

Personal and communal resilience in communities exposed to missile attacks: Does intensity of exposure matter?

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Based on the salutogenic model, this study aimed to examine the role of personal and communal resiliency in reducing individuals' psychological distress when facing intensive missile attacks. We examined the relationships between these resources and psychological distress in communities which were exposed to different intensities of attacks. Data was gathered via anonymous self-report questionnaires from 843 adults during the period from one week to one month after intensive attacks in southern Israel. Questionnaires included demographic data as well as sense of coherence (SOC), community resiliency and psychological distress. Differences in levels of resiliency and distress were found among the groups with different 'exposure levels'. Moreover, only personal resilience SOC explained psychological distress in the entire population, while community resiliency had no effect. Results are discussed on the basis of the salutogenic model with implications for developments of interventions with populations who are exposed to differing intensities of missile attacks.

Keywords: acute stress symptoms; character strengths; coping; psychosocial resources

Considering the literature on the psychological and behavioural effects of political violence on individuals, a wide spectrum of outcomes has been found, ranging from mild stress reactions to a variety of problems such as anxiety, depression, somatic complaints, aggressive behaviour and anger (Braun-Lewensohn, Celestin-Westreich, Celestin, Verté, & Ponjaert-Kristoferssen, 2010; Dubow et al., 2010). Research literature has shown that individuals who have been exposed to violent political events tend to be vulnerable to developing psychological and social problems (Khamis, 2008; Slone & Shechner, 2009). However, although some people suffer from a variety of psychological difficulties, the majority exhibit resilience, cope well independently and do not suffer major emotional problems as a result of violent events (Sagy & Braun-Lewensohn, 2009; Zeidner, 2005).

Thus, the aim of the present study was to examine personal and communal resiliency of individuals who were exposed to one week of intensive missile attacks. We compared individuals who live in different areas of the country regarding their personal and community coping resources and psychological distress, measured by somatic symptoms. We also compared gender, age and socio-economic groups on these variables. Finally, we examined the relationships between personal and communal resources and psychological distress in communities who are close to the border with Gaza (up to 7 km), those who are located in intermediate distance

from the border (7–40 km) (both of these communities were exposed in this event to missile attacks) and those who are far away (more than 40 km) from the border and have not been exposed to missile attacks (i.e. 'exposure groups').

Sense of coherence as a personal coping resource

Employing the salutogenic theoretical approach (Antonovsky, 1987), the aim of our study was to investigate Antonovsky's construct (1987), personal resource of sense of coherence (SOC) as an explanatory factor in reducing distress reactions and enabling individuals to stay healthy despite the stressful situation. In his salutogenic model, Antonovsky sought to explain successful coping with stressors by the cognitive orientation of SOC which is a global orientation, an enduring tendency to see the world as more or less comprehensible, manageable and meaningful. According to the model, SOC has implications for individual responses in various kinds of stressful situations. It affects how individuals perceive the world and the events that happen to them, as well as the extent to which they perceive these events as manageable. The salutogenic model as well as accumulative research suggests that an individual with a strong SOC is less likely than one with a weak SOC to perceive many stressful situations as threatening, and, thus, anxiety provoking. Thus, it is assumed that SOC could serve as a protective factor

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when facing political violence (Braun-Lewensohn, Sagy & Roth, 2010). Given their tendency to perceive the world as meaningful and manageable, individuals with a strong SOC, are expected to be less threatened by events of war and missile attacks and less vulnerable after it has occurred. People with weak SOC on the contrary, may react with more stress-related symptoms and/or maladaptive coping (Hogh & Mikkelsen, 2005). A review by Eriksson and Lindstrom (2006), indicates that SOC is linked to psychological problems or health measures including psychological aspects and is a powerful predictor of psychological problems and stress reactions (Flensburg-Madsen, Ventegodt, & Merrick, 2005). In the context of political violence, SOC has been found to be a significant contributor to well-being in different types of communities, namely, urban and rural settings (Sagy & Braun-Lewensohn, 2009).

Community resiliency

When investigating individuals during or following collective and community crisis, it is important to take into consideration individuals' ecological context (Bronfenbrenner, 1979) such as community affiliation. The community context can influence not only reactions to crisis but coping and adjusting to the crisis as well. Thus, community resilience is considered a potential protective factor when facing events of violence and crisis (Braun-Lewensohn & Sagy, 2011b; Kimhi & Shamai, 2004; Norris, Stevens, Pfefferbaum, Whyche, & Pfefferbaum, 2008).

Community resilience dimensions include community readiness for such events as well as social support, social ties and commitments in the community, which are assets in times of threat (Ahmed, Seedat, van Niekerk, & Bulbulia, 2004; Kaniasty & Norris, 2000). Moreover, social cohesion is an important part of building resilient communities (Vinson, 2004). When facing potential events of collective stress, the community preparedness and the ability to cope well with the crisis depends on the community leaders who provide authentic and grass-roots leadership (Ganor & Ben-Lavy, 2003). Such leaders can create community competence with the capacity for collective action and decision-making, which results in the empowerment of members of the community (Norris et al., 2008). Community resilience and wellness emerge from a range of abilities which are dynamic and thus must be strengthened and preserved. While most studies agree that community resilience is an important asset for community members and that it facilitates adaptation (Kimhi & Shamai, 2004), studies which ask about different types of communities are sparse (Dekel & Nuttman-Schwartz, 2009). The few studies which have compared small towns with other rural communities in Israel (like kibbutzim) have found that sense of belonging was linked

differently to stress in the different types of communities. Thus, it seems that sense of belonging is linked to social context and does not operate by itself as a component of resiliency (Dekel & Nuttman-Schwartz, 2009; Nuttman-Schwartz & Dekel, 2009).

Exposure to missile attacks

When investigating psychological outcomes in the context of political violence, research has quite naturally considered exposure to the attacks as being an important factor in determining subsequent emotional problems. Several studies have demonstrated that higher levels of exposure to political violence (as regards number of events or intensity) elicit more adverse psychological reactions, such as higher rates of PTSD, anxiety and functional impairment (e.g. Braun-Lewensohn, Celestin-Westreich, Celestin, Verté, & Ponjaert-Kristoferssen, 2009; Solomon, Laufer, & Lavi, 2005). Additionally, studies have shown that prolonged exposure to potential threat of political violence could have harmful results on psychological resources of individuals. For example, a longitudinal study of southern Israelis have shown that being chronically exposed to missile attacks results in deterioration of personal SOC (Braun-Lewensohn & Sagy, 2010). Not only personal resources can be deteriorated; a study on northern Israelis has shown that citizens who were exposed to political violence threat over prolonged period have reported lower community resilience (Kimhi & Shamai, 2004).

The present study focuses on communities which are exposed to differing intensities of political violence: those who are close to the Gaza border (which missiles were fired from) up to 7 km and were intensively exposed during the event we examined and who have also been chronically exposed to repeated attacks in the last decade; those who are in an intermediate distance – 7–40 km from the border and were intensively exposed during the last event but are not as chronically exposed as the communities who are up to 7 km from the border; and the third 'exposure' group, citizens who live more than 40 km away from the Gaza border and were not exposed at all in the present event. This group is also not chronically exposed to missile attacks.

Socio-demographic factors

Gender

Most studies which compared genders on stress reactions in the context of political violence found that women are more likely than men to report higher stress reactions (Kimhi & Shamai, 2006). One of the reasons for these findings is that women experience the burden of the new situation more extensively; thus, it has more meaningful applications for them (Rubonis & Bickman, 1991). Moreover, gender differences in stress reactions could

result from different coping styles and different use of social support (Zeidner, 2005). It could also be that it is socialization differences, where women are more willing to express their feelings and reactions in time of stress (Kimhi & Shamai, 2006). However, when comparing genders on the different resources it seems that there are no gender differences in terms of SOC (Kimhi, Eshel, Zysberg, & Hantman, 2009; Volanen, Souminen, Lahelma, Koskenvuo, & Silventoinen, 2007).

Age

One's age has been found as a meaningful variable when examining the psychological implication in the context of stressful situations (Reed, Fazel, Jones, Panter-Brick, & Stein, 2011). In several cases it was found that young adults show more severe psychopathology than middle-age adults (Acierno, Ruggiero, & Kilpatrick, 2006; Cardeña, Dennis, & Winkel, 2005; Cohen, 2008). Overall, middle-age adults seem to be the most resilient group of adults also when comparing them to older adults (Hagström, 1995). The personal resource of SOC seems to decline with age (Nilsson, Holmgren, Stegmayr, & Westman, 2003).

Socio-economic status

Different studies have shown links between socio-economic status (SES) and stress reactions. Generally speaking, people of low SES report more psychosomatic symptoms compared to people of high SES (Berntsson & Kohler, 2001; Piko & Fitzpatrick, 2001). One of the explanations for being more vulnerable is that low SES individuals are lacking psychological resources or other resources to deal with different kinds of threats (Finkelstein, Kubzansky, Capitman, & Goodman, 2007; Kimhi, Eshel, Zysberg, Hantman, & Enosh, 2010).

Research background

This research was conducted among Israeli citizens during an escalation of intensive missile attacks in March 2012. This was not the first time that Israeli citizens in southern Israel had been exposed to intensive missile attacks. Since 2001, different communities close to the border of Gaza are continuously exposed to episodes of missile attacks; since 2009, a broader range of citizens up to 40 km from the border with Gaza have been exposed to such events of political violence.

The missile strikes in March were a dramatic common stressful situation for Israeli citizens. We examined the relationships of personal and community resiliency as potential factors for protecting individual from developing adverse stress reactions. The following are our research questions and hypotheses:

- (1) Are there differences in levels of psychological distress as well as in resources of personal and community resiliency among individuals from different groups of exposure (i.e. different distances from the Gaza border)? We hypothesized that citizens close to the border will report more severe distress and the weakest resources due to continuous exposure to stressful situations of missile attacks (Braun-Lewensohn & Sagy, 2010).
- (2) Are there differences in psychological distress and in personal and community coping resources according to the socio-demographic indicators of gender, age, SES and type of community? We hypothesized that the middle-aged group would be the most resilient (Hagström, 1995), with fewer symptoms of stress and stronger coping resources. Further, we expected and predicted that the lower socio-economic group would reveal more severe stress reactions and weaker resilience resources (Finkelstein, Kubzansky, Capitman, & Goodman, 2007). Women are expected to reveal higher stress reactions of psychological distress, while no differences are expected on personal or communal resources (Braun-Lewensohn, 2013). Moreover, those who are residing in urban communities will be less resilient than rural citizens (Dekel & Nuetman Schwartz, 2009).
- (3) Do socio-demographic indicators (gender, age, type of community and SES), SOC, community resilience and psychological distress, explain stress reactions and is the explanation by the resources the same for the groups of different exposure according to distance from the border? We expected negative links between the coping resources and psychological distress, with the coping resources explaining psychological distress with more variance in the chronically exposed group (Sagy & Braun-Lewensohn, 2009).

Participants

Eight hundred and forty-three people aged 18–79 participated in this study: 517 women (61.5%) of sample and 323 (38.3%) men. Participants lived in different areas of the country: 45 (5.4%) lived up to 7 km from the border, 508 (60.5%) lived between 7–40 km and 286 (34.1%) lived more than 40 km from the border. A full description of the study's socio-demographic characteristics and differences between the three 'exposure' groups according to socio-demographic characteristics are presented in Table 1.

Participants filled out anonymous self-report questionnaires in the weeks up to one month after the March escalation. Participation was voluntary.

Table 1. Sample characteristics according to 'exposure' groups.

	Up to 7 km <i>N</i> ≈ 45		7–40 km <i>N</i> ≈ 508		More than 40 km <i>N</i> ≈ 286		χ^2
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	
<i>Age</i>							2.64
Young (≤ 39)	26	4.6	351	61.5	194	34	
Middle age (40–59)	17	7.3	137	58.5	80	34.2	
Elderly (≥ 60)	2	6.9	17	58.6	10	34.5	
<i>Gender</i>							7.29*
Female	25	4.9	296	57.5	194	37.7	
Male	20	6.2	209	65.1	92	28.7	
<i>Socio-economic status</i>							13.05*
Low	14	6.9	129	63.5	60	29.6	
Average	16	5.2	200	65.1	91	29.6	
High	15	4.6	176	54	135	41.4	
<i>Type of community</i>							16.57**
Rural	15	2.9	324	62.4	180	34.7	
Urban	30	9.4	183	57.4	106	33.2	

Notes: * $p < 0.05$. ** $p < 0.001$.

Measures

Demographic Background Data were collected relating to gender, age, family income (below average, average and above average) and type of community. Additionally, participants were asked to report their place of residence with respect to distance from the border.

Sense of coherence (SOC) (Antonovsky, 1987) was measured using a series of semantic differential items on a seven-point Likert-type scale with anchoring phrases at each end. High scores indicated a strong SOC. An account of the development of the SOC scale and its psychometric properties, showing it to be reliable and reasonably valid, appears in Antonovsky's writings (1987, 1993). In this study, the SOC was measured by the short form scale consisting of 13 items, which has been found highly correlated to the original long version (Antonovsky, 1993). The scale includes such items as: "Doing the things you do every day is" – answers ranging from (1) "a source of pain and boredom" to (7) "a source of deep pleasure and satisfaction". In the present study, the Cronbach α is 0.85.

Conjoint Community Resilience Assessment Measure (CCRAM)¹ (short version). This is a 17 items scale on a five-point Likert-type scale ranging from do not agree at all (1) to definitely agree (5). This scale is based on earlier versions of community resilience scales (Braun-Lewensohn & Sagy, 2011b; Kimhi & Shamai, 2004). The scale is constructed from several main factors: preparedness (6 items), identification with the community (4 items), social relations (4 items) and security feelings (3 items). These factors explained 55% of the variance (Goroshit & Eshel, 2013).

Examples of items are: Citizens will continue to have municipal services during crisis; the municipality gives decent services; officials will exhibit leadership in times of crisis; I feel that I belong to the place where I live; I am proud to tell others where I live; I believe that my community has the ability to overcome crisis, etc. The Cronbach α for the entire scale is 0.86.

Psychological distress (SPD) is a six-item psychosomatic symptom scale on a four-point Likert-scale (1 – never 4 – very frequently), referring to frequency of occurrence of familiar psychological symptoms. The scale was developed in Hebrew (Ben-Sira, 1979) and has been used in a number of studies, with satisfactory psychometric properties (Ben-Sira, 1988). Examples of items are: Have you had headaches, problems falling asleep etc. In the present study, the Cronbach α is 0.72.

Results

One-way Anova was run to examine the hypothesis regarding differences between the three 'exposure' groups, SES groups and age groups on the study's variables (Table 2). Surprisingly, results show that the strongest resources, personal and communal, were reported by the most exposed group who live closest group to the border (up to 7 km from the border). Additionally, the group that lives 7–40 km from the Gaza border (middle intensity of exposure) reported the lowest resources and the highest distress. The hypothesis regarding SES was accepted with significant differences on the personal resource of SOC and on psychological distress but not on the communal resource (Table 2).

Table 2. Means and SDs of the study's variables according to exposure, SES and age.

	Up to 7 km N ≈ 45		7-40 km N ≈ 508		More than 40 km N ≈ 286		Low SES N ≈ 203		Average N ≈ 309		High SES N ≈ 327		Young ≤39 N ≈ 572		Middle age (40-59) N ≈ 235		Elderly ≥60 N ≈ 30		F	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD		
SOC (1-7)	5.23	1	4.91	0.89	5.05	0.86	4.27 ^(db)	4.82	0.87	4.9	0.94	5.14	0.83	4.93	0.86	5.12	0.9	4.70	1.20	5.27 ^{*(ab)}
CCRAM (1-5)	3.8	0.74	3.28	0.69	3.25	0.58	14.77 ^{***(ab,ac)}	3.35	0.73	3.28	0.69	3.29	0.69	3.26	0.65	3.39	0.72	3.24	0.73	3.23 ^{*(ab)}
SPD (1-4)	1.59	0.52	1.76	0.55	1.62	0.46	7.40 ^{***(bc)}	1.74	0.52	1.75	0.55	1.63	0.48	1.68	0.5	1.7	0.52	2.12	0.69	10.57 ^{***(ac,bc)}

Notes: * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

Also for age our hypothesis was supported. Overall, middle-age citizens were the most resilient with the strongest resources and weakest distress (Table 2).

In accordance with the research hypothesis, gender differences appeared on psychological distress only. The resources were reported approximately the same (Table 3). The last hypothesis regarding socio-demographic indicators related to type of community. This hypothesis was supported as well, with rural communities reporting stronger resources and weaker distress (Table 3).

Our third hypothesis related to the explanation of psychological distress by socio-demographic indicators as well as the personal and communal resources. Results of the hierarchical linear regression are presented in Table 4 and show that all variables except community resilience were significant in explaining psychological distress.

Additionally, the interaction of 'exposure' group X SOC was significant. Thus, separate regression analyses for each group with the independent variable of SPD and the independent variable of SOC were run. Results show that in all groups SOC served as a protective variable. However, in the chronically exposed group which live the closest to the border SOC had the highest explanation with 37% of the variance ($\beta = -0.60, p < 0.001$), while for the other groups SOC explained 18% (7-40 km) ($\beta = -0.43, p < 0.001$) and 15% (more than 40 km) of the variance ($\beta = -0.39, p < 0.001$).

Discussion

This research aimed to examine resilience resources as potential protective factors which enable successful coping in times of political violence escalation. We focused on two main resources which were previously found to be significant in explaining psychological distress during stressful situations: SOC and community resilience (Braun-Lewensohn & Sagy, 2011a, 2011b; Goroshit & Eshel 2013). We examined differences in personal and communal resources as well as psychological distress among different socio-demographic groups of gender, age, socio-economic levels and urban/rural communities. We further examined the role of exposure level which was determined by 'distance from the Gaza border' as a moderating factor.

Our first hypothesis related to differences in distress and resources among the 'exposure' groups. Surprisingly, we found that the most exposed group exhibit the strongest resiliency both personally and communally. Our result could imply that being exposed to prolong period of threat strengthens individuals' psychological resources and enables them to cope well with potential threats of political violence. It could be that these adults show habituation to the repeated stressful events. Additionally, it might be that the communities who are

Table 3. Means and SDs of the study's variables according to genders and type of community.

	Female <i>N</i> ≈ 517		Male <i>N</i> ≈ 323		<i>t</i>	Urban <i>N</i> ≈ 526		Rural <i>N</i> ≈ 317		<i>t</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
SOC (1–7)	4.97	0.89	4.99	0.89	−0.11	4.83	0.86	5.22	0.89	−6.14***
CCRAM (1–5)	3.31	.67	3.30	0.70	0.11	3.10	0.58	3.65	0.68	−12.58***
SPD (1–4)	1.78	0.53	1.57	0.48	5.91***	1.77	0.54	1.60	0.47	4.79***

Note: *** $p < 0.001$.

Table 4. Hierarchical regression analysis for demographics, distance from the border, personal and communal resources and interactions predicting psychological distress.

	R^2	<i>B</i>	β	SE	<i>t</i>
<i>Step 1</i>					
Gender		−0.23	−0.21	0.04	−6.31***
Age		0.01	0.13	0.00	4.00***
Socio-economic status		−0.06	−0.09	0.02	−2.78*
Type of community	0.09	−0.18	−0.17	0.04	−5.10***
<i>Step 2</i>					
Exposure group	0.01	−0.09	−0.10	0.03	2.75**
<i>Step 3</i>					
SOC		−0.25	−0.43	0.02	−13.79***
CCRAM	0.17	−0.01	−0.01	0.02	0.34
<i>Step 4</i>					
'Exposure' group × SOC		0.07	0.47	0.03	2.16*
'Exposure' group × CCRAM	0.00	0.01	0.05	0.04	0.28

Notes: * $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

regularly exposed to this type of stress have already gained knowledge and experience in dealing with this situation, thus their citizens seem to be better equipped with resilience factors such as preparedness to such situations. Moreover, during this period of escalation, wider areas of the country were under threat, while usually it is only the communities that are close to the border which are under this kind of threat. Thus, the people in these communities could feel during the escalation that there is broader understanding of their situation. Moreover, under circumstances where approximately a million citizens are under rocket fire, the entire country showed solidarity at this special time.

Our second hypothesis regarded differences according to a variety of socio-demographic indicators. With accordance to other research results (Kimhi & Shamai, 2006; Foa & Tollin, 2006) women seem to be more vulnerable and reported more severe psychological distress. Once again, it seems that women might have more social approbation to report and exhibit symptoms of distress. The other socio-demographic differences are also in accordance to other research results. Thus, the middle-aged population seemed to be the most resilient group. It seems that this age group is on the top in many

areas in life. They accomplished all developmental tasks, they are usually equipped with permanent job and their kids are not as young as kids of the younger age group. On the other hand, they did not yet reach old age which is usually accompanied by the deterioration of resources. The strongest socio-economic group was proven once again to be also better off in times of threat of political violence. It seems that those who have better resources during regular days have also better resources in times of crisis and stress.

Finally, our main research question regarded the way all demographics as well as the resources will explain psychological distress. We further sought to understand if the links between the personal or communal resources and psychological distress will operate in the same way for all 'exposure' groups. We indeed found that while the personal resource of SOC was the most effective one in reducing psychological distress in all groups, the community resource did not affect any group. However, it seems that although SOC was the strongest contributor to well-being it affects differently the exposure groups and was most effective in the most intensive exposure group. These results support the salutogenic model (Antonovsky, 1979, 1987) and the construct of SOC as

an important factor in resiliency of people who are exposed to intensive acute or prolonged missile attacks. It emphasizes the importance of strong sense of comprehensibility, manageability and meaningfulness and underlines the fact that those who are equipped with these mechanisms are better off and more resilient when facing crisis and threats. Community resilience in turn, did not contribute to the explanation of psychological distress in any group. It seems that also in times of collective stress the most important factor is the person itself and not the community resources surrounding him/her. It could be that our result reflects the sample of this study which was comprised mostly of urban citizens distributed among the three exposure groups. This interpretation supports previous studies which showed that community resilience is mostly effective when residing in rural communities (Dekel & Nuetman-Schwartz, 2009). Additionally, it could be that in other cultural groups the community resilience could result as a more meaningful component in coping with stress (Braun-Lewensohn & Sagy, 2011b). Besides these explanations, the CCRAM scale is a new scale and was used only in very few studies till now. Although it has high reliability it appears that further research should examine its merits.

Study limitations

Information about their experiences during the missile attacks was provided only by the adults themselves, and therefore, the collected data are subjective and retrospective. In addition, because we lack baseline information about the rates of stress reactions of the individuals prior to the study period, we cannot with certainty ascribe the mental health outcomes solely to the impact of the stressful situation examined.

In conclusion, the crux of this study examined the way personal and communal resiliency operate as protective factors in adult populations during times of political violence. Elaborated in the present study, the concept of resiliency was examined on both the personal and community levels. The three exposure groups were studied in an acute state of stress following one week of missile attacks. Although levels of personal SOC and community resiliency varied significantly across the groups, it had a strong protective effect in all groups. We found that in all exposure levels strong SOC enable individuals to cope better and present report lower distress than weak SOC individuals. Community resiliency in turn, had no protective effect in any group. We can cautiously conclude, therefore, that personal SOC is a meaningful protective factor when confronting stressful situations. Community resiliency in turn, should be further explored in different situations

and groups to identify populations in which this factor is significant for them.

Note

1. The Conjoint Community Resiliency Assessment Collaboration (CCRAC) is coordinated by Limor Aharonson-Daniel and Mooli Lahad. Partners are: Bruria Adini, Miriam Billig, Orna Braun-Lewensohn, Daphna Canneti, Odeya Cohen, Paula Feder-Bubis, Avi Israeli, Shaul Kimhi, Dima Leykin, Sabina Lissitsa, Yochanan Peres, Carmi Rappaport, Avi Sender, Shifra Sagy and Michal Shamai.

References

- Acierno, R., Ruggiero, K. J., & Kilpatrick, D. G. (2006). Risk and protective factors for psychopathology among older versus younger adults after the 2004 Florida hurricanes. *The American Journal of Geriatric Psychiatry, 14*, 1051–1059.
- Ahmed, R., Seedat, M., van Niekerk, A., & Bulbulia, S. (2004). Discerning community resilience in disadvantaged communities in the context of violence and injury prevention. *South African Journal of Psychology, 34*, 386–408.
- Antonovsky, A. (1979). *Health, stress, and coping: New perspectives on mental and physical well-being*. San Francisco, CA: Jossey-Bass.
- Antonovsky, A. (1987). *Unraveling the mystery of health*. San Francisco, CA: Jossey-Bass.
- Antonovsky, A. (1993). The structure and properties of the sense of coherence scale. *Social Science & Medicine, 36*, 725–733. doi:10.1016/0277536(93)90033-z
- Ben-Sira, Z. (1979). A scale of psychological distress. *Research Communications in Psychology, Psychiatry and Behavior, 4*, 337–356.
- Ben-Sira, Z. (1988). *Politics and primary medical care: Dehumanization and overutilization*. Aldershot: Avebury.
- Berntsson, L. T., & Kohler, L. (2001). Long-term illness and psychosomatic complaints in children aged 2–17 years in the five Nordic countries. Comparison between 1984 and 1996. *The European Journal of Public Health, 11*, 35–42.
- Braun-Lewensohn, B. (2013). Coping resources and stress reactions among three cultural groups one year after a natural disaster. *Clinical Social Work Journal*. doi: 10.1007/s10615-013-0463-0
- Braun-Lewensohn, O., Celestin-Westreich, S., Celestin, L. P., Verté, D., & Ponjaert-Kristoffersen, I. (2010). Prevalence of post-traumatic stress emotional and behavioral problems among Israeli adolescents facing ongoing terrorism. *International Journal of Psychology Research, 5*, 117–144.
- 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. doi:10.1007/s10964-008-9305-8
- Braun-Lewensohn, O., & Sagy, S. (2011a). Coping resources as explanatory factors of stress reactions during missile attacks: Comparing Jewish and Arab Adolescents in Israel. *Community Mental Health Journal, 47*, 300–310. doi:10.1007/s10597-010-9314-4
- Braun-Lewensohn, O., & Sagy, S. (2011b). Salutogenesis and culture: Personal and community sense of coherence among adolescents belonging to three different cultural groups. *International Review of Psychiatry, 23*, 533–541. doi:10.3109/09540261.2011.637905

- Braun-Lewensohn, O., Sagy, S., & Roth, G. (2010). Coping strategies among adolescents: Israeli Jews and Arabs facing missile attacks. *Anxiety, Stress & Coping*, *23*, 35–51. doi:10.1080/10615800802647601
- Braun-Lewensohn, O., & Sagy, S. (2010). Sense of coherence, hope and values among adolescents under missile attacks: A longitudinal study. *International Journal of Children's Spirituality*, *15*, 247–260.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Cardena, E., Dennis, J. M., & Winkel, M. (2005). A snapshot of terror: Acute posttraumatic responses to the September 11 attack. *Journal of Trauma & Dissociation*, *6*, 69–84.
- 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. doi:10.1002/gps.1832
- 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.
- Dubow, E., Boxer, P., Huesmann, R., Shikaki, K., Landau, S., Dvir Gvirsam, S., & Ginges, J. (2010). Exposure to conflict and violence across contexts: Relations to adjustment among Palestinian children. *Journal of Clinical Child and Adolescent Psychology*, *39*, 104–116.
- Eriksson, M., & Lindstrom, B. (2006). Antonovsky's sense of coherence scale and the relation with health: A systematic review. *Journal of Epidemiology & Community Health*, *60*, 376–381.
- Finkelstein, D., Kubzansky, L., Capitman, J., & Goodman, E. (2007). Socioeconomic differences in adolescent stress: The role of psychological resources. *Journal of Adolescent Health*, *40*, 127–134.
- Flensburg-Madsen, T., Ventegodt, S., & Merrick, J. (2005). Sense of coherence and physical health. A review of previous findings. *The Scientific World Journal*, *5*, 665–673. doi:10.1100/tsw.2005.03.85
- Foa, E. B., & Tollin, D. F. (2006). Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research. *Psychological Bulletin*, *132*, 959–992. doi:10.1037/0033-2909.132.6.959
- Ganor, M., & Ben-Lavy, Y. (2003). Community resilience: Lessons derived from Giló under fire. *Journal of Jewish Communal Service, Winter/Spring*, 105–108.
- Goroshit, S. K. M., & Eshel, Y. (2013). Demographic variables as antecedents of Israeli community and national resilience. *Journal of Community Psychology*, *41*, 631–643.
- Hagström, R. (1995). The acute psychological impact on survivors following a train accident. *Journal of Traumatic Stress*, *8*, 391–402.
- Hogh, A., & Mikkelsen, E. G. (2005). Is sense of coherence a mediator or moderator of relationships between violence at work and stress reactions? *Scandinavian Journal of Psychology*, *46*, 429–437.
- Kaniasty, K., & Norris, F. (2000). Help-seeking comfort and receiving social support: The role of ethnicity and context of need. *American Journal of Community Psychology*, *28*, 545–581.
- Khamis, V. (2008). Post-traumatic stress and psychiatric disorders in Palestinian adolescents following *intifada*-related injuries. *Social Science & Medicine*, *67*, 1199–1207. doi:10.1016/j.socscimed.2008.06.013
- Kimhi, S., Eshel, Y., Zysberg, L., & Hantman, S. (2009). Getting a life: Gender differences in postwar recovery. *Sex Roles*, *61*, 554–565.
- Kimhi, S., Eshel, Y., Zysberg, L., Hantman, S., & Enosh, G. (2010). Sense of coherence and socio-demographic characteristics predicting posttraumatic stress symptoms and recovery in the aftermath of the second Lebanon war. *Anxiety, Stress & Coping*, *23*, 139–152.
- Kimhi, S., & Shamai, M. (2004). Community resilience and the impact of stress: Adult response to Israel's withdrawal from Lebanon. *Journal of Community Psychology*, *32*, 439–451.
- Kimhi, S., & Shamai, M. (2006). Are women at higher risk than men? Gender differences among teenagers and adults in their response to threat of war and terror. *Women & Health*, *43*, 1–19.
- Nilsson, B., Holmgren, L., Stegmayr, B., & Westman, G. (2003). Sense of coherence stability over time and relation to health, disease and psychosocial changes in general population: A longitudinal study. *Scandinavian Journal of Public Health*, *31*, 297–304.
- Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. (2008). Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American Journal of Community Psychology*, *41*, 127–150. doi:10.1007/s10464-007-9156-6
- Nuttman-Shwartz, O., & Dekel, R. (2009). Ways of coping and sense of belonging in the face of a continuous threat. *Journal of Traumatic Stress*, *22*, 667–670. doi:10.1002/jts.20463
- Piko, B., & Fitzpatrick, K. M. (2001). Does class matter? SES and psychosocial health among Hungarian adolescents. *Social Science & Medicine*, *53*, 817–830.
- Reed, R. V., Fazel, M., Jones, L., Panter-Brick, C., & Stein, A. (2011). Mental health of displaced and refugee children resettled in low-income and middle-income countries: Risk and protective factors. *The Lancet*, *379*, 250–265.
- Rubonis, A. V., & Bickman, L. (1991). Psychological impairment in the wake of disaster: The disaster-psychopathology relationship. *Psychological Bulletin*, *109*, 384–399.
- Sagy, S., & Braun-Lewensohn, O. (2009). Adolescents under rocket fire: When are coping resources significant in reducing emotional distress? *Global Health Promotion*, *16*, 5–15.
- Slone, M., & Shechner, T. (2009). Psychiatric consequences for Israeli adolescents protracted political violence: 1998–2004. *Journal of Child Psychology & Psychiatry*, *50*, 280–289. doi:10.1111/j.1469-7610.2008.01940.x
- Solomon, Z., Laufer, A., & Lavi, T. (2005). In the shadow of the Intifada: Exposure and post traumatic reactions among adolescents in Israel. In E. Somer & A. Bleich (Eds.), *Mental health in terror's shadow: The Israeli experience* (pp. 77–107). Tel-Aviv: Ramot Press, Tel-Aviv University (Hebrew).
- Vinson, T. (2004). *Community adversity and resilience: The distribution of social disadvantage in Victoria and New South Wales and the mediating role of social cohesion*. Melbourne: The Ignatius Centre for Social Policy and Research, Jesuit Social Services.
- Volanen, S. M., Suominen, S., Lahelma, E., Koskenvuo, M., & Silventoinen, K. (2007). Negative life events and stability of sense of coherence: A five-year follow-up study of Finnish women and men. *Scandinavian Journal of Psychology*, *48*, 433–441.
- Zeidner, M. (2005). Contextual and personal predictors of adaptive outcomes under terror attack: The case of Israeli adolescents. *Journal of Youth and Adolescence*, *34*, 459–470. doi:10.1007/s10964-005-7263-y