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ADJUSTMENT TO WAR CAPTIVITY: THE ROLE OF SOCIODEMOGRAPHIC BACKGROUND, TRAUMA SEVERITY, AND IMMEDIATE RESPONSES, IN THE LONG-TERM MENTAL HEALTH OF ISRAELI EX-POWs

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This study assessed the role of sociodemographic features, pre-captivity combat exposure, captivity severity, emotional responses and coping during captivity, and social support at homecoming, to the short- and long-term mental health of 164 Israeli POWs of the 1973 Yom Kippur War. The major contributors to the POWs' mental health were psychological responses during captivity, followed first by their education and ethnic status, and then by severity of captivity. Both traumatic stress of captivity and the results of the study were discussed in the light of Conservation of Resources (COR) theory.

Keywords: Stress; Prisoners of war (POWs); Adjustment;
Sociodemographic background; Immediate responses; COR theory

Prisoners of War (POWs) are exposed to some of the most traumatic experiences that are perpetrated by human beings. Often occurred subsequently to the harshness of combat, war captivity entails ongoing and repeated traumatic experience (Herman, 1992). Physical and psychological torture, systematic humiliation and isolation, loss of personal

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freedom and being subjected to total control, are only part of the intense traumatization. Falling captive may rapidly lead victims to lose their identity as active combat soldiers, to experience a sense of defeat and betrayal, along with painful guilt and shame.

Research on former POWs indicates that captivity produces deep and abiding pathology (Engdahl *et al.*, 1997; Solomon *et al.*, 1994). Studies of World War II POWs reveal high rates of current post-traumatic stress disorder (PTSD) many years after release. Percentages range from 29% (Engdahl *et al.*, 1997) and 50% (Goldstein *et al.*, 1987) through 70% (Sutker *et al.*, 1993), 71% (Crocq *et al.*, 1991) and 76% (Sutker and Allain, 1996). Studies of Korean War POWs show even higher figures: 86% (Sutker and Allain, 1991) and 88% (Sutker and Allain, 1996). Reports of past PTSD among World War II POWs range from 67% (Kluznik *et al.*, 1986) to 78% (Sutker *et al.*, 1993). A considerable body of research reveals a wide range of other psychiatric problems as well (e.g., Kluznik *et al.*, 1986; Neria *et al.*, 1998a,b; Tennant *et al.*, 1986).

Yet, several studies among Vietnam and Israeli War POWs found that there were sometimes positive changes in personality: development of maturity, inner strength, self-awareness, creativity, and sense of fulfillment (Sledge *et al.*, 1980; Solomon *et al.*, 1998), redirecting of goals and priorities and movement towards psychological health (Ursano, 1981).

As can be seen, there is a considerable variability among studies assessing the aftermath of captivity. The aim of the current article is to explain this variance by applying the Conservation of Resources (COR) theory predictions to the outcomes of captivity traumatization. According to COR theory (e.g., Hobfoll, 1989; Hobfoll *et al.*, 1995) exposure to traumatic stress entails actual resource loss, which is extensive and deep. Personal, social, as well as objective resources are widely threatened and might conceivably be lost. On the other hand, in order to decrease resource loss, various resources might function to bolster resistance to stress, and to limit psychological residues following the traumatic exposure (e.g., Hobfoll, 1991).

Previous studies identified various risk factors for post-captivity residuals based on the objective characteristics of the experience. The timing of captivity and its political conditions (e.g., Ursano *et al.*, 1987), the location, duration and harshness of the exposure

(e.g., Crocq *et al.*, 1991; Engdahl *et al.*, 1997; Sutker and Allain, 1996; Ursano *et al.*, 1981) and the degree of the combat exposure prior to falling in captive (Neria *et al.*, 1998a,b) all were found negatively associated to the traumatic outcomes. At the same time a series of different resources were found to affect post captivity pathology. Studies have shown that likelihood of psychological disorders among POWs and combat veterans decreased with adulthood (Engdahl *et al.*, 1991; 1997), high rank (Sutker *et al.*, 1990), high education before army service (Neria *et al.*, 1998a,b; Solomon, 1993), and belonging to a privileged ethnic group (Kulka *et al.*, 1990; Marsella *et al.*, 1996; Neria *et al.*, 1998a,b).

COR theory supported by research (e.g., Freedy *et al.*, 1992; Hobfoll *et al.*, 1995), suggests that loss depletion that traumatic stress entails, is a motivating factor for intensive attempts at coping, in order to limit and to reduce further resource loss. Findings on both immediate responses and ongoing coping during captivity are inconclusive. Experimental and empirical evidence has been brought to bear to the effect that feelings of control (Nardini, 1952) faith, reality testing, denial, rationalization and humor (Ford *et al.*, 1973) and active, problem focused coping (Deaton *et al.*, 1977) promote survival in captivity and better mental health after release. On the other hand, apathy, withdrawal, emotional constriction, and emotion focused coping have been found to better decrease anxiety and distress during captivity (Greenson, 1949; Strassman *et al.*, 1956; Strentz and Auerbach, 1988).

COR theory emphasizes the role of social support as a crucial source for effective resistance in confronting stress (e.g., Hobfoll *et al.*, 1996). Findings revealed that social support from commanders and buddies limit the likelihood of combat stress reactions (Solomon *et al.*, 1986), both directly and indirectly by reducing loneliness. Moreover, when support was supplied at homecoming, it has been described as significant source for better mental health for both war veterans (Quarantelli, 1985; Solomon, 1993), and POWs (Engdahl *et al.*, 1997; Neria *et al.*, 1998a,b; Ursano *et al.*, 1996).

Although the studies to date have yielded fairly considerable findings, a good deal remains to be learned about the factors contributing to long-term health and pathology among ex-POWs. Little is known about the relative weights of the various factors or whether factors important in the short-term are similarly important to long-term

psychological outcomes. Moreover, since the exposure to captivity may affect dramatically basic sources of coping domains and causes rapid exhaustion of resources, it is important to comprehend why some POWs cope fairly successful, being able to manage stress, and others collapsed under the adversity or sometimes develop long-term maladjustment.

This study examines the unique and relative contributions of socio-demographic features, the severity of pre-captivity combat exposure, captivity intensity, emotional responses and coping during captivity, and social support at homecoming to the short- and long-term mental health of Israeli POWs in the 1973 Yom Kippur War.

METHOD

Participants

According to Israeli's Ministry of Defense records, 240 soldiers serving in the Israeli Army land forces were captured in the Yom Kippur War. At the time of this study, three of the men had died and 20 were living abroad. Of the remaining 217 former POWs residing in Israel at the time of the study, 164 participated in the study, constituting a 75.5% response rate. Respondents did not differ from non-respondents in sociodemographic and military variables. The group consisted of 136 POWs who were captured by the Egyptians and 28 who were imprisoned by the Syrians. Despite the difference in terms of duration of captivity: eight months in Syria and six weeks in Egypt, POWs of both groups have been subjected to intense isolation and systematic torture, consisting of the infliction of severe physical pain and great mental pressure. Mental pressure was applied by a range of techniques, including frightening the prisoner with numerous threats (of death, mutilation, or killing family and friends), exhausting him through inadequate food, extremes of heat or cold, prolonged standing or deprivation of exercise, and prolonged interrogations. POWs were humiliated verbally and by interfering with their personal hygiene and natural bodily functions.

Analysis revealed no differences between POWs held in Egypt and in Syria, neither in sociodemographic and military variables, nor in any of the outcome measures. Thus, we decided to group all POWs together.

Participants' mean age during the war was 22.10 ($SD=3.52$; range = 18–35), father's country of origin was Israel in 55% of cases, Asia or Africa in 38%, and Europe or America in 7%. Twenty-six percent of the participants were married before the war; 70% had completed high school, and the rest had completed less than 12 years of education. Sixty percent were conscripts, 40% reserves. In rank, 80% were privates, 6% corporals or sergeants, and 14% officers.

Measures

Outcome Measures

Past and current PTSD PTSD was assessed by a self-administered 17-item PTSD Inventory based on DSM-III-R (American Psychiatric Association, 1987) criteria. Each item describes a DSM-III-R PTSD symptom, adapted for war trauma. The inventory enables a decision on whether or not a person is suffering from PTSD. Participants are asked to indicate for each item whether or not they suffered from the symptom in two given periods: "during the last month" (called "current" in this study), and "in the past" (e.g., any time after the war and prior to current assessment). This scale enables both an evaluation of whether or not a person is suffering from PTSD and its intensity (number of symptoms). Internal consistency among the 17 items for both periods was high (Cronbach $\alpha=0.89$ for the past and 0.86 for the present). The scale was found to have high convergent validity when compared with diagnoses based on structured clinical interviews (SCID; Spitzer *et al.*, 1989). Rates of agreement between the SCID and the PTSD inventory were high: 84% in the past and 85% in the present (Solomon *et al.*, 1993).

SCL-90 This questionnaire is a self-report measure that inquires into 90 psychiatric symptoms during the two weeks preceding the assessment (Derogatis, 1977). Previous studies indicate satisfactory psychometric properties (Derogatis and Clearly, 1977; Derogatis *et al.*, 1976). Participants were compared on a global symptoms measure which gauges the extent and severity of psychiatric symptomatology. The Global Severity Index (GSI) reflects the clinical severity of all symptoms, and was computed by averaging each respondent's answers on the 90 symptoms.

Predictor Variables

Sociodemographic background Items assessed included: pre-war military and civilian background, father's country of origin, family status, age, education, military rank and type of military service (conscript or reserves).

Battlefield stressors They were assessed using an especially designed self-report questionnaire of 21 items tapping the intensity of the fighting. A factor analysis with Varimax rotation revealed four main factors, that explained 57% of the variance. Factor 1 explained 36% of the variance and consisted of nine items relating to encounters with death (e.g., "I saw a lot of dead soldiers"). Factor 2 explained 10% of the variance and consisted of four items pointing to life threatening situations (e.g., "I found myself in a situation where I felt my life was at its end"). Factor 3 explained 6% of the variance and consisted of three items describing active fighting (e.g., "I killed enemy soldiers"). Factor 4 explained 5% of the variance and consisted of four items describing disorientation on the battlefield (e.g., "I found myself in a situation where it wasn't clear who the commander was").

Captivity severity It was assessed using two measures: The first, is weight loss in captivity. In the absence of medical records after release participants were asked to report on the amount of weight loss in captivity. The second, is a measure of physical and psychological abuse, in which the respondent was asked to rate on a scale of 1–5, (a) the severity of the physical abuse, (b) the severity of the mental abuse, and (c) the severity of the humiliation to which he was subjected. The score for each respondent was the average of these three.

Psychological responses during captivity In the absence of any valid and reliable standardized measure, we constructed a 22-item self-report questionnaire, based on clinical interview with ex-POWs and literature review. Factor analysis with Varimax rotation revealed four main factors that explained 43% of the variance. Factor 1 explained 14.6% of the variance and consisted of seven items describing active coping (e.g., "I played mental games to pass the time"). Factor 2 explained 13.6% of the variance and consisted of six items describing a loss of emotional control (e.g., "I felt I was going crazy"). Factor 3 explained 7.7% of the variance and consisted of four items describing detachment (e.g., "I closed myself off from the world"). Factor 4

explained 7% of the variance and consisted of five items describing strong fear, shame, and anger (e.g., "I was petrified").

Social support at homecoming This self-report questionnaire designed especially for the current study was developed as a result of examination of POWs personal records and diaries, and detailed interviews with POWs about family and social responses to homecoming. It was measured via a seven-item self-report questionnaire (e.g., "I got help and support from my family"; "People looked at me as a war hero"). The score was the average of the items.

Procedure

Eighteen years following their participation in the war, the former POWs, were asked to come for assessment to the Rehabilitation Department of a major, central medical center. They were seated in groups of 30–50 and filled out a battery of questionnaires, requiring approximately 2 h. Some of the veterans who were unable to come to the hospital had the questionnaires administered at home. Prior to their filling out the questionnaires, the participants signed a consent form and were assured that the data would remain confidential and would in no way affect their status in military or civilian life.

RESULTS

On the basis of the PTSD inventory, 23% of the former POWs were classified as having past PTSD and 13% as having current PTSD. The average number of past PTSD symptoms was 6.65 ($SD = 4.68$) and of current PTSD symptoms 3.50 ($SD = 4.52$). With regard to psychiatric symptomatology, the GSI clinical severity of the participants was found to be higher than the norms for psychiatric outpatients ($M = 0.57$; $SD = 0.63$).

In order to determine the relative contribution of each of the predictors, a series of multiple hierarchical regressions analyses were performed with past PTSD symptoms, current PTSD symptoms, and the GSI as the dependent variables. The variables were entered in chronological order, starting with the pre-war sociodemographic and military characteristics (education, father's country of origin, family status, military rank and type of military service), followed by pre-captivity

combat exposure (encounters with death, life threatening situations, active fighting, and disorientation on the battlefield), severity of captivity (weight loss and physical and psychological abuse), psychological responses during captivity (active coping, loss of emotional control, detachment, and strong feelings of fear, shame and anger). Lastly, social support at homecoming was entered.

Table I presents the significant β coefficients for the various dependent variables. Table II presents the amount of variance explained by the independent variables.

Past PTSD

In this study 49.6% of the variance in the number of past PTSD symptoms was explained by the independent variables. ($F=(3,99)=32.93$; $p<0.001$). Sociodemographic features contributed 14.6% to the explained variance. The only significant predictor in this group, however, was education. POWs with lower levels of education had more past PTSD symptoms ($\beta=-0.38$). Combat exposure did not make a unique contribution. Captivity severity made a very large contribution (15%).

TABLE I Regression β coefficients between predictors and outcome variables

	<i>Past PTSD</i>	<i>Current PTSD</i>	<i>SCL-90</i>
<i>Step 1: Sociodemographic variables</i>			
Education	-0.38***	-0.28**	-0.32***
Father's country of origin	—	0.22**	-0.20*
<i>Step 2: Pre-captivity combat exposure</i>			
Education	-0.31***	-0.28**	-0.32***
Father's country of origin	—	0.22**	-0.20*
<i>Step 3: Captivity severity</i>			
Education	-0.18	-0.15	-0.19
Father's country of origin	—	0.13	0.10
Physical and psychological abuse	0.44***	0.34***	0.35***
<i>Step 4: Psychological responses during captivity</i>			
Education	-0.16	-0.14	-0.18
Father's country of origin	—	0.07	0.04
Physical and psychological abuse	0.30***	0.23**	0.23***
Loss of emotional control	0.48***	0.44***	0.49***
<i>Step 5: Social support at homecoming</i>			
Education	-0.16	-0.14	-0.18
Father's country of origin	—	0.07	0.04
Physical and psychological abuse	0.30***	0.23**	0.23***
Loss of emotional control	0.48***	0.44***	0.49***
Social support	—	—	—

Note: * $p<0.05$; ** $p<0.01$; *** $p<0.001$.

TABLE II Amount of variance explained by predictor variables in hierarchical regressions on outcome measures

	<i>Past PTSD</i>	<i>Current PTSD</i>	<i>Current SCL-90-Global Severity Index</i>
Sociodemographic Variables	14.6***	16.6***	19.0***
Pre-captivity combat exposure	0.0	0.0	0.0
Captivity severity	15.0***	8.4**	9.0**
Psychological responses during captivity	20.0***	17.0***	21.0***
Social support at homecoming	0.0	0.0	0.0
Total variance explained	49.6	42.0	49.0

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Participants who were exposed to higher levels of abuse reported more PTSD symptoms in the past ($\beta = 0.44$). The greatest contribution to the variance – 20% – was made by psychological responses during captivity. POW's who reported responses indicating a loss of emotional control had more past PTSD symptoms ($\beta = 0.48$) than the others. Social support at homecoming made no additional contribution.

Current PTSD

Forty-two percent of the variance in the number of current PTSD symptoms was explained by the independent variables ($F = (4,98) = 17.79$; $p < 0.001$). Sociodemographic features contributed 16.6% to the explained variance, with education and father's country of origin being the significant predictors. POWs with less education and whose fathers hailed from Asia or Africa suffered from more current PTSD symptoms ($\beta = -0.28$ and 0.22 respectively).

Combat exposure did not make a unique contribution to current PTSD, but the severity of the captivity and the initial psychological responses did. Prisoners who suffered from more physical and psychological abuse reported more symptoms ($\beta = 0.34$). Loss of emotional control in captivity contributed 17% to the explained variance. POWs who experienced a loss of emotional control reported higher levels of PTSD ($\beta = 0.44$). Social support at homecoming made no additional contribution.

Psychiatric Symptomatology

The predictor variables explained 49% of the variance on the GSI of the SCL-90 ($F(4,98) = 23.83$; $p < 0.001$). Table I reveals a similar pattern as was found with past PTSD and current PTSD. Education and father's country of origin together contributed 19% to the explained variance. POWs with less education and whose fathers hailed from Asia or Africa suffered from more severe psychiatric symptomatology ($\beta = -0.32$ and 0.20 respectively).

Combat exposure did not make a unique contribution, but severity of captivity did, with a 9% contribution to the variance. Prisoners who reported more physical and psychological abuse found to be suffering from higher levels of psychiatric symptomatology ($\beta = 0.35$). And once again, psychological responses during captivity contributed the largest amount – 21% – to the variance. POWs who had lost emotional control while imprisoned reported more severe psychiatric symptomatology ($\beta = 0.49$).

Discussion

The findings of the current study indicate that almost two decades after falling in captivity, a substantial minority of former Israeli POWs still suffer from trauma-related (PTSD) and general psychopathology. Although the findings are consistent with former studies that showed long-term vulnerability among POWs (e.g., Kluznik *et al.*, 1986; Sutker and Allain, 1996; Ursano *et al.*, 1996), PTSD rates in the current study (about 23% in the past and 13% in the present) are relatively low compared with previous findings among former World War II and Korean War POWs (Goldstein *et al.*, 1987; Sutker and Allain, 1991; Sutker *et al.*, 1996).

The relatively lower PTSD rates we found may be ascribed to the shorter duration and the lesser severity of the Israeli POWs captivity, which lasted between six weeks and eight months. In addition, the relative resilience of the current sample may be related to the fact that all of them passed a rather stringent pre-war screening by the military in order to determine their fitness to combat training. They scored high on physical health, intellectual capability and motivation tests, as a prerequisite for service in combat units.

Our findings show that the psychological adjustment of the Israeli POWs were predicted by their initial responses during captivity, their pre-military education and ethnic origin, and the severity of their captivity, but not by their pre-captivity combat exposure or their social support at homecoming. Initial psychological reactions during captivity was the major predictor of subsequent mental health. Severity of captivity and sociodemographic features exerted a more or less equal impact in the past – that is near the time of captivity – while in the present, severity of captivity was substantially less predictive than sociodemographic features.

Psychological responses during captivity was the major predictor of all three mental health outcomes, accounting for over a third of the variance in past PTSD, current PTSD, and current general psychiatric symptomatology. More specifically, it was found that the set of behaviors labeled “loss of emotional control” was associated with these negative outcomes, while the other three sets of responses – active coping, distancing, and strong feelings of fear, shame, and anger – had neither a positive nor negative effect.

The uncontrolled emotions that were reported in our sample consisted of outbursts of intense rage (against their captors, fellow prisoners, and the Israeli authorities), the feeling of going crazy, the feeling that everyone forgot and abandoned them, and the sudden development of strong religious belief – seem to reflect an emotional breakdown. The results suggest that failure to adjust to captivity is a key factor for predicting post-captivity pathology.

This finding is partially in contrast with COR hypothesis (Hobfoll *et al.*, 1995) that suggested that loss generates favorable and unfavorable coping responses, and that both will be linked to the outcomes of the traumatic exposure. The strong prediction of only the unfavorable ways of coping to the outcomes of the current study might be explained by the extreme nature of responses, which may have outweighed any positive attempts at coping.

Although we cannot claim that the POWs who initially reacted maladaptively can be retrospectively diagnosed as having suffered a combat stress reaction, the responses found here are strikingly resembling to descriptions of acute combat stress reaction especially aggressive and hostile behaviors; overwhelming feelings of loneliness,

dissociative reactions, helplessness, going crazy, psychological withdrawal and loss of control (Bartemeier, 1946; Solomon, 1993). The association found between combat stress reactions and long-term stress residues is widely documented (e.g., Solomon, 1993).

On the other hand, and in line with previous studies (e.g., Green and Glezer, 1983; Hobfoll and Lerman, 1988; Kaniasty and Norris, 1993), it was previously claimed that the failure to cope effectively in the short-term may itself produce adverse effects. The initial loss caused both by the traumatic stress itself and by the failure to cope make individuals extremely vulnerable to subsequent losses, a phenomena that has been termed "loss cycle" or "loss spiral" (e.g., Hobfoll *et al.*, 1995).

Severity of captivity was a less potent predictor of pathology than the POW's response in captivity, and weight loss had no predictive power at all. These results do not support findings of several previous studies that severity of captivity was the major predictor of the subsequent psychological outcome (Engdahl *et al.*, 1997; Sutker *et al.*, 1990). Three explanations for this inconsistency are offered. The first is related to the nature of the captivity experience. As noted before, Israeli POWs were exposed to somehow less severe experience, in duration and intensity, compare to US World War II POWs experience in the Japanese prison, for example (Goldstein *et al.*, 1987). The second is related to the lapse of time. As shown in our findings, the impact of captivity severity on the POWs' mental health was much stronger closer to release from captivity (as manifested in past PTSD), than eighteen years after the war. It may be that while initial responses continue to take their toll on the individual's mental health many years later, the psychological impact of captivity severity decreases over time. The third explanation lied in the magnitude of the resource loss due to the severity of captivity. Although it was termed "severity of the trauma" and not "level of resources loss," loss of adequate food, drink, shelter, and sleep, and especially loss of control over violence, humiliation, and other types of captivity victimization, found to play in the current study only a secondary role. In contrast with former studies (e.g., Freedy *et al.*, 1992) that found resource loss to be a major predictor of the outcomes of exposure to traumatic stress, the current findings pointed out to the predominance of the POWs initial responses in the long-term outcomes. The inconsistency might lies in

the fact that former studies mainly focused on traumatic encounters that caused immense damage to property (as natural disasters, hurricanes etc.) which induced crucial depleting of objective resource losses. The trauma of captivity is by nature more prolonged and ongoing (Herman, 1992) and might cause a unique depletion in personal and social resources. This type of resource loss is, presumably, less represented in the factor of trauma severity, but more in the factor of initial responses and ongoing coping.

Of the *sociodemographic variables* that we examined, only pre-military education and father's country of origin contributed to the variance in the outcomes. The salutary impact of education may have several sources. The same qualities (e.g. motivation, persistence, intellectual stamina, etc.) that are required for one to acquire an education may facilitate coping in captivity. Beyond this, education may develop these and other qualities that foster coping and endurance. Antonovsky (1987), for example, suggested that education strengthens the sense of coherence and Solomon (1993) proposed education may act by bolstering self-esteem and self-efficacy. Moreover, educated POWs may have been able to negotiate more effectively with their captors, to improve the conditions of their confinement, to communicate with their cell neighbors while in solitary confinement, to find effective techniques of passing the time, and to use any prior knowledge they may have had about war captivity (Neria *et al.*, 1998a,b).

The salutary impact of ethnic origin may be related to its relative availability of different resources. The Israeli POWs who fared relatively better belonged to the Western (Ashkenazi) community originating from Europe, whereas those who fared worse belonged to the Eastern (Sephardi) community, originating in Asia and North Africa. At the time of Yom Kippur war (1973), Western-origin Israelis had generally more economic resources, held better jobs, and had more political clout than the Eastern-origin Israelis. Several studies have shown that persons at greatest risk for trauma-induced psychological disorders were those who belonged to deprived minorities (e.g., Manson, 1997; Marsella *et al.*, 1996).

Interestingly, education and ethnic origin explain somewhat more of the variance of current than past symptomatology. Similar findings were obtained by Solomon (1993) in a study of the risk factors associated with combat stress reaction. Apparently, the resources of education

and ethnic centrality foster long-term resiliency, whereas the intensity of the stressor plays a stronger role in the short-term.

The other variables we examined – age, rank, type of military service, marital status, combat exposure, and social support at homecoming – were not found to play a role in the ex-POWs mental health beyond that played by their responses in prison, the severity of their imprisonment, and their education and ethnic origin. Even though these variables may be important in themselves, as previous research suggests, their importance is evidently overshadowed by that of the three significant factors we found.

In contrast to former studies that found social support to play a major role in combat (Quarantelli, 1985; Solomon *et al.*, 1986) and captivity outcomes (Ursano *et al.*, 1996), the minor role of social support found here, may be explained by the fact that the POWs have never systematically offered, neither have got, the kind of social support after release that could be both meaningful and helpful for them. Only few were offered psychotherapeutic aid while the majority did not (Neria, 1998a). Adequate emotional support, that has suggested previously to have a robust positive impact on subsequent stress reactions if offered in time (Catrona and Russell, 1990; Hobfoll *et al.*, 1995) not only inhibited from ex-POWs while in the prison, by the captors' means of isolation and humiliation, but was not available even after release due to the lack of knowledge and sensitivity of the Israeli professional authorities.

The retrospective, the cross-sectional design of the study makes it difficult to be certain of the meaning of some of the results (Dohrenwend and Dohrenwend, 1974; Solomon and Flum, 1986). For example, it is not impossible that the depression, anxiety, and sense of vulnerability inherent in post-traumatic reactions may have led to the reporting of greater captivity severity and poorer immediate adjustment. Nor can we know for sure whether the “loss of emotional control” which was found to be so damaging reflects the POWs' pre-captivity personality and resources or the severity of their captivity. These and similar difficulties of interpretation are amplified by problems involving recall of events in the distant past, problems of encoding events occurring under stress, and the tendency of current psychological state to color perception of prior circumstances (e.g., King *et al.*, 1998). Moreover, the usage of self-report measures cost doubts to validity. Unfortunately,

the difficulties are common to trauma research where numerous obstacles have made prospective study inevitably rare.

These limitations notwithstanding, the findings have clinical implications. As is well known, the detrimental psychological effects of war captivity can be highly resistant to treatment (Herman, 1992). This study highlights the role of personal resources in the long-term outcome of trauma. The POWs who suffer the most severe traumatization are apparently also those with the smallest pre-trauma reservoir of personal resources. At the same time, they are probably also the POWs whose personal resources were most undermined in captivity, both by the greater physical and mental abuse to which they were subjected and by their demonstrated poorer adjustment.

In summary, these findings, and the application of COR theory, may add some better understanding of the causes, the process, and the aftermath of war captivity. The rapid and deep depletion of resources, the inadequacy of coping, the lack of fitting social support at homecoming, and the short- and long-term emotional toll, imply the necessity of sensitive aid and fitting assistance. The findings highlight the importance in helping traumatized POW build up or replenish the resources he needs. This is a massive undertaking. It may also be beyond the ability of the lone clinician, and require the input of the society at large, through its recognition of the POW's sacrifice and readiness to accept him into its ranks.

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