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Secondary Traumatization Among Ex-POWs' Adult Children: The Mediating Role of Differentiation of the Self

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The aversive impact of combat and parents' combat-induced posttraumatic stress disorder on young children has been examined in a few studies. However, the long-term toll of war captivity on secondary traumatization (ST) and the mediating role of differentiation of the self remain unknown. This study examined ST symptoms and differentiation of the self (DS) among adult children of former prisoners of war (ex-POW's children) who were compared with adult children of comparable veterans (controls' children). Furthermore, I examined the mediating role of DS dimensions in the association between exposure to stress and ST symptoms. Participants were Israeli ex-POW's children ($n = 98$) and controls' children ($n = 90$), whose fathers fought in the 1973 Yom Kippur War. Results showed that ex-POW's children reported a higher number of ST symptoms and lower levels of emotional cutoff differentiation compared with controls' children. Emotional cutoff was also found to mediate the association between research group and ST symptoms. Among ex-POW's children, emotional cutoff and emotional reactivity dimensions mediated the association between exposure to stress stemming from fathers' behaviors and ST symptoms. Forty years after the war ended, the experience of living with ex-POWs is associated with ex-POW's children ST symptoms.

Keywords: prisoner of war, posttraumatic stress disorder, secondary traumatization, parental bonding, ex-POWs' adult children

War captivity is one of the most severe man-made traumatic events to which an individual can be subjected. Prisoners of war (POWs) endure deliberate human cruelty through the infliction of physical and psychological torture, and may suffer from long-term somatic and mental disorders, the most common of which is posttraumatic stress disorder (PTSD; Solomon, Horesh, Ein-Dor, & Ohry, 2012). However, traumatic events may entail long-term consequences not only for the direct victims, but also for their significant others' psychological states in the form of secondary traumatization (ST). The term *ST* has been used to indicate that people who come into close contact with the traumatized person may experience emotional distress and may display PTSD-like responses similar to those exhibited by the survivor (Figley, 1995). War-related ST has been noted among wives of traumatized combat soldiers (Renshaw, Rodrigues, & Jones, 2008) and wives of ex-POWs (Zerach, Greene, & Solomon, 2013).

The intergenerational transmission of war trauma for veterans' children in the form of ST has recently attracted growing interest (Maršanić, Margetić, Jukić, Matko, & Grgić, 2013). Most empirical studies and clinical impressions have indicated that posttraumatic veterans' offspring suffer from a higher rate of behavioral problems (Davidson, Smith, & Kudler, 1989), anxiety (Beckham

et al., 1997), and more aggression (Ahmadzadeh & Malekian, 2004) than the offspring of control veterans without PTSD. Other studies, however, have not found higher levels of emotional distress (Westerink & Giarratano, 1999) or low self-esteem (Davidson & Mellor, 2001) among these children. In their literature review, Dekel and Goldblatt (2008) concluded that the more severe and complex the father's exposure to combat and the greater the father's distress in the form of PTSD, the greater the extent of the children's distress. Yet most studies have focused on young children and adolescents (Rosenheck & Fontana, 1998) and based their conclusions on parents' reports (Ruscio, Weathers, King, & King, 2002). A question remains regarding the consequences of the severe, prolonged, and interpersonal trauma of captivity on the emotional condition of ex-POW's adult children (ex-POW's children).

Almost no attention has been paid to offspring of ex-POWs in the existing literature. Bernstein (1998) found that offspring of World War II ex-POWs retrospectively described their fathers as quick to suffer from outbursts of anger, emotionally distant, and generally unresponsive to their emotional needs. A cross-sectional study of Iran–Iraq War ex-POW's adult children reported higher prevalence of depression and general anxiety compared with a normative adult group (Razavi, Razavi-Ratki, Nojomi, & Namiranian, 2012). The present study sought to fill this gap by focusing specifically on ST symptoms of ex-POW's adult children compared with a matched group of adult children of veterans who fought in the same war but were not held captive.

Over the years, several theoretical models have provided explanations for the impact of war-related trauma and PTSD on the family and, specifically, on the relationship between veterans and their children. The theory of ambiguous loss (Boss, 2007) stems

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from the family stress theory, which posits that stress results whenever there is change within a family (Boss & Couden, 2002). According to Boss, the most severe stressors are ambiguous and their resolution is not always possible. When an ex-POW also suffers from PTSD, he may no longer function effectively as a family member and might be less involved with the family compared with his precaptivity or pre-PTSD involvement. This position increases the probability for boundary ambiguity regarding roles and functions in the family (Faber, Willerton, Clymer, MacDermid, & Weiss, 2008). It is suggested that ex-POWS' children might have been compelled to take on the role of their parent and delayed their own needs, with possible long-term negative psychological consequences.

Other theoretical models have suggested that the associations between posttraumatic symptoms and family relations are bidirectional (e.g., Goff & Smith, 2005). Recently, Monson, Fredman, and Dekel (2010) provided a theoretical systemic description of the interactions between veterans' and family members' reactions to trauma. In their cognitive-behavioral interpersonal model, they postulated overlapping behavioral (e.g., classical conditioning processes), cognitive (e.g., disrupted schema of safety), and emotional (e.g., guilt, shame, anger) mechanisms that affect PTSD and relationship adjustment. These factors in each individual also interact at the dyadic level, and affect each participant (i.e., the primary survivor and his child) and the relationship they experience. Although the outcomes of this hypothesized systemic process are sometimes adaptive and promote recovery, at other times they can be maladaptive and influence the chronicity of victims' PTSD and the possibility of children's psychopathology.

Empirical studies have supported these models and provided explanations for the mechanisms of intergenerational transmission of war trauma and PTSD (e.g., Galovski & Lyons, 2004). The child can be directly traumatized by the father's violent behavior (Rosenheck & Fontana, 1998). An indirect effect of the father with PTSD on his child can also stem from his impact on the family unit. Indeed, many studies have shown that traumatized combat veterans have problematic family relations (see Dekel & Monson, 2010, for a review). These studies have suggested that the PTSD symptoms largely account for the relationship between combat exposure and difficulties in marital adjustment (e.g., Sayers, Farrow, Ross, & Oslin, 2009) and parent-child relationships (Ruscio et al., 2002). Problematic family relations can also indirectly affect child personality structure in the form of differentiation of the self.

According to Bowen's family theory, one's capacity for differentiation is similar to the concept of emotional maturity (Bowen, 1978). Differentiation is created within one's family of origin, which allows the child to grow and be an emotionally autonomous individual while still feeling connected to others. Thus, on the interpersonal level, low differentiation may be expressed by either fusion into others to the point of losing one's self, or by an emotional cutoff from others (Kerr & Bowen, 1988).

Empirical findings have consistently pointed to the ability of highly differentiated individuals to manage stress adaptively and develop less psychological symptoms (e.g., Skowron, Stanley, & Shapiro, 2009). Nevertheless, only a few studies have assessed differentiation among war-related trauma survivors and their relatives. For example, Ben Arzi, Solomon, and Dekel (2000) found that wives of PTSD veterans with lower differentiation reported higher burden and distress. Wives of former POWs with PTSD

reported lower differentiation that predicted higher levels of mental and marital distress (Dekel, 2010). In a recent study, the second and third generations of Holocaust survivors reported significantly lower levels of differentiation of self that were associated with higher levels of ST (Giladi & Bell, 2013). Beyond the intergenerational transmission of trauma contents, studies that examine the process of cross-generational transmission of trauma are greatly needed.

Over the years, a few studies have suggested that differentiation mediates the relationship between stress and distress (Murray, Daniels, & Murray, 2006). For example, Skowron, Wester, and Azen (2004) found that differentiation partially mediated the relationship between stress and adjustment. Furthermore, differentiation of self was found to be a partial mediator of both stressful events and perceived stress effects on psychological distress (Krycak, Murdock, & Marszalek, 2012). Given empirical findings regarding the high levels of ST among ex-POWS' wives (Zerach et al., 2013) and low levels of positive parenting among ex-POWs (Zerach, Greene, Ein-Dor, & Solomon, 2012), we have suggested that, in the face of exposure to fathers' stressful behaviors, ex-POW's children might experience lower levels of differentiation that might contribute to their own ST symptoms.

Based on the literature review, I hypothesized that: (a) ex-POWS' children would report more ST symptoms than controls' children; (b) among ex-POW's children, there would be positive correlations between exposure to stress and ST. Furthermore, I hypothesized that (c) differentiation dimensions would be negatively associated with both exposure to stress and ST symptoms; (d) fusion with others and emotional reactivity dimensions would mediate the relation between group (ex-POW's and controls' adult children) and ST symptoms; and (e) among ex-POW's children, fusion with others and emotional reactivity dimensions would mediate the relation between exposure to stress and ST symptoms.

Method

Participants

Data were collected in 2013 from two groups of children of veterans of the 1973 Yom Kippur War: (a) adult children of former POWs; and (b) adult children of a matched group of veterans who were not captured (controls). The veterans had all previously taken part in a larger longitudinal study examining the impact of war captivity on veterans' mental and physical health (see Solomon et al., 2012, for details). According to Israel's Ministry of Defense, 240 soldiers from the Israeli Army land forces were captured during the war. Ex-POWs were either captured by the Egyptians and held for 6 weeks, or imprisoned by the Syrians and held for 8 months. Ex-POWs were subjected to isolation and systematic torture, consisting of the infliction of severe physical pain and great mental pressure. The matched group of Yom Kippur War veterans fought in the same units as the ex-POWs. These land force combat veterans were exposed to combat stressors, including encounters with injured people and dead bodies, active fighting, and exposure to life-threatening events, but were not captured or held captive.

Ex-POW's children. Ex-POW's children consisted of 98 children, 48 (49%) males and 50 (51%) females, whose ages ranged from 20–58 years ($M = 35.21$ years, $SD = 7.56$). Twenty-

five participants (25.5%) were born before the war and captivity, while the rest were born after the war. Based on the list of ex-POWs who participated in a previous study (Solomon et al., 2012), we contacted 133 ex-POW's children. Among them, eight (6%) participants had no interest in participating in the study. Of the 125 participants (94%) who were sent questionnaires, 11 (8.3%) severed the connection with researchers during the study, five (3.8%) did not complete the questionnaires, and 11 (8.3%) participants' questionnaires were sent but did not reach their destination. In total, 98 (78.4%) ex-POWs' children returned their questionnaires and participated in the study.

Controls' children. Controls' children consisted of 90 participants, 40 (44.4%) males and 50 (55.6%) females, whose ages ranged from 24–46 years ($M = 32.90$ years, $SD = 5.24$). Twelve participants (13.3%) were born before the war, while the rest were born after war. Of the 116 participants who were sent questionnaires, 14 (12%) withdrew their consent to participate in the study, mainly due to lack of spare time to fill out the questionnaire. In addition, 12 participants (10.3%) did not complete the questionnaires, and returned them by the end of the data collection period. In all, 90 (77.5%) controls' children returned their questionnaires and participated in the study.

Forty-nine (54.5%) of the participants in the control group were recruited through the original list of control veterans who participated in the longitudinal study. To increase the number of participants in the control group, we also recruited participants using a "snowball" technique. We asked those who participated in the study to refer us to possible participants with whom their fathers had fought in the 1973 war. No significant differences were found between these participants and other participants in the comparison group for the socioeconomic and main outcome variables. Thus, in the following analyses I treated the controls' children as a unified group.

No significant differences between ex-POWs and controls were found in years of education, years of cohabitation with the father, country of birth, work status, army service, birth order, and religiosity. The two groups did differ in age, marital status, and income status. The ex-POW's children were older than the controls' children, $t(1) = -.45$, $p < .01$. More controls' children defined themselves as single (41.1% vs. 30.2% among ex-POW's children), while more ex-POW's children reported being divorced (8.3% vs. 1.1%), $\chi^2(3) = 7.66$, $p < .05$. In addition, more controls' children reported earning slightly above average income (29.2% vs. 12.8% among ex-POW's children), while more ex-POW's children reported earning far above average income (30.9% vs. 12.4%), $\chi^2(4) = 13.40$, $p < .01$. It is worth noting that that no significant Study Group \times Gender or Study Group \times Age interactions for the main outcome variables were found.

Measures

PTSD Inventory. Children's ST symptoms were assessed with the PTSD Inventory (Solomon, Benbenishty, Neria, & Abramowitz, 1993), which taps the 17 symptoms listed in the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision* (American Psychiatry Association, 2000). Participants were asked to rate how often they suffered from each symptom in the previous month on a scale ranging from 0 (*not at all*) to 4 (*almost always*). The number of positively endorsed

symptoms was calculated by counting the items in which the respondents answered 3 or 4. Participants were asked about their reactions to their fathers' experiences of combat or captivity (e.g., "I have recurrent pictures or thoughts about my father's captivity"). The Inventory has proven psychometric properties (Solomon et al., 1993). The PTSD Inventory's reliability value for participants' ST was a Cronbach's alpha of .86.

Differentiation of Self Inventory—Revised. The Differentiation of Self Inventory—Revised (DSI-R; Skowron & Friedlander, 1998) is a 46-item self-report inventory that assesses adults' significant relationships and their current relations with family of origin. It includes four subscales: Emotional Reactivity, Emotional Cutoff, Fusion with Others, and I-Position. The I-Position subscale refers to maintenance of a clearly defined sense of self. The Emotional Reactivity subscale refers to the energy directed toward the experience, expression, and intensity of feelings. The Fusion with Others subscale points to overinvolvement with others in close relationships. The Emotional Cutoff subscale refers to isolation from others, as well as from personal emotions when interpersonal interactions are too intense and threatening. Participants respond to items on a 6-point Likert-type scale, ranging from 1 (*not at all true for me*) to 6 (*very true for me*). The DSI subscale scores were calculated by averaging the mean scores of the items with Emotional Reactivity, Emotional Cutoff, and Fusion with Others scores reversed. Thus, greater differentiation of self was indicated by higher scores for all four subscales. The DSI was translated into Hebrew by Peleg (2008) and has shown good predictive validity. The Cronbach's alphas were .87 for Emotional Reactivity, .80 for I-Position, .81 for Emotional Cutoff, and .74 for Fusion with Others.

Exposure to Stress Questionnaire. The Exposure to Stress Questionnaire is a self-report instrument that was constructed for this study. The questionnaire taps stress that stems from the fathers' behaviors. It is divided into Objective Exposure and Subjective Exposure. Objective Exposure was assessed by the duration of cohabitation with the father, and the extent to which the subject was exposed to several major posttraumatic symptoms ("my father avoids talking about captivity"). Subjective Exposure assessed the extent to which the participant experienced feelings of fear as a result of exposure to the father's posttraumatic symptoms. Participants rated their exposure on a 7-point scale, ranging from 1 (*very rarely*) to 7 (*very often*). Questionnaire total scores as well as Objective and Subjective Exposure subscales were summed, so that a higher score denoted more exposure. The Cronbach's alpha was .92 for the Total Exposure scale, and .85 and .88, respectively, for the Objective and Subjective Exposure subscales.

Life Events Questionnaire. The Life Events Questionnaire (Solomon & Flum, 1988) is comprised of 23 life events tapping four domains: family (e.g., divorce), work (e.g., dismissal), health (e.g., major disease), and personal events (e.g., accident). Participants were asked whether they had experienced any of the events, and to indicate whether the experienced events were perceived as positive or negative. The sum of negative life events was used for analysis.

Sociodemographic measurements. Sociodemographic measurements were assessed using the demographic characteristics of country of origin, location of residence in Israel, family status, religious orientation, age, gender, birth order, level of education, and years of cohabitation with the father. We also asked partici-

pants to rate the quality of their relationships with their father and mother on a 5-point Likert scale (1 = *very distant* and 7 = *very close*).

Procedure

Both groups were located through their fathers, who had participated in a previous study (Solomon et al., 2012). We used the contact information records of those former participants to contact their children. We sent potential participants a letter in which I introduced the present study and informed them that research assistants (graduate student psychologists) would contact them in the following days. After receiving an explanation of the aim of the present study, the children who agreed to participate were offered the option of filling out research questionnaires in their homes or at a location of their choice. Before filling out the questionnaires, each participant signed an informed consent form. Approval for this study was given by the Ariel University Ethics Committee.

Results

Do Ex-POW's and Controls' Children Differ in ST Symptoms?

I began with a preliminary analysis of the group differences in the levels of exposure to stress stemming from the fathers' behaviors. First, I ran a *t* test for independent samples to examine whether ex-POW's children differed from controls' children in the number of years of cohabitation with the father. No significant difference was found between the groups. I also performed a multivariate analysis of variance (MANOVA) for objective and subjective exposure. I found a significant difference between the groups with respect to exposure: Pillai's trace, $F(2, 182) = 16.39$, $p < .001$, partial $\eta^2 = .15$. The results showed that ex-POW's children reported higher levels of both objective ($M = 21.43$, $SD = 9.80$) and subjective ($M = 17.27$, $SD = 10.70$) exposure to stress stemming from the fathers' behaviors, compared with controls' children ($M = 13.97$, $SD = 7.79$; $M = 11.23$, $SD = 6.21$, respectively).

Following the preliminary analyses, I performed a multivariate analysis of covariance for the ST symptoms and their clusters with the number of negative life events as covariate. As hypothesized, I found a significant difference between the two groups with respect to children's ST: Pillai's trace, $F(3, 182) = 2.67$, $p < .05$, partial $\eta^2 = .04$. As can be seen in Table 1, ex-POW's children reported a higher total number of ST, intrusion, and avoidance symptoms than controls' children. I did not find group differences in the hyperarousal symptoms.

In addition, a MANOVA for the DSI dimensions was conducted. I did not find a significant difference between the two groups with respect to DSI dimensions: Pillai's trace, $F(4, 183) = 1.50$, $p = .20$, partial $\eta^2 = .03$. However, separate analysis of variance tests for DSI dimensions showed a significant difference between the two groups with respect to the Emotional Cutoff dimension, $F(1, 187) = 4.50$, $p < .05$, partial $\eta^2 = .02$. As can be seen in Table 1, ex-POW's children reported lower levels of emotional cutoff than with controls' children.

What Is the Pattern of Associations Between Exposure to Stress, ST Symptoms, and DSI Dimensions?

I examined the interrelations between general exposure, ST symptoms, and DSI dimensions. As in Table 2, as hypothesized, among ex-POW's children results revealed significant positive relations between general exposure and ST symptoms. General exposure was negatively related to Emotional Reactivity and Emotional Cutoff, but not to I-Position and Fusion with Others. The results also showed negative relations between ST symptoms and Emotional Reactivity, Emotional Cutoff, and I-Position, but not Fusion with Others.

Multiple Mediation Analysis

Differentiation of the self dimensions mediates the relationship between the group and ST symptoms. The third hypothesis states that the Fusion with Others and Emotional Cutoff dimensions would mediate the relation between group (ex-POW's and controls' adult children) and ST symptoms. To examine the

Table 1
Means, Standard Deviations, and Univariate F Results of Children's ST Symptoms and Differentiation of the Self Dimensions by Group

Variables	Ex-POW's children (<i>n</i> = 98)		Controls children (<i>n</i> = 90)		<i>F</i>	Partial η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Total number of ST symptoms	2.88	3.01	1.81	2.19	$F(1, 185) = 7.57^{**}$.04
Intrusion symptoms	0.26	0.70	0.07	0.34	5.19*	.03
Avoidance symptoms	1.14	1.52	0.66	1.04	6.20**	.04
Hyperarousal symptoms	1.48	1.57	1.06	1.42	3.32	.02
Emotional Reactivity	3.40	1.01	3.53	1.04	$F(1, 187) = 0.72$.01
I-Position	4.08	0.82	4.17	0.68	0.62	.01
Fusion with Others	3.38	0.70	3.36	0.70	0.01	.00
Emotional Cutoff	4.27	0.92	4.53	0.78	4.50*	.02

Note. ST = secondary traumatization; POW = prisoner of war.

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

Table 2
Pearson Correlation Coefficients of General Exposure, ST Symptoms, and Differentiation of the Self Dimensions

	1	2	3	4	5	6
1. General exposure	—	.53**	-.36***	-.12	-.17	-.14
2. ST symptoms	.63***	—	-.38***	-.14	-.22*	-.39***
3. Emotional Reactivity	-.34***	-.40***	—	.62***	.73***	.36***
4. I-Position	-.19	-.21*	.56***	—	.58***	.19
5. Fusion with Others	-.11	-.13	.59***	.61***	—	.28**
6. Emotional Cutoff	-.44***	-.56***	.42***	.42***	.38***	—
<i>M</i>	35.12	2.37	3.46	4.13	3.37	4.39
<i>SD</i>	19.69	2.70	1.03	0.76	0.70	0.86

Note. Ex-POW's children's ($n = 98$) correlations are presented below the diagonal and controls' children's ($n = 90$) correlations are presented above the diagonal. ST = secondary traumatization; POW = prisoner of war. * $p < .05$. ** $p < .01$. *** $p < .001$.

mediation, I used Hayes's (2012) PROCESS script for multiple mediation models. In this analysis, 5,000 bootstrapped samples were drawn to estimate the indirect effects of each of the mediators. Bias-corrected and accelerated (BCa) 95% confidence intervals (CIs) were computed to determine statistical significance of the *ab* paths of each mediator. A CI that does not include zero provides evidence of a significant indirect effect, or significant mediation. Specifically, I examined (a) whether the group directly related to ST symptoms; and (b) whether the group indirectly related to ST symptoms via DSI dimensions. The analysis was conducted while controlling for the number of negative life events. The results of the mediation model are presented in Figure 1. The point estimates, standard errors, and BCa 95% CI are reported in Table 3.

The total set of variables explained 35.2% of the variance of the children's ST symptoms, $F(6, 181) = 16.41, p < .00$. A significant total indirect effect indicates that the set of variables explains the relation between group and ST symptoms. As can be seen in Table 3, DSI dimensions accounted for the relation between group and ST symptoms, after controlling for negative life events. Examina-

tion of the difference in estimates between the total ($b = 1.01, p < .00$) and direct ($b = .54, p = .09$) effects indicates that the relation between group and ST symptoms was reduced when the set of variables was entered into the model, further supporting the mediation effect.

The specific indirect effects for DSI dimensions were also estimated to determine whether one variable contributed significantly to the total indirect effect, while also considering all other indirect effects and the covariate. As can be seen in Figure 1 and Table 3, the third hypothesis was partially supported. The specific indirect effects of Emotional Cutoff ($z = 1.98, p < .05$), accounted for a significant proportion of the total indirect effect and may be a mediator of the relation between the group and ST symptoms. Thus, being an ex-POW child was related to lower Emotional Cutoff differentiation that, in turn, related to a higher number of ST symptoms.

Differentiation of the self dimensions mediates the relationship between the exposure to stress and ST symptoms among ex-POW's children. I further explored the possible mediating role of DSI dimensions on the relations between general exposure to stress that stems from the fathers' behaviors and ST symptoms, specifically among ex-POW's children.

The total set of variables explained 52.5% of the variance of the children's ST symptoms, $F(6, 91) = 16.80, p < .00$. The results

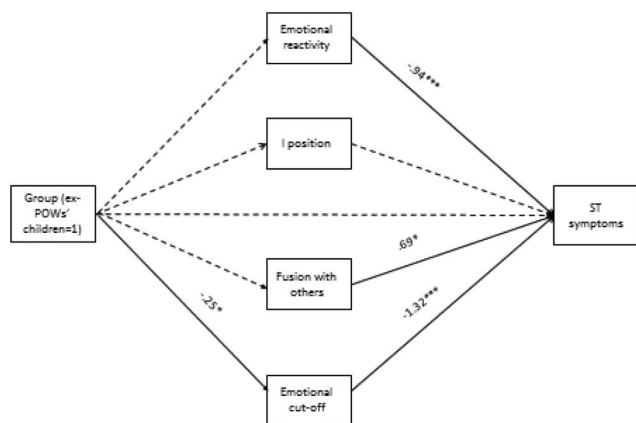


Figure 1. Results of the multiple mediation model assessing whether differentiation of the self dimensions mediate the relationship between group (ex-POW's children vs. controls' children) and secondary traumatization (ST) symptoms. Dashed lines represent nonsignificant paths; solid lines represent significant paths with unstandardized path coefficients. * $p < 0.05$. *** $p < .001$.

Table 3
Bootstrapped Point Estimate for Direct and Indirect Effects and 95% Confidence Intervals for Predicting ST Symptoms by Group (Ex-POW's Children vs. Controls' Children) Through Differentiation of the Self Dimensions

ST symptoms	Point estimate	SE	BCa 95% confidence interval
Direct effect of group	.52	.32	[-0.11, 1.17]
Total indirect effect	.44	.24	[0.02, 0.99]
Emotional Reactivity	.11	.14	[-0.15, 0.43]
I-Position	-.01	.04	[-0.18, 0.03]
Fusion with Others	.01	.07	[-0.14, 0.18]
Emotional Cutoff	.34	.19	[0.03, 0.81]

Note. Confidence intervals that do not include 0 (null association) are significant. Intervals not including 0 (null association) are significant. ST = secondary traumatization; POW = prisoner of war; BCa = bias-corrected and accelerated.

showed that the BCa 95% CIs for the total indirect effect estimate does not contain zero. As can be seen in Table 4, DSI dimensions accounted for the relation between exposure and ST symptoms, after controlling for negative life events.

The specific indirect effects for the DSI dimensions were also estimated to determine whether one variable contributed significantly to the total indirect effect, while also considering all other indirect effects and the covariate. As can be seen in Figure 2 and Table 4, the fourth hypothesis was partially supported. The specific indirect effects of Emotional Cutoff ($z = .02, p < .01$) and Emotional Reactivity ($z = .01, p < .06$) accounted for a significant proportion of the total indirect effect and may be considered mediators of the relation between the exposure and ST symptoms. Thus, the higher the levels of stressful behaviors to which ex-POW's children were exposed, the lower the emotional cutoff and emotional reactivity differentiation they reported. Emotional cutoff and emotional reactivity, in turn, were related to a higher number of ST symptoms. Finally, the direct effect of exposure to stress on ST symptoms remained significant in the presence of the mediator, pointing to partial mediation.

Discussion

The main findings of this study indicated that ex-POW's children reported more ST symptoms and higher levels of Emotional Cutoff differentiation than controls' children. In addition, among ex-POW's children, results revealed significant positive relations between general exposure and ST symptoms. General exposure and ST symptoms were negatively related to emotional reactivity and emotional cutoff. Most important, emotional cutoff was also found to mediate the association between research group and ST symptoms. Among ex-POW's children, the Emotional Cutoff and Emotional Reactivity dimensions mediated the association between exposure to stress stemming from fathers' behaviors and ST symptoms.

The results on the relationship between being a child of an ex-POW and ST symptoms are in line with previous findings regarding the negative psychological consequences of being the children of ex-POWs from World War II (Bernstein, 1998) and the Iran–Iraq Wars (Razavi et al., 2012). However, to my knowledge, no other study has been conducted among ex-POW's children in

Table 4

Bootstrapped Point Estimate for Direct and Indirect Effects and 95% Confidence Intervals for Predicting ST Symptoms by General Exposure Through Differentiation of the Self Dimensions Among Ex-POW's Children

ST symptoms	Point estimate	SE	BCa 95% confidence interval
Direct effect of exposure	.06	.01	[0.03, 0.08]
Total indirect effect	.02	.01	[0.01, 0.04]
Emotional Reactivity	.01	.01	[0.01, 0.02]
I-Position	-.01	.01	[-0.01, 0.01]
Fusion with Others	.01	.01	[-0.01, 0.01]
Emotional Cutoff	.02	.01	[0.01, 0.04]

Note. Confidence intervals that do not include 0 (null association) are significant. Intervals not including 0 (null association) are significant. ST = secondary traumatization; BCa = bias-corrected and accelerated.

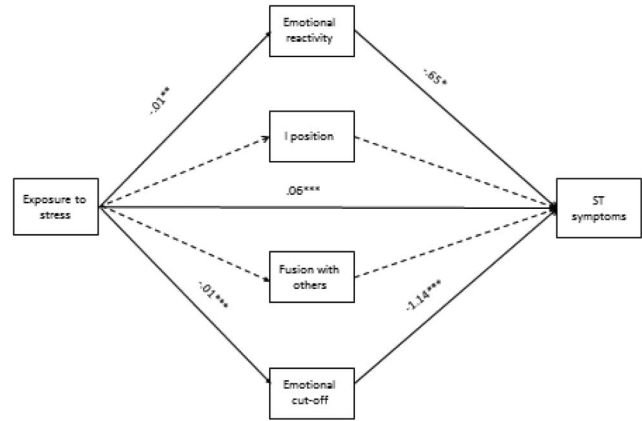


Figure 2. Results of the multiple mediation model assessing whether differentiation of the self dimensions mediate the relationship between general exposure and secondary traumatization (ST) symptoms. Dashed lines represent nonsignificant paths; solid lines represent significant paths with unstandardized path coefficients. * $p < 0.05$. ** $p < .01$. *** $p < .001$.

their adulthood that compared them with a matched group of adult children of combat veterans. Furthermore, the present study is the first to assess specifically ST symptoms as reported by the ex-POW's children themselves. The results emphasize that ex-POW's children report a relatively high number of ST symptoms that are related to exposure to stress stemming from the fathers' behaviors, and are not accounted for by their own other negative life events.

Based on an empirical study's findings regarding high rates of PTSD among ex-POWs (Solomon et al., 2012), high levels of ST among ex-POW's wives (Zerach et al., 2013), and the low marital adjustment of ex-POWs couples (Cook, Riggs, Thompson, Coyne, & Sheikh, 2004), it is probable that ex-POW's children experienced their family environment as highly stressful. As Bernstein (1998) and Rosenheck (1986) have suggested, traumatized veterans may find it difficult to control their aggressive impulses, which could lead to anger outbursts and contribute to an atmosphere of fear and caution in their home. It is suggested that ex-POW's children's ST symptoms are reflections of their general anxiety due to the fathers' frightening behaviors and the captivity reminders that are related to him.

Research has suggested that a parent's experience with previous traumatic life events can also have significant effects on parenting behaviors and outcomes. Compared with other parents in the wake of different traumas, war captivity is considered a harsh, intensive, and continuous man-made trauma. As such, it may alter individuals' basic trust in others in a way that undermines their ability to provide and maintain secure attachments to their children (Solomon, Dekel, & Mikulincer, 2008). Indeed, former POWs have reported low levels of positive parenting in terms of proximity and sensitivity to their children (Zerach et al., 2012). It is possible that ex-POW's children who reported higher levels of emotional cutoff than controls might express one of the ways they guard themselves against the emotional burden in their relations with their traumatized fathers. Alternatively, the traumatized father may be psychologically absent and emotionally unreachable (e.g., Harkness, 1991). Ex-POW's children might develop emotional cutoff as a way of identification with their fathers' numbing emotions and avoidant behaviors.

Most important, I found that emotional cutoff mediated the association between research group and ST symptoms. Among ex-POW's children, emotional cutoff and emotional reactivity dimensions mediated the association between exposure to stress stemming from fathers' behaviors and ST symptoms. This finding is in line with other studies that have found differentiation partially mediated the relationship between stress and adjustment (Skowron et al., 2004), and psychological distress (Krycak et al., 2012). However, to my knowledge, this is the first study to suggest differentiation as a possible mechanism for intergenerational transmission of war trauma to ST symptoms.

According to Bowen's family theory, "chronic anxiety increases as the level of differentiation decreases" (Kerr & Bowen, 1988, p. 117). It seems that elevated levels of anxiety among poorly differentiated ex-POW's children might prevent them from effectively coping with exposure to stressful events related to their fathers' postcaptivity behaviors, and thus render them at higher risk for psychological ST symptoms. Specifically, as noted, emotional cutoff might serve to some degree as a psychological defense mechanism against an anxious family environment. However, the isolation from others as well as from their emotions might prevent ex-POW's children from confronting their own traumatic experiences. That might lead to expressions of intrusive recollections and avoidance symptoms.

Another possible explanation for this pattern is rooted in the concept of "ambiguous loss" (Boss, 2007). When an ex-POW also suffers from PTSD, he may no longer function effectively as a family member and might be less involved with the family, compared with his precaptivity or pre-PTSD involvement. This position increases the probability for boundary ambiguity regarding roles and functions in the family (Faber et al., 2008). In the face of exposure to stress that stems from fathers' behaviors, ex-POW's children might experience and express the intensity of their feelings in the form of emotional reactivity differentiation. The lack of fathers' buffering function might compel them to take the role of a parent and delay their own needs for protection, with possible long-term negative psychological consequences in the form of ST symptoms.

There are some limitations to the current study. First, the use of self-report measures, although very common in trauma studies, entails the risk of a reporting bias. Future studies should consider gathering data from multiple informants, such as the participant psychiatrist, and make use of objective measures. Second, participants' reports about differentiation of the self are naturally biased by their own current emotional states. Third, the lack of precaptivity assessment of children's characteristics limits our ability to infer causality. Fourth, because this study is correlative, the mediating variables should be further examined in longitudinal studies that have the power to validate this pattern of associations. Last, during the gathering of data, some ex-POW's children showed reluctance and signs of protection of their fathers. These behaviors deserve special attention in future studies, but might also have reduced the effect magnitudes in the current study.

Conclusion

The findings of this study suggest that 40 years after the end of the war, ex-POW's children are at risk for ST symptoms. Furthermore, differentiation of the self, and specifically an emotional

cutoff dimension, was found to be a possible mechanism that mediates the effect of living in close proximity and being emotionally exposed to fathers' behavior and ex-POW's children's own emotional well-being. Our findings highlight the necessity to screen and treat ex-POW's children who might be troubled by the negative impact of captivity experiences and their posttraumatic projections on them.

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