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RESEARCH ARTICLE

PTSD and PTG among Israeli mothers: Opposite facets of exposure to terrorism

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Abstract

The aim of the this study was to test the association between posttraumatic stress disorder (PTSD), posttraumatic growth (PTG), and coping strategies among Israeli mothers with prolonged exposure to rocket missiles. One hundred fifty-two mothers, from the Western Negev region of Israel, took part in the study.

Respondents were affected by prolonged exposure to missile attacks even when they themselves had not been hit or injured. A positive correlation was found between PTSD and PTG. Problem-focused coping was found to mediate the relationship between PTSD and PTG; the higher the PTSD, the greater the use of problem-focused coping and the greater the posttraumatic growth. The results help understand the association between PTSD and PTG. The finding whereby problem-focused coping mediates the PTSD–PTG relationship is important for comprehending the association between the variables and the significance of growth in human life and for constructing intervention programs that promote growth following trauma. In addition, the study contributes to raising awareness both of how mothers cope and that they are a separate risk group with distinct growth possibilities.

KEYWORDS

mothers, PTG, PTSD, terrorism

1 | INTRODUCTION

The idea that stressful events or life crises may lead to positive personal change has been suggested in ancient literature, philosophy, and religion (Tedeschi & Calhoun, 1996). Yet, only in the last two decades, in line with currently prevalent positive psychology theories (Seligman & Csukszentmihakyi, 2000) was the term *posttraumatic growth* (PTG) proposed by Tedeschi and Calhoun (1996).

Posttraumatic growth refers to the experience of positive psychological change that relates to survivors' perception of self, relationships with others, and philosophy of life, accruing from their attempts to cope with trauma and its aftermath (Tedeschi & Calhoun, 1996, 2004). According to Tedeschi and Calhoun (1996), PTG is produced when the reframing beliefs about the world and the self are shattered in the aftermath of very difficult events for which people are psychologically unprepared (Janoff-Bulman, 2004; Tedeschi, Calhoun, & Cann, 2007). The need to rebuild those shattered beliefs eventually generates new more complex beliefs, which lead to one's sense of positive growth and wisdom after coping with the traumatic event and its aftermath (Shechory Bitton, 2014).

According to Tedeschi and Calhoun (1996, 2004), PTG will occur only as a result of facing and struggling with a distressful or traumatic event. However, the relationship between distress, such as posttraumatic stress disorder (PTSD), and growth requires further clarification (Levine, Laufer, Hamma-Raz, Stein, & Solomon, 2008). It has been suggested that high levels of distress are a prerequisite for PTG (e.g., Tedeschi & Calhoun, 1996, 2004); hence, a positive association will be found. Others assume that because PTG is an adaptive outcome of successfully coping with trauma, it will be negatively associated with PTSD (e.g., Johnson et al., 2007). Moreover, some researchers found no association between PTSD and PTG (e.g., Shechory Bitton, 2014). Finally, there are researchers who assert a curvilinear association, with the highest levels of PTG experienced by individuals suffering from intermediate levels of distress (e.g., Levine et al., 2008). Meta-analytic reviews have highlighted the inconsistent findings with regard to the relationship between PTG and adjustment (e.g., Helgeson, Reynolds, & Tomich, 2006; Zoellner & Maercker, 2006), suggesting that more examination is necessary.

Posttraumatic growth is assumed to reflect self-protective and self-enhancing processes (McFarland & Alvaro, 2000). Some scholars

have suggested that growth may be viewed as a coping strategy (e.g., Affleck & Tennen, 1996). In this study, we conceptualized and examined PTG as an outcome (Tedeschi & Calhoun, 1996, 2004) rather than as a coping strategy. This denotes a considerable positive change in one's cognitive and emotional life that may be the "reverse" of PTSD (Zoellner & Maercker, 2006).

Accordingly, we use the notion proposed by Lazarus and Folkman (1984, 1991) that coping strategies are cognitive and behavioral efforts to manage specific external and/or internal demands appraised as taxing or exceeding the resources of the person dealing with stressful situations and events. They suggested two major forms of coping: problem focused (dealing with stress sources and taking proactive steps to change them) or emotion focused (serving to reduce the emotional stress resulting from such situations; see also Folkman, 2013).

Coping strategies have been found to correlate with outcomes in various contexts. Greater use of emotion-focused coping is highly correlated with high levels of PTSD (e.g., Lilly & Graham-Bermann, 2010; Shechory Bitton, 2014) and psychological distress (e.g., Ben-Zur, Gilbar, & Lev, 2001; Carver & Scheier, 1993). In contrast, the use of problem-focused strategies usually shows more negative correlations with distress and indicates good mental health (Taft, Vogt, Mechanic, & Resick, 2007) and higher levels of PTG (for review, see Linley & Joseph, 2004). However, several studies have shown that emotion-focused strategies may also be beneficial in situations perceived as uncontrollable or in the absence of a viable solution (e.g., war and terrorism). In these cases, it might be better to use emotion-focused coping, because this strategy may reduce the negative psychological effects of the scenario or event without confronting it directly (e.g., Zeidner, 2006).

Because most of the research on PTG is based on retrospective self-reports, it is unclear whether the results reflect actual coping and life changes or simply retrospective reattribution of the pain experienced during recovery processes. That is also the case regarding PTSD. Studies have pointed to an elevated risk of PTSD symptoms in the aftermath of exposure to potentially traumatic events (e.g., Weinberg, Besser, Campeas, Shvil, & Neria, 2012). However, only few have assessed it during actual exposure to these events and most previous studies examined populations a relatively short time after they had experienced a traumatic event (e.g., Besser, Zeigler-Hill, Weinberg, Pincus, & Neria, 2015).

Over the years, mostly following the disengagement from Gaza (a unilateral decision made by the Israeli government in 2005 to remove all Jewish settlements and the Israel Defense Forces from the Gaza Strip; Shechory & Laufer, 2011), large civilian populations in southwestern Israel and the Gaza Strip have been exposed to recurrent bouts of missile fire across the Gaza–Israel border (Besser et al., 2015; Shechory Bitton, 2013). Most were exposed to acts of terrorism, both directly and indirectly through the injury or death of friends, family, or neighbors, and ceaseless media coverage of the attacks. Thousands of rockets and mortars have been launched into this populated area, usually accompanied by the wailing of sirens, resulting in dozens of fatalities and hundreds of injuries (Bensimon, Solomon, & Horesh, 2013).

Most studies in the field of terrorism have explored the psychological outcomes of terrorism (e.g., Saka & Cohen-Louck, 2014). PTG studies in Israel are relatively scarce (Laufer, Solomon, & Levine, 2010; Shechory Bitton, 2014). Those who examined salutogenic outcomes following exposure to terrorism and rocket attacks found higher levels of growth coexisting with higher levels of threat or stress associated with the situation (e.g., Dekel & Nuttman-Shwartz, 2009).

Previous studies have found that women are more susceptible than men to distress caused by exposure to war and terrorism (Adams & Boscarino, 2006; Brewin, Andrews, & Valentine, 2000; Zeidner, 2006) and that mothers to young children are at greater risk for stressful reactions (Qouta, Punamaki, & El Sarraj, 2005; White-Traut, 2004). War appears to negatively affect the ability of mothers to fulfill one of the main tasks of motherhood, which is to care for their children and to provide them with a sense of security and safety (Duvall & Miller, 1985). PTG was also found among mothers who were exposed to missile attacks (Hirsch & Lazar, 2012). These mothers used coping methods such as optimism, humor, and denial as well as the use of ideology and social support, maintaining a routine as much as possible, which was found to be related to growth. Most studies on mothers focused on mothers' behavior with regard to their children, rather than on the mothers themselves (Dekel, 2004; Shechory Bitton, 2013). The current study focuses on mothers' reaction to prolonged exposure to rocket attacks.

This study aims to broaden our knowledge regarding the well-being of mothers who continue to live under the prolonged threat of missile attacks. We wish to examine the level of subjective and objective exposure to which the mothers are exposed, as well as their reports of posttraumatic symptoms and PTG. The study will also examine the role of problem- and emotional-focused coping and their connection to PTSD and growth. Finally, because the process leading from stress to growth is not yet well understood, the study will investigate the relationsship between exposure, PTSD, and growth, and the possible role of emotional-and problem-focused coping.

By examining the association between posttraumatic stress (PTS) symptoms, PTG, and coping, we hypothesized that PTG would be positively associated with PTS symptoms. In addition, an attempt was made to determine whether problem- and emotion-focused coping styles mediate the relationship between PTS symptoms and PTG.

2 | METHOD

2.1 | Participants

The research sample included 152 Israeli mothers (age: M = 42.17, SD = 5.26) from the town of Sderot and the surrounding Gaza communities (Western Negev region), an area that was exposed to Qassam rockets for a prolonged time (around 8 years at the time of data collection). Most of them were Israeli born (N = 119, 79.9%), whereas others were mainly of European–American origin (N = 23, 15.4%). Most of them were married (N = 135, 91.2%), whereas others were divorced or separated (N = 12, 8.8%). All of them had children (M = 4.01, SD = 1.79). About one third of the mothers defined themselves as secular (33.6%) and the rest as religious (66.4%). They had either an academic education (N = 77, 51.0%) or a high school education (N = 60, 39.7%). Most were employed full-time (N = 115, 76.2%), whereas

others were either employed part-time (*N* = 9, 6.0%) or not working (*N* = 27, 17.9%). They had been living in the Western Negev region of Israel for many years (*M* = 20.20, *SD* = 13.35). Sample size was calculated with G*Power (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner, 2007). Using α = .05, a moderate effect size f2 = 0.15, power of 0.90, and a regression model with 8 predictors, a sample size of 136 participants was required.

2.2 | Measurements

2.2.1 | Objective and subjective exposure to terrorism and security events

The questionnaire comprises 17 items covering different types of trauma-related incidents (e.g., "A relative of mine was wounded by a rocket"; see also Laufer et al., 2010; Shechory Bitton, 2013). Objective level of exposure was measured as the total number of terror incidents to which the respondent had been exposed during the last year (e.g., "Missile fell close to an acquaintance, no one was injured"; "Wounded by a missile"; "Saw a person killed"). Scores ranged from 0 to 17, with higher scores indicating greater exposure. For each incident participants reported having experienced, they were asked to indicate the level of fear felt at the time of the incident on a 4-point scale (1 = *not scared*; 4 = *very scared*). Subjective level of exposure (subjective fear) was defined as the mean of the participant's responses on this scale.

2.2.2 | PTSD inventory (Solomon et al., 1993)

The PTSD inventory contains 17 items reflecting three categories of posttraumatic symptoms: intrusion, avoidance, and hyperarousal. Participants were asked to indicate whether or not the symptom was present, on a 4-point scale ranging from 1 (*not at all*) to 4 (*very much*). (Sample item for intrusion: "Having bad dreams or nightmares about the traumatic event"; avoidance: "Trying to avoid activities or people that remind you of the traumatic event"; hyperarousal: "Feeling irritable or having fits of anger"). The mean number of PTS, as well as the mean number of symptoms in each cluster (intrusion, avoidance, and hyperarousal) were assessed. Participants were identified as having PTSD if they endorsed at least one intrusive symptom, three avoidance symptoms, and two hyperarousal symptoms in the PTSD inventory. Internal consistencies for total and subscale scores were high at all assessments (Cronbach's α .81–.93).

2.2.3 | PTG inventory (Tedeschi & Calhoun, 1996)

The PTG inventory contains 21 items divided into five subscales: Participants were asked to report on a 4-point scale to what extent their lives had changed following the period of exposure to violence (range of all subscales, 1–4; e.g., "I changed my priorities about what is important in life"; Cronbach's α .76–.90). The scale has been used extensively in Hebrew (Dekel, Ein-Dor, & Solomon, 2012; Laufer & Solomon, 2006; Shechory Bitton, 2014).

2.2.4 | Coping styles

Measured by the COPE Scale (Carver, Scheier, & Weintraub, 1989), which assesses two major coping styles: problem-focused scale (15 items, e.g., "I made a plan of action and followed it") and emotion-focused scale (15 items, e.g., "I tried to keep my feelings to myself"). Participants were asked to rate the extent to which they used each coping option in dealing with stressful situations, on a 4-point scale (0 = *not at all*; 3 = *a great deal*; data were transformed into a 1–4 scale; Cronbach's α .70–.82). The scale has been used extensively in Hebrew (e.g., Ben-Zur et al., 2001; Shechory Bitton, 2014).

Demographic questionnaire: The questionnaire gathered information about age, marital status, level of education, place of residence, number of years residing in the area, and so forth.

2.3 | Procedure

The study was approved by the National Insurance Institute of Israel and its Ethics Committee. The inclusion criterion was residence in two areas of Israel: the town of Sderot and communities along the Gaza border, areas that had been the target of missile attacks for years. Since 2001, this area has been bombed by rocket fire. More than 8,000 rockets and mortar shells have been fired into the area, causing property damage, injury, and death, and undermining the residents' sense of safety (Besser et al., 2015).

Participants were located using the snowball sampling technique. Thus, the sample was a convenience sample. The interviews took place at participants' homes, by prior appointment. Before completing the questionnaires, participants were told that the questionnaires were anonymous and would be used solely for the purpose of the study. Each participant signed an informed consent form. Questionnaires were distributed and administered during 2009.

3 | RESULTS

3.1 | Objective exposure to terror events and subjective fear

Participating mothers noted the events to which they had been exposed. Most reported that they had to forego an activity due to terror events (*n* = 134, 88.2%), that a rocket fell close to an acquaintance of theirs (without causing injury; *n* = 116, 76.3%), that they stayed at home to hide from the events (*n* = 110, 72.4%), or that an acquaintance had been wounded by a rocket (*n* = 105, 69.1%). Further, most mothers reported using different roads to avoid danger (*n* = 104, 68.4%), skipping work or school (*n* = 100, 65.8%), or leaving home with their families (*n* = 91, 59.9%). About half reported that an acquaintance had been killed by a rocket (*n* = 73, 48.0%), and about 40% reported that a rocket had fallen in their vicinity, yet they were not physically harmed (*n* = 64, 42.1%). Other events were reported by less than 40% of the mothers: A relative had been wounded by a rocket, they left work or school, their workplace or school had been hit by rockets, their house had been hit, a relative had been killed by a rocket, they had been wounded by a rocket, they saw a person killed, or others.

Seventeen events were listed, of which mothers marked up to 14, with a mean of 7.74 (*SD* = 3.25) and a median of 8 events. Fear responses to these events ranged from 1 (*no fear*) to 4 (*great fear*), with a mean of 2.72 (*SD* = 1.09).

3.2 | Means, standard deviations, and correlations between the research variables

Mothers' mean score for problem-focused coping (M = 1.67, SD = 0.56) was significantly higher than their mean score for emotion-focused coping, M = 1.12, SD = 0.39; paired $t(151)$ = 13.75, p < .001, mean difference = 0.55, SD = 0.49, 95% CI = 0.47 to 0.63, Cohen's d = 1.12.

Mothers' mean scores on PTS scales ranged from 1 to 4. Means were intrusion M = 1.91 (SD = 0.82), avoidance M = 1.46 (SD = 0.56), and hyperarousal M = 1.96 (SD = 0.84). The total mean score for PTS was rather low at 1.74 (SD = 0.65). Indeed, only 18 mothers (11.8%) were clinically defined as suffering from PTS symptoms.

The total mean score for PTG was 2.06 (SD = 0.83). Subscale means were relationships with others (M = 2.02, SD = 0.87), new opportunities (M = 1.78, SD = 0.85), personal strength (M = 2.26, SD = 0.98), spiritual change (M = 2.13, SD = 1.13), and appreciation of life (M = 2.34, SD = 0.99).

As shown in Table 1, all research variables were positively and significantly intercorrelated. Higher PTS symptoms were positively correlated with PTG, and both coping styles were positively correlated with both PTS symptoms and PTG. Greater exposure to terror events as well as greater fear were positively correlated with coping styles, PTS symptoms, and PTG. As shown in Figure 1, the relationship between PTS and PTG is linear.

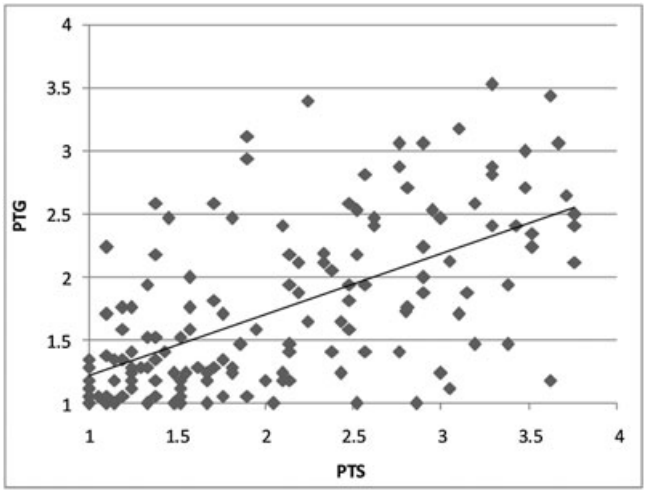

FIGURE 1 Distribution of PTG by PTS values. PTG = posttraumatic growth; PTS = posttraumatic stress

3.3 | PTS symptoms, PTG, and coping styles

In order to predict PTS symptoms and PTG, two multiple hierarchical regressions were conducted. For PTS symptoms, the regression was composed of three steps, including demographic variables in the first step, exposure to terror events and fear in the second step, and problem and emotional coping in the third step. For PTG the regression was composed of one additional step, including PTS symptoms. The results are shown in Tables 2, 3.

Of the demographic variables, education (0-high school, 1-academic) was found to be negatively correlated with PTS symptoms (r = −.28, p = .001), religiosity (0-religious, 1-secular) was negatively correlated with PTG (r = −.22, p = .007), and duration of residence (DR) in the area was positively correlated with both PTS symptoms (r = .35, p < .001) and PTG (r = .27, p = .001). Mothers' age and number of children were unrelated to PTS or PTG. Thus, education, religiosity, and duration of residence in the area were entered in the first step.

The regression for PTS symptoms shows that 51% of the variance is explained by the demographic variables, exposure, fear, and coping styles. Of the demographic variables, duration of residence in the area positively predicts PTS symptoms, although education negatively predicts it, such that a longer duration of residence in the area and high school education (as opposed to academic education) are related to higher PTS symptoms. Exposure to terror events and fear of them positively predict PTS symptoms, beyond the demographic variables, such that greater exposure to terror and higher fear are related to more severe PTS symptoms. Coping styles are unrelated to PTS symptoms. The regression for PTG shows that 52% of the variance is explained by the research variables. Religiosity, exposure to terror events, and fear of them initially predict PTG, but once PTS symptoms and coping styles are entered, these previous predictors are no longer significant.

TABLE 1 Means, standard deviations, and correlations between research variables (N = 152)

	M (SD)	Fear	PTS symptoms	PTG	Problem-focused coping	Emotion-focused coping
Exposure	7.74 (3.25)	.57***	.61***	.47***	.21**	.41***
Fear	2.72 (1.09)		.50***	.44**	.20*	.37***
PTS symptoms	1.74 (0.65)			.61***	.32***	.47***
PTG	2.06 (0.83)				.50***	.52***
Problem-focused coping	1.67 (0.56)					.51***
Emotion-focused coping	1.12 (0.39)					

Note. PTG = posttraumatic growth; PTS = posttraumatic stress.

*p < .05,

**p < .01,

***p < .001.

TABLE 2 Multiple regressions predicting PTS symptoms and PTG: steps 1–2 (N = 152)

	PTS			Posttraumatic growth		
	B	*SE*	β	B	*SE*	β
Step 1						
DR	0.02	0.01	.30***	0.01	0.01	.22**
Education	−0.29	0.10	−.22**	−0.16	0.13	−.10
Religiosity	−0.09	0.11	−.07	−0.30	0.14	−.17*
	R^2 = .17***			R^2 = .11***		
Step 2						
DR	0.01	0.01	.14*	0.01	0.01	.11
Education	−0.22	0.09	−.16*	−0.05	0.12	−.03
Religiosity	−0.05	0.09	−.04	−0.27	0.13	−.15*
Exposure	0.09	0.02	.44***	0.07	0.02	.28**
Fear	0.11	0.05	.18*	0.18	0.07	.24**
	ΔR^2 = .29***			ΔR^2 = .19***		

Note. PTG = posttraumatic growth; PTS = posttraumatic stress.

*p < .05,

**p < .01,

***p < .001

TABLE 3 Multiple regressions predicting PTS symptoms and PTG: steps 3–4 (N = 152)

	PTS			Posttraumatic growth		
	B	*SE*	β	B	*SE*	β
Step 3						
DR	0.01	0.01	.16*	0.01	0.01	.15*
Education	−0.21	0.09	−.16*	−0.08	0.11	−.05
Religiosity	0.06	0.09	.05	−0.05	0.12	−.03*
Exposure	0.07	0.02	.37***	0.05	0.02	.18*
Fear	0.10	0.05	.16*	0.12	0.06	.16*
Problem focused	0.16	0.09	.14	0.49	0.11	.33***
Emotion focused	0.25	0.14	.15	0.36	0.19	.17
	ΔR^2 = .05**			ΔR^2 = .16***		
Step 4						
DR				0.01	0.01	.10
Education				0.01	0.11	.01
Religiosity				-0.07	0.12	-.04
Exposure				0.01	0.02	.06
Fear				0.09	0.06	.12
Problem focused				0.41	0.11	.28***
Emotion focused				0.28	0.17	.13
PTS symptoms				0.42	0.11	.33+
Step				ΔR^2 = .06***		
Model	R^2 = .51, F (7, 144) = 20.40***			R^2 = .52, F(8, 143) = 18.64***		

Note. PTG = posttraumatic growth; PTS = posttraumatic stress.

*p < .05,

**p < .01,

***p < .001.

Ultimately, PTS symptoms and problem-focused coping positively predict PTG, such that more severe PTS symptoms and greater use of problem-focused coping are related to greater growth.

3.4 | Indirect relationship between PTS symptoms and PTG through coping style

Finally, we attempted to assess the role of coping style in the relationship between PTS symptoms and PTG. Preacher and Hayes' (2008) method for estimating multiple mediation models was used to determine whether problem- and/or emotion-focused coping styles mediate the relationship between PTS symptoms and PTG.

Education level, religiosity, duration of residence in the area, exposure to terror events, and fear were entered as covariates. Examination of the role of coping styles revealed that problem-focused coping had a mediating effect on the relationship between PTS symptoms and PTG (coefficient = 0.107, *SE* = 0.038, Z = 2.78, p = .005, bootstrap 95% CI = 0.040, 0.191), such that the higher the PTS the greater the use of problem-focused coping, leading to greater PTG. Mediation was partial as the initial direct relationship between PTS and PTG (β = .47, p < .001) was retained and was lower (β = .33, p < .001). Emotion-focused coping, however, was not found to be a significant mediator (coefficient = 0.056, *SE* = 0.032, Z = 1.75, p = .080, bootstrap 95% CI = 0.047, 0.129). Therefore, there was an indirect relationship between PTS symptoms and PTG through problem-focused coping, but not through emotion-focused coping.

4 | DISCUSSION

In this study, we aimed to explore the association between PTS symptoms, PTG, and coping strategies among Israeli mothers with prolonged exposure to rocket missiles. Overall, the results indicate that prolonged exposure to missile attacks left their mark on the mother's place of residence even if they themselves were not hit or injured. Awareness of the constant threat of missiles has a detrimental effect on the daily routine of mothers (i.e., they must change the route they drive, skip work or school, etc.). Studies have shown that even if a person is not directly exposed to terror attacks but he or she is under the fear of a possible attack, this may be manifested in distress or in posttraumatic symptoms (Cohen-Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002; Laufer & Solomon, 2006).

As much as half the mothers declared that someone they knew had been killed by a missile or that a rocket fell in their vicinity. However, this high direct and indirect exposure did not manifest itself in a high level of reported PTSD. In fact, only 11.8% of the mothers were found to have clinical levels of PTSD.

Studies suggest that exposure to stressful life events retains a stable equilibrium without reactive psychopathology. A national representative survey 19 months after the beginning of the Intifada found that 9.6% had symptoms that were criteria for PTSD (Bleich, Gelkopf, & Solomon, 2003). In the same period, Gidron (2002) found 10.1% of a Jewish convenience street-recruited sample across five major cities to have PTSD. These levels are similar to that found in our study. Interestingly, it seems that living in the shadow of terrorism or under a constant threat of missiles does not result in higher levels of clinical PTSD. This is compatible with previous studies suggesting that due to the high baseline of pressures and stressors, the Israeli population may in fact experience habituation in the face of repeated exposure

(Bensimon et al., 2013; Shechory Bitton & Cohen Louck, 2016; Shechory Bitton & Silawi, 2016).

As for PTG, the findings indicate that PTS and PTG are positively correlated. This is in line with the assertion of Tedeschi and Calhoun (2004) that distress triggers subsequent growth. According to their notion, growth is an outcome of the psychological struggles caused by the distress; therefore, it is expected that posttraumatic symptoms and growth would be positively correlated with PTS, as found in this study. These findings are also similar to those of Dekel and Nuttman-Shwartz (2009), which indicated that higher levels of growth coexist with higher levels of threat or stress among Western Negev inhabitants exposed to 6 years of rocket attacks.

Another possible explanation for the positive association between posttraumatic symptoms and PTG is the notion that PTG is merely a positive illusion (Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000) reflecting the agony and suffering caused by the posttraumatic symptoms (for review, see Zoellner & Maercker, 2006). According to this notion, the claim of having reached a sense of growth is a self-enhancing illusion that helps the survivor counterbalance emotional distress that cannot buffer pathogenic trauma sequelae (Dekel et al., 2012). This may be the case in uncontrollable traumatic events such as exposure to war (McFarland & Alvaro, 2000). Hirsch and Lazar (2012) found that mothers living in the Western Negev under missile attacks felt guilty about raising their children in this uncertain environment, which might harm them both physically and emotionally. They suggest that the higher growth levels found among these mothers may be no more than a justification for their decision to live in a dangerous area.

In order to elaborate on the association between PTS and growth, we examined the role of emotion- and problem-focused coping mechanisms. Both forms of coping had a positive correlation with PTS and growth. However, once entered into the regression models, only problem-focused coping was found to be positively correlated with growth, over and above the effects of demographic variables and exposure. It should be noted that although emotion-focused coping concentrated on aspects such as feeling helpless and acknowledging it, using alcohol or drugs, learning to live with it, accepting the fact that it is unchangeable, sleeping more than usual, and so forth, problem-focused coping investigated the ability to seek help from friends and professionals, attempts to obtain social support, trying to handle things as best as I can, trying to take it step by step, speaking about my feelings, and so forth. Therefore, previous studies also found problem-focused control to be connected with growth (Linley & Joseph, 2004). This seems to be the case not only regarding controllable situations and stressors but also regarding uncontrolled stressors such as missile attacks (Hirsch & Lazar, 2012). As noted by Zeidner and Saklofske (1996), problem-focused coping does not remove the threat itself but rather, at best, provides some form of "safety measure."

No significant associations of the coping mechanisms with PTS were found in the regression model. Moreover, estimations of multiple mediation models (Preacher & Hayes, 2008) indicated that problem-focused coping has a mediation effect on the relationship between PTS and PTG. The higher the PTS, the greater the use of problem-focused coping, leading to greater PTG.

According to the PTG model (Calhoun & Tedeschi, 2006), the process of PTG can be described as a three-step model: "apprehension" or "comprehensibility" of the situation points to an attempt to make sense of the situation; "manageability," which is figuring out ways to cope; and "meaningfulness," which occurs after the person has coped successfully.

In another study on mothers raising their children in the shadow of rocket attacks, Hirsch and Lazar (2012) found that lengthy exposure to terrorism is related to the process of comprehending the dangerous situation and raising the need to handle the situation. We believe that use of problem-focused coping, such as taking different roads to school and home, and so forth, may have increased the sense of situation's manageability, which is a core element in the process leading from distress to PTG. Hirsch and Lazar (2012) found that mothers perceived the state of war as a fleeting situation and continued to view the area as a quiet and secure one.

Former studies have indicated that those who perceive themselves as capable of changing their environment feel that they have made changes consistent with PTG (Hall et al., 2008). Prolonged exposure to situations of tension and stress require those exposed to find practical solutions, despite feelings of fear. All of the participants were married and had children. This certainly requires practical coping with prolonged exposure to security threats. As noted by Dekel (2004), the main concern of mothers in the wake of terrorism is the effort to protect their children both physically and mentally. This means that they must constantly calculate where and where not to take them, and to manipulate or block the information their children receive, thus shielding them from possible physical or mental harm. This may explain why we found in our study that mothers who use problem-focused coping felt a higher level of growth. It may be that in this uncontrolled dangerous environment they have found ways of feeling that they are doing something to change their children's environment such that it will be more secure.

Overall, we believe that the study's findings support Tedeschi and Calhoun's (1996) assumption that the need to fight the distress is a trigger for growth. Indeed, we found that although growth and distress are positively associated, the fact that they are mediated by problem-focused coping indicates that the association is not a simple one and that the growth is not a mirror reflection of the distress, rather a separate dimension. Therefore, in our opinion, active coping with the distress (e.g., through problem-focused coping) will ultimately lead to a process of growth, and in fact, growth is a dimension that may be associated with distress but it signifies an active attempt to cope with it (e.g., Laufer et al., 2010). Moreover, the research findings show that growth is not a coping mechanism, rather an outcome of coping with distress, as suggested by Tedeschi and Calhoun (2004).

The present study has several methodological shortcomings. First, it is a correlational study; therefore, it does not allow for any clear-cut inferences regarding causative relationships. Second, the study investigates the association between distress and growth, in a situation of coping with security threats. The fact that the population studied was coping, at the time of the study, with exposure to traumatic events, may have affected both distress and growth. According to Calhoun and Tedeschi, in order for growth to occur time must pass from the traumatic event, time in which the growth process evolves, including stages of contemplating the event, perceiving the event, and its transformation into a significant event (Calhoun & Tedeschi, 2006;

Frazier, Conlon, & Glaser, 2001). Therefore, when we examine a population that is exposed to an event that began years ago but is still ongoing, this is in essence a unique population and caution must be taken with any generalizations. In addition, using a snowball sampling technique limits the study's generalizability to broader contexts. Finally, the current study did not examine personality indices that contribute to adjustment to trauma or other traumatic events in the mothers' past. These too may have an additional effect (Kasler, Dahan, & Elias, 2008) both on their coping with the missiles and on the association of this coping with growth. There is room to examine these associations in further research.

The limitations notwithstanding, this study is unique in its investigation of a process of growth while coping with an ongoing traumatic event and due to the fact that the participants were studied in the midst of coping with the event. Previous studies investigated growth only some time after the trauma had passed and not in its process. Furthermore, most studies examined a single rather than an ongoing traumatic event. Because war is a continuous state of affairs in many regions of the world, it is necessary to explore states of distress and growth in the process of ongoing regional conflicts, as done in the current study. The study is also unique for its examination of the relationship between problem- and emotion-focused coping mechanisms and the previously found association between symptoms of distress and growth. The study indicates that, at least in the case of growth while coping with an ongoing event, problem-focused coping mediates the association between distress and growth. In this way, the research findings show that intervention processes that will encourage the individual to consider active problem-focused manners of coping can be efficient even when dealing with uncontrollable threats, such as in situations of terrorism and war.

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