findings have shown that the sense of belonging to a community is a resource that alleviates posttraumatic distress and increases posttraumatic growth in the face of war, terror, and in situations of continuous traumatic stress (Ben-Porat, Yablon, & Itzhaky, 2013; Braun-Lewensohn & Sagy, 2013; Nuttman-Shwartz, 2011).

Moreover, although there has been growing exposure to continuous traumatic events throughout the world (Stevens, Eagle, Kaminer, & Higson-Smith, 2013), until recently, relatively few studies have focused on continuous traumatic stress (e.g., Kira, Ashby et al., 2013). Hence, there is a need to increase our knowledge about this important aspect of the field of trauma. Toward that end, the current study examined the consequences of exposure to a continuous security threat deriving from the Israeli–Palestinian conflict, among persons at different life stages and in different types of communities. Specifically, the study compared young adult and elderly residents of urban and rural communities that have been exposed to continuous threats, and examined objective and subjective community resources as reflected in each participant's place of residence (urban vs. rural) and sense of belonging to the community.

The Current Study

Since 2001, the southern region of Israel, and particularly the Gaza area, has been the target of Qassam rocket attacks. In those continuous and recurrent situations, there is a need to deal not only with the physical and emotional damage in the immediate aftermath of the attack, but also with the long-term stress evoked by the threat that is constantly looming (Braun-Lewensohn, Celestin-Westreich, Celestin, Verte, & Ponjaert-Kristoffersen, 2009; Nuttman-Shwartz, 2013). According to Kira, Fawzi et al. (2013) "the traumatization process (in such situations) is triggered by systemic social structural violence and interpersonal or intergroup macro and micro aggression" (p. 180).

The Gaza area is characterized by two types of communities: urban communities (e.g., the development town of Sderot), and rural communities (kibbutzim and moshavim). The kibbutz is a unique Israeli community that was originally established to farm and protect the land, and was inspired by the ideals of economic and social equality and mutual help and responsibility. Kibbutzim have a relatively high quality of life, with lots of greenery, good schools, cultural activities, and low crime rates. In contrast, among the residents of the development town, there is a pervasive feeling that they have been neglected by the government and by their more fortunate counterparts elsewhere in the country (Yiftachel, 2000). To date, several studies have been conducted in Sderot and in the Israeli localities surrounding Gaza to examine how community resources such as social support, type of community of residence, and sense of belonging affect PTS. The findings of these studies have shown that a sense of belonging to the community and social support are resources that alleviate PTS, buffer stress, and have a salutogenic effect on adults who live in kibbutzim, as well as on schoolchildren (e.g., Dekel & Nuttman-Shwartz, 2009; Henrich & Shahar, 2008).

Our previous study was conducted in 2005 among a small general sample of adults residing in the area after a short period of exposure to missile attacks. In that study, we examined the contribution of macrocontextual variables, such as sense of belonging to the country among adults living in two different types of communities. In contrast, the current study was conducted after a prolonged period of exposure to a continuous security threat (2–3 years later), and was based on a larger sample. In that study, we examined the contribution of an intermediate contextual variable, sense of belonging to the community, among two specific adult

groups—elderly residents versus young adults living in two different types of communities, Moreover, in light of the literature reviewed above, the nature of PTS among different age cohorts is still unclear, and there is no conclusive evidence as to whether these responses among populations exposed to a continuous threat of terror depend on the individual's age and personal resources, or whether they also depend on social and community resources.

Thus, in an attempt to broaden existing knowledge on the topic, we examined PTS and PTSD in the current study among two different age cohorts of participants living in situations of continuous threat (young adults and elderly adults), taking into account community resources as reflected in two types of communities (urban and rural) and as reflected in the sense of belonging to their communities. To the best of our knowledge, this has not been examined in previous research. Hence, the primary aim of the study was to examine the consequences of exposure to a continuous security threat at different life stages, and in different types of communities. The second aim of the study was to examine the contribution of community resources, i.e., place of residence and sense of belonging to the community, to PTS responses.

Against this background, the following hypotheses were put forth.

- 1. Differences would be found between participants in the two age groups with regard to both of the research variables: Older persons are likely to show a higher sense of belonging to the community and higher levels of PTS and PTSD than younger persons.
- 2. Differences would be found between participants by place of residence in both of the research variables: Residents of Sderot are likely to report a lower sense of belonging to the community and higher levels of PTS and PTSD than residents of *kibbutzim*.
- 3. Differences would be found in the sense of belonging to the community by age group and place of residence: The older residents of *kibbutzim* are likely to show higher levels of belonging than the those of Sderot and the younger residents of both types of localities.
- 4. A relationship would be found between place of residence, sense of belonging to the community, and PTS, that is, residents of Sderot are likely to report higher of levels of PTS, whereas the sense of belonging to the community is likely to be associated with lower levels of PTS, regardless of age.

Method

Sample and Data Collection

There were 276 participants in the study: 149 older adults, aged 60–75 (M = 70.98, SD = 2.99), and 127 young adults, aged 20–30 (M = 24.11, SD = 3.17); 47% of the participants were residents of *kibbutzim* in the Gaza area (n = 136), and 54% were residents of Sderot (n = 140). Of the kibbutz residents, 48.5% were young adults (n = 66), and 51.5% were elderly (n = 70); of the Sderot residents, 43.6% were young adults (n = 61), and

56.4% were older persons (n = 70). Among the overall sample of participants (young and older adults), 75% of the residents of Sderot and 62.5% of the residents of *kibbutzim* were women. As for country of origin, there was a substantial difference between the residents of Sderot and the residents of *kibbutzim*. All of the elderly residents of Sderot were born abroad, and 85% of the young adults were Israeli-born. In contrast, about 50% of the elderly kibbutz residents were Israeli-born, and almost all of the young adults (92.3%) were Israeli-born.

With regard to education and employment, differences were found among the groups of elderly participants. The elderly residents of Sderot had lower levels of education, and a much smaller percentage of them were employed: only 2.5% of the elderly residents of Sderot were employed, compared with 64.3% of their counterparts on *kibbutzim*. Similarly, differences were found among residents of different types of communities with regard to level of income. This difference was particularly noteworthy with regard to low-income participants. Among the residents of Sderot, the percentage of low-income residents was much higher than among the residents of *kibbutzim* (21% vs. 7.6%, respectively), whereas the percentage of well-to-do residents was higher in *kibbutzim* than in Sderot (28.8% vs. 15.9%, respectively).

Procedure

The data were collected between 2007 and 2009, when the Gaza area was a target of continuous missile attacks. The study was based on self-administered questionnaires, which were completed by the participants with the help of research assistants who had been trained to collect the data at the participants' homes, at community centers, and at Sapir College. All of the older participants were defined as independent, and were sampled from lists of residents of the region aged ≥ 60 . The young adults were sampled from a list of the students enrolled at the regional college. Participants signed an informed consent form, and were given the option of contacting the social services in the area if they needed assistance. The research project was approved by the ethics committee of Sapir College.

Measures

Sociodemographic characteristics. Data were collected on the participants' gender, age, marital status, education, employment, and economic status.

Exposure to attacks. This instrument was developed by Dekel and Nuttman-Shwartz (2009), and has been used in several studies conducted among residents of the region. The questionnaire consists of five items (e.g., "the Qassam fell near my neighborhood, on my house, near me"). Participants were asked to assess their exposure to Qassam attacks on a 5-point scale ranging from 1 (*no exposure*) to 5 (*high exposure*). A general score of level of exposure was derived by calculating the mean of the responses to the items in the questionnaire.

Sense of belonging. This variable was measured according to the Sense of Belonging Scale developed by Itzhaky (1995), which has been used in several studies conducted among residents of the Gaza region (Dekel & Nuttman-Shwartz, 2009). The scale consists of 12 items relating to sense of belonging to the community (e.g., "I feel part of the community;" "I won't leave the community even

if the security situation deteriorates"). Participants were asked to indicate the extent to which they agreed with each statement, on a scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). One overall score for sense of belonging was derived by calculating the mean of the responses to the 12 items for each participant. The Cronbach's α reliability of the questionnaire used in the current study was .70.

PTSD inventory. The PTSD inventory is a self-report instrument consisting of 17 statements, which describe posttraumatic symptoms based on the criteria of the Diagnostic and Statistical Manual of Mental Disorders (4th ed., text rev.; DSM-IV-TR; American Psychiatric Association, 2000). The questionnaire is commonly used in Israel to examine how the Israeli population responds to war and terror (e.g., Bleich et al., 2003). Participants were asked to indicate how often they experienced each of the symptoms described in the statements during the previous month, on a 4-point scale ranging from 0 (never) to 3 (often). PTS was calculated as the mean number of symptoms endorsed by the participants. In addition, participants were identified as having PTSD if they endorsed at least one intrusive symptom (Criterion A), three avoidant symptoms (Criterion B), and two hyperarousal symptoms (Criterion C). In the current study, the Cronbach's α for the 17 items in the PTSD inventory was .93.

Statistical Analysis

The results were analyzed in three stages. In the first stage, we examined the differences between age (young vs. old) and place of residence (kibbutzim and Sderot) separately for each of the study variables: level of exposure to attacks, PTS and PTSD, and sense of belonging. We employed χ^2 or multivariate analysis of variance according to the type of variable. In the second stage, we examined the correlation between the independent study variables: sociodemographic variables, exposure, sense of belonging, and PTS. Finally, we conducted a hierarchical regression analysis. The aim is to predict a single variable from several independent variables. A hierarchical multiple regression is a variant of the basic multiple regression procedure that allows you to specify a fixed order of entry for variables to control for the effects of covariates or to test the effects of certain predictors, independent of the contribution of others. In the current case, the dependent variable was the number of PTS symptoms. The independent variables were entered in four steps. In the first step, we entered level of exposure (ranging from no exposure to high exposure); in the second step, we entered place of residence to examine its unique contribution to explaining PTS, over and above the contribution of the other sociodemographic variables (age, gender, and economic situation). In the third step, we entered sense of belonging to the community.

Findings

The primary aim of the study was to examine the effects of exposure to a continuous security threat at different life stages, and in different types of communities. For this purpose, participants were divided into four groups, by age (young vs. older adults), and by place of residence (Sderot vs. *kibbutzim* in the Gaza area).

The second aim of the study was to examine the extent to which PTS can be explained by the research variables: level of exposure to threat, place of residence, sense of belonging (to the community and to the place of residence), and personal characteristics.

Differences in levels of exposure. Of the participants, 25.7% reported a high level of exposure (a rocket had fallen in their neighborhood or close to their place of residence; they heard an explosion), and 44.2% had been directly exposed (their home had been damaged by a Qassam rocket, or a rocket had fallen right next to them). Only 4.7% of the participants had not been exposed to the threat of a Qassam rocket at all.

A 2 × 2 (Place of Residence × Age) analysis of variance (ANOVA) revealed significant differences according to place of residence: F(1, 2172) = 20.35, p < .001. Sderot residents reported higher levels of exposure than did residents of *kibbutzim* (M =4.24, SD = 1.01, M = 3.55, SD = 1.37). No significant differences according to age were found, F(1, 272) = 2.53, p > .05. Nevertheless, a significant interaction between place of residence and age was found, F(1, 272) = 4.50, p < .05, $\eta^2 = .02$. In Sderot, the levels of exposure to Qassam rockets were higher than in the *kibbutzim*, particularly among the older residents of Sderot (M =4.46, SD = 0.83) and the younger residents of Sderot (M = 3.94, SD = 1.13), compared with the older residents (M = 3.51, SD =1.23), and the younger residents (M = 3.59, SD = 1.51) of *kibbutzim*.

Differences in PTSD. The findings revealed that among the younger participants, 29.5% of the residents of Sderot had been diagnosed with PTSD symptoms, compared with 4.5% of their counterparts in *kibbutzim*. By comparison, 40.5% of the older residents of Sderot had been diagnosed with PTSD symptoms, compared with 7.1% of the older residents of *kibbutzim*. This indicates that among both age groups, a higher percentage of Sderot residents than residents of *kibbutzim* had been diagnosed with PTSD. Moreover, the percentage of elderly participants who had been diagnosed with PTSD was higher than the percentage of younger participants. The differences in prevalence of PTSD among the same age group in the different types of communities were significant (young $-\chi^2 = 14.33$, df = 1, p < .000; old $-\chi^2 = 21.13$, df = 1, p < .000), whereas the differences between the age groups were not significant (p > .05).

An ANOVA conducted to examine the mean level of PTS revealed a significant effect only in relation to place of residence, F(1, 272) = 73.95, p < .001, $\eta^2 = .21$. The residents of Sderot reported higher levels of PTS than did the residents of *kibbutzim* (M = 1.28, SD = 0.69, and M = 0.63, SD = 0.54, respectively). The effects of age and the interactions were not significant.

Sense of belonging to the community. An ANOVA revealed the following: a significant effect for place of residence, F(1, 272) = 18.25, p < .001, a significant effect for age, F(1, 272) = 9.84, p < .01, and a significant interaction effect, F(1, 272) = 10.75, p < .001. Examination of the interaction revealed differences between the older and younger residents of *kibbutzim* (M = 3.50, SD = 0.45, and M = 3.13, SD = 0.38, respectively), whereas similar levels were found among the older and younger residents of Sderot (M = 3.07, SD = 0.59, and M = 3.08, SD = 0.40, respectively).

Correlations

The findings revealed a significant positive correlation between levels of exposure to Qassam attacks and levels of PTS, r = .18,

p < .003, as well as a significant negative correlation between sense of belonging to the community and levels of PTS, r = -24, p = .00 among the sample as a whole.

With regard to the participants' age, the findings revealed a significant positive correlation between levels of exposure to Qassam attacks and levels of PTS, r = .25, p = .00, and a significant negative correlation between sense of belonging to the community and levels of PTS, r = -.31, p = .00 only among the older participants.

Predictors of PTS

To examine the unique contribution of the different variables to explain the variability in PTS, a hierarchical regression analysis was conducted with the mean number of symptoms of posttrauma as the dependent variable (see Table 1). The variable exposure to threat was entered in the first step to determine its unique contribution. In the second step, we entered type of community of residence and the personal characteristics of the participants—age, gender, and economic situation. In light of the correlation between level of exposure and place of residence, we sought to examine the contribution of place of residence, which represented resources beyond exposure, per se. In the third step, the variable sense of belonging was entered.

The variables examined in the regression analyses revealed that these variables explained 27% of the variance in posttraumatic symptoms. In the first step, the contribution of level of exposure to explaining the variance in posttraumatic symptoms was significant but relatively low (3%): The higher the participants' levels of exposure, the higher their levels of posttraumatic symptoms.

In the second step, the contribution of type of community of residence and economic situation was negative and significant, and relatively high (23%). Specifically, residence in Sderot and low income were associated with higher PTS (β = .39 and .18, respectively).

In the third step, the contribution of sense of belonging to posttraumatic stress was significant and negative, but relatively low (1%): The more the participants felt a sense of belonging to the area, the lower their levels of posttraumatic symptoms.

Thus, it can be argued that type of community of residence, which reflects community resources, is a significant predictor of levels of PTS.

Table 1	
Beta Coefficients and Percentages of Variance in Predictors of) f
Posttraumatic Symptoms	

Predictor	1	2	3
Level of exposure	.19**	.06	.06
Type of community		39***	36***
Age		.08	.09
Gender		.09	.09
Economy		18^{**}	17^{**}
Sense of belonging			12^{*}
R^2	.03**	.26***	.27***
ΔR^2	.03**	.23***	.01*

 $p^* < .05. p^* < .01. p^* < .001.$

Discussion and Conclusions

Although there were differences in the number of missiles that fell in the different communities, the residents of Sderot were exposed to the most intense missile attacks: Over 95% of the participants in the study reported that they had been directly exposed to the threat of Qassam attacks. Nonetheless, the level of exposure among the younger and older residents of Sderot was higher than the level among their counterparts residing in *kibbutzim*. Therefore, it is not surprising that the residents of Sderot also had higher rates of diagnosed PTSD. The findings indicate that among the residents of Sderot, both the older and younger groups of participants had very high levels of PTSD (40.5% and 29.5%, respectively, Galea et al., 2002), whereas the older and younger residents of *kibbutzim* had lower levels of PTSD (7.1% and 4.5%, respectively).

Hence, age in itself was not directly associated with distress following continuous exposure to the threat of Qassam attacks. This finding is consistent with the argument that the aging process does not have a direct impact on levels of PTS following exposure to war and terror (Cohen, 2008). Nonetheless, the younger residents of kibbutzim and the younger residents of Sderot showed similar levels of distress. This finding is in the line with the results of Lahad and Leykin's (2010) study, which found that both younger and older adults residing in the Sderot area seemed to be more affected by the continuous threat than adolescents. Moreover, analysis of the interaction between age and place of residence indicated that, although elderly residents of Sderot were more exposed to the threat of rockets than younger residents of Sderot, the exposure in itself did not affect PTS. This finding is consistent with similar studies, which have shown that proximity and direct exposure to attacks are not significantly associated with PTS (Bleich, Gelkopf, & Solomon, 2003).

The second aim of the study was to examine the contribution of community resources—place of residence and sense of belonging—to PTS responses. In light of the compounding effect of level of exposure and place of residence, the variable exposure was entered in the first step. This step revealed that the unique contribution was minimal. When the different types of community were entered in the second step, the effect of the exposure was no longer found to be significant. Thus, place of residence, which reflects social and objective resources, was found to contribute more significantly to explaining the variance in PTS than the actual exposure.

This pattern of findings was also found in earlier research (Nuttman-Shwartz, 2013; Dekel & Nuttman-Shwartz, 2009) and is in the line with ecological theories such as Ungar's (2008) resilience approach and Hobfoll's (1989) COR Theory. In keeping with the goals of the present study, it is important to note that the general sense of belonging to the community was higher among residents of *kibbutzim* than among the residents of Sderot. Among the residents of Sderot, no difference was found between older and younger participants with regard to sense of belonging to the community. This finding also indicates that sense of belonging to the community plays a more important role than age in enabling individuals to cope with exposure to threat.

In addition, bearing in mind that place of residence represents the social resources of the community, the findings suggest that the community resources in the city of Sderot are insufficient, particularly in comparison with the resources available to the rural communities. The findings might also reflect the relationship between the difficult economic situation and living conditions in the city of Sderot, which might have impeded the participants' ability to cope successfully with the continuous threat. This finding is consistent with the results of Kira, Ashby et al.'s (2013) study, which was conducted in the same context of political conflict. That study revealed that poverty predicted identity salience and annihilation anxiety, which had a mediating effect on the physical and mental health of Palestinian adolescents.

However, in contrast to the findings of a previous study (Dekel & Nuttman-Shwartz, 2009), the results of the current study revealed that sense of belonging to the community in itself did not contribute to the explained variance in PTS as significantly as place of residence.

Notwithstanding the above, the concept of sense of community may overlap with different concepts such as collective identity salience and collective national identity trauma. These concepts have been used in previous research, especially in the context of political conflict, and are considered to be relevant in situations of political conflict and chronic trauma, such as the Israeli-Palestinian conflict (Kira, Fawzi et al., 2013). It would therefore be worthwhile to conduct further research on the issue of collective identity in the Israeli context, and examine how collective identity is manifested in the interaction between community identity and national identity and family identity. On the theoretical level, the current research findings might expand Kira, Fawzi, and Fawzi's concept of collective identity by including different levels of identity such as community identity. As such, it can contribute to existing knowledge about the macrocontextual factors that are part of personal and collective identities. Notably, the macro and meso levels were found to be important predictors of PTS responses resulting from exposure to traumatic events (Dekel & Tuval-Mashiach, 2012).

The findings of our study support the view that vulnerability and resilience to stress are not age-dependent, and that elderly persons do not differ from younger adults in their emotional reactions in the face of continuous exposure to a security threat (Bleich et al., 2003). Specifically, the results shed light on the young population in rural communities. Although *kibbutzim* are considered good places to live, and even though they provide support to members of the community (at least to elderly residents), the levels of distress among the younger residents of these localities were similar to those of young adults residing in the urban community. This might be attributed to generational changes, and to the increasing prevalence of the individualistic orientation in Israeli society at large.

Before concluding, some limitations of the study need to be mentioned. In a situation of continuous exposure, it is important to measure other stress reactions besides PTS. These reactions might provide a basis for exploring other types of negative consequences as well as positive outcomes that enable residents to continue living under such conditions. In addition, the study sample was based on two distinct populations: a list of students at a community college and a closed list of elderly persons living independently in the community. As such, it is not representative. In addition, the participants varied with regard to several dimensions, including country of origin (Israeli-born and born abroad), state of health, level of education, and religiosity. These are potentially important confounding variables, and might have contributed to the differences in PTS. Thus, although the main goal of the current study was to compare participants in different age cohorts, it is important to take into consideration that age might have been confounded with level of education, and this may have limited the generalizability of the results. Moreover, the study was based on a crosssectional design, which compared different age groups that were similar in size, but did not necessarily reflect the actual size of the populations they represented. Finally, the study did not address the effects of other life traumas and their cumulative effects that might have occurred over the years.

To gain more insights into the effect of continuous exposure, it would be worthwhile to conduct longitudinal and follow-up studies.

Despite these limitations, the study was conducted in a dangerous zone after a prolonged period of continuous traumatic stress, and examined a topic that is relatively new in trauma research (e.g., Kira, Ashby et al., 2013). In particular, the findings contribute to knowledge about the consequences of exposure to a continuous security threat at different life stages and in different types of communities, as well as to knowledge about the role of personal and community resources in predicting PTS responses.

In addition, the findings have several practical implications. First, there is a need to provide more assistance to the population of the region, and particularly to elderly residents of the city of Sderot. In light of the impact of economic resources on levels of distress, we also recommend providing extensive economic assistance aimed at increasing the financial and occupational security of the residents of the region. It is also important to strengthen disadvantaged communities through the provision of resources and long-term assistance beyond the level of individuals. Finally, there is a need to continue examining the relationship between the meso and the macro ecological systems and their contributions to distress responses, as well as the implications of living in a situation of continuous exposure to a security threat.

References

- Adger, W. (2000). Social and ecological resilience: Are they related? Progress in Human Geography, 24, 347–364. http://dx.doi.org/10.1191/ 030913200701540465
- Ahern, J., & Galea, S. (2006). Social context and depression after a disaster: The role of income inequality. *Journal of Epidemiology and Community Health*, 60, 766–770. http://dx.doi.org/10.1136/jech.2006 .042069
- American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders (4th ed., text rev.). Washington, DC: Author.
- Baltes, P. B., & Nesselroade, J. R. (1984). Paradigm lost and paradigm regained: Critique of Dannefer's portrayal of life-span developmental psychology. *American Sociological Review*, 49, 841–847.
- Baltes, P. B., Reese, H. W., & Lipsitt, L. P. (1980). Life-span developmental psychology. *Annual Review of Psychology*, 31, 65–110. http:// dx.doi.org/10.1146/annurev.ps.31.020180.000433
- Ben-Porat, A., Yablon, B. Y., & Itzhaky, H. (2013). Is the development of PTSD blind to differences in social resources? Evidence from high school students facing terrorism. *Journal of Community Psychology*, 41, 175–187. http://dx.doi.org/10.1002/jcop.21521
- Billig, M., Kohn, R., & Levav, I. (2006). Anticipatory stress in the population facing forced removal from the Gaza Strip. *Journal of Nervous and Mental Disease*, 194, 195–200.

- Braun-Lewensohn, O., & Sagy, S. (2013). Community resilience and sense of coherence as protective factors in explaining stress reactions: Comparing cities and rural communities during missile attacks. Advance online publication. *Community Mental Health Journal*. http://dx.doi.org/ 10.1007/s10597-013-9623-5
- Bleich, A., Gelkopf, M., Melamed, Y., & Solomon, Z. (2005). Emotional impact of exposure to terrorism among young-old and old-old Israeli citizens. *The American Journal of Geriatric Psychiatry*, 13, 705–712. http://dx.doi.org/10.1097/00019442-200508000-00010
- Bleich, A., Gelkopf, M., & Solomon, Z. (2003). Exposure to terrorism, stress-related mental health symptoms, and coping behaviors among a nationally representative sample in Israel. *JAMA: Journal of the American Medical Association*, 290, 612–620. http://dx.doi.org/10.1001/jama .290.5.612
- Blumstein, T., Benyamini, Y., Fuchs, Z., Shapira, Z., Novikov, I., Walter-Ginzburg, A., & Modan, B. (2004). The effect of a communal lifestyle on depressive symptoms in late life. *Journal of Aging and Health*, 16, 151–174. http://dx.doi.org/10.1177/0898264303262650
- Braun-Lewensohn, O., Celestin-Westreich, S., Celestin, L. P., Verté, D., & Ponjaert-Kristoffersen, I. (2009). Adolescents' mental health outcomes according to different types of exposure to ongoing terror attacks. *Journal of Youth and Adolescence*, 38, 850–862. http://dx.doi.org/ 10.1007/s10964-008-9305-8
- Carballo, M., Smajkic, A., Zeric, D., Dzidowska, M., Gebre-Medhin, J., & Van Halem, J. (2004). Mental health and coping in a war situation: The case of Bosnia and Herzegovina. *Journal of Biosocial Science*, 36, 463–477. http://dx.doi.org/10.1017/S0021932004006753
- Chung, M. C., Werrett, J., Easthope, Y., & Farmer, S. (2004). Coping with post-traumatic stress: Young, middle-aged and elderly comparisons. *International Journal of Geriatric Psychiatry*, 19, 333–343. http://dx.doi .org/10.1002/gps.1095
- Cohen, M. (2008). Acute stress disorder in older, middle-aged and younger adults in reaction to the second Lebanon war. *International Journal of Geriatric Psychiatry*, 23, 34–40. http://dx.doi.org/10.1002/gps.1832
- Cohen Silver, R., Holman, E. A., McIntosh, D. N., Poulin, M., & Gil-Rivas, V. (2002). Nationwide longitudinal study of psychological responses to September 11. JAMA: Journal of the American Medical Association, 288, 1235–1244. http://dx.doi.org/10.1001/jama.288 .10.1235
- Cutter, S. L., Emrich, C. T., Mitchell, J. T., Boruff, B. J., Gall, M., Schmidtlein, M. C., . . . Melton, G. (2006). The long road home: Race, class, and recovery from Hurricane Katrina. *Environment: Science and Policy for Sustainable Development, 48,* 8–20. http://dx.doi.org/ 10.3200/ENVT.48.2.8-20
- Dekel, R., & Nuttman-Shwartz, O. (2009). Posttraumatic stress and growth: The contribution of cognitive appraisal and sense of belonging to the country. *Health & Social Work*, 34, 87–96. http://dx.doi.org/ 10.1093/hsw/34.2.87
- Dekel, R., & Tuval-Mashiach, R. (2012). Multiple losses of social resources following collective trauma: The case of the forced relocation from Gush Katif. *Psychological Trauma: Theory, Research, Practice, and Policy, 4,* 56–65. http://dx.doi.org/10.1037/a0019912
- Fisher, A. T., Sonn, C. C., & Bishop, B. J. (Eds.). (2002). Psychological sense of community: Research, applications, and implications. New York, NY: Kluwer. http://dx.doi.org/10.1007/978-1-4615-0719-2
- Galea, S., Ahern, J., Resnick, H., Kilpatrick, D., Bucuvalas, M., Gold, J., & Vlahov, D. (2002). Psychological sequelae of the September 11 terrorist attacks in New York City. *The New England Journal of Medicine*, 346, 982–987. http://dx.doi.org/10.1056/NEJMsa013404
- Goodman, R. M., Speers, M. A., McLeroy, K., Stephen, F., Fawcett, S., Kegler, M., . . Wallerstein, N. (1998). Identifying and defining the dimensions of community capacity to provide a basis for measurement. *Health Education and Behavior*, 25(3), 258–278.

- Henrich, C. C., & Shahar, G. (2008). Social support buffers the effects of terrorism on adolescent depression: Findings from Sderot, Israel. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47, 1073–1076. http://dx.doi.org/10.1097/CHI.0b013e31817eed08
- Hobfoll, S. E. (1989). Conversation of resources: A new attempt at conceptualizing stress. *American Psychologist*, 44, 513–524.
- Hobfoll, S. E., Dunahoo, C. A., & Monnier, J. (1995). Conservation of resources and traumatic stress. In J. R. Freedy & S. E. Hobfoll (Eds.), *Traumatic stress: From Q5 theory to practice* (pp. 29–47). New York, NY: Plenum Press. http://dx.doi.org/10.1007/978-1-4899-1076-9_2
- Itzhaky, H. (1995). Can social work intervention increase organizational effectiveness? *International Social Work*, *38*, 277–287.
- Kaplan, Z., Matar, M. A., Kamin, R., Sadan, T., & Cohen, H. (2005). Stress-related responses after 3 years of exposure to terror in Israel: Are ideological-religious factors associated with resilience? *Journal of Clin ical Psychiatry*, *66*, 1146–1154. http://dx.doi.org/10.4088/JCP .v66n0910
- Kawachi, I., & Berkman, L. F. (2001). Social ties and mental health. Journal of Urban Health, 78, 458–467. http://dx.doi.org/10.1093/ jurban/78.3.458
- Kira, I., Ashby, J. S., Lewandowski, L., Alawneh, A. N., Mohanesh, J., & Odenat, L. (2013). Advances in continuous traumatic stress theory: Traumatogenic dynamics and consequences of intergroup conflict. The Palestinian Adolescents case. *Psychology*, *4*, 396–409. http://dx.doi.org/ 10.4236/psych2013-44057
- Kira, I., Fawzi, M., & Fawzi, M. (2013). The dynamics of cumulative trauma and trauma types in adults patients with psychiatric disorders: Two cross-cultural studies. *Traumatology*, 19, 179–196. http://dx.doi .org/10.1177/1534765612459892
- Knight, B. G., Gatz, M., Heller, K., & Bengtson, V. L. (2000). Age and emotional response to the Northridge earthquake: A longitudinal analysis. *Psychology and Aging*, 15, 627–634. http://dx.doi.org/10.1037/ 0882-7974.15.4.627
- Kohn, R., Levav, I., Garcia, I. D., Machuca, M. E., & Tamashiro, R. (2005). Prevalence, risk factors and aging vulnerability for psychopathology following a natural disaster in a developing country. *International Journal of Geriatric Psychiatry*, 20, 835–841. http://dx.doi.org/ 10.1002/gps.1369
- Kovatz, S., Kutz, I., Rubin, G., Dekel, R., & Shenkamn, L. (2006). Comparing the distress of American and Israeli medical students studying in Israel during a period of terror. *Medical Education*, 40, 389–393.
- Lahad, M., & Leykin, D. (2010). Ongoing exposure versus intense periodic exposure to military conflict and terror attacks in Israel. *Journal of Traumatic Stress*, 23, 691–698. http://dx.doi.org/10.1002/jts.20583
- Miller, K. E., & Rasmussen, A. (2010). War exposure, daily stressors, and mental health in conflict and post-conflict settings: Bridging the divide between trauma-focused and psychosocial frameworks. *Social Science & Medicine*, 70, 7–16. http://dx.doi.org/10.1016/j.socscimed.2009.09 .029
- Norris, F. H., Friedman, M. J., Watson, P. J., Byrne, C. M., Diaz, E., & Kaniasty, K. (2002). 60,000 disaster victims speak: Part I. An empirical review of the empirical literature, 1981–2001. *Psychiatry: Interpersonal* and Biological Processes, 65, 207–239. http://dx.doi.org/10.1521/psyc .65.3.207.20173
- Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, 41, 127–150. http://dx.doi.org/10.1007/s10464-007-9156-6
- Nuttman-Shwartz, O. (2011). Macro, meso, and micro perspectives of resilience during and after exposure to war. In M. Ungar (Ed.), *The social ecology of resilience* (pp. 415–424). New York: Springer Science and Business Media.

- Nuttman-Shwartz, O. (2013). Fear, functioning and coping during exposure to a continuous security threat. *Journal of Loss and Trauma: International Perspectives on Stress & Coping.* http://dx.doi.org/ 10.1080/15325024.2013.763551
- Ohta, Y., Araki, K., Kawasaki, N., Nakane, Y., Honda, S., & Mine, M. (2003). Psychological distress among evacuees of a volcanic eruption in Japan: A follow-up study. *Psychiatry and Clinical Neurosciences*, 57, 105–111. http://dx.doi.org/10.1046/j.1440-1819.2003.01086.x
- Perkins, D., Hughey, J., & Speer, P. (2002). Community psychology perspectives on social capital theory and community development practice. *Journal of the Community Development Society*, 33, 33–52. http:// dx.doi.org/10.1080/15575330209490141
- Perkins, D., & Long, D. (2002). Neighborhood sense of community and social capital: A multi-level analysis. In A. Fisher, C. Sonn, & B. Bishop (Eds.), *Psychological sense of community: Research, applications, and implications* (pp. 291–318). New York, NY: Plenum Press. http://dx.doi .org/10.1007/978-1-4615-0719-2_15
- Saegert, S., & Winkel, G. (2004). Crime, social capital, and community participation. *American Journal of Community Psychology*, 34, 219– 233. http://dx.doi.org/10.1007/s10464-004-7416-2

- Scott, S. B., Poulin, M. J., & Cohen Silver, R. (2012). A lifespan perspective on terrorism: Age differences in trajectories of response to 9/11. *Developmental Psychology*, 49, 986–998.
- Stevens, G., Eagle, G., Kaminer, D., & Higson-Smith, C. (2013). Continuous traumatic stress: Conceptual conversations in contexts of global conflict, violence and trauma. *Peace and Conflict: Journal of Peace Psychology*, 19, 75–84. http://dx.doi.org/10.1037/a0032484
- Ungar, M. (2008). Resilience across cultures. British Journal of Social Work, 38, 218–235. http://dx.doi.org/10.1093/bjsw/bcl343
- Whitbourne, S. K. (1985). The psychological construction of the life span. In J. E. Birren & K. W. Schaie (Eds.), *Handbook of the psychology of aging* (2nd ed., pp. 594–618). New York, NY: Van Nostrand Reinhold.
- Yiftachel, O. (2000). Social control, urban planning and ethno-class relations: Mizrahim in Israel's development towns. *International Journal of Urban and Regional Research*, 24, 417–434. http://dx.doi.org/10.1111/ 1468-2427.00255

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