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ORIGINAL RESEARCH



## Adjustment profiles of Yom Kippur war veterans seeking delayed help from the IDF

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### ABSTRACT

The most common stress reactions following combat are post-traumatic stress reactions. These responses have a great impact on quality-of-life and can damage victims' personal, familial, and social functioning. However, of the people who develop PTSD, only a few request psychological help. The first aim of the research was, therefore, to examine the long-term adjustment patterns of Yom Kippur War veterans who sought help only after a period of more than 30 years. The second aim was to classify the participants according to a common symptom profile. The participant sample consisted of 195 Yom Kippur War veterans who went through a process of assessment and evaluation via intake interviews conducted between 2006 and 2012, when they came to the Combat Stress Reaction (CSR) unit. Data were collected from the participants' files. The findings indicated that, by the time they arrived at the CSR Unit, 90.8% of the participants were experiencing PTSD. The findings support the argument that delayed onset of PTSD without a background history of symptoms is rare, and indicate that most people who seek help report that their low-level symptoms intensified over the years until these symptoms developed into clinically meaningful PTSD.

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### KEYWORDS

PTSD; delayed onset PTSD; adjustment; profiles

### Introduction

Post-traumatic stress disorder (PTSD) is a major challenge among soldiers who have served in contemporary wars in the Western world (Marmar et al., 2015; Stevelink et al., 2018). Post-traumatic stress responses have a significant impact on quality-of-life and can damage victims' personal, familial, and social functioning, as well as their physical health. Research conducted among different armies and after different wars over recent decades have found that the rate of PTSD among soldiers in war zones is between 4–30% throughout veterans' lives (Bonanno, Kennedy, Galatzer-Levy, Lude, & Elfström, 2012; Hunt, Wessley, Jones, Rona, & Greenberg, 2014; Sundin et al., 2014) and that, for 8–15% of these soldiers (Bonanno, Kennedy, et al., 2012), PTSD is a chronic syndrome, from which it is difficult to recover.

Various studies have shown that there are several patterns of PTSD, appearing anywhere from immediately after until many years after the traumatic events occur (Horesh, Solomon, Keinan, & Ein-Dor, 2015). Often, the effects of the mental trauma are not evident during the exposure to the traumatic event itself

or immediately thereafter; rather, the symptomological expressions may appear only after a significant passing of time. During the intervening months or years, the distress remains hidden, or at the very least it is not obvious to the casual observer. In accordance with the DSM definition, this version of delayed PTSD can appear for the first time 6 months or more after the traumatic event (APA, 2013).

Three developmental tracks of delayed PTSD have been documented in the literature: (1) Delayed PTSD with no early symptoms. This track refers to individuals who report that they have not suffered at all since the traumatic event, but at a certain point symptoms suddenly appeared and reached the required level to be defined as PTSD (Carty, O'Donnell, & Creamer, 2006; Reich, 2006). (2) Reactivation of post-traumatic symptoms. This track refers to people who report that they suffered from symptoms immediately after the traumatic event and then, after a period of remission, saw their symptoms reappear and develop into clinically meaningful PTSD. (3) Exacerbation of sub-threshold post-traumatic symptoms. This track refers to individuals who, since the time of the traumatic event and for many years after, suffered from post-

traumatic stress; their symptoms, however, had not reached the level needed to determine PTSD. At a certain point in time their distress worsened, and they then met the criteria for a PTSD diagnosis.

The scope of what is referred to as 'delayed PTSD', as it has been reported in various studies, has a very wide range, between 0–68% (Andrews, Brewin, Philpott & Stewart, 2007; Bryant & Harvey, 2002; Horesh et al., 2015; Santiago et al., 2013). This variance can be attributed to a number of research-related factors. The main factors are the differences in the study structure; the size and composition of the sample; the definition of 'delayed PTSD'; the type of trauma screened for; and the timing of the evaluation in respect to the traumatic event.

Previous research studies on 'delayed PTSD' have used various definitions of different models and methodologies in order to determine its frequency. In one study, it was reported that 38% of veterans experienced delayed PTSD, but it was suggested that this delay may not actually have been a delay, but rather a worsening or a reactivation of previous symptoms (Andrews et al., 2007). In other studies, it was argued that a delayed appearance of symptoms beyond 2 years was rare (Frueh, Grubaugh, Yeager, & Magruder, 2009). A meta-analysis conducted on studies examining the frequency of delayed PTSD between the years 1980 and 2008 found that, among those who were diagnosed with PTSD, the average frequency of delayed outbreak was 24.8%. However, in this study as well, the suggestion was that the delayed onset of the PTSD was not actually a delay, but rather a worsening of previous symptoms (Smid, Mooren, Van der Mast, Gersons, & Kleber, 2009).

The literature also shows that attempts have been made to understand what accounts for the immediate appearance of PTSD vs its delayed appearance. However, many of these studies only looked at the first 1 or 2 years post-event. Therefore, literature doesn't seem to support the existence of the third strand of delayed PTSD sudden emergence. Over the course of its entire 70-year existence, war and terror have been an integral part of life in Israel. One of the most difficult wars, and perhaps the most traumatic one, was the 1973 Yom Kippur War. Notwithstanding Israel's impressive military achievements, a sense of failure prevailed in the wake of that war (the surprise attack, the number of casualties, the lack of mental preparedness to deal with the traumatic situation), and it was ultimately defined as a military and political blunder. In recent years, many Yom Kippur War veterans have suddenly requested psychological help.

Consequently, the present study aimed to gain deeper insights into this group, based on a retrospective examination that took place more than 30 years after the event. The first aim of the current research was to examine the long-term adjustment patterns of Yom Kippur War veterans who sought help only after a period of more than 30 years. Adjustment was examined using three dimensions: the veterans' self-reported post-traumatic stress (questionnaire) and post-traumatic symptoms, their functioning, and their health status. The second aim of the research was to classify the participants according to categories of stress patterns, based on a common profile of symptoms.

## Methods

### Participants

The study population comprised Israel Defense Force (IDF) veterans who applied for treatment at the Combat Stress Reaction (CSR) Unit between the years 2006 and 2012 and for whom the Yom Kippur War was the main traumatic event of their lives. People who seek treatment at the CSR Unit are either veterans discharged from compulsory military service or reserve duty, or soldiers currently carrying out their reserve duty.

A total of 195 veterans participated in the study. A majority of the study participants were born in Israel (62.6%); their average age at the time of the traumatic event was 22.8 years ( $SD = 4.22$ , range = 18–36); the majority were married at the time of the study (69.2%); and the average number of children they had was 3.32 ( $SD = 1.66$ , range = 0–10). The vast majority defined themselves as secular (89.7%), and their average number of years of education was 12.12 ( $SD = 2.42$ , range = 7–20 years).

In terms of employment, over half of the participants were unemployed at the time of treatment referral (52.8%). It should be noted that the percentage of participants who had used psychoactive substances in the past (27.2%) was similar to the percentage of participants who had been treated with psychiatric medicine (26.2%). Close to half of the participants currently suffered from a physical disease (45.1%).

Over half of the participants had been carrying out their compulsory military service during the Yom Kippur War (55.9%), most had been combat soldiers (71.8%), and most had been low-ranked (87.7%). Almost half of the participants had been injured during the event (46.2%), and 40% of them were

acknowledged by the Ministry of Defense as being disabled veterans. However, only a minority (13.8%) of the participants had sought mental health treatment in the army after the traumatic event (i.e. up to 6 months after its occurrence).

## Measurement instruments

### *Data collection and preparation for analysis*

The data for the study was collected in a few stages.

#### *Unit reception form*

This form covers socio-demographic information and includes variables such as city of residence, country of birth and origin, age, education, marital status, number of children, financial status, army service (both compulsory and reserve), date of the traumatic event, its circumstances, previous traumas, psychotherapy, and more.

#### *Intake form*

Every client who comes to the CSR unit is invited to participate in an evaluation process, or intake. The process includes two-to-four evaluation sessions, with a 1-week interval between sessions, conducted by one of the therapists in the unit. These sessions are based on a structured psycho-social interview, supplemented by questionnaires. This form consists of socio-demographic information, obtained throughout the intake process, such as traumatic events that befell family members, life crises (such as sickness, divorce, financial crisis, death, etc.), drug and alcohol use, quality of relationship with spouse and children, and more.

#### *Output of personal military data*

This form contains all of the client's military data (physical and health ranking, IDF socio-demographic scale, units he served in, military courses he participated in, medical and mental health treatments he requested, and more).

#### *Treatment requests, referral notes, and relevant medical information*

This information is passed to the CSR unit either by the client or by the authority referring him for treatment.

## *Categorizing and computing the raw data to clear content fields*

As stated, the files included a large amount of text. Therefore, a content analysis process was needed in order to create, first, categories and sub-categories, and, second, a unified and consistent internal structure that would allow a comparison to be made between the various interviews. For this study we conducted a thematic analysis.

Thematic analysis refers to the research participants' words and descriptions, which are reflective of their feelings, thoughts, beliefs, and knowledge.

During the first stage of the analysis, two mental health officers reviewed the texts in the files. Their main goal was to orient themselves with the participants' files and to find the main themes in the texts. The second stage was to break down these overall themes into narrower themes, such as: help-seeking, symptoms, combat exposure, life events, functioning, guilt, health problems, support resources, and substance use. The third stage consisted of narrowing the theme categories. In the current article we will address the symptom category.

#### *PTSD inventory*

Post-traumatic stress disorder was measured by the PTSD inventory, a self-report scale based on the DSM-V. The scale consists of 17 items that describe intrusive, avoidant, and hyper-arousal symptoms. Participants were asked to indicate how often they had experienced each symptom during the previous month on a scale ranging from 1 (not at all) to 4 (very often). The severity of PTSD was calculated as the mean severity of symptoms. The Cronbach's alpha internal consistency of the questionnaire used in the current study was high (0.93), and the scale was found to have high convergent validity compared with diagnoses made by experienced clinicians on the basis of structured clinical interviews (Solomon et al., 1993).

## Research variables

### *Mental distress over the years*

In order to build a list of the symptom categories and their descriptions (Table 1), the researchers analysed the symptoms which the participants reported (this information was taken retrospectively from the intake interview at Time 8) in relation to the traumatic event throughout the years. The raw verbal data regarding mental distress and symptoms throughout different

**Table 1.** List of the symptom categories and their descriptions.

1	Fears	Of different places and activities, such as driving or crowded places, as well as general fear.
2	Sleep issues	Trouble falling asleep; waking up multiple times; sleep trouble/lack of sleep; sleep disruptions; waking up without recognizing surroundings; avoiding/fearing sleep.
3	Avoidance	Of seeing wounded or dead; of things reminiscent of the war; of war-related events (such as memorial days and rallies); of war-related sites; of crowded places; of people; of thoughts about the war.
4	Functioning issues	Unstable functioning; dysfunctional behaviour; decline in functioning; trouble functioning; inadequate functioning; trouble keeping a job; trouble completing tasks.
5	Mood issues	Feelings of depression; mood changes; sadness/sorrow; lack of joie de vivre; dolefulness; downtrodden mood.
6	Depression symptoms	Low appetite; weight loss; weight gain; loss of pleasure (anhedonia); lack of desire; lack of interest; helplessness; pessimistic view; feelings of lack of purpose; loss of energy; tiredness; crying; sensitivity/emotionality; indifference; unease; despair; mental breakdown: self-neglect; suicidal thoughts; preoccupation with death and suicide; attempted suicide; general feeling of exhaustion with life; emotional distance; loneliness.
7	Anxiety symptoms	Separation difficulties; anxiety; anxiety attacks; panic; stress; tension; anticipation anxiety; vigilance; excitation; confusion; restlessness; impatience; lack of self-confidence; lack of control; memory issues; concentration issues; disassociation; feeling disoriented; noise-sensitivity.
8	Physical symptoms	Breathing problems; cardiac palpitations; sweat; trembling; abdominal pains; nausea; diarrhea; dizziness; vomiting; headaches; somatic symptoms in different body parts; loss of consciousness; enuresis; ticks; ringing in the ears; sensitivity to light; speechlessness; bruxism; sensitivity to smells
9	Invasiveness	Viewing tough thoughts; invasive memories (flashbacks); repetitive images and thoughts of the war; repetitive memories of the war; invasive thoughts; hearing the cries of the wounded in one's head; remembering the war; dreams about the war; nightmares; smelling the smells of war.
10	Trouble with interpersonal relations	Withdrawal from society; distant relations with family members; trouble creating social connections; trouble with interpersonal relations; trust issues; relationship issues (within a couple); difficulty in sexual functioning.
11	Obsessive behaviour	Excessive preoccupation with the news; obsessive preoccupation with war events; uncontrollable obsessiveness.
12	Violent behaviour	Physical violence; verbal violence; aggressiveness; shouting; tendency to fight or argue; anger.
13	Psychotic symptoms	Negativism; psychotic production; cognitive disorders; post-psychotic depression; thoughts of persecution.
14	Addiction	Drug use; alcohol use.
15	Obsessive-compulsive disorder	Repetitive hand-washing; repetitive checks.

periods was taken post-interview, from the interview transcript, by the researchers.

1. Symptoms during the traumatic event (Time Period 1).
2. Symptoms immediately after the traumatic event, within the first few days (Time Period 2).
3. Symptoms within the first few months of the traumatic event (Time Period 3).
4. Symptoms through the late 1970s (Time Period 4).
5. Symptoms through the 1980s (Time Period 5).
6. Symptoms through the 1990s (Time Period 6).
7. Symptoms in the early 2000s (Time Period 7).
8. Symptoms currently, post-2006 (Time Period 8).

### Data analysis

Data were collected from the participants' files. We conducted a content analysis of the intake interviews (Charmaz, 1995; Pidgeon & Henwood, 1996), in which the participants described the symptoms they experienced and how they functioned over the years, from the time of the Yom Kippur War until the time they arrived at the CSR unit. A dichotomous count of appears/does not appear of each symptom was calculated ('0' = no symptoms from the category appeared

during the given time period; '1' = there was a report of at least one appearance of one of the nine symptoms included in the group). We made this choice because a 'counting' presentation does not suit a comparison between categories and does not enable standardization, as the number of items that comprise a symptom category changes greatly between one symptom category and the next. In addition, a dichotomous coding raises the credibility of the coding. Hierarchical linear modelling (HLM) was used to examine the development of psychological distress. To classify participants according to patterns of distress by the level of their symptoms (symptom profile), we used Latent Class Analysis (LCA).

### Findings

The findings indicated that, in accordance with the DSM-V diagnosis of post-traumatic stress disorder (PTSD), 90.8% of the participants had PTSD by the time they arrived at the CSR unit. In other words, the direction of the development of psychological distress over the years, as reflected in the symptoms reported by the participants, revealed a pattern of sub-clinical post-traumatic symptoms that escalated to the point of full PTSD by the time they arrived at the CSR unit. Latent class analysis revealed that the



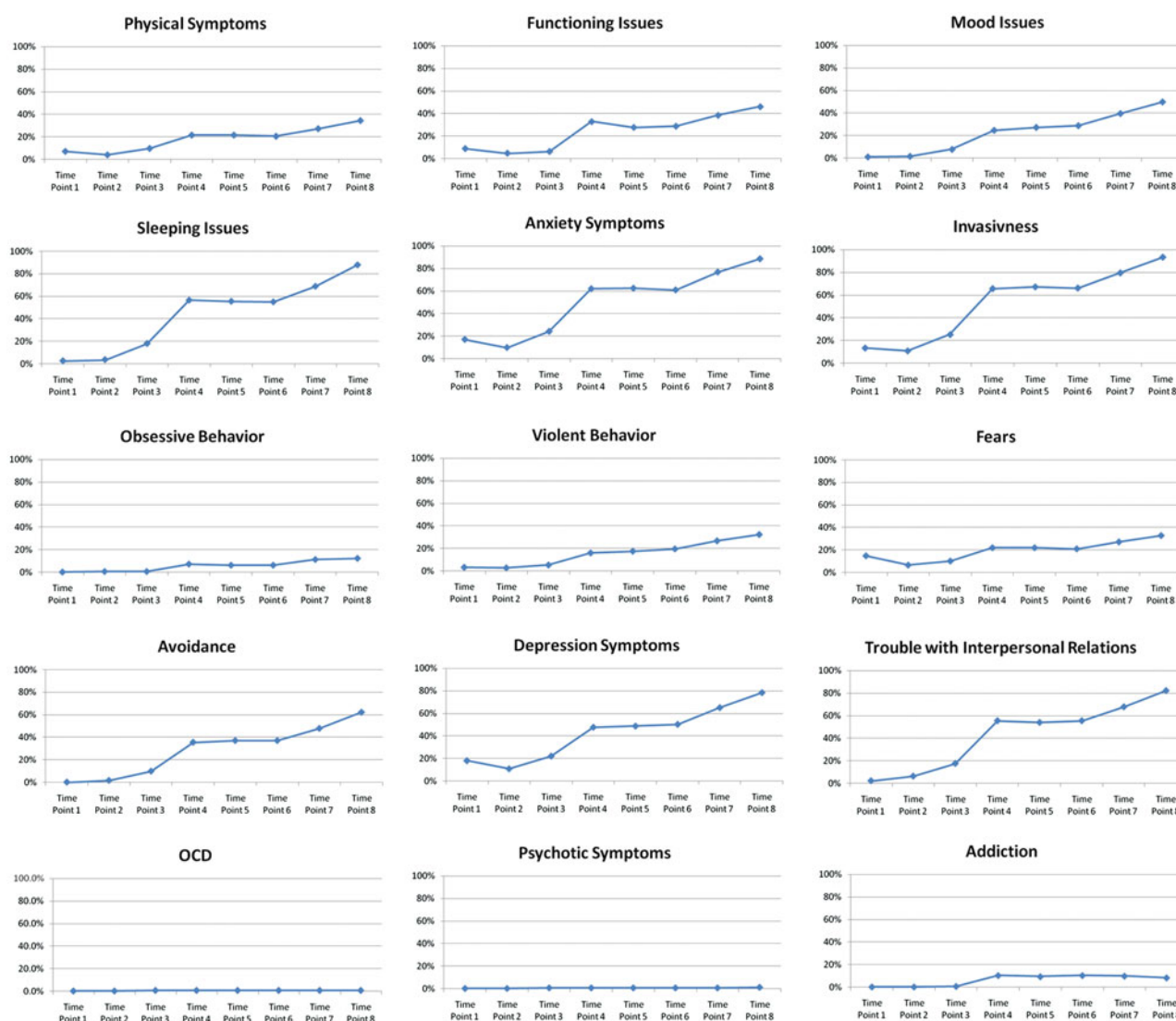


Figure 1. Map of commonness of symptom appearance over time.

participants belonged to three classes: those who mainly experienced anxiety and depression; those who experienced a few (but not many) symptoms; and those characterized by a high level of violence.

### The development of the study participants' mental distress over the years

The first research question was: What was the study participants' process of mental adaptation (as reflected in the reported symptoms) over the years? Figure 1 shows the percentage frequency of symptoms in each of the 15 symptom categories (at eight time points) over the years. The presentation is arranged in descending order, from the symptom group with the highest current percentage, downward. When using the term 'commonness' in this context, we present the rate of participants who reported (retrospectively,

after 30 years, at the intake interview) the symptom during each of the time periods. The symptom can make an appearance in anywhere from 0–100% of the participants (Figure 1).

It is clear from the Figure 1 that, at Time Period 1, during the traumatic event, the symptom groups of depression (17.9%), anxiety (16.9%), fears (14.9%), and invasiveness (13.3%) were prominent. Right after that, at Time Period 2 (i.e. within the first few days after the event), the symptoms diminished. Starting from Time Period 3 (i.e. the first few months after the event), there was a moderate rise in the frequency of the symptoms in 11 out of the 15 prominent symptom groups (the top ones on the list). Later on there was a significant jump in the commonness of the symptoms at Time Period 4 (i.e. until the late 1970s). The frequency of the symptoms within these 11 symptom groups remained more or less stable over

the next two decades (Time Periods 4 and 5) and was within a range of between 19.5% in the symptom group with the lowest frequency (violent behaviour) and 67.2% in the symptom group with the highest frequency during those time points (invasiveness). During the period between the early 2000s and up until the time at which treatment was sought, there was another steep rise in symptoms (Time Periods 7 and 8), with the frequency reaching 32.3% in the symptom group with the lowest frequency (violent behaviour) up to 93.3% in the symptom group with the highest frequency (invasiveness).

Upon observing Time Period 8, it is clear that these 11 symptom groups have been divided into three main clusters.

Three groups of symptoms were prominent in their frequency, reaching a level of almost 90% during Time Period 8: invasiveness (93.3%), anxiety (88.7%), and sleep issues (87.7%). The next three symptom groups fell into the range of between 60–80% commonness during Time Period 8: trouble with interpersonal relations (82.1%), depression symptoms (78.5%), and avoidance (62.1%). The last five symptom groups were on a scale of between 30% and 50% frequency during Time Period 8: mood issues (49.7%), functioning issues (46.2%), physical symptoms (34.4%), fears (32.8%), and violent behaviour (32.3%). The last four groups, out of the 15, show a low symptom commonness throughout all of the periods, from 0.5% (obsessive compulsive disorder) to 12.3% (obsessive behaviour) during Time Period 8.

From the eight time periods we examined, the first two (during the traumatic event and in the first few days after the traumatic event) unsurprisingly revealed a wide range of normal reactions to extreme situations. In addition, it is clear that the prevalence in both these time periods was relatively low and not stable. Therefore, in the statistical analysis process we decided to focus on analysing the next six time periods (3–8), beginning with symptoms that were experienced in the first few months up until and including symptoms experienced currently. Furthermore, for the remainder of the analysis process we withdrew two symptom categories, psychotic symptoms and obsessive-compulsive disorder, as they appeared at a low rate over all of the time periods.

### Finding a common symptom profile for the study participants

The second research question was: can the study participants be ascribed to distress patterns according to

**Table 2.** Results of latent class analysis by the number of groups.

	Two classes	Three classes	Four classes
Number of study participants			
Class 1	89	63	2
Class 2	106	42	113
Class 3		90	49
Class 4			31
Log likelihood	−1257.51	−1242.68	−1227.26
AIC	2569.03	2567.35	2564.52
BIC	2657.40	2701.55	2744.55
Chi-square	573.78	543.61	527.91
df	8159	8145	8131
Entropy	0.56	0.73	0.79
Vuong-Lo-Mendell-Rubin	$p = 0.25$	$p = 0.15$	$p = 0.36$
Lo-Mendell-Rubin	$p = 0.26$	$p = 0.15$	$p = 0.37$
Parametric bootstrapped likelihood	$p < 0.001$	$p = 0.50$	$p = 0.15$

the level of appearance of the symptoms (symptom profile)? We used a Latent Class Analysis in order to answer this question. The analysis was based only on the last time period (Time Period 8). In other words, we evaluated whether it was possible to characterize classes of study participants by the symptoms they were experiencing over the past few years. The purpose of characterizing hidden, or latent, groups is to create an explanatory variable (independent variable) that makes it possible to notice different developmental processes for study participants who have a common experience of current symptoms.

The optimal number of classes is determined on the basis of the suitability level indexes of one division compared with a wider division, and on the composition of the classes (Geiser, 2013; Wang & Wang, 2012). The results of the analysis are shown in Table 2.

Table 2 shows different divisions and the selection of the higher quality division based on a few categories. The division of the study participants into two, three, and four classes based on symptom appearance was examined. Only the divisions into three and four classes yielded an Entropy Index higher than 0.7, which is the threshold value for the quality of class division. On the other hand, although the division into four classes showed a slight improvement (the chi-square value decreased), its first class only consisted of two participants: about 1% of the sampling, hence not a significant class. The three-class division both improved the suitability level when compared with the two-class division and met the criteria regarding minimal class size. Therefore, we decided on the three-class division.

It is clear that the division into the latent classes was fairly consistent, and the study participants were divided into sections according to the symptoms they

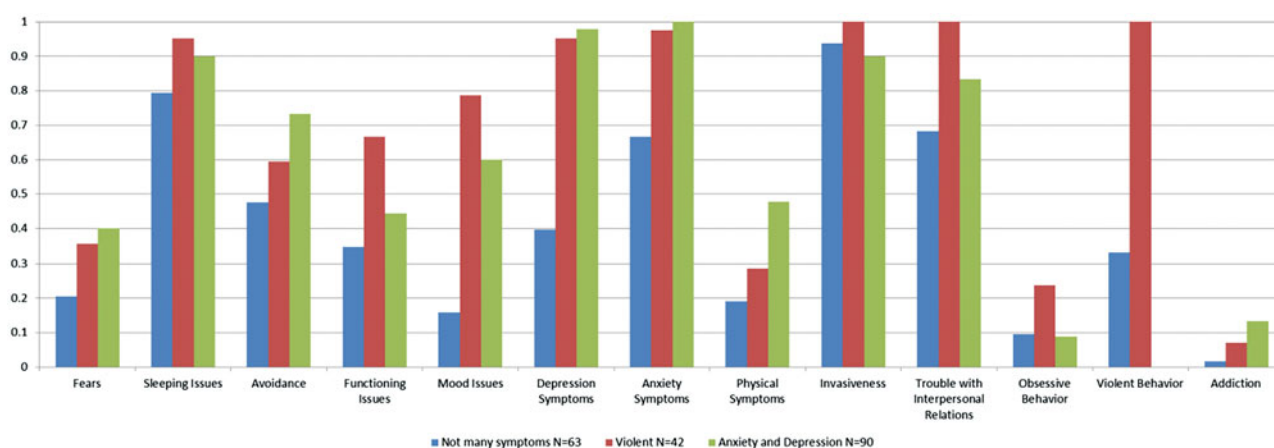


Figure 2. The relative prevalence average of symptom appearance in the division into classes.

experienced. Figure 2 presents these frequencies, in percentages between 0 and 1, in a clear way, and also defines the size of each group. For example, the largest class was called ‘anxiety and depression’ ( $n = 90$ ). This class was characterized by reports of experiencing all kinds of symptoms—but particularly anxiety and depression—at a high rate of commonness, hence the name we gave it. In contrast, the first class was characterized by not many symptoms ( $n = 63$ ), and was therefore called ‘not many symptoms’. The second class was characterized by reports of experiencing all kinds of symptoms—but particularly violence—at a high rate of commonness, and the name we gave it was, therefore, ‘violence’ (Figure 2).

It can be seen in Figure 2 that the division into classes is based on the level of commonness of the symptoms.

By observing Figure 2, it can be seen that all three classes are characterized by high invasiveness and multiple sleep issues. The three classes are also characterized by low addiction, obsessive behaviour, and physical symptoms. Observing the data more closely reveals a more complex picture. The first class, called ‘not many symptoms’ (blue), represents a low commonness level compared to the other two classes. However, both the invasiveness and violent behaviour category levels are relatively higher than they are in the ‘anxiety and depression’ class (green). An interesting point to notice is the structure of the commonness of the appearance of symptoms within the other two classes. It can be seen that the class named ‘violence’ (brown) represents a high commonness of sleep issues, trouble with interpersonal relations, and, in particular, violent behaviour relative to the ‘anxiety and depression’ class. However, this class represents a high commonness of avoidance and physical

symptoms, and there are no symptoms of violent behaviour within this class.

## Discussion

The first finding of the study showed that 90.8% of the study participants were suffering from PTSD at Time Period 8 (i.e. when they turned to the CSR unit for treatment). The percentage of study participants suffering from PTSD in this study was very high compared to the percentages (10–30%) in other Israeli (Solomon & Mikulincer, 2006; Solomon, Neria, Ohry, Waysman, & Ginzburg, 1994) and American studies conducted years after a war (Bonanno, Mancini, et al., 2012; Hermes, Fontana, & Rosenheck, 2015; Kulka et al. 1990; Sundin et al., 2014), and in a UK study (Hunt et al., 2014). We found that there was a gradual and significant growth of symptoms throughout all of the time periods, a finding that emphasized the relevance of the three tracks: chronic, re-activated, and sub-clinical symptoms exacerbated to a clinical level.

The findings of our study regarding the development tracks of PTSD seem to support the school of thought claiming that a delayed eruption of symptoms without any sub-clinical symptoms before the outbreak is rare. They also indicate that most people who seek treatment report having experienced, for some period of time, sub-clinical symptoms that became severe enough over time to meet the criteria for PTSD.

The strong wish to prove their ‘masculinity’ and return to routine (Chapple, Ziebland, & McPherson, 2004) may explain the low level of symptom commonness that, until the late 1970s, was reported by the study participants. When examining the study findings (a rise in symptom commonness over the



years), it becomes evident that the low commonness in the first years did not reflect a true recovery. Rather, it reflected the study participants' low, or sub, reporting of the symptoms they had been experiencing all along. From a long-term tracking perspective, the symptom commonness rates and the disorder levels reveal that in fact what may have occurred was symptom exacerbation or re-activation.

The high level of participants' distress beginning in the 2000s, together with another elevation at around the time they sought treatment, can be explained in several ways. One explanation relates to their age. The participants were young soldiers during the Yom Kippur War (in their 20s and 30s), but they were middle-aged or older (in or over their 50s) when they sought treatment (2006–2011). Age may bring up traumatic memories that have been long repressed and forgotten (Horesh, Solomon, & Ein-Dor, 2013). In addition, the literature refers to age as a factor in the delayed outbreak of symptoms, or as an exacerbation factor, due to the renewed examination of life that often accompanies growing older. According to the Strength (and) Vulnerability Integration (SAVI) model, a model of emotional well-being across adulthood developed by Charles (2010), old age enhances one's vulnerability to sustained emotional arousal. That factor, together with the strengthening of post-traumatic symptoms, may explain delayed help-seeking.

In addition, the delayed help-seeking among the men may be related to stereotypical ideas of masculinity. It has been found that seeking help may threaten men's self-perceptions and role-perceptions, and their feelings of control and self-appreciation (Galdas, Cheater, & Marshall, 2005). They may also seek help at a later stage because of difficulties in identifying and acknowledging their symptoms, and because they fear seeming weak, and/or un-manly (Smith, Braunack-Mayer, & Wittert, 2006). Additionally, the Israeli culture in general, and the army culture in specific, requires that men be tough, repress feelings, and avoid 'feminine' emotions such as compassion (Smith et al., 2006).

Finally, it is also possible, however, that the high level of unemployment (52.8%) encouraged disability claims and wishes for financial compensation. This factor may account for the high levels of PTSD found among the study participants. The compensation offered by the Ministry of Defense to soldiers who are officially recognized to be suffering from PTSD is significant. Studies have found that this compensation can lead to an exaggeration of or over-reporting of

symptoms (Bonanno, Mancini, et al., 2012; Frueh et al., 2009).

Although PTSD is defined by very clear guidelines (APA, 2013), there is a variance between individuals in the expression of different clusters (Holowka, Marx, Kaloupek, & Keane, 2012). Indeed, there were differences as well as similarities in the two classes that showed multiple symptoms: the 'violent' class and the 'anxiety and depression' class. The significant difference was that, in the 'anxiety and depression' class, there were not any violence symptoms at all. The notable similarity was that, in both classes, significant damage to interpersonal relations was reported.

The study participants who were ascribed to the anxiety and depression group suffered from a higher level, when compared to the other two groups, of symptoms related to avoidance and physical symptoms characteristic of anxiety. Avoidance begins with stimuli that remind the soldier directly of the traumatic events to which he was exposed and are then generalized to wider aspects of his familial and social life (Solomon, 1993). Relatedly, soldiers described their introversion and severing of interpersonal ties as having been caused by a feeling that the people around them were strangers to their experiences and that they would not be able to understand what the soldiers had been through (Dekel, Solomon, & Bleich, 2002).

A soldier's avoidance of interpersonal relations is also a way for him to deal with symptoms of heightened arousal (i.e. difficulties in concentrating, restlessness, impatience) that make social situations very challenging. The depression symptoms suffered by this group, which tend to distance individuals from the people around them, were, therefore, also factors in the trouble they had with interpersonal relations (Sayers, Farrow, Ross, & Oslin, 2009). Additionally, this class was characterized by high avoidance symptoms, relative to the two other classes. Avoidance symptoms can also have an adverse impact on veterans' interpersonal skills. These symptoms can manifest in evasions of any interpersonal situation which is emotionally loaded (Evans, McHugh, Hopwood, & Watt, 2003), a decrease in emotional sharing with a spouse, and having trouble in intimate relations (Cook, Riggs, Thompson, Coyne, & Sheikh, 2004).

Ultimately, in the violent group, there seemed to be a chronic pattern of violent behaviour within the family, with war veterans experiencing rejection and distancing from family members, which in turn brought about more violence (Rosenheck &

Thomson, 1986). Several studies found that, in comparison to war veterans who do not suffer from PTSD, the PTSD sufferers have a higher rate of issues such as aggressiveness, hostility, and domestic violence (Savarese, Suvak, King, & King, 2001).

About a third (32.3%) of this study's participants reported that they were violent. In this sub-class, the symptom was found at an especially high rate and characterized all of its participants. This sub-class was characterized by symptoms of violence, and heightened arousal expressed in sleep issues, over-preparedness, and trouble with interpersonal relations. The literature shows that arousal is directly related to aggressive behaviour and abuse in intimate relationships (Sayers et al., 2009).

Trauma-exposed individuals who exhibit PTSD symptoms may be prone to living in 'survival mode'. This tactic may have been an adaptive way of functioning during the traumatic event and may subsequently be triggered by trauma-related reminders. During this activation, anger structures are stimulated, resulting in increased hostile appraisals and heightened arousal that may challenge a cognitive reappraisal of threat and/or a consideration of alternative ways of responding (Taft et al., 2015). Indeed, invasiveness and heightened arousal symptoms have been found to increase the likelihood of aggressive responses from war veterans who suffer from post-traumatic disorder (Elbogen et al., 2010; Taft et al., 2009), which have been proven to damage intimacy and self-exposure in relationships (Solomon, Dekel, & Zerach, 2008).

Study participants ascribed to the 'violent' class were also characterized by poor functioning, low mood, and high levels of invasiveness compared with the other two classes. We can assume that these symptoms, as they were described extensively earlier, account for the differences between this class and the other two.

It should be said that the study's retrospective design, relying on participants' memories many years after the events, served as a limitation. In addition, the study participants actively sought treatment, and there was no comparison group comprising those who had not sought treatment. However, we conducted in-depth intake interviews, during which participants were given the opportunity to narrate their personal stories, and researchers were able to examine areas that would have been inaccessible had a closed questionnaire been utilized.

The findings highlight the need for professional staff, both within and outside of the army, to reach

out to people who served in wars or experienced other traumatic events. This is an important conclusion, in light of the high rate of study participants (90.8%) who were found to have post-traumatic symptoms. In addition, the findings support the argument that delayed onset of PTSD without a background history of symptoms is rare and indicates that, in fact, most people who seek help have had symptoms that intensified over the years until these symptoms developed into clinically significant PTSD.

## Disclosure statement

The authors report no conflicts of interest.

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