



Fractured trust amidst war: The role of institutional betrayal and childhood maltreatment in shattered world assumptions and multilevel distress

Ada Talmon^{b,*}, Rachel Hasson^a, Yael Hollander^b, Noga Tsur^b

^a Psychiatry Division, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel

^b Bob Shapell School of Social Work, Tel Aviv University, Tel Aviv, Israel

ARTICLE INFO

Keywords:

War trauma
Institutional betrayal
Child maltreatment
Complex PTSD
Acute stress disorder
Somatization

ABSTRACT

Background: The October 7th, 2023, terrorist attacks and subsequent war in Israel constituted an unprecedented assault on the civilian population, resulting in widespread trauma, a collapse of physical and psychological safety, and civilians' perceptions that the government's actions did not prioritize their safety and interests. This study investigates how the disruption of world assumptions, experiences of institutional betrayal, and childhood maltreatment (CM) contributed to multilevel stress outcomes, affecting Israeli civilians' perceptions of their mind, body, and relationships.

Methods: A community sample of 690 Israeli adults completed questionnaires assessing war exposure, CM, institutional betrayal, world assumptions, acute stress disorder (ASD), disturbances in self-organization (DSO), and somatization. A moderated mediation model was tested to examine whether CM and institutional betrayal moderated the relationship between war exposure and the distress outcomes, via world assumptions.

Results: War exposure was indirectly associated with ASD, DSO, and somatization through shattered world assumptions. This relationship was significantly moderated by institutional betrayal ($B = -.075, p = .002$); higher levels of institutional betrayal amplified the impact of war exposure on world assumptions. The indirect effects of war exposure on ASD, DSO, and somatization via world assumptions were moderated by institutional betrayal ($ps < 0.05$), but not CM ($ps > 0.05$).

Conclusion: Institutional betrayal plays a significant role in shaping trauma responses to war exposure and societal crises by eroding trust and contributing to multidimensional distress. Interventions should address institutional betrayal to promote healing and restore societal trust.

1. Introduction

The Hamas attack on Israel on October 7th, 2023, represented an unprecedented terrorist assault on Israel's civilian population. Beginning with a large-scale rocket attack across the country, thousands of Hamas militants invaded multiple communities and two music festivals near the Gaza border. The attack resulted in approximately 1300 civilians murdered, hundreds wounded, and over 240 people taken hostage, including elderly individuals, mothers, children, and babies (Vinograd and Kershner, 2023), with no distinction between Jewish and non-Jewish victims (Rabin et al., 2024). During the initial hours of the attack, emergency services, including military and police forces, were

unable to provide assistance, leaving civilians exposed to horrific atrocities, including murder, kidnapping, and brutal sexual violence. The events of October 7th, 2023, mark the deadliest and most traumatic day in Israel's history (Levi-Belz et al., 2024).

In addition to the attack's wide extent, it was distinguished by unprecedented real-time documentation and dissemination of violence. Victims used smartphones to call for help while perpetrators recorded their actions, creating a situation where the broader Israeli population witnessed these atrocities as they unfolded through social media and news broadcasts. Israeli news channels aired live phone calls with civilians reporting the absence of security forces, burning homes, and injured or kidnapped loved ones. Documentation of these violent acts

The authors declare that they have no competing interests.

No source of funding was used for this manuscript.

Data accessibility: Access upon request.

* Corresponding author at: School of Social Work, Tel Aviv University, Tel Aviv, Israel.

E-mail address: adatalmon24@gmail.com (A. Talmon).

<https://doi.org/10.1016/j.psychres.2026.116959>

Received 25 September 2025; Received in revised form 30 December 2025; Accepted 17 January 2026

Available online 18 January 2026

0165-1781/© 2026 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

spread across social media for weeks following the events, with most of the Israeli population exposed to repeated viewing of these atrocities. This paper focuses on the broader Israeli population that witnessed these atrocities without being physically present.

Accurately capturing the characteristics and the type of trauma endured by Israeli civilians during October 7th and the days after is not an easy task. First, Israel is a small country (approximately 9.8 million people; CBS, 2023) characterized by strong social bonds and a general sense of national solidarity (Atmor et al., 2023; Kimhi and Eshel, 2019). Consequently, many people who were not present in the attacked areas knew others who were there, lived nearby, or knew those who were mobilized into military reserves that day or shortly thereafter as the war in Gaza began (Levi-Belz et al., 2024). Beyond the initial attack, Israeli civilians have endured prolonged stress and trauma (Levin et al., 2025).

Following October 7th, different areas of Israel experienced rocket attacks from Gaza, Lebanon, Iran, and Yemen, with thousands of people evacuated from their homes for extended periods. A ceasefire agreement went into effect in October 2025. As part of the first phase of the agreement, all 20 remaining living hostages were released (NPR, 2025), and the remains of deceased hostages have been gradually returned to Israel, though this process remains ongoing. It is important to acknowledge that many people in the region, including Gazans and Palestinians from other areas, have experienced severe trauma. This article focuses on the Israeli population without diminishing the severity or intensity of other traumas.

Initial research on the October 7th massacre reveals widespread probable posttraumatic stress disorder (PTSD), anxiety disorders, and depression among Israelis (Levi-Belz et al., 2024). While these findings parallel trauma responses documented in Ukraine (Levin et al., 2024), Syria (Selmo et al., 2021), and previous Israeli conflicts (Besser and Neria, 2009), the October 7th trauma carries a distinctive character, as it reflects the simultaneous collapse of physical and psychological safety structures, violating the fundamental needs for protection, control, and predictability (Ford and Courtois, 2014; Herman, 2021). Assumptive World Theory (Janoff-Bulman, 2010) offers a framework to understand these impacts. According to this theory, traumatic events can challenge core beliefs about safety, justice, and world benevolence (Janoff-Bulman, 2010). In the context of the October 7th attacks, many Israelis experienced direct violence alongside documented institutional failures and sharply declining trust in government (Lahav and Ben-Ezra, 2024), circumstances theorized to disrupt core beliefs about safety and trust (Janoff-Bulman, 2010).

Resembling this experience, research suggests that shattered world assumptions often explain the association between trauma exposure and negative outcomes (Lilly et al., 2011), with this mediating effect being especially pronounced in the context of war trauma (Bachem et al., 2020; Freh et al., 2013). Studies of adult civilian war trauma populations support this role of shattered world assumptions, with key research (Biruski et al., 2014; Chung and Freh, 2019; Freh et al., 2013) demonstrating how disrupted assumptions influence the development of PTSD, depression, and challenges in social reconstruction.

Notably, the interpersonal and ongoing characteristics of the October 7th attack and following war align with complex trauma, which extends beyond PTSD to include disturbances in self-organization (DSO). DSO symptoms include affective dysregulation, negative self-concept, and disturbances in relationships, which may emerge when assumptions about safety and trust are shattered (Cloitre et al., 2018). Additionally, when trauma overwhelms psychological processing and threatens bodily safety, distress may manifest somatically as multiple unexplained physical symptoms, often referred to as somatization (Van der Kolk, 2014). As such, the study's first aim is to examine the shattered world assumptions' role in multilevel distress in the Israeli general population following the October 7th events and war.

While shattered world assumptions provide one framework for understanding posttraumatic distress, another critical aspect concerns fundamental expectations of protection by institutions responsible for

ensuring safety. This concept parallels betrayal trauma in developmental psychology, where child maltreatment (CM) represents a betrayal by those responsible for a child's safety and well-being (Freyd, 2008; Herman, 2021). Similarly, institutional betrayal occurs when organizations fail to prevent or respond adequately to traumatic events, exacerbating trauma's impact by undermining faith in societal safeguards (Smith and Freyd, 2014; Christl et al., 2024).

Research has documented pervasive governmental betrayal among Israeli civilians following October 7th, with decreased institutional trust (Kimhi et al., 2024) and perceptions of betrayal predicting PTSD and depressive symptoms beyond direct exposure effects (Vitman-Schorr et al., 2025). For individuals with CM histories, October 7th institutional failures may resonate with earlier betrayal experiences. This synergistic effect between past interpersonal betrayal and current institutional betrayal and their combined impact on world assumption disruptions, remains largely unexplored in mass trauma research.

To understand this complex interplay in Israeli civilians following the October 7th attack, the current study tests a moderated mediation model examining whether CM and institutional betrayal moderate the relationship between war trauma exposure and distress outcomes through the mediation of shattered world assumptions. Specifically, we hypothesized that (1) shattered world assumptions mediates the association between war trauma exposure and distress outcomes: acutestress disorder (ASD), disturbances in self-organization (DSO), and somatization, (2) CM moderates the association between trauma exposure and shattered world assumptions, with CM hypothesized to strengthen the correlation between the level of exposure to war trauma and the shattering of world assumptions (3) institutional betrayal moderates the relationship between trauma exposure and shattered world assumptions in a similar pattern is in CM, and (4) The mediating role of shattered world assumptions will be stronger in the presence of heightened CM and institutional betrayal, ultimately leading to more severe distress symptoms.

2. Methods

2.1. Participants

A community sample of 690 participants were recruited were recruited through paid advertisements on social media platforms (Instagram and Facebook), distributed to the general population in Israel. The paid advertisement feature used platform algorithms to distribute the survey broadly across demographic groups rather than targeting specific interest groups or communities. Data was collected during December 2023 and beginning of January 2024 (2–3 months after October 7th). The inclusion criteria were being over the age of 18 years and being able to read and write in Hebrew.

2.2. Procedure

Data were collected after the study received approval from the authors' university's institutional review board (IRB), and informed consent from the participants was obtained. Advertisements detailed the study's focus on individuals' experience of the war, and its effect on psychological, physiological, and interpersonal aspects, as well as past stressful life experiences. Recruitment occurred from December 2023 to January 2024. Participants used the secured Qualtrics research software to fill out the questionnaires.

2.3. Measures

Background variables were assessed by a brief demographic questionnaire that assessed gender, age, years of education, relational status, number of children, and level of religiosity.

War exposure (October 7th attacks and following events) was assessed using a questionnaire developed for this study, based on the

stressful life-events checklist (Ginzburg, 2006; Solomon, 1995) format. The questionnaire included 18 items describing events related to the October 7th terror attack and the few weeks following the attack (e.g., “was someone from your family or a close friend present in a terrorist attack during October?”; “where you evacuated from your home due to the war?”). Participants responded with a Yes or No to indicate whether they had experienced each event. The total exposure score was calculated by summing the number of events endorsed by each participant.

Shattered world assumptions were measured using the Core Beliefs Inventory (CBI; Cann et al., 2010), a nine-item self-report questionnaire designed to assess individual's fundamental assumptions following a significant life event. Participants were asked rate on a six-point Likert scale from 0 (not at all) to 5 (extremely), to what extent in the last week they have seriously reconsidered core beliefs regarding fairness, controllability, relationships, personal strengths, expectations for the future, life meaning, spirituality, and self-worth. To better align the measure with the context of war and the situation in Israel, five additional items were added, addressing specific aspects of Israel as a state, its future, continued residence in the country, sense of belonging and perceptions of Israeli society (e.g., “I find myself seriously examining my beliefs regarding the State of Israel”). Higher scores indicate greater disruption of core beliefs. The CBI has demonstrated validity (Cann et al., 2010), and Cronbach's alpha of the for the current sample was 0.90. During reliability analysis, we verified that the added items did not significantly decrease the internal consistency of the scale (α decreased between 0.002–0.006 when items were removed).

Given the sensitive nature of wartime data collection, a concise measure was employed to assess child maltreatment (CM). Based on the stressful life-events checklist (Ginzburg, 2006; Solomon, 1995), child maltreatment was assessed using five items, referring to five maltreatment forms: sexual abuse, physical abuse, emotional abuse, physical neglect, and emotional neglect. Participants indicated with a Yes or No whether they had experienced each type of maltreatment before turning 18. The total exposure score was calculated by summing the number of maltreatment types endorsed by each participant.

Acute stress disorder symptoms (ASD) were measured using the Acute Stress Disorder Scale (ASDS; Bryant et al., 2000). The ASDS consists of 19 items referring to the four symptom clusters: dissociation, re-experiencing, avoidance, and hyperarousal, reflecting the diagnostic structure outlined in DSM-IV (APA, 1994). Participants rated the extent to which they experience each symptom on a 5-point Likert scale ranging from 0 (not at all) to 5 (very often), with higher scores indicating greater ASD symptom severity. The ASDS has previously demonstrated validity (Bryant et al., 2000), and Cronbach's alpha for the current sample was 0.88.

Disturbances in self-organization (DSO) symptoms, reflecting the Complex posttraumatic stress symptoms' clusters beyond those relevant to PTSD/ASD symptoms, were assessed using the International Trauma Questionnaire (ITQ; Cloitre et al., 2018). The DSO scale, consisting of six items measuring affective dysregulation, negative self-concept, and relationship disturbances. Participants rated their symptom experiences over the past month on a 0–4 Likert scale, with higher scores indicating more severe DSO symptoms. The DSO scale has demonstrated validity (Cloitre et al., 2018), Cronbach's alpha of the for the current sample was 0.86.

Somatic symptom reports (somatization) were measured using Section 4 of the Body Vigilance Scale (BVS; Schmidt et al., 1997), which presents a set of physical symptoms such as dizziness, heart palpitations, and chest pain. Participants were asked to indicate the extent to which they focus on each symptom on a scale ranging from 0 (not at all) to 10 (all the time). Higher scores reflect greater focus on somatic sensations and an increased tendency to report bodily symptoms.

Institutional Betrayal was assessed using an adapted version of the Institutional Betrayal Questionnaire (IBQ; Bachem et al., 2020; Smith and Freyd, 2013). The IBQ is commonly adapted to specific institutional contexts (e.g., Stricher-Stern et al., 2025; Bachem et al., 2020). For this

study, five items were added to capture context-specific aspects of institutional betrayal in Israel (e.g., “the government does not address public concerns”), resulting in a 17-item questionnaire. All items focused on key aspects such as whether the government can be trusted, whether it acts morally or encourages violent behavior. Participants were asked to reflect on their beliefs and respond using a five-point Likert scale ranging from 0 (not at all) to 5 (strongly agree). Higher scores indicate a stronger sense of betrayal. The IBQ has demonstrated validity (Smith and Freyd, 2013), and Cronbach's alpha for the current sample was 0.95. During reliability analysis, we verified that the added items did not significantly decrease the internal consistency of the scale (α decreased between 0.002–0.005 when items were removed).

2.4. Data analyses

2.4.1. Missing data analysis

Overall, 0 % to 9.0 % of data were missing across variables. Little's Missing Completely at Random (MCAR) test (Little, 1988) indicated that the data was not missing completely at random, $\chi^2(26) = 65.77$, $p = .000$. Missing data was imputed with maximum likelihood estimation based on all variables in the model, a procedure referred to as expectation maximization. The PROCESS analysis (Model 9; Hayes, 2013) was conducted only on participants who provided complete data on all three outcome variables (ASD, DSO, and somatization), resulting in a reduced sample size for this analysis. Of the 690 participants in the study, 619 had complete data on these variables; therefore, 71 participants were excluded from the PROCESS analysis.

To examine whether shattered world assumption mediated the relationship between war exposure and ASD/DSO/Somatization, and whether these mediation effects varied as a function of institutional betrayal and CM, a moderated mediation analysis was conducted. This analysis was employed by bootstrapping techniques based on recommendations via PROCESS macro for SPSS version 29.0 (Igartua and Hayes, 2021). Using the moderated mediation analysis (Model 9 in PROCESS; Hayes, 2013), this examination was conducted in two stages. The first stage of the analysis examined the effects of war exposure on shattered world assumptions and the potential moderating effects of CM and institutional betrayal within this association (Model 1 in Process; Hayes, 2013). Using this procedure, the direction of the moderation (positive or negative effect), its power/intensity, and the levels of the moderator in which this effect occurs are apparent (Hayes and Matthes, 2009).

In the second stage, three separate models were conducted to test the direct and indirect effects of war exposure on ASD, DSO, and somatization through shattered world assumptions, conditioned by institutional betrayal and CM levels. 5000 bootstrap samples were generated to yield a 95 % bias-corrected confidence interval (CI) of the direct, indirect, and moderation effects. When the confidence interval for the effects calculated by the bootstrap analysis did not include zero, these effects were significant. Given that a preliminary analysis indicated that DSO/ASD/somatization were associated with participants' age ($p < .001$), gender ($p < .001$), and number of children ($p < .001$), the moderated mediation model was conducted while controlling for these three variables.

3. Results

Table 1 presents the means and standard deviations of the study variables. Of the 690 participants, 87.4 % were women. The average age was 39.87 years, and the majority of the sample (64.5 %) reported that they were currently in a relationship. Additionally, the majority of the sample (81.1 %) reported having a post-high school education (e.g., college/university/vocational school).

The study sample was exposed to a mean of 4.42 (SD = 2.15) war events, with, 444 (67.6 %) participants exposed to at least 1 war event. Specifically, 185 participants (28.4 %) experienced 4 events, 180 (27.6

Table 1
Sample characteristics and study variables.

Variable	Participants N = 690
Age, mean (SD)	39.87(13.23)
Gender, % (N)	Female 87.7 % (604) Male 11.9 % (82) Other 0.4 % (3)
Years of education, mean (SD)	16.02 (2.92)
Family status, % (N)	Single 29.1 % (200) Relationship 18.5 % (127) Married 45.7 % (315) Divorced 4.3 % (30) Widowed 1.2 % (8) Other 1.2 % (8)
Number of children, mean (SD)	1.13 (1.36)
Religion, % (N)	Jewish 95.1 % (655) Christian 0.3 % (2) Muslim 0.4 % (3) Other 4.2 % (29)
War exposure, M (SD)	4.42 (2.14)
Institutional Betrayal, M (SD)	4.13 (2.14)
SWA, M (SD)	3.70 (1.13)
ASD symptoms, M (SD)	2.91 (0.68)
DSO symptoms, M (SD)	2.43 (0.91)
Somatization, M (SD)	57.09 (31.49)

Note: Descriptive statistics presented for the full sample (N = 690). Some demographic variables have missing values. Percentages are calculated based on available data for each variable. Some demographic variables have missing values. SWA = shattered world assumptions, DSO symptoms = disturbances in self-organization symptoms, ASD symptoms = acute stress disorder symptoms.

% experienced 3 events, and 168 (25.8 %) experienced 5 events. The most commonly reported war events involved knowing someone who is not close to you who was present, injured, murdered, or abducted during the October 7th terrorist attack ($n = 520$, 75.4 %), and having a family member or someone close recruited for the reserves due to the attack ($n = 496$, 72 %).

Regarding the prevalence of CM in the current sample, 84 (8.4 %) of participants reported enduring physical abuse, 146 (14.7 %) sexual abuse, 158 (15.9 %) emotional abuse, 35 (3.5 %) physical neglect, and 160 (16.1 %) of the participants reported experiencing emotional neglect. Additionally, 17.8 % ($n = 123$) of participants reported enduring one type of CM, 11 % ($n = 81$) reported two types of CM, and 1.6 % ($n = 11$) reported all 5 types of CM. Altogether, 38.6 % ($n = 265$) of the participants reported enduring one or more types of CM, with the mean number of maltreatment types being 1.9 (SD = 1.08).

As can be seen in Table 2, Pearson correlation analyses demonstrated that exposure to war events was significantly correlated with shattered world assumptions, ASD, and somatization, but not with DSO or with the moderators CM and Institutional Betrayal. Additionally, a correlation between CM and institutional betrayal was not found. Both CM and institutional betrayal were correlated with shattered world assumptions, ASD and DSO. Similarly, the mediator shattered world assumptions correlated with all outcome variables. Fig. 1

Table 2
Pearson correlations between the study variables.

	War exposure	CM	IB	SWA	ASD	DSO	Somatization
War exposure	-	.05	−0.02	.10**	.14**	.03	.09*
CM		-	.02	.21**	.20**	.32**	.17**
IB			-	.21**	.14**	.11**	.03
SWA				-	.44**	.39**	.34**
ASD					-	.49**	.50**
DSO						-	.41**
Somatization							-

Note: CM = child maltreatment, IB = institutional Betrayal, SWA = shattered world assumptions, ASD = acute stress disorder, DSO = disturbances in self-organization.

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

3.1. Stage 1: the association between war exposure and shattered world assumptions as moderated by CM and institutional betrayal

The first stage of the analysis examined the effects of war exposure on shattered world assumptions and the potential moderating effects of CM and institutional betrayal within this association. To test these effects, a simple moderation model was conducted using PROCESS procedure (Model 1). The overall model was statistically significant ($F(9, 609) = 13.80$, $p < .001$) and explained a substantial portion of the variance in shattered world assumptions ($R^2 = 0.17$). Specifically, war exposure was positively associated with shattered world assumptions ($B = 0.047$, 95 % CI = [.009, 0.086], $p = .017$), indicating that higher levels of war exposure predicted stronger levels of shattered world assumptions. Institutional betrayal ($B = 0.31$, 95 % CI = [.20, 0.41], $p < .001$), as well as CM ($B = 0.18$, 95 % CI = [.11, 0.26], $p < .001$), also showed a significant association with shattered world assumptions.

Additionally, the model yielded a significant negative interaction between war exposure and institutional betrayal on shattered world assumptions ($B = -.075$, 95 % CI = [−.12, −.03], $p = .002$). This interaction is visually represented in Fig. 2. As can be seen, the highest levels of shattered world assumptions were seen among participants with high levels of institutional betrayal, regardless of their levels of war exposure. However, in low levels of institutional betrayal, the higher the war exposure, the higher shattered world assumptions levels were shown.

Additionally, a significant interaction effect was found between war exposure and CM on shattered world assumptions ($B = 0.036$, 95 % CI = [.001, 0.071], $p = .043$). This interaction is depicted in Fig. 3. This interaction showed that the highest levels of shattered world assumptions were found among individuals reporting both high CM and high war exposure. Also, the interaction showed that in high levels of CM, more war exposure was correlated with a higher shattered world assumption, while no such correlation was found in low levels of CM. That is, participants reporting low levels of CM did not demonstrate an association between war exposure and shattered world assumptions.

3.2. Stage 2: A moderated mediation model for the association between war exposure, ASD, DSO, and somatization

To test the moderated mediation models, PROCESS procedure was utilized, using model 9 (Hayes, 2018). Three separate models were conducted to test the direct and indirect effects of war exposure on ASD, DSO, and somatization through shattered world assumptions, conditioned by institutional betrayal and CM levels. All models were adjusted for participants' age, gender, years of education, and number of children.

3.2.1. Moderated mediation model predicting acute stress disorder (ASD)

The overall model predicting ASD was statistically significant ($F(6, 612) = 31.92$, $p < .001$) and explained 24 % of the shared variance of ASD ($R^2 = 0.24$). As can be seen in Table 3, the direct effect of War exposure on ASD was not significant.

Examining the conditional indirect effects of war exposure on ASD through the index of partial moderated mediation indicated that the

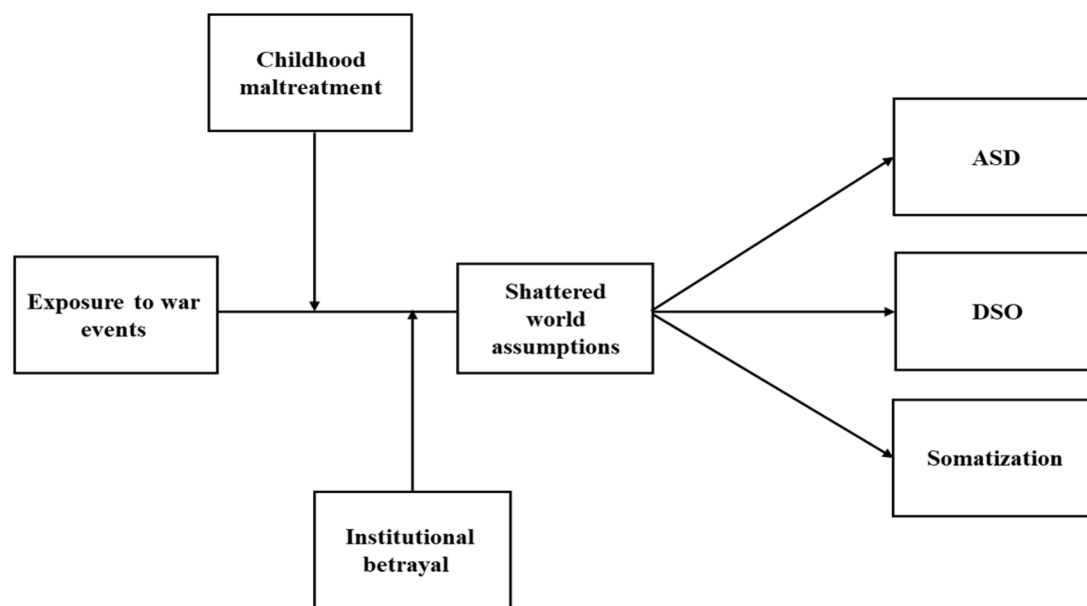


Fig. 1. Conceptual model. Note: ASD = Acute Stress Disorder; DSO = Disturbances in Self-Organization.

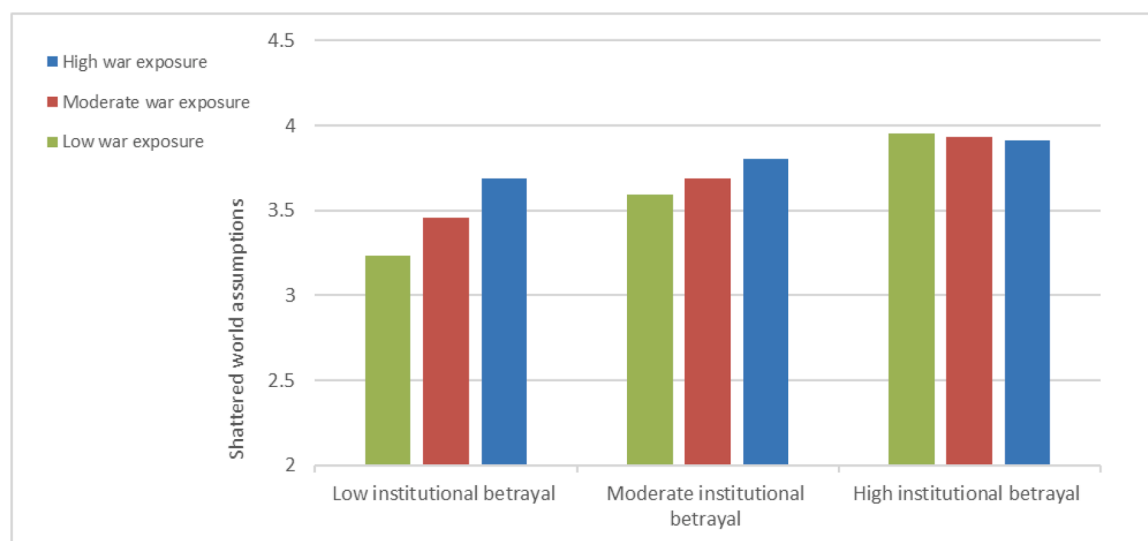


Fig. 2. Interaction between war exposure and institutional betrayal on shattered world assumptions. Note: Adjusted for participants' age, gender, years of education, number of children, and child maltreatment.

indirect effect of war exposure on ASD via shattered world assumptions was significantly moderated by institutional betrayal. However, the indirect effect of war exposure on ASD via shattered world assumptions was not significantly moderated by CM (see Table 3). That is, a significant moderated mediation effect of war exposure on ASD was observed through the mediation of shattered world assumptions and the moderation of institutional betrayal. No such effect was found for the moderation of CM. Fig. 4 illustrates the results of this model.

3.2.2. Moderated mediation model predicting disturbances in self-organization (DSO)

The overall model predicting DSO was statistically significant ($F(6612) = 34.09, p < .001$) and explained 25 % of the variance in DSO ($R^2 = 0.25$). Regarding direct effects (see Fig. 5): war exposure was not significantly associated with DSO ($B = -.00, 95\%CI = [-.03, 0.02], p = .80$). Shattered world assumptions was positively associated with DSO ($B = 0.27, 95\%CI = [.22, 0.33], p < .001$).

Examining the conditional indirect effects of war exposure on DSO through shattered world assumptions: the index of partial moderated mediation indicated that the indirect effect of war exposure on DSO via shattered world assumptions was significantly moderated by institutional betrayal. However, the index for CM was non-significant (see Table 3). That is, similar to the pattern observed for ASD, a significant moderated mediation effect of war exposure on DSO was observed through the mediation of shattered world assumptions and the moderation of institutional betrayal. No such effect was found for the moderation of CM. Fig. 5 illustrates the results of this model.

3.2.3. Moderated mediation model predicting somatization

The overall model predicting somatization was statistically significant ($F(6612) = 16.13, p < .001$) and explained 14 % of the variance in somatization ($R^2 = 0.14$). Regarding direct effects: war exposure was not significantly associated with somatization ($B = 0.46, 95\%CI = [-.62, 1.54], p = .41$). Shattered world assumptions was positively associated

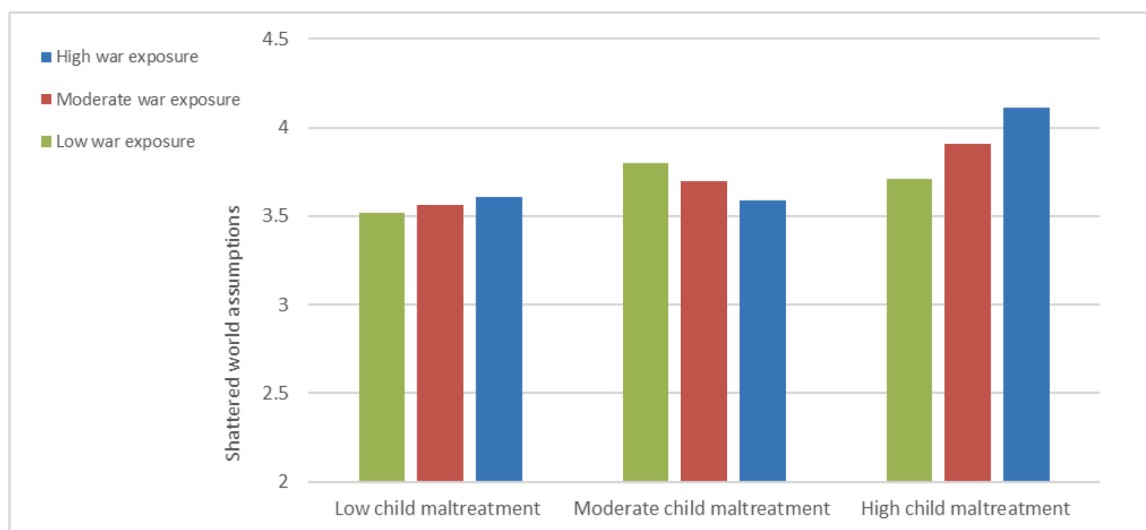


Fig. 3. Interaction between war exposure and child maltreatment on shattered world assumptions. *Note:* Adjusted for participants' age, gender, years of education, number of children, and institutional betrayal.

Table 3
Moderation model.

	ASD <i>B</i> (95 % CI)	DSO <i>B</i> (95 % CI)	Somatization <i>B</i> (95 % CI)
Direct affect	.02 (−0.00, 0.04)	.00 (−0.03, 0.02)	.46 (−0.62, 1.54)
Indirect Effects via the moderation of:			
Betrayal	−0.02 (−0.03, −0.01)	−0.02 (−0.03, −0.01)	−0.62 (−1.08, −0.19)
CM	.01 (0.00, 0.02)	.01 (−0.00, 0.02)	.30 (−0.01, 0.57)

Note: Adjusted for participants' age, gender, years of education and number of children; 95 % CI = 95 % bias-corrected confidence interval, lower limit and upper limit; SWA = shattered world assumptions, DSO = disturbances in self-organization symptoms, ASD = acute stress disorder symptoms, Betrayal = institutional betrayal, CM = child maltreatment.

with somatization ($B = 8.34$, 95 % CI = [6.25, 13.56], $p < .001$).

Examining the conditional indirect effects of war exposure on somatization through shattered world assumptions: the index of partial moderated mediation indicated that the indirect effect of war exposure on somatization via shattered world assumptions was significantly moderated by institutional betrayal; the index for CM was non-significant (see Table 3). That is, similar to the pattern observed for ASD and DSO, a significant moderated mediation effect of war exposure on somatization was observed through the mediation of shattered world assumptions and the moderation of institutional betrayal. No such effect was found for the moderation of CM (see Fig. 6).

4. Discussion

This study explored the complex relationships among war exposure, CM, institutional betrayal, and shattered world assumptions, and how these factors contribute to multidimensional distress in the context of the October 7th attacks and the ongoing war in Israel. The findings reveal that war exposure indirectly affected ASD, DSO, and somatization through disrupted world assumptions. Notably, this relationship was amplified when individuals experienced high levels of institutional betrayal. Previous exposure to CM also intensified the association between war exposure and shattered world assumptions, and was correlated with distress. These results offer crucial insights into how institutional betrayal shapes trauma responses during crises that severely disrupted collective security assumptions, extending international research demonstrating that institutional betrayal amplifies trauma responses across diverse contexts (e.g., Hassan et al., 2016; Kaniasty and Norris, 2008; Monteith et al., 2016).

When individuals experienced high levels of institutional betrayal, the relationship between war exposure and shattered world assumptions was amplified. Notably, this moderation pattern indicates that at high levels of institutional betrayal, individuals' world assumptions were substantially disrupted regardless of their level of direct war exposure, suggesting that the failure of trusted institutions can independently shatter core beliefs about safety and protection.

This phenomenon can be understood through betrayal trauma theory extended to a societal level (Freyd, 2008; Smith and Freyd, 2014). Betrayal trauma occurs when those we depend upon for safety become sources of harm or fail to provide expected protection, creating a

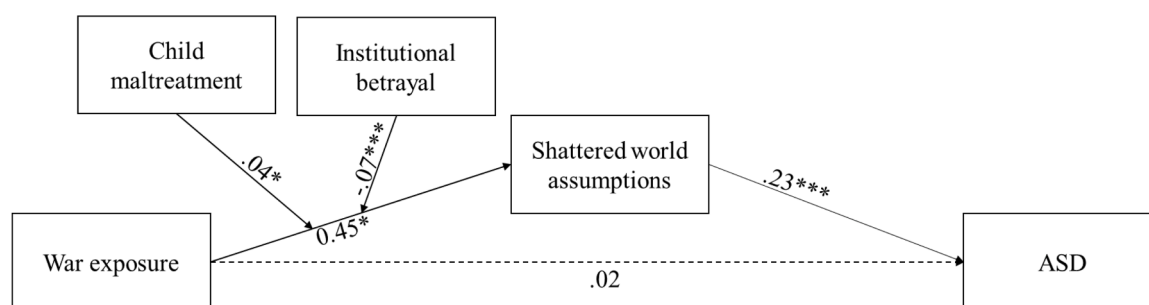


Fig. 4. Direct and indirect effects of war exposure on ASD. *Note:* ASD = Acute Stress Disorder symptoms. The moderated mediation effect of war exposure on ASD with the moderation of child maltreatment was not significant. Adjusted for participants' age, gender, years of education, number of children.

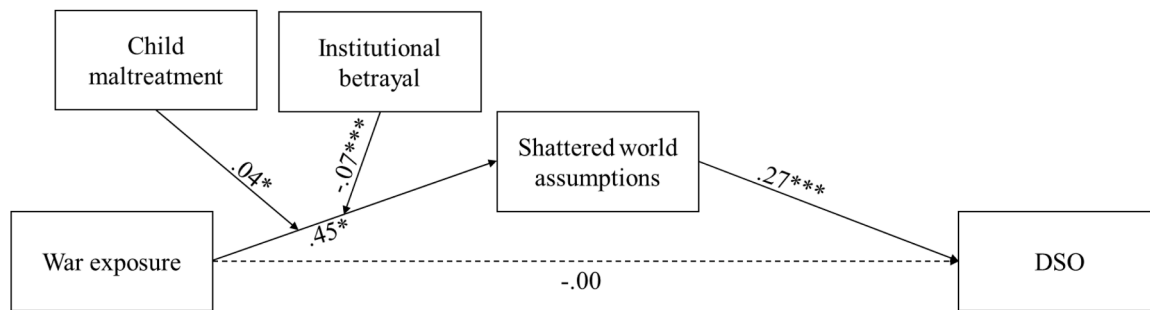


Fig. 5. Direct and indirect effects of war exposure on DSO. *Note:* DSO = Disturbances in Self-Organization. The moderated mediation effect of war exposure on DSO with the moderation of child maltreatment was not significant. Adjusted for participants' age, gender, years of education, number of children.

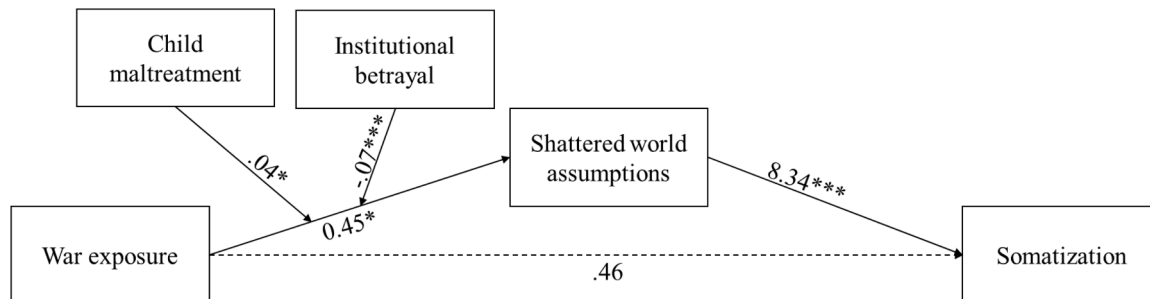


Fig. 6. Direct and indirect effects of war exposure on somatization. *Note:* The moderated mediation effect of war exposure on somatization with the moderation of child maltreatment was not significant. Adjusted for participants' age, gender, years of education, number of children.

fundamental violation of trust that disrupts core assumptions about safety and the reliability of protective figures (Freyd, 2008). When extended to the institutional level, this framework helps explain the moderation findings: just as children rely on caregivers for safety and security, citizens depend on societal institutions for protection and stability. The failure of protective institutions during the October 7th attacks and the following weeks represents a form of institutional betrayal that profoundly disrupts collective assumptions about safety and institutional reliability (Smith and Freyd, 2014; Mayseless and Popper, 2007).

This societal-level betrayal challenges fundamental assumptions about safety, trust, and the reliability of protective systems, potentially leading to a cognitive dissonance that challenges core beliefs about safety, justice, and the benevolence of the world (Janoff-Bulman, 2010; Smith and Freyd, 2014). This collective experience of betrayal may lead to a widespread shattering of world assumptions, as individuals grapple with the realization that the systems they relied upon for protection have failed them (Goldsmith et al., 2012). Studies support this integrated view, demonstrating that institutional betrayal can exacerbate posttraumatic symptoms beyond the effects of direct trauma exposure (Smith and Freyd, 2014), decrease social acknowledgment and institutional trust, and lead to moral injury (Ducharlet et al., 2021).

Furthermore, our study found that high levels of institutional betrayal led to multidimensional distress through the shattering of world assumptions. Consistent with previous research, the results indicated that the violation of safety assumptions manifested in ASD symptoms (Hoffman et al., 2021), while disruption of psychological and relational self-concept led to DSO symptoms akin to complex PTSD (Ferreira et al., 2023). The presence of DSO symptoms is particularly noteworthy, as it reflects the profound relational consequences of institutional betrayal trauma, mirroring the wounds associated with repeated interpersonal betrayal. Additionally, the somatic complaints observed, may reflect the shattering of fundamental trust in one's bodily experiences, a hallmark of betrayal trauma (Talmon and Tsur, 2025; Tsur et al., 2019). This suggests that institutional betrayal can compromise individual's faith in

the reliability of their own body, leading to physical manifestations of psychological distress.

Notably, no correlation was found between CM and institutional betrayal, suggesting that the experience of institutional betrayal in adulthood is not associated with past experience of CM. This finding is surprising, as the concept of revictimization suggests that individuals who have experienced betrayal trauma as children are often more vulnerable to future betrayals due to sensitization from early traumatic experiences (Christl et al., 2024; Smyth and Fried, 2014). However, the study revealed a significant interaction between CM and war exposure in relation to shattered world assumptions. For individuals with high levels of CM, greater war exposure was associated with higher levels of shattered world assumptions, suggesting that severe CM survivors might be more vulnerable to having their fundamental beliefs challenged by additional trauma. This could be explained by early traumatic experiences creating a fragile cognitive framework more susceptible to disruption by severe adult stressors (Cloitre et al., 2009; Ehlers and Clark, 2000; Janoff-Bulman, 2010). These findings likely highlight the distinctions between institutional betrayal and shattered world assumptions, underscoring the complex nature of childhood trauma's long-term effects.

Interestingly, when examining the impact on multilevel distress outcomes (ASD, DSO, somatization), CM was not found significant as a moderator in the mediation effect, whereas institutional betrayal was. This finding suggests that while CM may increase vulnerability to shattered world assumptions following war exposure, institutional betrayal plays a distinct moderating role in how war exposure translates into psychological distress. The immediate and tangible nature of institutional betrayal in a war context - the visible failure of protective systems during an ongoing crisis - may explain its powerful moderating effect (Maercker and Horn, 2013; Smith and Freyd, 2014).

While this study provides valuable insights, its cross-sectional nature limits causal inferences. This limitation should be particularly acknowledged when interpreting mediation effects. Longitudinal research tracking the long-term impacts of institutional betrayal would

be beneficial. Additionally, given the convenience sampling procedure through social media platforms, generalizability cannot be assumed. This recruitment method may have introduced selection bias by excluding individuals without digital access or social media engagement.

The study relied exclusively on self-report measures, which may be subject to recall bias and subjective perceptions. The exposure to war events was measured using a questionnaire that has not been formally validated for this specific context. Its cumulative scoring approach assigns equal weight to exposures of varying severity and personal proximity. Although such event-checklist approaches are commonly used in trauma research (e.g., the Stressful Life Events Checklist), this method does not account for the differential psychological impact of various exposures. Furthermore, CM was assessed using a brief measure rather than more comprehensive, established instruments to minimize participant burden during the acute phase of the war, though this approach compromises the depth and validated psychometric properties of standard measures.

In conclusion, this study highlights how institutional betrayal shapes trauma responses in the context of societal crises, with implications extending to any context where protective institutions fail during collective trauma. The observed symptoms of ASD, DSO, and somatization demonstrate how betrayal erodes trust at multiple levels, revealing its psychological, relational, and physiological effects. While the symptoms manifest individually, our findings suggest that institutional betrayal plays a significant role in their development. To address this, the healing process needs to extend beyond individual interventions to include societal-level efforts. Rebuilding trust in these structures, fostering collective healing, and ensuring transparency are essential. By confronting institutional betrayal at a systemic level, the mitigation of the consequences revealed in this study can begin.

CRedit authorship contribution statement

Ada Talmon: Writing – review & editing, Writing – original draft, Visualization, Project administration, Methodology, Data curation, Conceptualization. **Rachel Hasson:** Writing – original draft, Methodology, Formal analysis. **Yael Hollander:** Writing – original draft, Methodology, Data curation. **Noga Tsur:** Writing – review & editing, Writing – original draft, Validation, Supervision, Methodology, Data curation.

Declaration of competing interest

All authors declare that they have no conflicts of interest

Acknowledgment

The authors would like to express their sincere gratitude to all the students of the Pain and Embodied Trauma Lab who contributed to the data collection for this manuscript.

References

- American Psychiatric Association, 1994. Diagnostic and Statistical Manual of Mental Disorders, 4th ed. American Psychiatric Association.
- Atmor, N., Moskovich, Y., Liberman, I., 2023. Social Solidarity during the pandemic: the Israeli experience. *Isr. Stud. Rev.* 38 (1), 127–147.
- Bachem, R., Tsur, N., Levin, Y., Abu-Raiya, H., Maercker, A., 2020. Negative affect, fatalism, and perceived institutional betrayal in times of the coronavirus pandemic: a cross-cultural investigation of control beliefs. *Front. Psychiatry* 11, 589914.
- Besser, A., Neria, Y., 2009. PTSD symptoms, satisfaction with life, and prejudicial attitudes toward the adversary among Israeli civilians exposed to ongoing missile attacks. *J. Trauma. Stress.* 22 (4), 268–275.
- Biruski, D.C., Ajdukovic, D., Stanic, A.L., 2014. When the world collapses: changed worldview and social reconstruction in a traumatized community. *Eur. j. psychotraumatology* 5 (1), 24098.
- Bryant, R.A., Moulds, M.L., Guthrie, R.M., 2000. Acute Stress Disorder scale: a self-report measure of acute stress disorder. *Psychol. assess.* 12 (1), 61.
- Cann, A., Calhoun, L.G., Tedeschi, R.G., Kilmer, R.P., Gil-Rivas, V., Vishnevsky, T., Danhauer, S.C., 2010. Core Beliefs Inventory: br. meas. disrupt. assumptive world, Anxiety stress coping 23 (1), 19–34.
- CBS, 2023. Population of Israel on the Eve of 2024. https://www.cbs.gov.il/he/mediarelease/DocLib/2023/424/11_23_424b.pdf (open in a new window).
- Christl, M.E., Pham, K.C.T., Rosenthal, A., DePrince, A.P., 2024. When institutions harm those who depend on them: a scoping review of institutional betrayal. *Trauma Violence Abuse* 25 (4), 2797–2813.
- Chung, M.C., Freh, F.M., 2019. The trajectory of bombing-related posttraumatic stress disorder among Iraqi civilians: shattered world assumptions and altered self-capacities as mediators; attachment and crisis support as moderators. *Psychiatry res.* 273, 1–8.
- Cloitre, M., Shevlin, M., Brewin, C.R., Bisson, J.I., Roberts, N.P., Maercker, A., Hyland, P., 2018. The International Trauma Questionnaire: development of a self-report measure of ICD-11 PTSD and complex PTSD. *Acta Psychiatr. Scand.* 138 (6), 536–546.
- Cloitre, M., Stolbach, B.C., Herman, J.L., Kolk, B.V.D., Pynoos, R., Wang, J., Petkova, E., 2009. A developmental approach to complex PTSD: childhood and adult cumulative trauma as predictors of symptom complexity. *J. trauma. stress* 22 (5), 399–408.
- Ducharlet, K., Trivedi, M., Gelfand, S.L., Liew, H., McMahon, L.P., Ashuntantang, G., Martin, D.E., 2021. Moral distress and moral injury in nephrology during the COVID-19 pandemic. In: *Seminars in nephrology*, (Vol. 41, No. 3, WB Saunders, pp. 253–261.
- Ehlers, A., Clark, D.M., 2000. A cognitive model of posttraumatic stress disorder. *Behav. res. ther.* 38 (4), 319–345.
- Ferrajão, P., Elkdt, A., 2023. Attachment orientations mediate the effect of world assumptions on posttraumatic stress in survivors of childhood sexual abuse. *Illn. Crisis Loss* 31 (1), 200–221.
- Ford, J.D., Courtois, C.A., 2014. Complex PTSD, affect dysregulation, and borderline personality disorder. *Borderline personal. disord. emot. dysregulation* 1 (1), 9.
- Freh, F.M., Chung, M.C., Dallos, R., 2013. In the shadow of terror: posttraumatic stress and psychiatric co-morbidity following bombing in Iraq: the role of shattered world assumptions and altered self-capacities. *J. psychiatr. res.* 47 (2), 215–225.
- Freyd, J.J., 2008. Betrayal trauma. *Encycl. psychol. trauma* 76.
- Ginzburg, K., 2006. Life events and adjustment following myocardial infarction: a longitudinal study. *Soc. Psychiatry Psychiatr. Epidemiol.* 41 (10), 825–831.
- Goldsmith, R.E., Freyd, J.J., DePrince, A.P., 2012. Betrayal trauma: associations with psychological and physical symptoms in young adults. *J. interpers. violence* 27 (3), 547–567.
- Hayes, A.F., 2013. Introduction to mediation, moderation, and conditional process analysis: a regression-based approach. *Methodology*.
- Hassan, G., Ventevogel, P., Jefe-Bahloul, H., Barkil-Oteo, A., Kirmayer, L.J., 2016. Mental health and psychosocial wellbeing of Syrians affected by armed conflict. *Epidemiol. Psychiatr. Sci.* 25 (2), 129–141. <https://doi.org/10.1017/S2045796016000044>.
- Hayes, A.F., 2018. Partial, conditional, and moderated moderated mediation: Quantification, inference, and interpretation. *Commun. Monogr.* 85 (1), 4–40.
- Hayes, A.F., Matthes, J., 2009. Computational procedures for probing interactions in OLS and logistic regression: SPSS and SAS implementations. *Behav. Res. Methods* 41 (3), 924–936.
- Herman, J.L., 2021. Judith Herman Trauma and Recovery. Basic Books.
- Hoffman, Y.S., Hamama-Raz, Y., Ben-Ezra, M., Lavenda, O., 2021. A dissociation between two cognitive biases in acute stress disorder: preliminary evidence for the reverse gambling fallacy. *Cogn. Ther. Res.* 45, 783–794.
- Igartua, J.J., Hayes, A.F., 2021. Mediation, moderation, and conditional process analysis: concepts, computations, and some common confusions. *Span. j. o.*
- Janoff-Bulman, R., 2010. Shattered Assumptions. Simon and Schuster.
- Kaniasty, K., Norris, F.H., 2008. Longitudinal linkages between perceived social support and posttraumatic stress symptoms: sequential roles of social causation and social selection. *J. Trauma. Stress* 21 (3), 274–281.
- Kimhi, S., Eshel, Y., 2019. Measuring national resilience: a new short version of the scale (NR-13). *J. Community Psychol.* 47, 1–12.
- Lahav, Y., Ben-Ezra, M., 2024. Institutional betrayal in the face of a collective national trauma in Israel. *Lancet Reg. Health-Eur.* 42.
- Levi-Belz, Y., Groweiss, Y., Blank, C., Neria, Y., 2024. PTSD, depression, and anxiety after the October 7, 2023 attack in Israel: a nationwide prospective study. *EClinicalMedicine* 68.
- Levin, Y., Ben-Ezra, M., Hamama-Raz, Y., Maercker, A., Goodwin, R., Leshem, E., Bachem, R., 2024. The Ukraine–Russia war: a symptoms network of complex posttraumatic stress disorder during continuous traumatic stress. *Psychol. Trauma: Theory Res. Pract. Policy* 16 (7), 1110.
- Levin, Y., Shmulewitz, D., Skvirsky, V., Vider, M., Kor, A., Lev-Ran, S., 2025. Longitudinal PTSD trajectories before and after the October 7, 2023, terror attacks: a nationwide study of Israeli adults. *Eur. Psychiatry*.
- Lilly, M.M., Valdez, C.E., Graham-Bermann, S.A., 2011. The mediating effect of world assumptions on the relationship between trauma exposure and depression. *J. Interpers. Violence* 26 (12), 2499–2516.
- Little, R.J., 1988. A test of missing completely at random for multivariate data with missing values. *J. Am. stat. Assoc.* 83 (404), 1198–1202.
- Maercker, A., Horn, A.B., 2013. A socio-interpersonal perspective on PTSD: the case for environments and interpersonal processes. *Clin. psychol. psychother.* 20 (6), 465–481.
- Mayseless, O., Popper, M., 2007. Reliance on leaders and social institutions: an attachment perspective. *Attach. hum. dev.* 9 (1), 73–93.
- Monteith, L.L., Bahraini, N.H., Matarazzo, B.B., Soberay, K.A., Smith, C.P., 2016. Perceptions of institutional betrayal predict suicidal self-directed violence among

- veterans exposed to military sexual trauma. *J. Clin. Psychol.* 72 (7), 743–755. <https://doi.org/10.1002/jclp.22292>.
- NPR, 2025. Israeli hostages freed, hundreds of Palestinians released, as Trump hails 'historic dawn'. NPR. <https://www.npr.org/2025/10/13/g-s1-93207/hamas-releasing-israeli-hostages>.
- Rabin, R. C., Boxerman, A., Patil, A., & Fuller, T. (2024). Among Israelis, divisions widen over war in Gaza. *The New York Times*, A1-A1.
- Selmo, P., Knaevelsrud, C., Mohamad, N., Rehm, J., 2021. Prevalence and predictors of psychopathology in the war-afflicted Syrian population. *Transcult. psychiatry* 58 (2), 226–238.
- Schmidt, N.B., Lerew, D.R., Trakowski, J.H., 1997. Body vigilance in panic disorder: evaluating attention to bodily perturbations. *J. consult. clin. psychol.* 65 (2), 214.
- Smith, C.P., Freyd, J.J., 2013. Dangerous safe havens: institutional betrayal exacerbates sexual trauma. *J. trauma. stress* 26 (1), 119–124.
- Smith, C.P., Freyd, J.J., 2014. Institutional betrayal. *Am. psychol.* 69 (6), 575.
- Solomon, Z., 1995. The effect of prior stressful experience on coping with war trauma and captivity. *Psychol Med* 25, 1289–1294.
- Stricher-Stern, H., Shalev, A., Lahav, Y., 2025. Broken trust—Institutional betrayal and posttraumatic distress in mothers of children with neuropsychiatric disorders. *Soc. Sci. Med.*, 118289.
- Talmon, A., Tsur, N., 2025. Intergenerational transmission of posttraumatic orientation to bodily signals following child maltreatment. *J. Interpers. Violence* 40 (15-16), 3848–3875.
- Tsur, N., Stein, J.Y., Levin, Y., Siegel, A., Solomon, Z., 2019. Loneliness and subjective physical health among war veterans: long term reciprocal effects. *Soc. Sci. Med.* 234, 112373.
- Van der Kolk, B., 2014. The body keeps the score: Brain, mind, and body in the healing of trauma. New York 3, 14–211.
- Vinograd, C., Kershner, I., 2023. Israel's attackers took over 200 hostages. Here's what to know about them. *N. Y. Times*.
- Vitman-Schorr, A., Sasson Shoshan, T., Starikov, N., Beeri Ben Porat, S., Bazarnik, A., Arbely, O., 2025. Aging in the shadow of war: indirect trauma and resilience among older adults after October 7th. *Aging Ment. Health* 1–14.