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Treatment seeking for posttraumatic stress in Israel Defense Forces veterans deployed in the Second Lebanon War (2006) and "Operation Cast Lead" in the Gaza Strip (2009): a comparative study

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ABSTRACT

Background and objectives: The goal of the study was to determine the long-term prevalence of combat-related treatment seeking and posttraumatic stress disorder (PTSD) in Israel's veterans deployed to the Second Lebanon War (2006) and "Operation Cast Lead" in the Gaza Strip (2009).

Methods: The prevalence of treatment seeking and DSM-IV-TR diagnoses among Israel Defense Force (IDF) veterans was assessed using seven and five year's surveillance and records. The whereabouts and combat exposure of veterans during the war was determined based on the IDF's Operations Directorate records.

Results: Overall prevalence of treatment seeking was 1.32% and 0.38% in the Second Lebanon War and "Operation Cast Lead", respectively. The prevalence of treatment-seeking veterans from the Second Lebanon War and in "Operation Cast Lead" was significantly higher in soldiers deployed to high combat-exposure zones (2.19% and 3.1%, respectively), relative to low combat-exposure zones (0.24% and 0.06%, respectively), and relative to soldiers deployed elsewhere (0.26% and 0.02%, respectively). PTSD prevalence was similar among treatment-seeking veterans deployed in high combat-exposure zones in both combats.

Conclusions: There is a gap of anywhere between 3% and 11% between treatment seeking by IDF veterans following war deployment and the actual prevalence of PTSD in this soldier population.

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KEYWORDS
PTSD; treatment seeking; veterans; level of exposure; prevalence

Combat exposure is a well-recognized risk factor for posttraumatic stress disorder (PTSD) and other adjustment difficulties, involving a variety of pathogenic stressors (Sofkoa, Curriera, & Drescherb, 2016). Studies indicate that there will be a significant ongoing need for mental health care in veterans who were exposed to combat. Therefore, planners and policymakers must accurately estimate at least two key elements that together speak to the expected prevalence of the disorder following combat: (a) the percent of veterans out of the deployed force who will actively seek or get treatment and (b) the number of veterans who experience severe combat-related symptoms but do not seek treatment. A number of explanations based on former estimates have been proposed for underutilization of services and can inform preparation for treatment provision in purpose to coordinate efforts to reduce the stigma and improve willingness to receive care for mental health problems among veterans (Hoge, 2011; Warner et al., 2011).

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Recent studies suggest a considerable gap between the prevalence of potentially severe post-combat symptoms in war veterans and the prevalence of those who actually seek or get treatment. Warner et al. (2011) found that reporting of symptoms and interest in receiving care were twofold to fourfold higher on an anonymous survey compared with an official post-deployment health assessment survey. In this particular sample of US Army infantry soldiers, 20.3% of the soldiers who screened positive for depression or PTSD indicated that they were uncomfortable reporting honestly on the official screening documents. In the same vein, a study of Dutch infantry veterans of Iraq yielded an anonymous self-report prevalence of PTSD of 21%, whereas structured interviews involving the same soldiers revealed a rate of only 4% (Engelhard et al., 2007). Similarly, Fear, Seddon, Jones, Greenberg, and Wessely (2012) found in a survey among UK military personnel, a statistically significant effect on the reporting of sub-threshold and probable PTSD (but not common mental disorders) and 3 (out of 11) stigmatizing beliefs when using an anonymous compared to identifiable questionnaire. Finally, the estimated percentage of combat-related treatment seeking drop even lower when it is determined through surveillance of official records reported during hospitalizations and ambulatory visits to military and civilian medical treatment facilities (Center, 2011).

Arguably, the above-described gap reflects barriers to treatment and would be expected to manifest in official, documented, on-record contacts with the health provision system. The prevalence of such contact is expected to be far below the prevalence of those in need of mental health services, which can be estimated in representative samples using anonymous reporting methods. Several such well-designed large-scale studies exist. Prevalence estimates of PTSD in US Armed Forces deployed to Iraq and Afghanistan range between 5% and 13% (Kok, Herrell, Thomas, & Hoge, 2012; Smith et al., 2008). Prevalence in UK troops was estimated at 4% (Fear et al., 2010).

Systematic postwar data on PTSD prevalence in Israel is scarce. One survey of Israel Defense Force (IDF) veterans revealed that among those who reported having been under fire in one of Israel's wars, 16.5% were diagnosed with PTSD (Skodol et al., 1996). In a longitudinal prospective study of Israeli Defense Force infantry soldiers carried out from 2008 through 2010, Wald et al. (2013) found that 8.1% of infantry soldiers deployed to high combat-exposure zones anonymously self-reported clinical level of PTSD symptoms, relative to 5.1% of the soldiers who were deployed to lower combat-exposure zones. And, the prevalence of clinically diagnosed PTSD in the maneuver component of one of IDF's infantry brigades following Operation Protective Edge was at 7.8% (Wald et al., 2017). Finally, rates of PTSD among prisoners of war and combat stress reaction (CSR) casualties recorded 20 years after the October 1973, arguably the most extreme traumatic exposure in Israel's wars, was 13% (Solomon, Neria, Ohry, Waysman, & Ginzburg, 1994).

However, all these studies typically relied on self-reported combat events rather than on independent confirmation of traumatic exposure in a military setting (Engelhard et al., 2007). It has been documented, especially in US studies of Vietnam veterans, that a considerable portion of those who claimed to suffer from combat-related PTSD never actually saw combat, served in a war zone, or never served in the military at all (see McNally, 2003).

Thus, there is a need for a study that documents the relation between independently confirmed traumatic exposure and treatment-seeking behavior. Moreover, there is a need for such a study to examine rates of treatment seeking over a relatively long period following an acute war-related traumatic exposure because delayed onset can occur in some cases, in other cases it may take time until veterans realize they have a problem, and in others PTSD can become chronic and goes on for years (Waller, Charlson, Ireland, Whiteford, & Dobson, 2016).

The current records-based study addresses the need for such research. Specifically, we made use of the highly detailed records of the IDF and the Israeli Ministry of Defense's Rehabilitation Directorate to estimate the prevalence of treatment seeking and stress-related psychopathology among treatment seekers in relation to a temporally and geographically confined conflict. The Second Lebanon War lasted 34 days, from 12 July until 14 August 2006, was restricted to Lebanon and Northern Israel, and "Operation Cast Lead" lasted 22 days, from 27 December 2008 until 18 January 18 2009 and was restricted to the Gaza Strip and Southern Israel. Both involved airstrikes, artillery fire, and combat on the ground, which led to considerable morbidity and mortality among Lebanon, the

Gaza Strip, and Israel. The confined time and space of the war and the operation and the highly detailed nature of record keeping in this domain in Israel provided an unusual opportunity to generate highly accurate estimates of the deployed population and their whereabouts during the war, as well as treatment seeking and PTSD among treatment seekers related to this specific war and operation. Our goal was to describe as accurately as possible the prevalence of actual treatment-seeking behavior during the seven years that followed the war and the five years that followed the operation, and thereby shed light on the gap reflecting potential barriers to treatment.

Methods

Sampling frame

The sampling frame was determined as the finite number of soldiers specifically deployed to the IDF's Northern Command to partake in the 2006 Israel–Hezbollah War and soldiers deployed to the IDF's Southern Command to partake in the 2009 operation "Cast Lead." An additional control population of soldiers who were assigned to the war and operation effort but deployed elsewhere than the Northern and Southern Command (where the war and operation physically occurred) was also characterized to illuminate treatment-seeking patterns in the general soldier population in relation to the war and operation. The exact number of soldiers deployed and the specific operational action and geographic whereabouts of their units during the war were noted and verified using official records provided by the IDF's Operations Directorate.

The follow-up period for treatment seeking and diagnosis was between 15 August 2006 (last day of the war) and 14 August 2013 (seven years after the war had ended), and between 19 January 2009 (last day of the operation) and 14 August 2013 (four and a half years after the war had ended). August 2013 was the point of time in which we received a "command decision" to conduct a research about the prevalence of the Second Lebanon War and "Operation Cast Lead." We surveyed the medical records of all the soldiers who sought treatment or were referred to the psychiatric evaluation of any kind anytime during the follow-up period. Endpoints of analyses were: (a) approach/referral related to the 2006 Israel–Hezbollah War and operation "Cast Lead" (2009) and (b) psychiatric diagnosis based on DSM-IV-TR using a structured interview.

Table 1 summarizes the background information data for treatment seeking by type of event. The study was approved by the Ethics Committee of the IDF Medical Corps (Helsinki Committee).

Treatment seeking and psychiatric diagnosis

In Israel, there are two official mental health providers for combat-related difficulties that are believed to respond to more than 95% of referrals related to psychopathology following combat: the IDF's Unit for Treatment of Combat-Related PTSD (UTC-PTSD) and the Ministry of Defense's Rehabilitation Directorate. Following initial contact by treatment seeking with the UTC-PTSD and the Ministry of Defense's Rehabilitation Directorate, they were interviewed using the Clinician-Administered PTSD Scale, A semi-structured clinical interview that measures the frequency and intensity of PTSD symptoms as described in the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition – DSM-IV-TR (APA, 2000). The interviews were performed by a small group of experienced psychiatrists. The diagnostic teams meet once a week to discuss current intakes and resolve any diagnostic ambiguities during these meetings. The full intake and diagnostic records of these two establishments during the follow-up period of the study formed the base for determining caseness in the current report.

Combat exposure

Because all direct combat action between the IDF and Hezbollah or Palestinian forces occurred north and south and across the international border between Israel and Lebanon and the Gaza Strip,

Table 1. Characteristics of treatment seekers in relation to the Second Lebanon War (2006) and "Operation Cast Lead" (2009).

		Lebanon	"Cast Lead"	χ^2/t
Marital status	Single	60%	86%	$\chi^2(1) = 14.42^{**}$
	Married	33%	14%	$p = .000$
	No Data	7%		
Having children	No	81.1%	89%	$\chi^2(1) = 3.29$
	Yes	18.9%	11%	$p = .069$
Years of education	Mean (SD)	12.8 (2.11)	12.2 (1.29)	$t = 3.55^{**}$
	Range	8–23	9–19	
Academic degree	No	76.2%	93%	$\chi^2(1) = 10.16^{**}$
	Yes	20.8%	7%	
	No data	3%		
Employment	Employed	59.8%	72%	$\chi^2(1) = 7.87^{*}$
	Unemployed	26.1%	13%	
	No data	14.1%	15%	
Service role	Combatant	59.9%	57%	$\chi^2(1) = 0.603$
	Support	37.5%	43%	
	No data	2.6%		
Rank	Enlisted	91.8%	93%	$\chi^2(1) = 0.11$
	Officers	7.8%	7%	
	No data	0.40%		
Type of service	Regular	44.7%	72%	$\chi^2(1) = 25.6^{**}$
	Reservists	53.6%	28%	
	No data	1.7%		
Age at the war/operation	Mean (SD)	26.5 (6.98)	23.1 (5.40)	$t = 5.72^{**}$
	Range	18–61	19–53	
Level of exposure	High	46.5%	57%	$\chi^2(2) = 75.5^{**}$
	Low	4.1%	23%	
	Deployed elsewhere	49.4%	20%	
PTSD	No	64%	59%	$\chi^2(1) = 0.742$
	Yes	36%	41%	$p = .389$
Casualties in unit	No	50.5%	79%	$\chi^2(1) = 28.46^{**}$
	Yes	49.5%	21%	

Note: Percentages out of the treatment seekers deployed in high and low exposure combat zones and deployed elsewhere. χ^2 and p values.
$^{**}p < .01$, $^{*}p < .05$.

combat exposure was determined high if a soldier crossed the international border into Lebanon or the Gaza Strip as part of active combat maneuver (see Figure 1). Alternatively, combat exposure was determined low if a soldier was deployed in the Northern and Southern Command but remained on the Israeli side of the international border throughout the war. Soldiers in the high exposure group typically engaged in direct combat in addition to having to endure mortar and rocket fire. Soldiers in the low-exposure group were exposed to mortar and rocket fire only. To validate this geo-operational index of combat exposure we measured the percent of soldiers killed and the percent of soldiers wounded during the war/operation in the high- and low-exposure groups. These records were obtained from the IDF's Medical Corps. Ninety-three percent of the wounded soldiers and 86% of killed soldiers in the war and 94% of the wounded and 76% of killed soldiers in the operation, belonged to the high exposure group. Seven percent of the wounded soldiers and 14% of killed soldiers in the war and 6% of the wounded and 24% of killed soldiers in the operation belonged to the low-exposure group. A third comparison group consisted of treatment seekers identifying their approach as related to the 2006 war and 2009 operation, who were part of the IDF's general force at the time but based on official records were deployed elsewhere (i.e., to the south of the Northern Command). These soldiers operated within the general security mission parameters in Israel.

Data analysis

The summary measures used for analyses were the "percent affected" in relation to two aspects: (a) the number of soldiers who sought treatment within the follow-up period multiplied by 100 and divided by

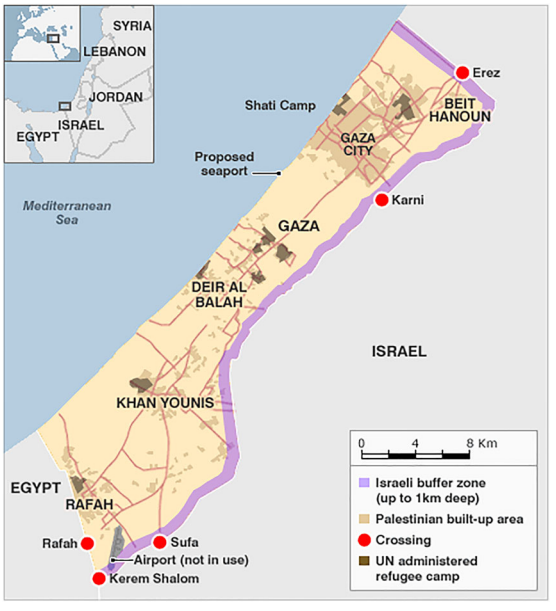

Figure 1. International boarders in Northern and Southern Commands demonstrated the region of conflict designated as high combat exposure and low combat exposure.

the number of soldiers in the relevant cohort. The relevant cohorts for treatment seeking estimates were defined based on the IDF's Operations Directorate records of the 2006 war and operation "Cast Lead" and verified by the IDF's History Department records and (b) the number of soldiers who received a case-defining diagnosis within the follow-up period multiplied by 100 and divided by the number of soldiers in the relevant cohort again defined based on the IDF's Operations Directorate records of the 2006 war and operation "Cast Lead" and verified by the IDF's History Department records. The same algorithm was used to determine percentages of other characteristics out of the treatment-seeking population. Although we had access to the exact number of deployed soldiers and their whereabouts during the war/operation and to all the records of those who sought treatment after the war/operation, all results are reported in percentages due to IDF security restrictions. We tested: (a) How many of those who deployed to high combat-exposure zones relative to those who deployed to low combat-exposure zones, and those deployed elsewhere (i.e., out of the war's geographical area), sought treatment and were diagnosed with different psychiatric disorders; (b) distributions of psychiatric disorders among the three populations within the treatment-seeking population; (c) chi-square analyses were used to examine differences in demographic characteristics between treatment seekers in the three exposure groups, and a one-way analysis of variance (ANOVA) to examine age differences between the exposure groups during the war/operation; (d) odds ratios (OR) were calculated to investigate differences in diagnosis between those soldiers who were deployed in the Northern and Southern Command; and (e) a binary logistic regression model was used to determine the relative contribution of potential background predictors of the diagnosis of PTSD. All data were analyzed using SPSS IBM (version 22.0).

Results

Treatment-seeking over time

Figure 1 displays data on the percent of treatment seekers as a function of time elapsed from the end of the war/operation. The figure shows that 42% of the care-seeking contacts related to the Second Lebanon War occurred after the war's end (in the months after the war ended in August 2006), and 52% care-seeking contacts related to "Operation Cast Lead" occurred after the operation's end

(almost a year, since the Operation ended in January 2009). Additional 27.9% of all contacts occurred during the following year after the war (2007) and 17% occurred during the following year after the operation (2010). War-related treatment seeking and Cast Lead-related treatment seeking reduced drastically during the subsequent years of the survey.

General characteristics of treatment seekers

Table 1 contains prevalence and significance data. Using one-way ANOVA and chi-square, treatment seekers from the Second Lebanon War were married ($p < .001$), more of them were exposed to high-level exposure ($p = .002$) and more arrived from units with more casualties ($p < .001$). Treatment seekers from the Second Lebanon War were more educated ($M = 12.8$, SD = 2.11, $M = 12.2$, SD = 1.29, respectively, $p < .001$) and they were significantly ($p < .001$) older when they applied for treatment ($M = 26.5$, SD = 6.98, $M = 23.1$, SD = 5.40, respectively) and significantly older ($p < .001$) during the war ($M = 27.6$, SD = 6.98, $M = 23.1$, SD = 5.40, respectively). Treatment seekers from "Operation Cast Lead" (2009) were significantly more employed ($p < .001$) compared to those who sought treatment after the Second Lebanon War. Treatment-seeking patterns did not differ as a function of military rank, of being a reservist or in regular service, of being combatant or support soldiers and diagnosed with PTSD ($p > .05$).

Treatment seeking as a function of combat exposure

From the two primary providers sampled here (UTC-PTSD and the Ministry of Defense's Rehabilitation Directorate), overall, 1.32% of the soldiers assigned to the Second Lebanon War effort in the IDF's Northern Command sought mental health treatment and 0.38% of the soldiers assigned to the Southern Command to partake in the 2009 "Operation Cast Lead." The prevalence of treatment-seeking veterans from the Second Lebanon War was significantly higher in soldiers deployed to high combat-exposure zones (2.19%), relative to low combat-exposure zones (0.24%), OR = 9.20, CI = 6.68–12.66, $p < .001$, and relative to soldiers deployed elsewhere (0.26%) OR = 1.43 CI = 1.26–1.63, $p < .001$. In "Operation Cast Lead," the prevalence of treatment seeking was also significantly higher among soldiers who crossed the international border (0.36%) relative to soldiers who were deployed in the conflict zone (Southern Command) (0.06%) OR = 5.17, CI = 1.83-14.56, $p = .002$, and relative to soldiers deployed elsewhere (0.02%), OR = 15.32, CI = 3.68–63.74, $p < .001$. Moreover, regarding the two primary groups of treatment seeking who have taken part in the Second Lebanon War and "Operation Cast Lead," 0.46% and 0.15% of reservists from the Second Lebanon War and "Operation Cast Lead," respectively, sought treatment out of the total number of reservists. 2.4% and 0.58% of regular soldiers from the Second Lebanon War and "Operation Cast Lead," respectively, sought treatment out of the total number of regular service soldiers. It is important to mention that 79.8% of the participants from the Second Lebanon War and 64.1% of the participants from the "Operation Cast Lead" were reservists. Additionally, the logistic regression model that was conducted on the reservist, showed that younger reservist soldiers who took part in the Second Lebanon War and "Operation Cast Lead" were 1.3 less likely to be diagnosed with PTSD ($\beta = -0.233$, SE = .078, $p = .003$), while reserve soldiers who were older at the time they applied for help were 1.2 times more likely to be diagnosed with PTSD ($\beta = 0.1.68$, SE = .078, $p = .031$). Reserve soldiers who were exposed to high level of exposure in the Second Lebanon War and "Operation Cast Lead" were 8.3 times more likely to be diagnosed with PTSD than those who were not exposed ($\beta = 2.11$, SE = .284, $p < .001$) while those who were exposed to low level of exposure were 3.4 times more likely to be diagnosed with PTSD than those who were not exposed ($\beta = 1.2$, SE = .505, $p = .014$).

Finally, the logistic regression model showed that soldiers who were exposed to high level of exposure in the Second Lebanon War and "Operation Cast Lead" were 9.2 times more likely to be diagnosed with PTSD than those who were not exposed ($\beta = 2.22$, SE = .217, $p < .001$). And those who were exposed to low level of exposure were 2.5 times more likely to be diagnosed with PTSD

than those who were not exposed ($\beta = 0.9$, SE = .365, $p = .013$). Additionally, if soldiers were younger during the war they were 1.17 times more likely to be diagnosed with PTSD ($\beta = -1.57$, SE = .059, $p = .008$) (see Table 2). Finally, the GPower analysis in this study was .87.

Psychiatric diagnosis

PTSD prevalence was similar among treatment-seeking veterans deployed in high combat-exposure zones in the Second Lebanon War (59.5%) and in "Operation Cast Lead" (61.4%), and differed significantly among treatment-seeking veterans deployed in low combat-exposure zones in the Second Lebanon War, and in "Operation Cast Lead" (43.9% and 17.4%, respectively) and elsewhere (13.7% and 10%, respectively). Additionally, there are significant ($p < .001$) patterns of mental disorders with a wide range of comorbidity with combat-related PTSD in IDF veterans (e.g., major depression, anxiety, and personality disorder).

Discussion

This is the first study that compares between subsequent combat deployment – the Second Lebanon War (2006) and "Operation Cast Lead" (2009) – in which IDF was involved based on official medical records of all the soldiers who sought treatment and that took into consideration differences in the level of combat exposure that explained most of the differences in reported prevalence of PTSD.

The prevalence of treatment seeking in IDF soldiers in relation to the Second Lebanon War and "Operation Cast Lead" studied here is quite low (less than 2%), and similar in magnitude to the reported prevalence of treatment seeking in the active component of US military members deployed in support of operations in Afghanistan and Iraq between 2003 and 2010 (Center, 2011). Both the current study and the US report used official records to determine treatment seeking and psychopathology. Both studies related the prevalence of treatment seeking and psychopathology to military operational deployment records and employed a long follow-up period (seven years). The prevalence estimates derived using these methods are considerably lower than estimates derived from rigorously conducted studies relying on self-reported surveys on probable PTSD and stress-related psychopathology and self-reported combat exposure, and in studies in which stratified sub-samples of the deployed population served as a reference for calculation (Sundin, Fear, Iversen, Rona, & Wessely, 2010). This potential gap between those who endure significant combat-related symptoms and those who actually seek treatment is large and calls for concerted efforts to remove barriers to treatment. In addition, studies have consistently shown a wide range of comorbidity with combat-related

Table 2. Binary logistic regression model predicting PTSD/ Non PTSD among treatment seekers in relation to theSecond Lebanon War (2006) and "Operation Cast Lead" (2009).

	B	SE	95% CI Lower–upper
Marital status	−0.180	.226	0.536–1.30
Having children	−0.019	.276	0.571–1.69
Years of education	−0.025	.057	0.873–1.09
Academic degree	0.115	.272	0.658–1.91
Employed	−0.233	.183	0.553–1.13
Type of event	0.03	.288	0.571–1.76
Service role	0.145	.174	0.821–1.163
Rank	0.279	.288	0.752–2.32
Type of service	0.208	.177	0.870–1.74
Age at war/operation	−0.041	.017	0.928–0.993*
Low level of exposure	0.893	.362	1.21–4.96*
High level of exposure	2.23	.216	6.07–14.18**
Physical casualties in unit	0.118	.202	0.757–1.67

**$p < .01$, *$p < .05$.

PTSD in IDF veterans (e.g., major depression, substance use disorder) (Bleich & Solomon, 2002; Skodol et al., 1996) and in veterans from other countries (Sundin et al., 2014) highlighting the need for effective programs designed to reach out to veterans and their families after combat. Nevertheless, it is important to emphasize that there are many differences between the character of the IDF deployment and the US and UK forces' deployments; therefore, the treatment seeking and PTSD prevalence in this study is lower given the duration of deployment in the IDF.

Perhaps the strongest finding in the current study is the important role of actual combat intensity on the prevalence of treatment seeking. Over 46% of war-related contacts with the mental health system came from soldiers who crossed the international border between Israel and Lebanon and the Gaza Strip and actively participated in combat maneuver. Furthermore, a microanalysis of the most intense combat incident of this particular war and operation indicated that treatment-seeking prevalence could rise rapidly as a function of combat intensity.

During the 35 days of the war in 2006 and the 22 days of the operation in 2009, some of the soldiers were active duty men (three-year mandatory service and career personnel) and some were reservists (soldiers and officers). The current data suggest that there was no difference in the likelihood of the two groups to seek treatment. This result is in contrast with reports on US Army soldiers (Milliken, Auchterlonie, & Hoge, 2007), and reports on the UK Armed Forces (Fear et al., 2010), who found reservists to be at a greater risk for psychopathology and more likely to seek treatment. This discrepancy may reflect greater personal maturity and enhanced motivation to serve in combat roles in IDF reservists relative to reservists in other armies. Specifically, although reserve duty in the IDF is mandatory and backed-up by law, it is extremely hard to enforce in active combat units. Thus, it may be the case that those reservists who were actually drafted, deployed, and participated in combat represent a selective, highly motivated and resilient slice of the population. Furthermore, the circumstances of their deployment were generally more favorable.

Moreover, it appears that the bulk of treatment seeking following the war and operation occurred within the first year of its ending (Figure 2). This pattern concurs with reports from Solomon and Mikulincer (2006) on veterans who developed combat stress response during the First Lebanon War in 1982. Planners should take this pattern into consideration when gearing up to provide mental health services after considerable conflicts. Specifically, it appears that a larger effort should be allocated to screening all the war participants, to educate them on the importance of treatment (e.g., stigma reduction) and to give immediate treatment, (Foa & Meadows, 1997) (Resick et al., 2008)immediately following the war for those who were found with symptoms of CSR. Moreover, more resources should be allocated to reach-out programs in the ensuing years, particularly targeting veterans who fought under high combat-exposure conditions.

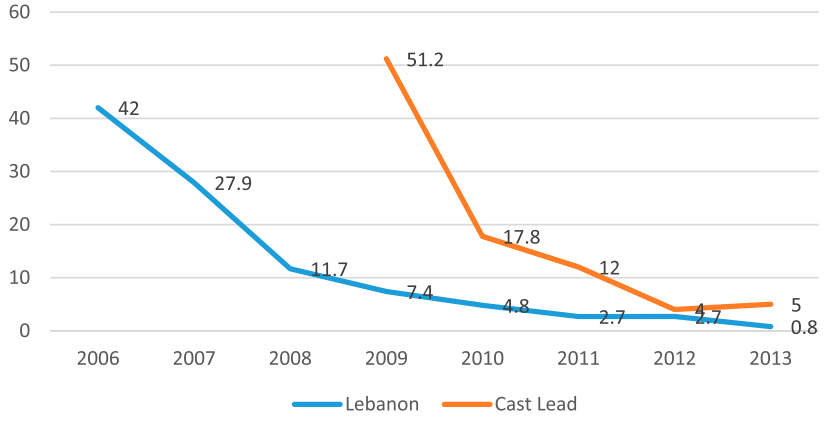

Figure 2. Percent of treatment seekers following the end of the Second Lebanon War (2006) and following the end of "Operation Cast Lead" (2009) and every year thereafter.

Finally, the results demonstrate that early identification of military personnel who have taken part at a war/operation (such as the "Second Lebanon War" and "Operation Cast Lead") and are at risk of developing PTSD symptoms, may benefit from information about the degree of exposure during war/operation. In this way, this military personnel who have taken part at a war/operation could benefit from an early help offer. To further unravel risk and protective factors for PTSD symptoms' severity among military personnel, longitudinal studies including pre-deployment measurements and measurements during deployment are needed. Such designs may help to draw conclusions about the causal relationships between PTSD and potential risk and protective factors and may increase the knowledge about the longitudinal course of PTSD (Dirkzwager, Bramsen, & Van Der Ploeg, 2005). Such interventions policy has been implemented by the IDF following Operation Protective Edge in 2014.

Limitations

Because the Second Lebanon war sample in this study was more than 10 times higher than the "Operation Cast Lead" sample, it is possible that the study lacked power to detect a modest difference in treatment seeking and PTSD prevalence.

We reported the prevalence of background variables within the sample of those who sought treatment. However, these data might reflect general trends in the three exposure populations (e.g., high combat-exposure zone, low combat-exposure zone, and soldiers deployed elsewhere) but not about the full cohort because we did not have access to these data in the full cohort of war participants. Thus, these results might reflect just the three exposure populations. Therefore, a prolonged survey should be conducted that will escort soldiers who have just started their military service and continue to reserve and will also include screening for PTSD and other mental health risk factors as part of routine activity, war/operation and post war/operation. This type of survey could supply clinical examination for troops and ascertain the relation between the extent of war/operation related stress and the development of PTSD or other mental health problems. Another limitation of this study is the measure of combat exposures, and although we were able to adjust for a range of combat exposures on deployment we were not able to assess the severity or frequency of exposures in the level exposure.

In conclusion, the current study reveals important characteristics of treatment-seeking behavior in soldiers following war and operation deployment. In particular, it seems, there is a gap between the prevalence of treatment seeking and the actual prevalence of severe combat-related symptoms revealed here that requires more research to determine its actual magnitude and immediate and concerted efforts to reduce barriers to treatment, such as the stigma on those who need such care (Hoge et al., 2004).

Disclosure Statement

No potential conflict of interest was reported by the authors.

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