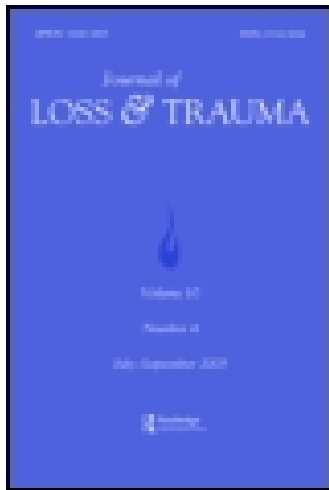


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# Secondary Traumatization and Marital Adjustment among Former Prisoners of War Wives

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*We aimed to assess the associations between secondary traumatization (ST) and perception of husbands' posttraumatic stress symptoms (PTSS) and marital adjustment among wives of former prisoners of war (POWs). Wives of Israeli ex-POWs and wives of a matched control group of combat veterans were assessed using self-report measures. Ex-POWs' wives reported higher levels of ST and perception of their husband's PTSS and lower levels of marital adjustment compared with veterans' wives. Both attachment avoidance and family boundaries were associated with marital adjustment. In addition, family boundaries moderated the relationship between wives' attachment anxiety and marital adjustment. Implications for research and practice are discussed.*

**KEYWORDS** *attachment dimensions, family boundaries, marital adjustment, posttraumatic stress disorder, prisoner of war, secondary traumatization*

Participation in war entails highly traumatogenic experiences (e.g., Nazarian, Kimerling, & Frayne, 2012). Combatants often face exposure to physical injury and potential loss of life. However, war captivity is recognized as a particularly extreme traumatic experience (e.g., Rintamaki, Weaver, Elbaum,

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Klama, & Miskevics, 2009). Prisoners of war (POWs) can be exposed to additional stressors of an extreme nature such as physical and psychological torture, systematic humiliation, severe deprivation, and isolation (Engdahl, Harkness, Eberly, Page, & Bielinski, 1993). Moreover, unlike many other traumatic events, the extreme experiences of war captivity are recurrent, often persist for a long time, and are of an interpersonal nature. The use of psychological tactics aimed at breaking and altering the prisoner's psyche is common, resulting in a deep and complex relationship with the captive and the transformation of the perception of the captor into a benevolent-malevolent source of power (Herman, 1992). These render ex-POWs highly vulnerable to somatic symptoms (Page & Brass, 2001) and psychiatric disorders (Rintamaki et al., 2009), most notably posttraumatic stress disorder (PTSD; Zerach, Greene, Ein-Dor, & Solomon, 2012).

A growing body of research shows that the detrimental impact of war trauma spreads beyond the individual veteran, affecting family members and possibly leading to "secondary traumatization" (ST; Figley, 1986). That is, they may suffer a wide range of emotional and psychiatric symptoms, even though they were not directly exposed to the captivity trauma itself. ST has been noted among wives of traumatized combat soldiers (Solomon et al., 1992), wives of peacekeeping soldiers (Dirkzwager, Bramsen, Adèr, & van der Ploeg, 2005), and wives of former POWs (Dekel & Solomon, 2006a).

Many studies have pointed to the deleterious effects of war trauma and posttraumatic symptoms on traumatized veterans' marital relationships (for a review, see Monson, Taft, & Fredman, 2009). However, only a handful of studies have been carried out on the effects of trauma on ex-POWs' wives (e.g., Hunter, 1986). For example, using a clinical sample, Bernstein (1998) reported that World War II ex-POWs and their wives experienced emotional distance. Dekel and Solomon (2006a) found that Israeli wives of ex-POWs with PTSD reported significantly poorer marital adjustment than ex-POWs' wives without PTSD and wives of non-POW controls. Dent et al. (1998), however, found no difference between the marital intimacy of wives of Vietnam ex-POWs and non-POWs.

A number of factors may impact on marital adjustment in ex-POW couples. The first is the husband's PTSD. A few studies have shown that ex-POWs with PTSD report more marital distress and less marital satisfaction as compared with ex-POWs without PTSD (e.g., Cook, Riggs, Thompson, Coyne, & Sheikh, 2004). Furthermore, studies have suggested that PTSD symptoms largely account for the associations between combat exposure and captivity and difficulties in family adjustment (e.g., Sayers, Farrow, Ross, & Oslin, 2009). Particularly, symptoms of avoidance and emotional numbing have been found to be related to difficulties in intimacy and communication (e.g., Cook et al., 2004), and symptoms of hyperarousal can lead to outbursts of rage and aggression (O'Donnell, Cook, Thompson, Riley, & Neria, 2006). The specific characteristics of captivity have been hypothesized to render

the ex-POW particularly vulnerable, among other things, to alterations in perceptions of others and interpersonal relationships (Solomon, Dekel, & Mikulincer, 2008), also manifested in the unique features of “complex PTSD” or disorder of extreme stress (not otherwise specified) (Zerach & Solomon, in press).

An additional pathway related to wives’ marital adjustment is wives’ own ST symptoms. A wife’s ST symptoms may prevent her from supporting her husband as needed or result in her being irritable in situations where patience is required, thus undermining the potential for marital intimacy. Furthermore, experiencing ST while caring for an impaired husband might increase wives’ caregiver burden (Zarit, Todd, & Zarit, 1986). This factor was found to mediate the associations between veterans’ functioning and wives’ marital adjustment (Ben Arzi, Solomon, & Dekel, 2000). Given the severity of war captivity trauma (Hunter, 1988), the high rates of PTSD among Israeli ex-POWs as compared with war veterans (Zerach et al., 2012), and the effects of war captivity on the capacity for interpersonal relations (Zerach & Solomon, in press), we would predict wives of ex-POWs to report higher levels of ST and lower levels of marital adjustment than wives of matched control veterans who were not held in captivity. Furthermore, we suggest both intra-psychic (i.e., attachment dimensions) and interpersonal (i.e., family boundaries) psychological mechanisms as possible moderators of the associations between ST and marital adjustment in wives of ex-POWs.

Attachment theory suggests that early interactions with the primary caregiver are implicated in subsequent interpersonal interactions (Bowlby, 1988). More recent research views adult attachment as a dimensional construct: The attachment-anxiety dimension refers to the extent to which one worries that one’s significant other will not be available in times of need and will not meet one’s wishes for proximity and care. The attachment-avoidance dimension refers to the extent to which one does not trust the good intentions of others and wishes to keep oneself emotionally distant (Mikulincer & Shaver, 2007).

There is extensive evidence that attachment dimensions in adulthood are manifested in the quality of marital relationships (Kirkpatrick & Davis, 1994) and family relations (Cummings & Davies, 2002). Insecure attachment has been linked to deteriorations in relationship quality over time (Kohn et al., 2012) and negative, relationship-damaging behaviors during dyadic interactions (Collins & Feeney, 2000).

Although attachment dimensions have been shown to play a role in moderating PTSD symptoms in trauma survivors (Mikulincer & Shaver, 2007), there is little research investigating the moderating role of attachment dimensions in the associations between ST and wives’ marital relationships. According to attachment theory, it is reasonable to hypothesize that spouses who score high on attachment anxiety and have a traumatized partner may become overwhelmed by their partner’s distress and find themselves overly identifying with his or her suffering (Kunce & Shaver, 1994). Spouses who

score high on attachment avoidance may distance themselves from their partner as a kind of defense mechanism (Cohen, Zerach, & Solomon, 2011). Individuals with both attachment avoidance and attachment anxiety might struggle to provide marital support in the face of stressful experiences (Reizer, Ein-Dor, & Possick, 2012).

Another factor that could impact on marital adjustment is family boundaries. As part of the family systems perspective, Olson, Sprenkle, and Russell (1979) included family boundaries in the “circumplex model of marital and family systems.” Specifically, Olson referred to family boundaries as part of the family cohesion dimension (1993). A family boundary describes the degree to which the family unit has both internal boundaries (e.g., boundaries between close family members) and external boundaries (e.g., boundaries between the family unit and external people such as friends and extended family). In highly adaptive families, both internal and external boundaries are balanced and flexible, adapting in relation to situational and developmental demands. Families with strong internal boundaries but diffuse external boundaries can be characterized as “disengaged” with members displaying avoidant, insensitive, and underinvolved behaviors. Conversely, families with diffuse internal boundaries but strong external boundaries have been described as “enmeshed,” with members displaying overinvolved and intrusive behaviors (Minuchin, 1974). Studies have documented the positive effects of cohesive families on spouses’ well-being and distress (e.g., Walton & Takeuchi, 2010). The associations between perceptions of family boundaries and the marital adjustment of traumatized veterans’ spouses are yet to be explored.

Although attachment theory focuses on dyadic relationships and family systems theory looks at the wider context of the family, many researchers have noted similarities between these models (e.g., Rothbaum, Rosen, Ujije, & Uchida, 2002). The categories of secure, avoidant, and anxious attachment may broadly correspond to those of adaptive, disengaged, and enmeshed families. Furthermore, attachment orientations and family boundaries may be interrelated. For example, Kenny and Donaldson (1991) argued that when interpersonal boundaries are too diffuse, individuals become anxious about other family members’ movements toward autonomy. Byng-Hall (1999) also argues that individuals with anxious attachment but with partners with avoidant attachment may attempt to compensate through an overly involved relationship with their children.

Previous research has found that husbands’ trauma negatively impacts on wives’ perceptions of family functioning in general (Hendrix, Erdmann, & Briggs, 1998). Furthermore, female veterans’ own PTSD severity has been found to relate to their family adaptability and cohesion (Gold et al., 2007). This raises questions regarding the possible moderating role of stable yet flexible perceptions of family boundaries in the association between veterans’ wives’ ST and marital adjustment. For example, veterans’ wives might alternate between maintaining distance and not having open communication with

their partner. Conversely, wives may identify too closely with their partners' traumatic experiences without outside support, which can lead to poorer marital adjustment. Alternatively, wives with adaptive and flexible perceptions of family boundaries might better cope with the known effects of war trauma on family cohesion (Zerach, Solomon, Horesh, & Ein-Dor, 2013) by changing roles and rules as a result of ongoing appraisal of the needs of their husband, as happens frequently among military families (Huebner, Mancini, Wilcox, Grass, & Grass, 2007).

The present research aims to bridge the gap in knowledge of the processes involved in marital adjustment in a population at risk of secondary traumatization. While there has been some research on marital adjustment in ex-POW couples, this has largely focused on the role of the ex-POW's distress and psychopathology, with little research into the role of the wife's ST or the wife's attachment insecurities and family boundaries. Specifically, we hypothesize that (a) wives of ex-POWs will report higher levels of ST and lower levels of marital adjustment as compared with matched controls' wives; (b) wives' ST will be negatively associated, and family boundaries will be positively associated, with wives' marital adjustment; (c) wives' attachment avoidance will be negatively associated with their marital adjustment; and (d) wives' attachment dimensions and family boundaries will moderate the relationship between their ST and marital adjustment.

## METHODS

### Participants

Data were collected in 2011 from wives and cohabiting girlfriends of former POWs from the 1973 Yom Kippur War (YKW) and a similar group of partners of YKW veterans who were not captured. This formed part of a wider longitudinal study examining the impact of war captivity on veterans and their partners (for details, see Dekel, Ein-Dor, & Solomon, 2012).

### EX-POWS' WIVES

This group consisted of 115 wives of Israel Defense Forces (IDF) land forces veterans who had been captured during the YKW. According to Israel's Ministry of Defense, 240 soldiers from the Israeli Army land forces were captured during the war (ex-POWs group). POWs were subjected to intense isolation and systemic tortures, consisting of the infliction of severe physical pain and great mental pressure.

### CONTROL GROUP

This group consisted of 56 wives of land-force combat veterans who fought on the same fronts as the ex-POWs but were not captured. The veterans were

similarly exposed to battlefield stressors, including encounters with injured people and dead bodies, active fighting, and exposure to life-threatening events. These control veterans were matched to the ex-POWs on personal and military background characteristics.

No significant group differences were found in age, country of birth, years of marriage/cohabitation, number of children, work status, and income status. The women's ages ranged from 36 to 79 years ( $M = 57.90$ ,  $SD = 5.87$ ). Fifty-two percent of the women in both groups were working in full-time jobs, 26% had part-time jobs, and 22% were not working. Thirty-eight (32.8%) ex-POWs' wives and 19 (33.9%) controls' wives were married during captivity, while the rest were married after 1973. We do not have any information about the percentage of ex-POWs' wives who were dating their husbands while they were captured. The two groups differed in their religiosity and years of education. More ex-POWs' wives defined themselves as religious (32.5% vs. 12.5% among controls' wives) and fewer as secular (56% vs. 71.4%). In addition, mean years of education were 14.16 ( $SD = 3.20$ ) among ex-POWs' wives as compared with 15.50 ( $SD = 2.92$ ) among controls' wives.

## Measures

### PTSD INVENTORY

Wives' ST was assessed with the PTSD Inventory (Solomon et al., 1993), which taps the 17 PTSD symptoms listed in the DSM-IV-TR (American Psychiatric 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). Women were asked about their reactions to their husbands' experiences of combat or captivity (e.g., "I have recurrent pictures or thoughts about my husband's captivity"). Intensity of their ST was taken to be the number of items to which the respondents answered 3 or 4. The inventory has proven psychometric properties in terms of high test-retest reliability (Schwarzwald, Solomon, Weisenberg, & Mikulincer, 1987) and concurrent and convergent validity compared with structured clinical interviews conducted by mental health professionals (Solomon, 1988; Solomon et al., 1993). The PTSD Inventory reliability value for wives' ST was Cronbach's  $\alpha = .90$ .

### DYADIC ADJUSTMENT SCALE (DAS)

Marital adjustment was assessed by the DAS (Spanier, 1976), which consists of 32 items divided into four subscales: consensus, cohesion, satisfaction, and affection expression. Participants were asked to indicate the extent to which each item described their current marital relationship. The dyadic adjustment score is the sum rating of the 32 items, in which high scores reflect better adjustment. Heyman, Sayers, and Bellack (1994) reported that the scale has



very good convergent validity and discriminant validity. The scale has been widely used worldwide and with Israeli populations (Horesh & Fennig, 2000). In the present study, the Cronbach's  $\alpha$  was .80.

#### ATTACHMENT DIMENSIONS

Attachment anxiety and avoidance were assessed with a 10-item scale developed by Mikulincer, Florian, and Tolmacz (1990). The five anxiety items (e.g., "I worry about being abandoned") corresponded to items in Brennan, Clark, and Shavers's (1998) anxiety subscale of the Experiences in Close Relationships measure, and the five avoidance items (e.g., "I feel uncomfortable when others get close to me") corresponded to items in Brennan et al.'s avoidance subscale. Participants rated the extent to which each item described them using a 7-point scale ranging from 1 (not at all) to 7 (very much). In previous studies among Israeli samples, the scale was found to have good internal consistency as well as high construct and predictive validity (e.g., Mikulincer, Ein-Dor, Solomon, & Shaver, 2011). Cronbach's alphas showed reliabilities of .70 for avoidance and .62 for anxiety, typically the minimum standard.

#### FAMILY BOUNDARIES

Family boundaries were assessed by a questionnaire constructed for the purpose of this study that was inspired by the circumplex model of marital and family systems (Olson et al., 1979). This questionnaire consists of 10 items that reflect two aspects of dysfunctional family boundaries: disengaged (e.g., "In my family, children trust and rely on adults that are not their parents") and enmeshed (e.g., "In my family, relatives and friends don't know anything about what goes on inside the family"). Participants rated the extent to which an item described their family using a 7-point scale ranging from 1 (always true) to 7 (not true). The index was calculated as the average of the items, with high scores reflecting balanced and adaptive family boundaries. The Cronbach's  $\alpha$  for the general scale was .67.

#### LIFE EVENTS QUESTIONNAIRE

This questionnaire (Solomon & Flum, 1988) comprises 23 life events tapping four domains: family (e.g., divorce), work (e.g., dismissal), health (e.g., major disease), and personal events (e.g., accidents). Participants were asked whether they had experienced any of the events and whether they perceived the experienced events as positive or negative. The sum of negative life events was used for the analysis.

## Procedure

Originally, both groups were located through their husbands, who were veterans of the YKW and had participated in a previous study conducted by our research group (Dekel et al., 2012). We used our participant contact information records to contact their spouses. We sent potential participants a letter in which we introduced the present study and informed them that research assistants (licensed social workers conducting graduate studies) would contact them. Note that the control group was relatively small as we adhered to the original list of control veterans' wives, and because this was the second wave of measurement and many years after the war, some of the controls' wives may have been less motivated to participate. After receiving a general explanation of the study, wives who agreed to participate completed questionnaires in their homes or at an alternative location of their choice. Each participant signed an informed consent form. This study was approved by the Tel-Aviv University ethics committee.

## RESULTS

### Group Differences in the Study Variables

Our first aim was to assess the differences between ex-POWs' wives and controls' wives with regard to levels of wives' ST, attachment dimensions, family boundaries, and marital adjustment. In order to do so, we performed four MANOVA analyses for the four main study variables and their dimensions.

The first analysis found a significant difference between the two groups with respect to wives' ST, Pillai's trace  $F(3, 151) = 6.25, p < .001$ , partial  $\eta^2 = .11$ . As can be seen in Table 1, ex-POWs' wives reported higher total levels of PTSS, intrusion, and avoidance symptoms as compared with controls' wives. However, we did not find group differences in hyperarousal symptoms.

The second analysis found a significant difference between the two groups with respect to dyadic adjustment dimensions, Pillai's trace  $F(5, 146) = 2.33, p < .05$ , partial  $\eta^2 = .08$ . As can be seen in Table 1, ex-POWs' wives reported lower levels of dyadic satisfaction, cohesion, consensus, and total dyadic adjustment. The two groups did not significantly differ in dyadic affect.

The next analyses did not reveal any significant differences between the groups in levels of attachment insecurities (anxiety and avoidance), Pillai's trace  $F(2, 152) = 0.12, p = .88$ , or level of family boundaries,  $t(1) = 1.59, p = .41$ .

### Predicting Wives' Dyadic Adjustment

Our next aims were to examine the relative contributions of group (ex-POWs' and controls' wives), wives' ST, attachment insecurities, and family boundaries

**TABLE 1** Means and Univariate *F* Results: Wives' ST, Attachment Dimensions, Family Boundaries, and Dyadic Adjustment by Group.

	Ex-POWs' wives ( <i>n</i> = 105)		Controls' wives ( <i>n</i> = 50)		<i>F</i>	Partial Eta <sup>2</sup>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Total number of wives PTSS	4.82	4.38	2.70	3.10	<i>F</i> (1,155) = 9.30**	.06
Intrusion symptoms	1.36	1.63	.34	.74	17.71***	.10
Avoidance symptoms	1.47	1.74	.84	1.29	5.25*	.03
Hyper-arousal symptoms	1.99	1.80	1.54	1.75	2.14	.02
DAS-total	3.89	.80	3.95	.73	<i>F</i> (1,152) = 7.17**	.08
DAS-satisfaction	4.37	.80	7.64	.86	2.45*	.07
DAS-cohesion	3.61	1.24	4.26	.93	10.42**	.04
DAS-consensus	3.44	.95	3.85	.89	6.34*	.04
DAS-affect	2.06	.77	2.16	.76	.52	.01
Attachment insecurities-avoidance	3.20	1.28	3.09	1.32	.25	.01
Attachment insecurities-anxiety	2.48	1.05	2.46	.89	.02	.01
Family boundaries	4.81	.68	4.97	.58	<i>t</i> (1) = 1.59	

\*=*p* < .05; \*\*=*p* < .01; \*\*\*=*p* < .001.

to wives' DAS and the moderating role of attachment insecurities and family boundaries in the associations between wives' ST and wives' DAS. In order to do so, a four-step hierarchical regression analysis was conducted. All of the variables were standardized before inclusion in the regression models. It is worth noting that in preliminary analyses we found significant relations between the control variables years of marriage and wives' ST ( $r = .17$ ,  $p < .05$ ), years of education and wives' DAS ( $r = .17$ ,  $p < .05$ ), and negative life events and wives' ST ( $r = .26$ ,  $p < .01$ ).

In the first step of the regression, we entered three sociodemographic variables (i.e., age, years of education, and years of marriage) and the sum of negative life events as control variables. In the second step, we entered two stressors variables: group (ex-POWs' wives and controls' wives) and wives' ST. In the third step, we entered intra-psychic (i.e., attachment dimensions) and interpersonal (i.e., family boundaries) psychological mechanisms variables. In the last step, we entered all possible two-way interactions between the variables that were entered in the third step. We also conducted post hoc power analyses using G\*Power 3.1.5 software (Faul, Erdfelder, Lang, & Buchner, 2007). The results showed that for a medium effect size  $f^2$  of 0.15, an alpha probability of .05, an actual sample size of 139, and 15 predictors in the final model, the statistical power was 0.80 (see Table 2).

The total set of variables explained 36.8% of the variance in the wives' DAS,  $F(14, 139) = 5.18$ ,  $p < .00$ . As can be seen in Table 2, in the last model we found that above and beyond sociodemographics, negative life events, and group variables, wives' ST did not contribute to wives' DAS. However, we found attachment avoidance to be negatively associated with wives'

**TABLE 2** Summary of Hierarchical Regression Coefficients: Wives' Dyadic Adjustment by Group, Wives' ST, Attachment Insecurities, and Family Boundaries.

	Wives' Dyadic Adjustment											
	Model 1			Model 2			Model 3			Model 4		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Age	0.12	0.09	0.12	0.08	0.09	0.08	0.08	0.09	0.08	0.09	0.08	0.08
Years of marriage	-0.70	1.47	-0.04	-0.30	1.41	-0.02	-0.31	1.32	-0.02	-0.23	1.28	-0.02
Years of education	0.12	0.08	0.13	0.03	0.08	0.04	0.01	0.07	0.01	0.04	0.07	0.05
Negative life events	-0.12	0.08	-0.12	-0.03	0.08		-0.01	0.08	-0.06	-0.01	0.01	-0.01
Group				-0.38	0.17	-0.19*	-0.40	0.15	-0.20*	-0.42	0.14	-0.21**
Wives ST				-0.26	0.09	-0.28**	-0.09	0.08	-0.10	-0.05	0.08	-0.06
Attachment insecurities-avoidance							-0.28	0.08	-0.30***	-0.28	0.08	-0.30***
Attachment insecurities-anxiety							-0.02	0.08	-0.03	-0.02	0.07	-0.03
Family boundaries							0.20	0.07	0.22**	0.17	0.07	0.18**
Attachment anxiety *family boundaries										0.22	0.08	0.25**
Attachment anxiety *Wives ST										-0.10	0.08	-0.12
Attachment avoidance *Wives ST										0.13	0.08	0.15
Attachment avoidance *Attachment anxiety										-0.02	0.07	-0.03
family boundaries *Wives ST										-0.03	0.07	-0.05
Attachment avoidance *family boundaries										0.02	0.07	0.02
$R^2$		0.4%			16.2%			30.6%			36.8%	
<i>F</i> change		$F(4,135) = 1.29$			$F(2,133) = 9.88***$			$F(3,130) = 9.00***$			$F(6,124) = 2.03^{\wedge}$	

$\wedge = p < .06$ ; \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ .

DAS. The higher the level of avoidance a wife reported, the lower her level of DAS. Furthermore, we found that family boundaries made a significant positive contribution to wives' DAS; the more the wife reported adaptive family boundaries, the higher her reported levels of DAS.

Surprisingly, only the interaction between wives' attachment anxiety and family boundaries made a significant contribution to wives' DAS. In order to examine the moderating role of family boundaries in the association between wives' attachment anxiety and wives' DAS, we followed Aiken and West's (1991) recommendations and conducted post hoc probing. We separated these variables by adding and subtracting one standard deviation from the value for each participant (high and low attachment anxiety, high and low family boundaries). For those who reported more adaptive family boundaries, we found a positive association between attachment anxiety and wives' DAS ( $b = .22, p < .01$ ), while for those who reported more dysfunctional family boundaries, we found negative association between attachment anxiety and DAS ( $b = -.21, p < .00$ ). Hence, if a wife endorsed attachment anxiety and was also characterized with more dysfunctional family boundaries, her probability of reporting high levels of DAS decreased.

## DISCUSSION

Our findings show that wives of ex-POWs reported higher levels of ST and lower levels of marital adjustment compared to wives of matched control veterans. It was also found that, above and beyond sociodemographic and negative life events variables, both attachment avoidance and family boundaries contribute to marital adjustment; the lower the levels of attachment avoidance and the more adaptive the family boundaries, the higher wives' levels of marital adjustment. Importantly, we found that family boundaries moderated the association between wives' attachment anxiety and marital adjustment. If wives endorsed attachment anxiety and were also characterized as having adaptive family boundaries, their probability of reporting high levels of DAS increased.

Our findings regarding high levels of ST among ex-POWs' wives support previous findings that suggest that husbands' captivity trauma is associated with wives' distress (Dekel, 2010). It is worth noting that the lack of group differences in hyperarousal symptoms appears to stem from the control group's high levels of arousal compared to their scores on the intrusion and avoidance scales. This pattern of results points to a question regarding the specific characteristics of captivity that might be reflected in wives' distress.

Figley (1995) proposes that ST begins with wives' efforts to emotionally support their traumatized spouses. However, during this process, wives' attempts to understand and empathize can result in internalization of their husbands' memories and symptoms, leading them to experience them as their

own. Ex-POWs' wives' own ST might reflect the negative aspects of overidentification with their husband's traumatic experiences. For those wives who were married or dating during the captivity period, this process might have begun during the captivity itself with weeks or months of uncertainty regarding their husband's return. It is possible that many of the ex-POWs' wives have repeatedly tried to think, feel, and imagine what their husband experienced in captivity (e.g., torture, isolation). Furthermore, many wives heard stories not only directly from their husbands but through extensive media reports, compounding their intrusion, recollection, and avoidance responses to traumatic narratives of war captivity.

Our results also show that ex-POWs' wives report lower levels of marital adjustment compared with control veterans' wives. These results support both case studies and empirical studies that have consistently documented the deleterious effects of trauma and PTSS on traumatized veterans' family members and marital relationships (e.g., Monson et al., 2009). The results are also consistent with several ex-POW studies from various wars (e.g., Bernstein, 1998). However, other studies did not find any differences between the marital intimacy of wives of ex-POWs and non-POWs (e.g., Dent et al., 1998). Therefore, it is important to continue to investigate factors that may impact on marital intimacy problems beyond being a wife of an ex-POW.

This study suggests a number of possible predictors of DAS. Contrary to our hypotheses and some other studies' reports (e.g., Klaric et al., 2011), in the final model wives' ST was not found to significantly contribute to DAS. However, both intra-psychoic (i.e., attachment avoidance) and interpersonal (i.e., family boundaries) mechanisms were found to be significant predictors of DAS. Two possible explanations for this pattern are suggested.

First, although attachment dimensions are considered as fairly stable over time, they can be altered by important experiences that affect a person's beliefs about the value of seeking help and comfort from attachment figures (Mikulincer & Shaver, 2007). We can assume that experiencing continuous stress might alter ex-POWs' wives' attachment dimensions such that they shape their experiences of marital relationships, casting them in a more negative light (Saavedra, Chapman, & Rogge, 2010). It has been suggested that ex-POWs' wives defensively avoid interpersonal intimacy as a result of the risks of getting too close to their husbands' memories and experiences of war captivity (Mikulincer et al., 2011). Attachment avoidance will inevitably produce reduced marital intimacy and, as such, can lead to deterioration of marital relations.

Second, the positive association between family boundaries and DAS might manifest its significance in the marital lives of ex-POWs' wives in the face of what Boss (2007) termed "ambiguous loss." When an ex-POW also suffers from PTSD, he may no longer function effectively as a family member and will be less involved with the family compared with his pre-captivity or pre-PTSD involvement (Dekel et al., 2012). This increases the probability for boundary ambiguity

regarding wives' roles and functions in the family, as the wife may take on some of the husband's traditional roles (Faber, Willerton, Clymer, MacDermid, & Weiss, 2008), which might also affect marital relationships.

Contrary to our expectations, we found neither attachment orientations nor family boundaries to moderate the associations between ST and DAS. However, we did find a significant interaction between attachment anxiety and family boundaries. Because anxiously attached individuals focus on seeking and receiving support, their relationship satisfaction could be affected more strongly by threats to the availability of their attachment figures (Mikulincer & Shaver, 2007). Indeed, a large body of research has confirmed that attachment anxiety is associated with higher levels of destructive behaviors during difficult discussions (Simpson, Rholes, & Phillips, 1996), lower relationship satisfaction, and declining relationship quality over time (Kohn et al., 2012).

Our results suggest that if a wife reports anxious attachment orientations and she is also characterized with adaptive family boundaries, then her probability of reporting high levels of DAS increases. In highly adaptive families, negotiations are open, roles are shared, and rules can be easily changed upon situational demands (Olson, 1993). Therefore, it can be assumed that adaptive family boundaries protect ex-POWs' wives from the pervasive worry of abandonment within relationships that might affect DAS. Moreover, negative partner behaviors usually have a particularly detrimental impact on marital satisfaction among highly anxious individuals, who habitually question the strength of their relationship and their partner's love and commitment (Feeney, 2004). Ex-POWs' wives are more likely to have husbands who display posttraumatic avoidance symptoms. Ex-POWs' wives with high levels of attachment anxiety may interpret their husband's avoidance symptoms more negatively and become distressed.

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 sources, such as from the participants' therapists, and make use of objective measures, such as observation of ex-POWs' actual marital functioning. Second, evaluating both veterans' and their spouses' DAS and personal distress would provide a stronger actor-partner research design, enabling investigation of whether wives' ST predicts DAS above and beyond their husband's distress levels and what the independent and combined effects of personal distress are on the marital relationship.

Third, the lack of pre-captivity assessments of wives' psychological state and marital and family functioning strongly limits our ability to infer causality. Fourth, the family boundary measure should be treated with some caution because it was first used in this study and has problematic reliability. Fifth, although the statistical power of our analyses was found to be reasonable, given the many statistical tests we conducted some of the findings may be due to chance. Finally, no measure was taken immediately after the POWs

were repatriated, so we cannot know whether the wives' distress is a manifestation of PTSD caused by their husbands' capture or if it reflects a more general effect of living with a husband who suffers from PTSD.

To conclude, the findings of this study suggest that wives of former POWs are susceptible not only to ST, but also to lower levels of marital adjustment. While we cannot change the fact that former POWs were taken into captivity, we can identify variables that impact on the post-captivity experiences and relationships of ex-POW couples that are open to manipulation. As such, we can attempt to provide helpful interventions. It was found that both attachment avoidance and family boundaries contributed to marital adjustment, but ST and perceptions of husbands' PTSS did not. We found that family boundaries moderated the association between attachment anxiety and DAS. These findings suggest that providing interventions that enable wives to increase their flexibility and adaptability regarding family relations might help reduce their psychological burden and increase the quality of their marital relationship with their traumatized spouses.

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