ORIGINAL ARTICLE



Creating "a Safe Haven": Emotion-Regulation Strategies Employed by Mothers and Young Children Exposed to Recurrent Political Violence

Michal Gatenio-Kalush 1 • Esther Cohen 2

Published online: 20 December 2019

© Springer Nature Switzerland AG 2019

Abstract

Growing evidence underscores the need to counteract the mental health risks for children growing up in traumatic situations of political violence. This study examined the concurrent emotional regulation (ER) strategies employed by mothers and their children in meeting this challenge. Following several incidents of rocket attacks, in southern Israel, we conducted semi-structured interviews with 30 mothers and their children (ages 5–7). Additionally, mothers completed the Emotion Regulation Questionnaire (Gross and John 2003). The main theme emerging from the qualitative analyses of the interviews with the children was adherence to the perception of the shelter room in the home as a "safe haven", supported by constructed knowledge and acquired skills related to physical safety, as well as the sense of emotional availability of their caregivers. The children used imagination, play and physiological regulation modeled by the mothers. The interviews with the mothers revealed their effort to convey a sense of calm and routine, even when these were interrupted. They used self-talk concerning the children's needs and tried to regulate their own physiological and psychological arousal. Mothers who expressed in the interviews satisfaction with the management of their ER reported significantly higher use of cognitive reappraisal strategies than those expressing dissatisfaction. Mothers help children construct meanings related to stressful events and teach and model evidence-based tactics for ER. Interventions for coping with a toxic reality should involve both psycho-education about children's needs and address mothers' own ER strategies, especially the use of cognitive reappraisal.

 $\textbf{Keywords} \ \ \text{children's emotion regulation} \cdot \ \ \text{Mothers' emotion regulation} \cdot \ \ \ \text{Cognitive reappraisal} \cdot \ \ \ \text{Trauma} \cdot \ \ \ \text{Recurrent political violence}$

Introduction

The concept of emotion regulation (ER) usually refers to individuals' attempts to influence the type of emotions they feel, when they feel them, and how they are experienced and are manifested outwardly in accordance with their objectives (Gross et al. 2006). It appears that difficulties in ER

Michal Gatenio-Kalush michalgak@gmail.com

Esther Cohen esther.cohen@mail.huji.ac.il

- MOFET Institute, Tel Aviv, Israel, School of Social Work, Sapir Academic College, Ashkelon, Israel
- ² Child-Clinical Psychology, School of Education, Hebrew University of Jerusalem, Jerusalem (Emerita), Israel

interfere with coping with daily challenges, and manifest at any age in various psychopathologies (Gross and Jazaieri 2014; Aldao 2016). The development of ER was found to be associated with improved social abilities (Blair et al. 2004; Spinrad et al. 2006) and high academic achievement in children (Graziano et al. 2007). The main strategies studied in relation to ER are expressive suppression and cognitive reappraisal (Gross et al. 2006). Cognitive reappraisal is considered the most effective strategy for adults, because it allows changing the emotional response to the event rather than avoiding it, as may occur in the case of expressive suppression. Furthermore, the use of cognitive reappraisal in comparison to expressive suppression is associated with expressing more positive emotions (Milyavsky et al. 2018). ER affects the functioning of parents and their children in many areas, including their physical and mental health, as well as in the formation and maintenance of relationships with others (Rutherford et al. 2015).



ER in Young Children and their Parents

The ability to regulate emotions emerges at a young age. Subsequently, between the ages of 6 and 10, children's ability to delay gratification develops, as they learn to identify, understand, and analyze emotional states in a cause-and-effect relationship, and expand their repertoire of emotional expressions (Essau et al. 2017). Research demonstrates that the availability and sensitivity of their attachment figures are the most important resources for the development of children's ER skills (Mikulincer et al. 2003). It also points to a correspondence between parents' and their children's ER strategies, so that when the mother uses a non-adaptive regulation strategy, such as expressive suppression, her child is also more likely to use this strategy (Bariola et al. 2012). The literature shows that mothers' difficulties with ER, especially their low emotion awareness, are linked to behavior problems of their children (Crespo et al. 2017).

The associations between both parental and child difficulties in ER and their ER strategies may be explained along three paths of influence: children observing their parents as they regulate their emotions; the parents' practices of ER used with their child; and the emotional climate in the family (Morris et al. 2017).

ER in Parents and Children in Situations of Traumatic Stress

ER capabilities affect children's adaptation, especially when they are exposed to extreme and ongoing traumatic situations (Rutherford et al. 2015). In cases of exposure to political violence, the children's ER is important both for rapid life-saving functioning (prompt evacuation to a safe place) and also for their return to normal functioning (Wolmer et al. 2017). Traumatic events may directly affect the children's ER ability by making them disproportionately sensitive to further potential traumatic events (Ford 2009). This may lead to impulsive and aggressive behaviors (Vigil-Colet and Codorniu-Raga 2004). Time alone does not appear to heal the psychological scars left by exposure to persistent political violence and stress (Pat-Horenczyk et al. 2012, 2013; Gil-Rivas and Kilmer 2013; Halevi et al. 2016).

Considerable evidence links post-traumatic stress disorder (PTSD) in parents with that of their children (Leen-Feldner et al. 2013; Slone and Mann 2016). Parental behaviors, such as anxiety and maternal lack of containment during trauma reminders increase the risk to the child's ability to adapt when re-exposed to traumatic events (Halevi et al. 2016). Young children especially depend on caregivers and are particularly sensitive to changes in parental functioning and to changes in their daily routine. Studies show that the response of caregivers, including a stable, nurturing, functioning, family environment, sensitive to the child's developmental needs, can

significantly reduce the consequences of exposing children to stress situations (Masten et al. 2015; Halevi et al. 2016). The mother's ability to regulate her emotions following traumatic events seems to moderate the child's ER difficulties (Pat-Horenczyk et al. 2015). Similarly, the parents' ability to allow and support the child's free play contributes to relieving the child's stress, by processing the traumatic event (Cohen and Gadassi 2018). The specific dynamics of mutual influence between caregivers and children in recurrent traumatic situations, however, are less studied and need further elaboration.

Research Approaches to ER in Young Children Exposed to Ongoing Stressful Traumatic Events

Most of the research on ER in children is based on adults' (teacher or parent) ratings of the children's behavior (Boekaerts and Cascallar 2006; Crespo et al. 2017), or alternatively, on direct child observations in everyday situations or under controlled laboratory conditions (Davis et al. 2016; Dennis and Kelemen 2009). Most child self-report tools for measuring ER are not applicable to pre-school children (McClelland and Cameron 2012). Thus a rather unique aspect of the present study involves inviting young children, ages five to seven, to participate in qualitative individual interviews, trusting that they are capable of describing and interpreting their daily experiences and express independent opinions and ideas (Kocygit 2014; Brooker 2001). Another unique feature of the present study is the opportunity to examine a population exposed to recurring traumatic events emanating from political violence. This reality differs from other collective traumatic events that often involve coping with a single traumatic event, such as a disaster (Pat-Horenczyk et al. 2013), mostly because it limits one's ability to process past traumatic events as new ones keep occurring in the present, or are anticipated in the future (Nuttman-Shwartz and Shoval-Zuckerman 2016). This study aimed to deepen our understanding of specific ER techniques and strategies involved in the co-creation of a relative sense of coping and safety by mothers and their young children in situations of existential danger. We furthermore focused on understanding the association between mother's general ER major strategy (Cognitive Reappraisal versus Expressive Suppression) and her sense of successful coping.

Method

Research Context

Data collection was carried out during July and August, 2018, in the cities of Sderot and Ashkelon in southern Israel. During



that period, 39 warnings of missiles or rockets launched from the Gaza Strip were recorded in the town of Sderot, located about one kilometer away. In this region, from the moment the rocket is detected and a "Red Alert" siren is sounded residents have 15 s to reach a shelter before the rocket lands. This siren is activated in all communities adjacent to the Gaza Strip and allows residents to seek a "protected space" shelter - separate structures or rooms constructed with thick walls, relatively resistant to rocket hits – built in educational institutions, public sites, and in most private homes. In the city of Ashkelon, located about 11 km from the Gaza Strip, residents have 30 s to reach their protected spaces from the moment the siren is sounded (Home Front Command 2019). These communities had previously been exposed to security risks including three rounds of war between 2006 and 2016, and episodes of recurrent missile attacks in- between these events (Padan and Elran 2018).

Participants

Through the authors' connections, we recruited mothers with children aged 5-7, and additional participants via a "snowball" process. The participants agreed to partake in the study without compensation. Participants included 30 mothers and their children, half from Ashkelon and half from Sderot. Mothers' age ranged from 26 to 46 (M = 36.65, SD = 4.91); most (86.7%) were married. The majority of the mothers (76.7%) had academic education; 10% had professional education; and 13.3% had only high school education. Most of the mothers (83.3%) worked full-time outside the home; the others (16.7%) worked part-time outside the home. According to data of the Israeli Central Bureau of Statistics (2019), most of the families in the sample had a monthly income that was similar or higher than the mean income, and only about 10% of the families had an income below the mean. The children's age ranged from 5 to 7 years (M =6.07, SD =0.53); 14 were boys and 16 girls. Families in the sample had between one and six children, with 53.3% having three children.

Procedure

We conducted the interviews in the homes of the families. At the beginning of the meeting, the researcher spent time with the children, usually in the mother's presence, so that they would get to know her. The mothers signed informed consent forms regarding their participation and the participation of their children, and their right to privacy and anonymity was guaranteed. Moreover, the researcher, being aware that asking about traumatic events may trigger unpleasant memories and feelings, specifically asked the mothers in advance whether they felt comfortable to talk about emergency-situations and whether the child could be asked about them. Children were

told that they had the option to choose whether to participate. The researcher also secured the participants' agreement to audio-record the interviews. Most of the children responded favorably to the researcher's visit to their home, waited with anticipation for their interview and cooperated in addressing the questions. Two of the children agreed to cooperate only after some warm-up time. To reduce the mother's possible influence on the children's reactions, we asked the children's agreement to be interviewed without the mother's close presence, and 20 of the 30 children agreed.

Data collection in each home took about two hours, and included an interview with the child, an interview with the mother, and completion of the questionnaires by the mother. Upon completion, we asked for feedback on the process and the wellbeing of the interviewees. For data analyses, the interviews were later transcribed and pseudonyms were assigned to all the participants and their questionnaires.

Research Tools

Demographic Information Questionnaire

In this questionnaire, mothers provided relevant background data about the demographic characteristics of the child, parent, and family.

Emotion Regulation Questionnaire (ERQ)

Assesses two main ER strategies: expressive suppression and cognitive reappraisal (Gross and John 2003). The questionnaire has been widely used in various studies, reporting a mean internal consistency $\alpha = 0.76$; for the two subscales (Punamäki et al. 2014; Carthy et al. 2010). The questionnaire contains 10 statements to which participants indicate the degree of their agreement on 7-point scales. An example of a statement for cognitive reappraisal is: "When I want to feel more positive emotion (such as happiness or amusement), I change what I'm thinking about". An example of a statement for expressive suppression is: "I keep my emotions to myself." In the current study internal consistency was found to be $\alpha = 0.81$ for the cognitive reappraisal subscale, and $\alpha = 0.86$ for the expressive suppression subscale. For each mother, a comprehensive score was calculated for each strategy (cognitive reappraisal and expressive suppression), based on the degree of agreement indicated for all relevant items of the scale.

Semi-Structured Interviews with the Children

A semi-structured interview is a systematic method of qualitative research that attempts to ensure the completeness of the information by defining the topics in advance, yet formulating



the questions in the course of the interview (Shkedi 2005; Patton 1987). As a precondition for the interview, we followed a procedure similar to the one used by Dennis and Kelemen (2009), whereby children were asked to identify and name four emotions: happiness, sadness, anger, and fear, with the aid of images of children expressing these feelings, and by using facial expressions of the interviewer. All the children in the study identified the four emotions.

In the course of the interview we asked the children to discuss their emotions and how they managed them in various daily events, with a gradual transition from pleasant to stressful events, including security threats. Sample questions included: "Tell me about a party or event you enjoyed"; "Tell me about your first day in first grade"; "Tell me about an event that was frightening". Later in the interview, if the topic did not come up spontaneously, the children were asked whether they remembered a case in which a "Red Alert" siren was heard: "Who were you with?" "How did you feel?" "What did you do?" The interview also touched upon the family climate and playfulness at home. For example, we asked: "What is your favorite game or toy; what do you play with by yourself; with the family; with friends?"

Semi-Structured Interview with the Mothers

We asked the mothers about the emotions they experienced and the strategies of emotional regulation they used in their day-to-day interactions with their children. For example: "Can you tell me about a situation with your 6-year-old in which you experienced a high level of emotion?" The mothers were also asked to specifically describe emotions they and their children experienced during the landing of rockets, and how they coped with them. We enquired particularly about what helped them cope with the intensity of emotions they described, and whether they were satisfied with their way of coping.

Qualitative Analyses

We analyzed the semi-structured interviews with the mothers and children separately. Analyses focused on experiences and strategies of regulation in times of stress, especially security-related stress. The analyses were carried out through several stages (Shkedi 2005; Ponizovsky-Bergelson et al. 2019). After reading all the interviews from a holistic perspective, from beginning to end, an "open coding" phase was used (Strauss and Corbin 1990), in which we sorted the interview data according to themes. The second stage was one of a "mapping analysis," in which the interviews were divided into categories, separating them from their original location, and creating a new conceptual order.



Findings

ER Strategies from the Children's Point of View

During the interviews, the children shared several techniques and strategies for regulating their emotions in times of stress. A third of the children spontaneously mentioned the use of unaided self-initiated ER strategies, whereas 20 % referred to procuring aid from a significant adult, usually soothing physical contact. The rest used both self and adult-aided ER. The most conspicuous strategy used by the children themselves in relation to the stress of the launch of rockets involved adhering to the perception of protected space in the apartment as a place that ensures safety. The Hebrew term for this space is a two-syllable acronym, mamad, that quickly triggers attention (e.g., "Run to the mamad!"). Often this involved rationalizations and construed knowledge about the nature of the danger and protection from it, accompanied by a sense of efficacy, to the point of denying any feelings of fear. Additional pronounced strategies used to relieve stress involved resorting to games, playfulness and the use of imagination. Similarly significant were activities aimed at physiological regulation. Following are details and illustrations of these strategies, as reported by the children.

The Perception of the *mamad* as a Safe Place from Danger

During the interviews, 16 of the 30 children spontaneously expressed their view of the *mamad* as a safe place. "If God forbid there is a Red Alert, then we have to go into the *mamad* because there are strong walls there, and then we can protect ourselves, when we're in the *mamad* we have to close the windows because there's something there, there's this unpleasant smell of the rocket"... "If the rocket hits the *mamad*, it doesn't fall apart".

Knowledge about Danger and Security

Twelve children spoke spontaneously about what one needed to do when an alarm sounded. Knowledge pieced together by the children from adult conversations and the media appeared to strengthen their sense of security and the perception of the *mamad* as a safe place. At times, the children voluntarily explained why the alarm sounds, and the nature of the threat. For example: "It's this type of rocket, with a toothpick, that if you don't go to the *mamad*, the toothpick falls on you and may hit you in the heart." ("Qassam" in Arabic is the name of a rocket fired by terror organizations towards the area. Qassam is similar to "kaissam," which is the Hebrew word for "toothpick").

Sense of Efficacy

The construed knowledge and confidence in the defense provided by the *mamad* appear to create a sense of generalized ability to cope with these situations. Six children described how they could help another child calm down and regulate his feelings. For example "I helped him [a child who was afraid] to run to the *mamad* with all the children."

Use of Games and Playfulness

The understanding that games and playfulness bring relief for children in situations that challenge ER abilities was obvious in the children's reports.

Playing with the Parents

In response to a question relating generally to the play habits in the family, 19 of the 30 children said that they liked to play with their father or mother. Most (13) played board games with their parents 6 preferred construction and imagination games.

Playing with a Friend

Eleven children described how they played in the *mamad* or during routine times. One of the children suggested that "if another child is angry that his mother doesn't agree with him, I try to calm him down... I can play with him... to let him choose what to play."

Use of Imagination

Five children described how imagination could help them relax, one describing that it helps him "imagine good things [for example] a huge birthday cake with all the candy on top of it... because when I imagine it, I'm really happy." Another boy described how, when he was excited and apprehensive about his first day in first grade, "I put them [the emotions] into one ear and took them out of the other ear... Mom taught me this... It helps me a lot."

In addition to using imagination as an ER strategy, several children combined images that expressed creativity and humor to explain themselves. For example "When there was a Red Alert, I felt as if I was falling into lava [laughs]." Another girl described that when she heard a siren in the morning, she was very frightened: "I flew to the *mamad...* like a bird."

Physiological Regulation

Eleven children shared their ability to relax by breathing, drinking water, counting in their head, or taking a quiet timeout. Six children said that to calm down during an alarm, they take a deep breath. For example "Relax and take a deep breath then breathe out... and then it sets aside all my anger and worries and everything I don't like." Seven children noted that drinking water could help with regulation and relaxation. For example "My sister... she helped me not to cry... She gave me some water to drink." Three other children said that "counting to five in your head" could help relaxing. Two other children mentioned the option of being alone to regulate their emotions: "[When I get angry at home,] I go to my room... and just lie down on the bed"; "being alone for a second and calming down by myself."

A Hug from a Significant Adult

Ten children described how "a hug from mom," in particular, or from another significant adult, like dad or a kindergarten teacher, can help them calm down. For example, a girl described a situation of a siren sounding in the kindergarten: "And everyone was afraid and trembling and sweating. [What helped was that] the staff, the adults... the teacher gave them a hug."

Denial of Emotions

Four children expressed a form of denial of negative emotions, such as fear, panic, or anger during a Red Alert situation. For example, one of the boys tells himself that he is not afraid of the alarm: "I'm a hero."

ER Strategies from the Mothers' Point of View

The mothers' reports related both to the strategies they used to regulate their own emotions and to the strategies that they employed to regulate the emotions of their children. The interviews show that the mothers are aware of their responsibility as parents under such anxiety-provoking situations and of their influence on their children's emotional state. To this end, they attempt to regulate both their feelings and their behaviors vis-a-vis the children, using self-talk and employing methods of physiological regulation. For the children's benefit, they manage a quick return to routine, and offer an empowering reframing of the events. Following is a more detailed account of these practices:

Searching for Information

Five mothers spoke about being hyper-vigilant regarding the whereabouts of their children. They adhere to a predetermined schedule that enables them to feel control over the situation and to relax. For example "To continue with the regular schedule, which is what makes me feel calm about the children... As soon as the regular schedule gets a bit out of control, I begin to feel out of control."



The interview with one of the mothers illustrates the additional search for information that serves as an attempt to gain a sense of control over the situation: "Control is something that helps me... I'm connected to all the media sources, to several different electronic security applications that report immediately on damages incurred by the landing of rockets...".

Physiological Regulation through Breathing

Ten mothers reported that stopping to take a few breaths helps regulate their emotions almost immediately, preventing an outburst. For example "Breathe in deeply, and breathe out. It helps a lot... I try very hard to do it"; "I'm pretty good at holding back, taking a second breath... I have difficulty if there is too much noise, I need to breathe."

Awareness of the Parental Role and Reflection

The mothers' statements reveal an interesting paradox; on the one hand merely being a parent intensifies one's already intense anxiety, but on the other hand this role concurrently stimulates the motivation to regulate one's emotions in order to avoid the transfer of their anxiety to the children. For example "When you have children, you cannot afford to sink." During the interviews, some of the mothers shared an understanding that their inner emotional experience and its external expression strongly influenced the children's inner emotional experience and its outward expression. One of the mothers revealed that when she hears the Red Alert she needs to remind herself of the message she has chosen to convey to her children: "I'm mostly... this self-talk of what I want... what I want to transmit to them... Like, because I know that they are very very influenced and they pick up on us... So I remind myself that... that it's important for me to convey to them that it's OK, that it's under control, and that I'm watching over them."

Self-Control, Self-Talk

Mothers' desire that their children not be harmed has led them to use reflection as a preventive strategy, often by using self-talk. For example "First of all, it's self-talk; to understand that somehow I'm losing it, and to calm down." Another example: "don't exaggerate your reactions. Speak calmly to the children... Go on doing what you do". Another mother shared; "I'm about to react, to stop her [her six-year-old daughter], and I stop myself... I tell myself, calm down and let her experiment."

Appropriate Explanations and Reframing

Mothers invested thinking in preparing appropriate explanations to their children about the security situation and the mamad. Three mothers shared how they tried to influence and change the meaning of anxiety-provoking concepts, such as "Red Alert," by providing children with an explanation that redefines them in terms of strength and resilience. For example: "Red Alert means that we are striking back at them; got it?"; "Red Alert helps us when there are booms, and tells us to go into the mamad?".

Quick Return to Routine

Participants shared their desire to reduce and limit the break that an alarm situation creates by quickly returning to one's routine with the children. For example "We transmit routine"; "The moment the Red Alert ends, a minute after, two minutes after the boom, we fully return to routine".

Self-Satisfaction of Mothers with their ER

Mothers expressed varying degrees of self-satisfaction, self-criticism and regrets relating to their handling of their children, or the regulation of their own emotions. A satisfied mother, for example stated: "I'm pleased with myself, I'm pretty sure it has to do with my having experienced rockets as a teenager...; Another content mother proclaimed "I'm satisfied because I'm also trying to do self-work.". A mother evaluated as dissatisfied expressed her regrets and self-criticism:

Sometimes I feel that I am too mad [...] it's the daily difficulty of the mess they are creating... not listening [...] sometimes, at the end of the day, I feel that I was too mad at them ...I wish my emotions would be more regulated... really more optimal. Sometimes I can't succeed, I feel my children are telling me 'oh you were afraid, what happened?'... So it's not one hundred percent, but I don't think it will ever change.

In order to examine the association between mothers' levels of satisfaction with the management of her ER with the children, especially in stressful times, as expressed in the interviews and their reports on the ERQ measure of their basic ER strategy, we coded the interviews for the levels of satisfaction expressed by the mothers. The coding yielded two groups, with 13 mothers evaluated as being highly satisfied and 17 showing various degrees of self-dissatisfaction related to their ability to regulate their emotions. We then conducted t-tests for differences between the levels of the two ER strategies reported on the ERQ in each of the two groups. The findings, presented in Table 1 show a significant difference in the use of the cognitive reappraisal strategy between mothers who reported satisfaction with their ER abilities and those who reported at least some dissatisfaction (t (28) = 2.25, p = .026). The use of cognitive reappraisal by mothers who were



Table 1 t-tests comparisons of maternal strategy on the ERQ and maternal satisfaction with her ER, as reported in the interviews

	Expressed Satisfaction($n = 13$)		Expressed dissatisfaction($n = 17$)		Т
	M	SD	M	SD	
ERQ- reappraisal	5.74	.95	4.75	1.35	*2.25
ERQ-Suppression	3.23	2.07	3.85	1.75	89

^{*}p < 0.05; two tailed

satisfied with their regulatory abilities was higher. By contrast, no significant difference was found between the two groups with respect to the expressive suppression regulation strategy.

Discussion

The present study focused on the processes of ER among mothers and children in situations of continuous traumatic stress related to political violence. Confirming our belief that young children are able to report on their experiences, the analysis of the children's interviews provided rich information about their experiences in times of stress related to such situations, despite their remarkable emotional complexity. The ability to identify and label emotions, which the children clearly demonstrated at the outset of the interviews, as well as their subsequent accounts of their coping tactics with emotionally stressful situations, suggest that understanding and verbalizing emotional experiences may in itself contribute to reducing distress and contributing to ER. This claim is supported in Southam-Gerow and Kendall's (2002) review of the literature showing that children's understanding of emotion may serve as a mediator for some forms of emotion regulation.

A large body of literature has established that children's emotion understanding and their ER develop from within the parent—child relationship, and that parents and children bi-directionally influence each other's ER (Kiel and Kalomiris 2015). Therefore, in this study, examining the children's accounts of their experiences in light of the themes emphasized by the mothers clarifies the dynamics of the coconstruction of meanings and the adoption of ER strategies by both.

Mothers clearly expressed their determination "to transmit routine" to their children, believing that this stance may convey a sense of stability and security and protect their children's psychological health; even when a constant existential threat looms in the form of rocket attacks. This conviction appears in line with the "principle of continuity," formulated by Omer and Alon (1994), as their main recommendation for supportive action in situations of distress and war. According to this principle, in the course of coping with the trauma, therapeutic and organizational efforts should be aimed at preserving, promoting, and restoring continuity in the lives of the individual,

the family, and the community (Omer and Alon 1994). By definition, a traumatic event shatters the continuity of many aspects of life. Therefore, one of the foundations of resilience at times of breakdown is the expectation for the renewal of routine and re-establishing every possible aspect of functioning, as soon as possible (Klingman and Cohen 2004). In the present study, mothers clearly expressed the desire to minimize the effects of the breakdown in the routine of family life following an alert situation, especially for the children.

Earlier reports on the behavior of caregivers living close to the Gaza Strip coined the term "emergency routine" to characterize the atmosphere that includes preparedness, vigilance, and incessant planning (Pat-Horenczyk 2006; Baum 2012). Fittingly, mothers are faced with the complex task of managing fluctuations between routine and emergency. The mothers' reports demonstrate that they use non-emergency everyday situations to educate the children about the importance of the *mamad* and the risk of the rockets, and that they drill the children with the skills needed to ensure protection (quick evacuation to the *mamad*). They guide them through physiological relaxation techniques, and provide cuddling, distraction and fun through playfulness both in between and during emergencies.

The mothers' efforts appear to have affected the children who internalized their messages. Almost half of the children described in the interviews, even without being prompted, what needs to be done when an alarm is sounded, the reasons for the alarm, the possible dangers involved in a rocket attack and the protective function of the mamad. The literature emphasizes the contribution of information, adapted for age and abilities of the child, for the construction of reality in a way that strengthens psychological resilience in times of crisis (Klingman and Cohen 2004). The mothers in the present study were aware of the importance of knowledge, not only for the children, but also as a tactic that they used for themselves, in order to gain a sense of control to counter the growing sense of helplessness in stressful situations. It also appears that the mothers, and in tandem with their children, have internalized recommendations regarding the calming effects on ER through the physiological regulation of breathing. Recommendations disseminated through the Resilience Center (2015) and of the Israel's Ministry of Education, include tools for moderating stress through progressive physical



relaxation and breathing involving prolonged exhaling. Indeed studies support the positive effect of physiological regulation on ER processes (Van der Kolk 2015).

However, beyond the imparting of knowledge and skills, the psychological role of the mothers both as models for ER and as sensitive and devoted caregivers appears to have the central impact on the children's coping. The children described how the physical and emotional presence of the parents in the *mamad* provides them with a sense of security. These experiences with significant adults contribute to the children's perceptions of the *mamad* not only as a highly safe *place*, but also as "a safe *haven*" (Collins and Feeney 2000; Mikulincer et al. 2003). This may grant them confidence for exploration, relevant to developmental tasks and interests, while ensuring protection and emotional soothing (i.e. by asking and receiving a hug) when actual or emotional safety are threatened.

To manage these tasks, mothers need to mobilize their own ER and mentalization abilities (Fonagy et al. 2015). A parent's capacity to mentalize – namely, to envision thoughts and feelings underlying their own or another's behavior – is essential to fostering a child's ability to develop ER, especially regarding painful or distressed emotional states (Fonagy et al. 2002; Slade et al. 2005). Both theory and recent research show that mothers who have difficulty in self-regulating also find mentalizing a significant challenge. In addition, poorer levels of maternal cognitive reappraisal are correlated with a lower level of mentalization (pre-mentalizing) (Schultheis et al. 2019).

It is not surprising that about half of our sample of mothers who live under existential threat expressed some level of self-criticism or regret concerning their own ability to regulate, on occasions, displays of fear, impatience or anger with their children. Furthermore, an analysis of the findings of the mothers' ER questionnaires combined with the findings from the interviews shows that there is a clear association between the level of the mothers' satisfaction with their ER and the type of ER strategy they tend to use. Mothers, who expressed satisfaction with their ER in the interview, tended to use more cognitive reappraisal strategies for ER than did mothers who expressed dissatisfaction with their ER ability. In fact, the literature on adults reports on the positive contribution of cognitive reappraisal ER strategies to wellbeing (McRae et al. 2012), effective outcomes of ER and expression (Drabant et al. 2009), and the expression of positive emotions (Milyavsky et al. 2018). Furthermore, Milyavsky and his colleagues (2018) point out that despite the effectiveness of cognitive reappraisal, the frequency of its use appears lower than expected because of the difficulty in implementing it. In the present study some of the mothers report making this effort by taking time off for contemplation and "self-talk" which they find useful. These may be the times used for reappraisal, processing the meaning of recent events, and thinking ahead about continuous coping. Interestingly, some of the children reported using a similar pattern of quiet time and chosen solitude to regulate.

Taken together our study supports and broadens the recommendation made by Schultheis and his colleagues (2019) that targeting ER could possibly promote mentalization between mother-child interactions and assist the external emotion regulation of the parent.

Thus, interventions for families living under the stress of political violence should include not only psychoeducation, but also target increasing caregiver reflective functioning, caregiver and child ER capacities, and the quality of parent-child relationships. A few such innovative programs show promise in working with caregivers with substance use disorders (Bosk et al. 2019); families with complex, multigenerational trauma (Stob et al. 2019), and with families affected by collective trauma and violence (Cohen et al. 2014; Cohen & Gadassi, 2018; Brickman et al. 2019).

Given the age of the children in the present study, these interventions should include elements of play and playfulness. A playful approach that includes humor, imagination, and creativity contributes to the creation of a positive family emotional climate, and consequently to the development of the children's ER (Morris et al. 2017). The importance of play and imagination in ER was evident in the children's accounts in the present study. A third of the children mentioned play with a friend as helping them relax when feelings of fear, anger, or nervousness arise. Several children described how imagining pleasurable things, like "a huge birthday cake with all the candy on top," helps them relax. The use of imagination, positive thoughts, as well as play with friends and family members are all part of the broader concept of playfulness, which develops in the context of early parent-child relationships, and serves parents and children as a central mechanism of ER (Cohen et al. 2010). The research indicates that restoring and creating physically and psychologically safe spaces that allow children and families to play is central for ER and resilience in trauma (Cohen and Gadassi 2018).

In conclusion, the findings of the study clarify the dynamics of the co-construction of meanings and the adoption of ER strategies by both mothers and children exposed to trauma and political violence.

Mothers contribute to the ER of their children, both by sufficiently regulating their own emotions to organize a seemingly safe environment; by minimizing ruptures to daily routines; by imparting information; and by modeling skills, such as self-talk and breathing exercises. Mothers serve as role models for their children by means of self-talk, relaxation intervals, and physiological regulation, reflecting knowledge they acquired at least partially through psychoeducation. In this way, they provide psychoeducation to their children,



who use this knowledge to reinforce their confidence in the *mamad*, in their abilities, in the adults around them, and in their ability to help others in need. The nurturing provided by the mothers and the fostering of play and imagination make it possible for the children to internalize these abilities and to use them by themselves, in relationships with friends, and in seeking help from significant adults.

Limitations of the Research and Follow-up Studies

Qualitative research methods limit generalizing the findings to the general population, but we believe that it still contributes to increased understanding of subjective experiences and to generate hypotheses for further study. The association between ER strategies and the functioning of mothers and children in situation of recurrent traumatic stress that emerged from this study is of particular interest for further study. We did not examine individual differences between children regarding their adjustment, and we have no information about the behavior of mothers in practice, beyond their reports on the regulatory techniques and their level of satisfaction with them. We therefore recommend future research using a larger sample combining ER questionnaires for parents with independent evaluation of the children's ER in routine and emergency situations. This can be applied, for example, by analyzing children's free play (Cohen et al. 2010), or using a questionnaire for post-traumatic adjustment of young children by different reporters (Scheeringa et al. 2005).

We should note that basing the study on participants who agreed to be interviewed, versus those who refused, may present a bias in the reports, involving greater psychological awareness and sophistication by the former in relation to coping with trauma by both the children and their mothers. Another limitation concerns the fact that the participants were mothers, since fathers are likely to use different ER patterns (Kerns et al. 2015). Therefore, future research should also include fathers in order to expand the understanding of the usefulness of various ER strategies. Finally, conducting the interviews during a period of high stress may constitute an additional limitation thereby skewing the responses from what they may have reported during more tranquil times.

Compliance with Ethical Standards

Disclosure of Interest The authors have no conflict of interest to declare.

Ethical Standards and Informed Consent All participants received information about the study, the voluntary nature of participation, and limits to confidentiality. Informed consent was provided by the mothers before data-collection. The first authors' institutional review board and the Intercollegiate Ethics Board of the Mofet Institute approved the study.

References

- Aldao, A. (2016). Introduction to the special issue: Emotion regulation as a transdiagnostic process. *Cognitive Therapy and Research*, 40, 257–261. https://doi.org/10.1007/s10608-016-9764-2.
- Bariola, E., Hughes, E. K., & Gullone, E. (2012). Relationships between parent and child emotion regulation strategy use: A brief report. *Journal of Child and Family Studies*, 21, 443–448.
- Baum, N. (2012). 'Emergency routine': The experience of professionals in a shared traumatic reality of war. *British Journal of Social Work*, 42(3), 424–442.
- Blair, K. A., Denham, S. A., Kochanoff, A., & Whipple, B. (2004).
 Playing it cool: Temperament, emotion regulation, and social behavior in preschoolers. *Journal of School Psychology*, 42, 419–443.
- Boekaerts, M., & Cascallar, E. (2006). How far have we moved toward the integration of theory and practice in self-regulation? *Educational Psychology Review*, 18, 199–210.
- Bosk, E. A., Paris, R., Hanson, K. E., Ruisard, D., & Suchman, N. E. (2019). Innovations in child welfare interventions for caregivers with substance use disorders and their children. *Children and Youth Services Review*, 101, 99–112.
- Brickman, S., Fox, M., & Pat-Horenczyk, R. (2019, in press). Trauma and regulation deficits in early childhood. In Greenbaum, C. W., Haj-Yahia, M. M., & Hamilton, C. (Eds.) (forthcoming). Handbook of Political Violence and Children: Psychosocial Effects, Intervention, and Prevention Policy. Oxford, UK: Oxford University Press.
- Brooker, L. (2001). Interviewing children. In G. Mac Naughton, S. A. Rolfe, & I. Siraj-Bltchford (Eds.), *Doing early childhood research: International perspectives on theory and practice* (pp. 162–179). Buckingham, UK: Open University Press.
- Carthy, T., Horesh, N., Apter, A., Edge, M. D., & Gross, J. J. (2010). Emotional reactivity and cognitive regulation in anxious children. Behaviour Research and Therapy, 48(5), 384–393.
- Central Bureau of Statistics. (2019). Average Gross Wages per Employee Job of Israeli Workers in November 2018, 7.2.19. Jerusalem, Israel: Central Bureau of Statistics.
- Cohen, E., & Gadassi, R. (2018). The function of play for coping and therapy with children exposed to disasters and political violence. *Current Psychiatry Reports*, 20(5), 31. https://doi.org/10.1007/s11920-018-0895-x
- Cohen, E., Chazan, S., Lerner, M., & Maimon, E. (2010). Posttraumatic play in young children exposed to terrorism: An empirical study. *Infant Mental Health Journal*, 31(2), 159–181.
- Cohen, E., Pat-Horenczyk, R., & Haar-Shamir, D. (2014). Making room for play: An innovative intervention for toddlers and families under rocket fire. Clinical Social Work Journal, 42(4), 336–345.
- Collins, N. L., & Feeney, B. C. (2000). A safe haven: An attachment theory perspective on support seeking and caregiving in intimate relationships. *Journal of Personality and Social Psychology*, 78(6), 1053–1073.
- Crespo, L. M., Trentacosta, C. J., Aikins, D., & Wargo-Aikins, J. (2017). Maternal emotion regulation and children's behavior problems: The mediating role of child emotion regulation. *Journal of Child and Family Studies*, 26(10), 2797–2809.
- Davis, E. L., Quiñones-Camacho, L. E., & Buss, K. A. (2016). The effects of distraction and reappraisal on children's parasympathetic regulation of sadness and fear. *Journal of Experimental Child Psychology*, 142, 344–358.
- Dennis, T. A., & Kelemen, D. A. (2009). Preschool children's views on emotion regulation: Functional associations and implications for social-emotional adjustment. *International Journal of Behavioural Development*, 33(3), 243–252.
- Drabant, E. M., McRae, K., Manuck, S. B., Hariri, A. R., & Gross, J. J. (2009). Individual differences in typical reappraisal use predict



- amygdala and prefrontal responses. *Biological Psychiatry*, 65(5), 367–373.
- Essau, C. A., LeBlanc, S. S., & Ollendick, T. H. (Eds.). (2017). Emotion regulation and psychopathology in children and adolescents. Oxford, UK: Oxford University Press.
- Fonagy, P., Gergely, G., Jurist, E., & Target, M. (2002). Affect regulation, mentalization, and the development of the self. New York, NY: Other Books.
- Fonagy, P., Luyten, P., & Bateman, A. (2015). Translation: Mentalizing as treatment target in borderline personality disorder. *Personality Disorders: Theory, Research, and Treatment*, 6(4), 380.
- Ford, J. D. (2009). Neurobiological and developmental research: Clinical implications. In C. A. Courtois, J. D. Ford, & J. L. Herman (Eds.), *Treating complex traumatic stress disorders: An evidence-based guide* (pp. 31–58). New York: Guilford Press.
- Gil-Rivas, V., & Kilmer, R. P. (2013). Children's adjustment following Hurricane Katrina: The role of primary caregivers. *American Journal of Orthopsychiatry*, 83(2pt3), 413–421.
- Graziano, P. A., Reavis, R. D., Keane, S. P., & Calkins, S. D. (2007). The role of emotion regulation in children's early academic success. *Journal of School Psychology*, 45, 3–19.
- Gross, J. J., & Jazaieri, H. (2014). Emotion, emotion regulation, and psychopathology: An affective science perspective. *Clinical Psychological Science*, 2, 387–401.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and wellbeing. *Journal of Personality and Social Psychology*, 85, 348–362.
- Gross, J. J., Richards, J. M., & John, O. P. (2006). Emotion regulation in everyday life. In D. K. Snyder, J. Simpson, & J. N. Hughes (Eds.), Emotion regulation in couples and families: Pathways to dysfunction and health (pp. 13–35). Washington, DC: American Psychological Association.
- Halevi, G., Djalovski, A., Vengrober, A., & Feldman, R. (2016). Risk and resilience trajectories in war-exposed children across the first decade of life. *Journal of Child Psychology and Psychiatry*, 57(10), 1183– 1193.
- Home Front Command. (2019). *Historyat hatraor raketot vetilim* [*History of rocket and missile alerts*]. Retrieved from the Home Front Command website on February 7, https://www.oref.org.il/10019-he/Pakar.aspx.
- Kerns, K. A., Mathews, B. L., Koehn, A. J., Williams, C. T., & Siener-Ciesla, S. (2015). Assessing both safe haven and secure base support in parent–child relationships. *Attachment & Human Development*, 17(4), 337–353.
- Kiel, E. J., & Kalomiris, A. E. (2015). Current themes in understanding children's emotion regulation as developing from within the parent– child relationship. *Current Opinion in Psychology*, 3, 11–16.
- Klingman, A., & Cohen, E. (2004). School-based multisystemic interventions for mass trauma. New York: Springer Science & Business Media.
- Kocygit, S. (2014). Preschool age children's views about primary school. Educational Sciences: Theory & Practice, 14(5), 1870–1874.
- Leen-Feldner, E. W., Feldner, M. T., Knapp, A., Bunaciu, L., Blumenthal, H., & Amstadter, A. B. (2013). Offspring psychological and biological correlates of parental posttraumatic stress: Review of literature and research agenda. *Clinical Psychology Review*, 33, 1106–1133.
- Masten, A. S., Narayan, A. J., Silverman, W. K., & Osofsky, J. D. (2015). Children in war and disaster. In M. H. Bornstein, T. Leventhal, & R. Lerner (Eds.), *Handbook of child psychology: Ecological settings and processes*. New York, NY: Wiley.
- McClelland, M. M., & Cameron, C. E. (2012). Self-regulation in early childhood: Improving conceptual clarity and developing ecologically valid measures. *Child Development Perspectives*, 6(2), 136–142.
- McRae, K., Jacobs, S. E., Ray, R. D., John, O. P., & Gross, J. J. (2012).Individual differences in reappraisal ability: Links to reappraisal

- frequency, well-being, and cognitive control. *Journal of Research in Personality*, 46(1), 2–7.
- Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion*, 27, 77–102.
- Milyavsky, M., Webber, D., Fernandez, J. R., Kruglanski, A. W., Goldenberg, A., Suri, G., & Gross, J. J. (2018). To reappraise or not to reappraise? Emotion regulation choice and cognitive energetics. *Emotion*. https://doi.org/10.1037/emo0000498.
- Morris, A. S., Criss, M. M., Silk, J. S., & Houltberg, B. J. (2017). The impact of parenting on emotion regulation during childhood and adolescence. *Child Development Perspectives*, 11(4), 233–238.
- Nuttman-Shwartz, O., & Shoval-Zuckerman, Y. (2016). Continuous traumatic situations in the face of ongoing political violence: The relationship between CTS and PTSD. *Trauma, Violence, & Abuse, 17*(5), 562–570.
- Omer, H., & Alon, N. (1994). The continuity principle: A unified approach to disaster and trauma. American Journal of Community Psychology, 22(2), 273–287.
- Padan, K., & Elran , M. (2018). Yishuvim beotef Aza: Mikre bochan lechosen hevraty baisrael [Communities surrounding Gaza: A case study of social resilience in Israel (2006–2016)]. Institute for National Security Studies, Tel Aviv.
- Pat-Horenczyk, R. (2006). Terror in Jerusalem: Israelis coping with 'emergency routine' in daily life. In Kuriansky & J. Kuriansky (Eds.), Terror in the Holy Land: Inside the anguish of the Israeli-Palestinian conflict (pp. 67–74). Westport, CT: Praeger Publishers/ Greenwood Publishing Group.
- Pat-Horenczyk, R., Achituv, M., Rubenstein, A. K., Khodabakhsh, A., Brom, D., & Chemtob, C. (2012). Growing up under fire: Building resilience in young children and parents exposed to ongoing missile attacks. *Journal of Child & Adolescent Trauma*, 5(4), 303–314.
- Pat-Horenczyk, R., Ziv, Y., Asulin-Peretz, L., Achituv, M., Cohen, S., & Brom, D. (2013). Relational trauma in times of political violence: Continuous versus past traumatic stress Peace and Conflict. *Journal of Peace Psychology*, 19, 125–137. https://doi.org/10.1037/a0032488.
- Pat-Horenczyk, R., Cohen, S., Ziv, Y., Achituv, M., Asulin-Peretz, L., Blanchard, T. R., Schiff, M., & Brom, D. (2015). Emotion regulation in mothers and young children faced with trauma. *Infant Mental Health Journal*, 36(3), 337–348.
- Patton, M. Q. (1987). How to use qualitative methods in evaluation? Newbury Park: Sage.
- Ponizovsky-Bergelson, Y., Dayan, Y., Roer-Strier, D., & Wahle, N. (2019). A qualitative interview with young children: What encourages or inhibits young children's participation. *International Journal of Qualitative Methods*, 18, 1609406919840516.
- Punamäki, R. L., Peltonen, K., Diab, M., & Qouta, S. R. (2014). Psychosocial interventions and emotion regulation among waraffected children: Randomized control trial effects. *Traumatology*, 20(4), 241–252.
- Resilience Center (2015). Galim shel hosen: Mitguvat lachatz letifkud ["Waves of Resilience": From a response of stress to functioning].

 The Cohen-Harris Resilience Center, The Association for Children at Rick
- Rutherford, H. J., Wallace, N. S., Laurent, H. K., & Mayes, L. C. (2015).
 Emotion regulation in parenthood. *Developmental Review*, 36, 1–14.
- Scheeringa, M. S., Zeanah, C. H., Myers, L., & Putnam, F. W. (2005). Predictive validity in a prospective follow-up of PTSD in preschool children. *Journal of the American Academy of Child & Adolescent Psychiatry*, 44(9), 899–906.
- Schultheis, A. M., Mayes, L. C., & Rutherford, H. J. (2019). Associations between emotion regulation and parental reflective functioning. *Journal of Child and Family Studies*, 28(4), 1094–1104.



- Shkedi, A. (2005). Multiple case narrative: A qualitative approach to studying multiple populations (Vol. 7). John Benjamins Publishing.
- Slade, A., Grienenberger, J., Bernbach, E., Levy, D., & Locker, A. (2005).
 Maternal reflective functioning, attachment, and the transmission gap: A preliminary study. *Attachment & Human Devlopment*, 7(3), 283–298.
- Slone, M., & Mann, S. (2016). Effects of war, terrorism and armed conflict on young children: A systematic review. Child Psychiatry & Human Development, 47(6), 950–965.
- Southam-Gerow, M. A., & Kendall, P. C. (2002). Emotion regulation and understanding: Implications for child psychopathology and therapy. *Clinical Psychology Review*, 22(2), 189–222.
- Spinrad, T. L., Eisenberg, N., Cumberland, A., Fabes, R. A., Valiente, C., Shepard, S. A., Reiser, M., Losoya, S. H., & Guthrie, I. K. (2006). Relation of emotion-related regulation to children's social competence: A longitudinal study. *Emotion*, 6, 498–510.
- Stob, V., Slade, A., Brotnow, L., Adnopoz, J., & Woolston, J. (2019). The family cycle: An activity to enhance parents' mentalization in

- children's mental health treatment. *Journal of Infant, Child, and Adolescent Psychotherapy, 18*(2), 103–119. https://doi.org/10.1080/15289168.2019.1591887.
- Strauss, A. L., & Corbin, J. (1990). Basics of qualitative research: Grounded theory procedure and techniques. London: Sage.
- Van der Kolk, B. A. (2015). *The body keeps the score: Brain, mind, and body in the healing of trauma*. New York: Penguin Books.
- Vigil-Colet, A., & Codorniu-Raga, M. J. (2004). Aggression and inhibition deficits, the role of functional and dysfunctional impulsivity. Personality and Individual Differences, 37, 1431–1440.
- Wolmer, L., Hamiel, D., Pardo-Aviv, L., & Laor, N. (2017). Addressing the needs of preschool children in the context of disasters and terrorism: Assessment, prevention, and intervention. *Current Psychiatry Reports*, 19(7), 40.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

