

War-Time Stress and Sexual Well-Being in Israel

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ABSTRACT

Objective: This study explored the relationship between war-related stressors and sexual well-being among a civilian population during the 2023 Israel– Hamas War, emphasizing a comprehensive assessment of sexual satisfaction, function, and distress. We aimed to investigate how direct exposure, media exposure, and acute stress symptoms during the war contribute to various dimensions of sexual well-being using a quasi-longitudinal online survey method.

Methods: An online survey with a convenience sample of 1033 Israeli adults, utilizing measures of direct and media exposure to war stress, acute stress symptoms, and various aspects of sexual well-being, both pre-war and present was distributed. Data analysis involved Pearson correlations and hierarchical regression.

Results: There were significant associations between stress-related variables and sexual well-being, highlighting the differential contribution of direct exposure, media exposure, and acute stress symptoms. Direct exposure to stress was uniquely associated with sexual dysfunction, while media exposure and acute stress symptoms contributed significantly to predicting various aspects of sexual well-being.

Conclusions: Recognizing the multifaceted impact of stress during wartime on sexual well-being is crucial for developing comprehensive mental health interventions that address individual and societal factors. This study contributes valuable insights into the relationships between stress-related variables and sexual well-being during wartime, emphasizing the need for holistic approaches in addressing the intimate challenges individuals face during times of conflict.

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Introduction

The present study investigates the correlations between war-related stressors and sexual well-being, adopting a comprehensive approach by evaluating sexual function, distress, and satisfaction. Recognizing these factors as pivotal indicators (Mitchell et al., 2021), our research contributes to a holistic understanding of individuals' sexual well-being during the 2023 Israel– Hamas War.

Sexual functioning is a critical aspect of human well-being and relationships, and its disruption can have profound effects on individuals and their quality of life. According to the most recent DSM definition (American Psychiatric Association, 2013; Ishak & Tobia, 2013), sexual dysfunction encompasses a wide-ranging set of

problems, including erectile disorder, orgasmic disorder, sexual interest/arousal disorder, Genitopelvic pain/penetration disorder, and premature (early) ejaculation. The classification of sexual dysfunction in the DSM-5 primarily focuses on impairments in terms of stages of the sexual response cycle. However, it's important to note that a feeling of significant distress is an essential component of a diagnosis of sexual dysfunction (Hendrickx et al., 2013; Ishak & Tobia, 2013). Sexual distress, as defined by the World Health Organization, refers to a non-transitory condition and/or a feeling of inadequacy that impairs “sexual health” (World Health Organization, 1992). According to a nationally representative sample of women in the United States, the prevalence of any sexual problem was 44.2%, and

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sexually related personal distress was reported in 22.8% of cases. Furthermore, 12% of all women reported a sexual problem that was accompanied by sexual distress (Shifren et al., 2008). However, another national survey of women in the United States found that 24.4% reported distress related to their sexual relationship and/or their own sexuality (Bancroft et al., 2003) While not studied as frequently, sexual distress is also a primary concern for males (Pescatori et al., 2007).

In addition to exploring sexual dysfunction and distress, our study incorporates an examination of sexual satisfaction. Defined as an affective response derived from one's subjective evaluation of positive and negative dimensions within a sexual relationship (Kalichman & Rompa, 1995), sexual satisfaction goes beyond mere physical functioning, encompassing positive feelings during sexual activity, desire for one's partner, a lack of inhibition, and the mutual experience of arousal and excitement for individuals engaged in sexual activities (Pascoal et al., 2014; van Kolthoorn, 2018). According to this definition, sexual satisfaction is intricately linked to the presence of positive elements in the sexual experience rather than merely the absence of negative ones.

The association between post-traumatic stress disorder (PTSD) and sexual wellbeing has been well-established among veterans and active-duty soldiers (Arbanas, 2010; Blais et al., 2018; Cosgrove et al., 2002; Hirsch, 2009; Lehrner et al., 2016; Letica-Crepulja et al., 2019; Richardson et al., 2020; Schnurr et al., 2009; Wilcox et al., 2014), among traumatized ex-prisoners of war and their spouses (Lahav et al., 2019; Zerach et al., 2010), and among veterans who experienced sexual trauma while in the military (Pulverman et al., 2019). In 2015, three reviews examining the relationship between PTSD and sexual dysfunction were published (Bentsen et al., 2015; Tran et al., 2015; Yehuda et al., 2015). The present study does not specifically examine PTSD but focuses on recent and ongoing direct exposure to stressors, media exposure, and acute stress disorder (ASD) symptoms drawing on the PTSD literature.

The 2023 Israel– Hamas War erupted on October 7, initiated by a Hamas-led Palestinian militant invasion of southern Israel. The Hamas-

led attack involved a massive rocket barrage and breaches of the Gaza–Israel barrier. In addition to the broader context of rocket barrages and border breaches, it is important to highlight the more personal and invasive aspects of the conflict. This includes the invasion of civilians' homes, the murder of civilians within these intimate spaces, and emerging evidence suggesting that sexual violence was not only a consequence but a deliberate part of the attacks. Such intimate nature of violence, differing from the impersonality of larger-scale attacks like bus bombings or rocket strikes, could profoundly affect the psychological and sexual well-being of individuals. The direct invasion of personal space and the violation associated with sexual violence may contribute significantly to heightened levels of stress and sexual dysfunction. This personal dimension of the conflict, particularly relevant to understanding the full spectrum of traumatic experiences, merits attention, especially as it could resonate deeply with individuals fearing that such acts could happen to anyone. Israel responded with extensive aerial bombardment and a ground invasion of Gaza, marking the most significant military escalation in the region since the Yom Kippur War in 1973. In the context of the 2023 Israel– Hamas War, our objective is to explore the nuanced dynamics linking wartime stress (direct and media exposure to stressors), ASD symptoms, sexual functioning, satisfaction, and distress, with a specific emphasis on understanding the experiences of both men and women facing these challenging circumstances. This research underscores the significance of recognizing and addressing the multifaceted impact of stress on sexual functioning during times of war, contributing to a more profound understanding of the comprehensive well-being of individuals navigating such complex conditions. Specifically, we hypothesize that: (1) Direct exposure, media exposure, and ASD symptoms will be associated with an increase in sexual dysfunction and sexual distress, and with a decrease in sexual satisfaction; (2) The association between ASD symptoms and sexual well-being (i.e., sexual dysfunction, distress and satisfaction) will demonstrate greater strength compared to the associations with direct and media exposure to stressors.

Methods

Participants and procedure

For this study, we conducted an online survey with a convenience sample of Israeli adults. Our sample was obtained through a research panel company, and participants were required to meet certain criteria to be included in the research: to (a) exceed the minimum age for consent, which is 18 years, (b) possess the ability to read and respond to a survey in Hebrew, and (c) be in a cohabiting dyadic relationship for at least six months. After the institutional review board at Ariel University approved all research procedures and survey instruments, we distributed an anonymous survey link using Qualtrics software through the panel company. Participants were invited to take part in a research study focused on the impact of ongoing war experiences on sexual function and distress. The survey typically took around 15 minutes to complete, and data was collected from October 31, 2023, to November 7, 2023. To ensure anonymity, no data was collected that could establish a link between participant responses and their identities. Upon clicking the survey link, potential respondents were directed to a page providing information about the purpose of the study, the nature of the questions, and a consent form. Responding to the survey was entirely voluntary, and participants had the freedom to discontinue their participation at any point while ensuring the anonymity of their responses. Contact information for the researchers was also provided on the first page. Financial incentives were provided to participants through the research panel company.

A total of 1049 individuals accessed the survey. Of them, 11 (1%) declined to participate, and an additional five (0.4%) were not included in the sample due to incomplete data. This resulted in a final sample of 1033 individuals who completed the survey. Almost all the research participants were Jewish ($N=1025$, 99.2%), married ($N=1014$, 98.2%) and heterosexual ($N=952$, 92.1%). Table 1 includes additional demographic characteristics of participants.

Table 1. Demographic characteristics and description of the study participants ($N = 1033$).

Characteristic	<i>M (SD) or N (%)</i>
Sex	
Female	450 (43.6)
Male	583 (56.4)
Age	44.5 (13.5)
Place of birth	
Israel	900 (87.1)
Other	133 (12.9)
Education	
High school	217 (21.0)
Post high school	263 (25.5)
BA	370 (35.8)
MA and above	183 (17.7)
Socioeconomic status	
Below average	222 (21.5)
Average	517 (50.0)
Above average	339 (28.5)
Religiousness	
Ultra-orthodox	141 (13.6)
Orthodox	260 (25.2)
Traditional	368 (35.7)
Secular	260 (25.2)
Other	4 (0.4)

Measures

Direct exposure to war stress was measured using a comprehensive scale capturing various incidents experienced by individuals since the onset of the war based on measures of level of exposure to security threats used in previous research in Israel (Pagorek-Eshel & Finklestein, 2019; Sagy & Braun-Lewensohn, 2009). Participants were asked to indicate the frequency of personal involvement in nine items (e.g., I was injured by a missile, shrapnel, or bullet, I have a relative or friend is injured by hostile activity). Participants were required to specify the number of times they personally experienced each event on a five-Likert scale from 1 (never) to 5 (very many times) to account of their direct exposure to the various aspects of the conflict.

Media exposure assessed individuals' frequency of exposure to war-related content through different media channels since the onset of the war. Participants rated their exposure frequency on a scale from 1 (almost never exposed) to 5 (almost constant exposure) in relation to four sources: radio broadcasts, TV broadcasts, WhatsApp messages, and various social media platforms (Facebook, Instagram, Twitter, Telegram, and other). This measure provides a concise yet comprehensive evaluation of participants' engagement with war-related content across diverse media outlets. These items were based on measures

assessing media exposure to terror-related news and COVID-19 exposure (Gewirtz-Meydan & Lassri, 2022; Pfefferbaum et al., 2003).

Acute Stress Disorder was assessed using the DSM-5 Severity of Acute Stress Symptoms (ASD; American Psychiatric Association, 2013). This seven-item measure, also known as the National Stressful Events Survey Acute Stress Disorder Short Scale, evaluates the intensity of ASD symptoms in individuals aged 18 and older. Participants rate each item on a five-point scale, and the scores are summed to derive a total ranging from 0 to 28. Higher scores correspond to increased severity of acute stress disorder. (American Psychiatric Association, 2013) In this study, the internal consistency of the scale, as indicated by Cronbach's alpha, was good ($\alpha = .90$).

Sexual functioning was measured with the Arizona Sexual Experiences Scale (ASEX; McGahuey et al., 2000). This five-item self-report asks respondents about core elements of sexual function: sex drive, arousal, vaginal lubrication (women) and erectile function (men), ability to reach orgasm, and satisfaction with orgasm. Example items are "How strong is your sex drive?" and "How easily are you sexually aroused (turned on)?" Responses to each item were scored on a scale from 1 to 6, and these scores were then averaged to provide an overall measure of sexual functioning; higher scores indicate higher levels of sexual dysfunction. In addition, based on previous studies (Brassard et al., 2015; Purcell-Lévesque et al., 2019), we introduced an additional question tailored for women regarding sexual pain. Furthermore, a question about premature ejaculation was added specifically for men to capture a more comprehensive view of sexual functioning. Participants were asked to evaluate their sexual functioning at two time points: before the war (T1) and at the present time (T2). The internal consistencies of the assessment scales were found to be robust in this study ($T1\alpha = .91$; $T2\alpha = .94$). The ASEX was translated via use of the back translation method, following the guidelines for the process of cross-cultural adaptation of self-report measures (Beaton et al., 2000). The Hebrew-language version has also been used in previous studies (Gewirtz-Meydan

& Lahav, 2020b, 2020a; Gewirtz-Meydan & Spivak-Lavi, 2021).

Sexual distress was measured with a three-item version of the Sexual Distress Scale (SDS; Derogatis et al., 2002, 2008; Santos-Iglesias et al., 2018) consistent with Pâquet et al. (2018): (1) How often did you feel distressed about your sex life? (2) How often did you feel inferior because of sexual problems? (3) How often did you feel worried about sex? Each item was rated on a five-point Likert-type scale from 1 (*never*) to 5 (*always*); higher scores reflect higher sexual distress levels. Participants were asked to evaluate their sexual distress at two time points: before the war (T1) and at the present time (T2). The internal consistencies of the assessment scales were found to be robust in this study ($T1\alpha = .82$; $T2\alpha = .87$).

Sexual satisfaction was measured using the Global Measure of Sexual Satisfaction (GMSEX; Lawrance & Byers, 1995) Participants rated their sexual relationships on five 7-point bipolar scales: good-bad, pleasant-unpleasant, positive-negative, satisfying-unsatisfying, valuable-worthless. Scores varied from 5 to 35, with higher scores indicating greater partnered sexual satisfaction. Participants were asked to evaluate their sexual satisfaction at two time points: before the war (T1) and at the present time (T2). The internal consistencies of the assessment scales were found to be robust in this study ($T1\alpha = .93$; $T2\alpha = .96$).

Control variables in this study consisted of biological sex (1 = male; 2 = female) and age.

Data analysis plan

We conducted data analysis using SPSS 29 to investigate the associations between three stress-related variables—direct exposure, media exposure, and ASD symptoms—and measures of sexual well-being. Frequencies of direct and media exposure to war-related stressors were calculated. Pearson correlations were calculated to examine direct associations. To assess the predictive function of these variables, hierarchical regression was employed. The first step included pre-war levels of the appropriate sexual well-being measure, gender, and age as control variables. Subsequently, one of

the stress-related variables was entered in the second step. A significant change in the explained variance (ΔR^2) would be indicative of a unique contribution of the stress-related measure to the prediction of sexual well-being. In addition, to examine the unique contributions of these three stress-related variables to the prediction of sexual well-being, we repeated the hierarchical regressions, this time entering all three variables simultaneously on the second step. Finally, since the assessments of pre-war levels of the various aspects of sexual well-being, used as control variables, were retrospective and collected concurrently with the assessments of present levels of sexual well-being, they may have been influenced by recall bias as well as other response biases. Therefore, all the regression analyses were repeated without the pre-war assessments.

Results

We will first present findings related to the degree of direct and media exposure to war related stressors. Following that are results focusing on the associations between these stressors and various aspects of sexual well-being.

Direct exposure to war-related stressors

Our findings indicated a varied degree of direct exposure to war-related stressors among the participants. Table 2 highlights this variation across different types of exposure. Over 90% of the sample experienced missile alarms. Notably, 31% experienced it a number of times, and 38% many or very many times. Entering bomb shelters was another common experience, where 87% of the sample reported having done so at least once and 40% having done so many or very many times. The act of taking cover due to missile alarms was

less frequent, with 50% having done so. Home damage due to missiles or bullets was rare, with 5% having experienced this at least once. Similarly, personal injuries from missiles or bullets were also uncommon, as only 2% – 3% reported having been injured in such incidents. The experience of being near a missile or bullet hit was somewhat more common, with over 30% experiencing it at least once and a notable 8% – 9% had this experience at least a number of times. Exposure to others being harmed was also reported where 12% had someone nearby injured by missile or bullet, and 26% had a relative or friend injured in a terrorist attack. Similarly, 26% reported having a relative or friend killed in a terrorist attack, indicating a significant exposure to these traumatic experiences. All in all, 100% of the sample reported at least some direct exposure to war-related stressors.

Media exposure to war-related stressors

Table 3 presents the frequency of media exposure to war-related stressors. A significant number of participants (30%) reported exposure to war-related stressors via radio a few times a day and 31% encountered radio exposure once every hour or more frequently. Television programs showed a balanced distribution of exposure levels. About 25% of participants reported exposure to war-related stressors through TV a few times a day, 30% experienced it either once every hour or a number of hours per day, and 23% reported almost constant TV exposure. Exposure through WhatsApp messages was notable, with 33% of participants receiving such messages almost constantly. This was higher compared to other social media platforms like Facebook and Instagram which also had a significant level of exposure, with 25% experiencing war-related stressors

Table 2. Frequency (percentages) of direct exposure to war-related stressors.

	Never	Once or a few times	A number of times	Many times	Very many times
Missile alarm	7	22	31	21	17
Entered bomb shelter	13	22	25	19	21
Took cover due to missile alarm	49	26	15	5	4
Home hit by missile or bullet	94	3	1	< 1	< 1
Injured by missile or bullet	97	1	< 1	< 1	< 1
Nearby hit by missile or bullet	68	23	7	< 1	1
Someone nearby injured by missile or bullet	88	9	2	< 1	< 1
Relative or friend injured in terrorist attack	73	20	5	< 1	< 1
Relative or friend killed by terrorist attack	75	19	4	< 1	< 1

Table 3. Frequency (percentages) of media exposure to war-related stressors.

	Almost none	A few times a day	Once every hour	A number of hours per day	Almost constantly
Radio programs	40	30	6	12	13
TV programs	23	25	5	25	23
WhatsApp messages	12	28	10	17	33
Other social media (Facebook, Instagram, etc.)	17	26	11	21	25

Table 4. Pearson correlations between stress-related measures and measures of sexual well-being.

Measure	N	Direct exposure to stress	Media exposure to stress	ASD symptoms
ARIZONA 5	1033	.02	.22**	.33**
Sexual desire	1033	.02	.21**	.31**
Sexual arousal	1033	.01	.21**	.31**
Lubrication / erection	1033	.01	.20**	.30**
Orgasm	1033	.03	.18**	.31**
Orgasm satisfaction	1033	.03	.19**	.30**
Sexual pain	450	.08	.01	.13**
Premature ejaculation	584	.15**	.10*	.14**
Sexual distress	1033	.08*	.08*	.21**
Sexual satisfaction	1033	-.03	-.13**	-.15**

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

almost constantly through these channels. All in all, 98% of the sample reported at least some media exposure to war-related stressors.

War-related stressors and sexual well-being

The Pearson correlations are presented in Table 4 and indicate that direct exposure to stress was significantly associated only with sexual distress and premature ejaculation, where these correlations were small. Media exposure to stress was significantly associated with all measures of sexual well-being, except for sexual pain, where these correlations ($r = .08$ to $.22$) were small. Finally, the measure of ASD symptoms was significantly associated with all measures of sexual well-being, where these correlations ($r = .13$ to $.32$) were small to medium.

Summaries of the hierarchical regression analyses for the prediction of sexual well-being by direct exposure to stress, media exposure to stress, and ASD symptoms are presented in Tables 5, 6, and 7 respectively. The results in Table 5 indicate that direct exposure to stress had a significant unique contribution to the prediction of all aspects of sexual dysfunction included in the study. Even after controlling for pre-war levels of these measures, direct exposure added an additional 0.3% to 0.8% of explained variance. Squared semi-partial correlations, which indicate the percentage of the total variance that can be uniquely attributed to a predictor after

controlling for the predictive variance shared with the other predictors, for the association between direct exposure to stress and the measures of sexual well-being were also calculated. These results indicate that between 0.3% to 0.8% of the total variance of the sexual dysfunction measures was uniquely attributed to direct exposure to stress. In addition, to estimate the percentage of the *explained* variance that can be uniquely attributed to a predictor, the sr^2 was divided by the R^2 . These results indicate that between 1.0% to 2.6% of the explained variance of the sexual dysfunction measures was uniquely attributed to direct exposure to stress. The results in Table 5 also indicate that direct exposure to stress did not have a significant unique contribution to the other measures of sexual well-being included in the study—sexual distress and sexual satisfaction.

The results in Table 6 indicate that media exposure to stress had a significant unique contribution to the prediction of all aspects of sexual dysfunction, except for sexual pain and premature ejaculation, and added an additional 2.3% to 3.5% of explained variance. The squared semi-partial correlations indicate that between 2.3% to 3.5% of the total variance, and between 5.3% to 9.1% of the explained variance of these aspects of sexual dysfunction was uniquely attributed to media exposure to stress. Media exposure to stress also had a significant unique contribution to the prediction of sexual satisfaction and added

Table 5. Direct exposure to stress as a predictor of sexual well-being.

Criterion	N	R ²	ΔR ²	β gender	β age	β pre-war level	β direct exposure	sr ² direct exposure	sr ² /R ² direct exposure
ARIZONA 5	1033	.43**	.006**	.28**	.05*	.50**	.08**	.006	.014
Desire	1033	.31**	.008**	.31**	.08**	.36**	.09**	.008	.026
Arousal	1033	.32**	.003*	.28**	.06*	.40**	.06*	.003	.009
Lub / errec	1033	.42**	.003*	.27**	.04	.52**	.05*	.003	.007
Orgasm	1033	.41**	.005**	.28**	.05*	.48**	.07**	.005	.012
Orgasm sat	1033	.35**	.004**	.24**	.05*	.48**	.06**	.004	.011
Sexual pain	450	.52**	.005*	–	.03	.72**	.07*	.005	.010
Premature ejac	584	.38**	.006*	–	–.04	.59**	.08*	.006	.016
Sex distress	1033	.56**	.001	–.01	–.01	.74**	.03	.001	.002
Sexual sat	1033	.50**	.001	–.07**	–.06**	.68**	–.02	.001	.002

Note. sr²: squared semi-partial correlation.

*p < .05. **p < .01.

Table 6. Media exposure to stress as a predictor of sexual well-being.

Criterion	N	R ²	ΔR ²	β gender	β age	β pre-war level	β media exposure	sr ² media exposure	sr ² /R ² media exposure
ARIZONA 5	1033	.46**	.035**	.24**	.03	.51**	.19**	.035	.076
Desire	1033	.33**	.030**	.28**	.07**	.36**	.17**	.030	.091
Arousal	1033	.35**	.027**	.25**	.05	.41**	.16**	.027	.077
Lub / errec	1033	.45**	.026**	.25**	.03	.52**	.16**	.026	.058
Orgasm	1033	.43**	.023**	.25**	.03	.49**	.15**	.023	.053
Orgasm sat	1033	.37**	.029**	.21**	.03	.49**	.17**	.029	.078
Sexual pain	450	.52**	.000	–	.03	.72**	–.01	.000	.000
Premature ejac	584	.37**	.000	–	–.05	.60**	.01	.000	.000
Sex distress	1033	.56**	.001	–.01	–.01	.74**	.02	.001	.002
Sexual sat	1033	.50**	.004**	–.06**	–.06**	.68**	–.06**	.004	.008

Note. sr²: squared semi-partial correlation.

*p < .05. **p < .01.

Table 7. Acute Stress Disorder Symptoms (ASDS) as a predictor of sexual well-being.

Criterion	N	R ²	ΔR ²	β gender	β age	β pre-war level	β ASDS	sr ² ASDS	sr ² /R ² ASDS
ARIZONA 5	1033	.47**	.050**	.20**	.07**	.49**	.23**	.050	.106
Desire	1033	.35**	.050**	.24**	.11**	.36**	.23**	.050	.143
Arousal	1033	.37**	.049**	.20**	.09**	.41**	.23**	.049	.132
Lub / errec	1033	.46**	.034**	.21**	.06**	.51**	.19**	.034	.074
Orgasm	1033	.44**	.038**	.21**	.07**	.48**	.21**	.038	.086
Orgasm sat	1033	.38**	.031**	.18**	.07**	.48**	.19**	.031	.082
Sexual pain	450	.52**	.002	–	.03	.71**	.04	.002	.004
Premature ejac	584	.37**	.002	–	–.05	.59**	.05	.002	.005
Sex distress	1033	.57**	.009**	–.04	–.00	.72**	.10**	.009	.016
Sexual sat	1033	.50**	.009**	–.04*	–.07**	.67**	–.10**	.009	.018

Note. sr²: squared semi-partial correlation.

*p < .05. **p < .01.

an additional 0.4% of explained variance, uniquely explained 0.4% of the total variance and 0.8% of the explained variance. Media exposure did not have a significant unique contribution to the prediction of sexual distress.

Finally, the results presented in Table 7 indicate that ASD symptoms had a significant unique contribution to the prediction of all aspects of sexual well-being, except for sexual pain and premature ejaculation, and added an additional 3.1% to 5.0% of the explained variance of the sexual dysfunctions measures, 0.9% for sexual distress, and 0.9% for sexual satisfaction. The squared semi-partial correlations indicate that between 3.1% to 5.0% of the total variance and between

7.4% to 14.3% of the explained variance of these aspects of sexual dysfunction can be uniquely attributed to ASD symptoms, 0.9% of the total variance and 1.6% of the explained variance of sexual distress, and 0.9% of the total variance and 1.8% of the explained variance of sexual satisfaction.

A summary of the hierarchical regression analyses where all three of these measures were included simultaneously on the second step is presented in Table 8. The results indicate that for the prediction of sexual pain, sexual distress, and sexual satisfaction, none of the three stress-related measures had a unique contribution. For the prediction of premature ejaculation, only

Table 8. Direct exposure to stress, media exposure to stress, and Acute Stress Disorder Symptoms (ASDS) as predictors of sexual well-being.

Criterion	N	R ²	ΔR ²	β			sr ² direct exposure	β direct exposure	sr ² media exposure	β media exposure	β ASD symptoms	sr ² ASD symptoms
				gender	age	pre-war level						
ARIZONA 5	1033	.49**	.065**	.19**	.06*	.51**	.000	.13**	.015	.19**	.029	
Sexual desire	1033	.36**	.062**	.23**	.10**	.37**	.000	.11**	.011	.19**	.030	
Arousal	1033	.38**	.060**	.19**	.07**	.41**	.000	.11**	.011	.20**	.032	
Lub / errec	1033	.47**	.046**	.20**	.05*	.52**	.000	.11**	.012	.16**	.020	
Orgasm	1033	.45**	.048**	.21**	.06**	.49**	.000	.10**	.009	.17**	.023	
Orgasm sat	1033	.39**	.046**	.17**	.06*	.49**	.000	.13**	.014	.14**	.016	
Sexual pain	450	.52**	.007	-	.04	.71**	.004	-.03	.001	.04	.002	
Premature ejac	584	.38**	.007	-	-.04	.59**	.005	-.02	.000	.03	.001	
Sex distress	1033	.57**	.010**	-.04	-.00	.72**	.000	-.01	.000	.10	.008	
Sexual sat	1033	.51**	.011**	-.04	-.07**	.67**	.000	-.04	.001	-.09	.006	

Note. sr²: squared semi-partial correlation.

p* < .05. *p* < .01.

direct exposure had a unique contribution and explained 0.5% of the total variance. For the prediction of the other sexual dysfunctions, both media exposure and ASD symptoms had significant unique contributions where media exposure uniquely explained between 0.9% and 1.50% of the total variance and ASD symptoms uniquely explained between 1.6% and 3.2% of the total variance. In all cases, ASD symptoms explained a larger portion of variance than did media exposure.

Finally, summaries of the regression analyses repeated without the pre-war assessments are presented in Tables 9–12. A comparison of these analyses to those reported above with the pre-war assessments as control variables indicates that in general, although the overall effect sizes, i.e., *R*², were smaller for the analyses without the pre-war assessments, the other findings were very similar to those reported above. Changes in the percentage of the total variance associated with the three predictors—direct exposure, media exposure and ASD symptoms—were very small (*M* = 0.8%, *SD* = 1%). In addition, when all three predictors were entered simultaneously into the regression, the same pattern described above was found where ASD symptoms explained a larger portion of variance than did media exposure, and media exposure explained a larger portion of variance than did direct exposure.

Discussion

The findings of this study illuminate the nuanced relationships between various sources and types of stress and sexual well-being in the context of war. Data from the current study shows that participants had various and substantial exposure to war-related stressors, both directly and through different media channels. Pearson correlations unveiled distinct associations with stress-related variables on sexual well-being. Direct exposure was linked significantly to sexual distress and premature ejaculation. Media exposure significantly correlated with all measures except sexual pain. ASD symptoms were associated significantly with all aspects of sexual well-being, aligning with the established PTSD-sexual functioning correlation. (Bird et al., 2021; Yehuda et al., 2015)

Table 9. Direct exposure to stress as a predictor of sexual well-being (without pre-war levels of sexual dysfunctions).

Criterion	N	R ²	ΔR ²	β gender	β age	β direct exposure	sr ² direct exposure	sr ² /R ² direct exposure
ARIZONA 5	1033	.22**	.002	.46**	.16**	.04	.002	.009
Desire	1033	.19**	.002	.43**	.16**	.04	.002	.011
Arousal	1033	.18**	.001	.42**	.14**	.02	.001	.006
Lub / errec	1033	.19**	.001	.43**	.17**	.03	.001	.005
Orgasm	1033	.21**	.003	.46**	.14**	.05	.003	.014
Orgasm sat	1033	.14**	.002	.36**	.13**	.04	.002	.014
Sexual pain	450	.01	.006	–	–.03	.07	.006	.600
Premature ejac	584	.03**	.017**	–	–.10**	.13**	.017	.567
Sex distress	1033	.01*	.007**	–.08**	–.03	.08**	.007	.700
Sexual sat	1033	.05**	.003	–.11**	–.20**	–.05	.003	.060

Note. sr²: squared semi-partial correlation.

*p < .05. **p < .01.

Table 10. Media exposure to stress as a predictor of sexual well-being (without pre-war levels of sexual dysfunctions).

Criterion	N	R ²	ΔR ²	β gender	β age	β media exposure	sr ² media exposure	sr ² /R ² media exposure
ARIZONA 5	1033	.24**	.021**	.44**	.15**	.14**	.021	.088
Desire	1033	.21**	.022**	.41**	.15**	.15**	.022	.105
Arousal	1033	.20**	.020**	.40**	.13**	.14**	.020	.100
Lub / errec	1033	.21**	.018**	.40**	.16**	.13**	.018	.086
Orgasm	1033	.22**	.012**	.44**	.13**	.11**	.012	.055
Orgasm sat	1033	.15**	.017**	.34**	.12**	.13**	.017	.113
Sexual pain	450	.00	.00	–	–.03	.01	.000	–
Premature ejac	584	.02**	.010*	–	–.12**	.09*	.010	.500
Sex distress	1033	.02**	.010**	–.10**	–.05	.10**	.010	.500
Sexual sat	1033	.05**	.012**	–.09**	–.19**	–.11**	.012	.240

Note. sr²: squared semi-partial correlation.

*p < .05. **p < .01.

Table 11. Acute Stress Disorder Symptoms (ASDS) as a predictor of sexual well-being (without pre-war levels of sexual dysfunctions).

Criterion	N	R ²	ΔR ²	β gender	β age	β ASDS	sr ² ASDS	sr ² /R ² ASDS
ARIZONA 5	1033	.26**	.047**	.39**	.19**	.23**	.047	.181
Desire	1033	.23**	.043**	.36**	.19**	.22**	.043	.187
Arousal	1033	.22**	.044**	.35**	.17**	.22**	.044	.200
Lub / errec	1033	.23**	.040**	.36**	.19**	.21**	.040	.174
Orgasm	1033	.24**	.037**	.39**	.16**	.20**	.036	.150
Orgasm sat	1033	.16**	.030**	.31**	.15**	.18**	.030	.188
Sexual pain	450	.01*	.016**	–	–.02	.12**	.016	1.000
Premature ejac	584	.03**	.015**	–	–.10**	.12**	.015	.500
Sex distress	1033	.07**	.063**	–.17**	–.01	.26**	.063	.900
Sexual sat	1033	.07**	.025**	–.06*	–.22**	–.17**	.025	.357

Note. sr²: squared semi-partial correlation.

*p < .05. **p < .01.

Table 12. Direct exposure to stress, media exposure to stress, and Acute Stress Disorder Symptoms (ASDS) as predictors of sexual well-being (without pre-war levels of sexual dysfunctions).

Criterion	N	R ²	ΔR ²	β gender	β age	β direct exposure	sr ² direct exposure	β media exposure	sr ² media exposure	β ASD symptoms	sr ² ASD symptoms
ARIZONA 5	1033	.27**	.054**	.38**	.18**	–.02	.000	.09**	.008	.20**	.032
Sexual desire	1033	.24**	.052**	.36**	.18**	–.02	.000	.09**	.008	.196**	.029
Arousal	1033	.23**	.052**	.35**	.16**	–.04	.001	.09**	.008	.20**	.032
Lub / errec	1033	.23**	.047**	.35**	.18**	–.02	.001	.08**	.007	.19**	.028
Orgasm	1033	.24**	.039**	.39**	.16**	–.00	.000	.05	.003	.18**	.027
Orgasm sat	1033	.17**	.037**	.30**	.14**	–.01	.000	.09**	.007	.15**	.019
Sexual pain	450	.02*	.020*	–	–.01	.05	.003	–.03	.001	.12*	.014
Premature ejac	584	.04**	.028**	–	–.09*	.09*	.008	.05	.003	.08	.006
Sex distress	1033	.07**	.064**	–.17**	–.01	.01	.000	.023	.000	.25**	.050
Sexual sat	1033	.07**	.030**	–.06	–.21**	–.00	.000	–.06*	.004	–.14**	.017

Note. sr²: squared semi-partial correlation.

*p < .05. **p < .01.

However, when changes in present levels of sexual well-being in comparison to pre-war levels, direct exposure to stress emerged as a significant

predictor of change of all aspects of sexual dysfunction, contributing additional variance after controlling for pre-war levels. The squared semi-

partial correlations indicated the unique contribution of direct exposure, ranging from 0.26% to 0.77%, emphasizing its role in explaining variance beyond that shared with other predictors.

Media exposure to stress displayed a significant predictive function for most aspects of sexual dysfunction and for sexual satisfaction. The findings underscore the importance of considering media exposure as a distinct factor influencing intimate experiences during war. Notably, media exposure uniquely explained a substantial portion of variance, ranging from 2.34% to 3.49%, highlighting its noteworthy impact on sexual well-being. This finding corresponds with previous studies showing that media exposure to collective trauma is associated with acute stress and post-traumatic stress symptoms, mental-health symptoms, and impaired functioning (Holman et al., 2020; Hopwood & Schutte, 2017; Silver et al., 2013).

ASD symptoms emerged as a robust predictor, significantly contributing to the prediction of changes in all aspects of sexual well-being, except for sexual pain and premature ejaculation. The substantial unique contributions of ASD symptoms, ranging from 3.13% to 4.97% for sexual functioning and 0.94% for sexual distress and satisfaction, underscore their pivotal role in shaping intimate experiences during wartime. In simultaneous regression analyses, the combined contributions of direct exposure, media exposure, and ASD symptoms were assessed. Notably, ASD symptoms consistently demonstrated a larger portion of explained variance compared to media exposure across various aspects of sexual well-being, reinforcing the importance of individuals' subjective experiences in understanding the impact of war on intimate lives. This is not surprising given the strong established link between PTSD symptoms and sexual wellbeing (Bird et al., 2021; Yehuda et al., 2015).

Limitation and future research directions

While this study provides valuable insights into the relationships between stress-related variables and sexual well-being during wartime, several limitations should be acknowledged. Firstly, the correlational design employed prevents the

establishment of causal links between stressors and sexual functioning. A second limitation arises from the quasi-longitudinal design utilized, wherein participants self-reported their pre-war levels of sexual well-being. This introduces the potential for recall bias, as respondents may have difficulty accurately recalling their pre-war experiences. Moreover, the sequential assessment of pre-war and postwar levels may have been susceptible to order effects, where the order of evaluation influenced participants' responses. This aspect could have introduced variability that might impact the robustness of the findings. However, as explained above, the pattern of results for the analyses that were performed without the inclusion of the retrospective assessments was very similar to that of the results with these assessments.

Furthermore, given that the events of October 7th involved systematic rape and sexual assaults that were experienced firsthand as well as witnessed through media exposure, further studies should isolate this variable and examine its impact on both sexual dysfunction and sexual distress. While our data collection preceded the focused media coverage on these aspects, subsequent reports and studies are revealing the extent to which sexual violence was not only prevalent but possibly a planned component of the attacks. This underlines a critical dimension of warfare-induced trauma, where the use of sexual violence as a weapon of war has profound implications for psychological and sexual health. It's important to note that while our study did not specifically assess exposure to sexual violence, this aspect was widely covered in the news. Such coverage, often graphic and detailed, can intrude into personal spaces and affect individuals' sexual well-being, potentially triggering intrusive thoughts or distress during sexual activity. Future research should delve deeper into the impacts of such targeted, intimate forms of violence on both individual and collective well-being.

Finally, while the study benefits from a diverse sample of Israeli adults, it is essential to acknowledge a limitation concerning the lack of representation from the Palestinian population as well as from the LGBTQ population. Future research endeavors should aim to capture the perspectives

and experiences of both Israelis and Palestinians, including sexual minorities, providing a more comprehensive understanding of the intersection between war-related stressors and sexual well-being in this complex geopolitical context. Moreover, future research could benefit from employing more rigorous longitudinal designs and alternative methods for assessing pre-war levels, thereby enhancing the validity of the temporal associations explored in this study.

These findings contribute to the growing body of literature on the intersection of stress, trauma, and intimate relationships during wartime. Recognizing the unique contributions of different stress-related variables provides a more nuanced understanding of the complexities individuals face in maintaining sexual well-being amid challenging circumstances.

Clinical implications

The findings of our study underscore a vital clinical implication concerning the mitigation of war-related impacts on sexual well-being, particularly through the management of media exposure. Clinicians have a unique opportunity to guide individuals in moderating their interaction with war-related media content, a significant contributor to sexual health issues. This can be achieved by encouraging clients to take regular breaks from media, particularly those segments related to conflict, thus avoiding constant exposure. Additionally, fostering mindful media engagement can help individuals become more aware of how media consumption affects their emotional and sexual health, guiding them to recognize and respond to negative reactions. Enhancing media literacy is also crucial, enabling clients to discern reliable information and understand media influences better. For those using media as a coping mechanism, clinicians can introduce alternative strategies such as mindfulness, physical activities, or social interactions. In cases where media exposure profoundly impacts sexual well-being, clinicians should consider more intensive therapeutic interventions, including individual or group therapy. Through these approaches, clinicians can play a critical role in not just addressing the direct effects of war exposure, but also in

mitigating the indirect impacts borne through media consumption, thereby supporting the maintenance or improvement of sexual health and overall well-being during times of conflict and stress.

Additionally, addressing and assisting individuals experiencing ASD symptoms can contribute to enhancing overall intimate well-being during times of collective trauma. Finally, validating and normalizing changes in sexual well-being as natural responses during times of collective trauma such as war, is essential. Individuals may experience a range of emotional and physical reactions in the face of such events, and acknowledging these variations is a crucial step in destigmatize the challenges individuals may encounter, promoting open communication and facilitating a more compassionate approach to addressing the intimate impacts of collective trauma.

As for interventions that can address the effects of war on intimacy and sexuality, our findings underscore a significant gap in the recognition and treatment of trauma-related impacts on intimacy and sexual satisfaction among couples. Drawing from longitudinal studies which explored marital and sexual satisfaction after the 1973 Yom Kippur war in Israel (Solomon et al., 2009; Zerach et al., 2010), it becomes evident that there is a critical need for interventions in this area. A key finding across these studies is the pervasive lack of acknowledgment, resources, and communication regarding the symptoms of trauma exposure and its impact on intimacy and sexual relationships. Most notably, there is a widespread tendency among couples not to discuss sexual issues explicitly with each other or with mental and medical health professionals. This silence around sex and intimacy issues can exacerbate the challenges faced by couples dealing with the aftermath of traumatic experiences.

However, the cultural landscape in Israel has evolved since the 1970s, gradually making the discussion of sexuality less taboo. This shift is evident in the increased coverage of sexuality and intimacy during wartime in popular media, including articles and podcasts. These platforms have played a crucial role in normalizing a range of reactions and behaviors under extraordinary circumstances, thereby contributing to a more

open dialogue about these issues. In light of our study's findings, we anticipate contributing to the development of more targeted interventions that address sexuality and intimacy issues in the context of war-related trauma. Such interventions are essential for rehabilitation specialists, couples-therapists, and trauma therapists. These professionals must be equipped to address intimacy and sexuality concerns in their therapeutic approaches. Additionally, sex therapists, in particular, should receive comprehensive training in trauma-informed treatment. The integration of trauma-informed approaches in therapy, coupled with an increased societal openness to discussing sexuality and intimacy, can significantly enhance the support and resources available to couples affected by war-related stressors. This holistic approach to treatment is crucial for fostering resilience and promoting healing in relationships impacted by the trauma of war.

While it is beyond the scope of this paper to provide empirical data regarding global findings of sexual frequency in wartime, we aim, in future studies, to elucidate the importance and meaning of intimacy and sexuality as it relates to vitality, security and resilience in the early weeks of the war, as well as the ongoing and long-lasting effects of sexual wellbeing once the crisis has ended. An additional limitation is that we measured sexual function variables, which may not indicate the direct effect of trauma and ongoing grief on the need to seek security and connection during uncertain times. Variables to consider in further study will look not only at frequency and function, but at wartime challenges to emotional and physical intimacy. These may include but are not limited to the stress of reserve duty, physical injury and death, differences in political values, religious beliefs or war time priorities on a couple's intimate and sexual life.

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References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (5th ed.). American Psychiatric Publishing.
- Arbanas, G. (2010). Does post-traumatic stress disorder carry a higher risk of sexual dysfunctions? *The Journal of Sexual Medicine*, 7(5), 1816–1821. <https://doi.org/10.1111/j.1743-6109.2010.01704.x>
- Bancroft, J., Loftus, J., & Long, J. S. (2003). Distress about sex: A national survey of women in heterosexual relationships. *Archives of Sexual Behavior*, 32(3), 193–208. <https://doi.org/10.1023/A:1023420431760>
- Beaton, D. E., Bombardier, C., Guillemin, F., & Ferraz, M. B. (2000). Guidelines for the process of cross-cultural adaptation of self-report measures. *Spine*, 25(24), 3186–3191. <https://doi.org/10.1097/00007632-200012150-00014>
- Bentsen, I. L., Giraldo, A. G. E., Kristensen, E., & Andersen, H. S. (2015). Systematic review of sexual dysfunction among veterans with post-traumatic stress disorder. *Sexual Medicine Reviews*, 3(2), 78–87. <https://doi.org/10.1002/smrj.47>
- Bird, E. R., Piccirillo, M., Garcia, N., Blais, R., & Campbell, S. (2021). Relationship between posttraumatic stress disorder and sexual difficulties: A systematic review of veterans and military personnel. *The Journal of Sexual Medicine*, 18(8), 1398–1426. <https://doi.org/10.1016/j.jsxm.2021.05.011>
- Blais, R. K., Monteith, L. L., & Kugler, J. (2018). Sexual dysfunction is associated with suicidal ideation in female service members and veterans. *Journal of Affective Disorders*, 226, 52–57. <https://doi.org/10.1016/j.jad.2017.08.079>
- Brassard, A., Dupuy, E., Bergeron, S., & Shaver, P. R. (2015). Attachment insecurities and women's sexual function and satisfaction: The mediating roles of sexual self-esteem, sexual anxiety, and sexual assertiveness. *Journal of Sex Research*, 52(1), 110–119. <https://doi.org/10.1080/00224499.2013.838744>
- Cosgrove, D. J., Gordon, Z., Bernie, J. E., Hami, S., Montoya, D., Stein, M. B., & Monga, M. (2002). Sexual dysfunction in combat veterans with post-traumatic stress disorder. *Urology*, 60(5), 881–884. [https://doi.org/10.1016/S0090-4295\(02\)01899-X](https://doi.org/10.1016/S0090-4295(02)01899-X)
- Derogatis, L., Clayton, A., Lewis-D'Agostino, D., Wunderlich, G., & Fu, Y. (2008). Validation of the female sexual distress scale-revised for assessing distress in women with hypoactive sexual desire disorder. *The Journal of Sexual Medicine*, 5(2), 357–364. <https://doi.org/10.1111/j.1743-6109.2007.00672.x>
- Derogatis, L. R., Rosen, R., Leiblum, S., Burnett, A., & Heiman, J. (2002). The Female Sexual Distress Scale (FSDS): Initial validation of a standardized scale for assessment of sexually related personal distress in women. *Journal of Sex & Marital Therapy*, 28(4), 317–330. <https://doi.org/10.1080/00926230290001448>
- Gewirtz-Meydan, A., & Lahav, Y. (2020a). Sexual dysfunction and distress among childhood sexual abuse

- survivors: The role of post-traumatic stress disorder. *The Journal of Sexual Medicine*, 17(11), 2267–2278. <https://doi.org/10.1016/j.jsxm.2020.07.016>
- Gewirtz-Meydan, A., & Lahav, Y. (2020b). Sexual functioning among childhood sexual abuse survivors from an attachment perspective. *The Journal of Sexual Medicine*, 17(7), 1370–1382. <https://doi.org/10.1016/j.jsxm.2020.03.014>
- Gewirtz-Meydan, A., & Lassri, D. (2022). A profile analysis of COVID-19 stress-related reactions: The importance of early childhood abuse, psychopathology, and interpersonal relationships. *Child Abuse & Neglect*, 130(Pt 1), 105442. <https://doi.org/10.1016/j.chiabu.2021.105442>
- Gewirtz-Meydan, A., & Spivak-Lavi, Z. (2021). Profiles of sexual functioning and eating disorders symptoms: Associations with body image. *The Journal of Sexual Medicine*, 18(8), 1364–1373. <https://doi.org/10.1016/j.jsxm.2021.06.003>
- Hendrickx, L., Gijs, L., & Enzlin, P. (2013). Distress, sexual dysfunctions, and DSM: Dialogue at cross purposes? *The Journal of Sexual Medicine*, 10(3), 630–641. <https://doi.org/10.1111/j.1743-6109.2012.02971.x>
- Hirsch, K. A. (2009). Sexual dysfunction in male operation enduring freedom/operation Iraqi freedom patients with severe post-traumatic stress disorder. *Military Medicine*, 174(5), 520–522. <https://doi.org/10.7205/milmed-d-03-3508>
- Holman, E. A., Garfin, D. R., Lubens, P., & Silver, R. C. (2020). Media exposure to collective trauma, mental health, and functioning: Does it matter what you see? *Clinical Psychological Science*, 8(1), 111–124. <https://doi.org/10.1177/2167702619858300>
- Hopwood, T. L., & Schutte, N. S. (2017). Psychological outcomes in reaction to media exposure to disasters and large-scale violence: A meta-analysis. *Psychology of Violence*, 7(2), 316–327. <https://doi.org/10.1037/vio0000056>
- Ishak, W. W., & Tobia, G. (2013). DSM-5 changes in diagnostic criteria of sexual dysfunctions. *Reproductive System & Sexual Disorders*, 2(2), 122. <https://doi.org/10.4172/2161-038X.1000122>
- Kalichman, S. C., & Rompa, D. (1995). Sexual sensation seeking and Sexual Compulsivity Scales: Reliability, validity, and predicting HIV risk behavior. *Journal of Personality Assessment*, 65(3), 586–601. https://doi.org/10.1207/s15327752jpa6503_16
- Lahav, Y., Price, N., Crompton, L., Laufer, A., & Solomon, Z. (2019). Sexual satisfaction in spouses of ex-POWs: The role of PTSD symptoms and self-differentiation. *Journal of Sex & Marital Therapy*, 45(8), 755–766. <https://doi.org/10.1080/0092623X.2019.1594478>
- Lawrance, K. A., & Byers, E. S. (1995). Sexual satisfaction in long-term heterosexual relationships: The interpersonal exchange model of sexual satisfaction. *Personal Relationships*, 2(4), 267–285. <https://doi.org/10.1111/j.1475-6811.1995.tb00092.x>
- Lehrner, A., Flory, J. D., Bierer, L. M., Makotkine, I., Marmar, C. R., & Yehuda, R. (2016). Sexual dysfunction and neuroendocrine correlates of posttraumatic stress disorder in combat veterans: Preliminary findings. *Psychoneuroendocrinology*, 63, 271–275. <https://doi.org/10.1016/j.psyneuen.2015.10.015>
- Letica-Crepulja, M., Stevanović, A., Protuđer, M., Popović, B., Salopek-Žiha, D., & Vondraček, S. (2019). Predictors of sexual dysfunction in veterans with post-traumatic stress disorder. *Journal of Clinical Medicine*, 8(4), 432. <https://doi.org/10.3390/jcm8040432>
- McGahuey, C. A., Gelenberg, A. J., Laukes, C. A., Moreno, F. A., Delgado, P. L., McKnight, K. M., & Manber, R. (2000). The Arizona Sexual Experience Scale (ASEX): Reliability and validity. *Journal of Sex Research*, 26(1), 25–40. <https://doi.org/10.1080/009262300278623>
- Mitchell, K. R., Lewis, R., O'Sullivan, L. F., & Fortenberry, J. D. (2021). What is sexual wellbeing and why does it matter for public health? *The Lancet Public Health*, 6(8), e608–e613. [https://doi.org/10.1016/S2468-2667\(21\)00099-2](https://doi.org/10.1016/S2468-2667(21)00099-2)
- Pagorek-Eshel, S., & Finklestein, M. (2019). Family resilience among parent-adolescent dyads exposed to ongoing rocket fire. *Psychological Trauma: Theory, Research, Practice and Policy*, 11(3), 283–291. <https://doi.org/10.1037/tra0000397>
- Pâquet, M., Rosen, N. O., Steben, M., Mayrand, M. H., Santerre-Baillargeon, M., & Bergeron, S. (2018). Daily anxiety and depressive symptoms in couples coping with vulvodynia: Associations with women's pain, women's sexual function, and both partners' sexual distress. *The Journal of Pain*, 19(5), 552–561. <https://doi.org/10.1016/j.jpain.2017.12.264>
- Pascoal, P. M., de Santa Bárbara Narciso, I., & Pereira, N. M. (2014). What is sexual satisfaction? Thematic analysis of lay people's definitions. *Journal of Sex Research*, 51(1), 22–30. <https://doi.org/10.1080/00224499.2013.815149>
- Pescatori, E. S., Giammusso, B., Piubello, G., Gentile, V., & Farina, F. P. (2007). Journey into the realm of requests for help presented to sexual medicine specialists: Introducing male sexual distress. *The Journal of Sexual Medicine*, 4(3), 762–770. <https://doi.org/10.1111/j.1743-6109.2007.00460.x>
- Pfefferbaum, B., Seale, T. W., Brandt, E. N., Pfefferbaum, R. L., Doughty, D. E., & Rainwater, S. M. (2003). Media exposure in children one hundred miles from a terrorist bombing. *Annals of Clinical Psychiatry*, 15(1), 1–8. <https://doi.org/10.1023/A:1023293824492>
- Pulverman, C. S., Christy, A. Y., & Kelly, U. A. (2019). Military sexual trauma and sexual health in women veterans: A systematic review. *Sexual Medicine Reviews*, 7(3), 393–407. <https://doi.org/10.1016/j.sxmr.2019.03.002>
- Purcell-Lévesque, C., Brassard, A., Carranza-Mamane, B., & Péloquin, K. (2019). Attachment and sexual functioning in women and men seeking fertility treatment. *Journal of Psychosomatic Obstetrics and Gynaecology*, 40(3), 202–210. <https://doi.org/10.1080/0167482X.2018.1471462>

- Richardson, J. D., Ketcheson, F., King, L., Forchuk, C. A., Hunt, R., St Cyr, K., Nazarov, A., Shnaider, P., McIntyre-Smith, A., & Elhai, J. D. (2020). Sexual dysfunction in male Canadian armed forces members and veterans seeking mental health treatment. *Military Medicine*, 185(1-2), 68–74. <https://doi.org/10.1093/milmed/usz163>
- Sagy, S., & Braun-Lewensohn, O. (2009). Adolescents under rocket fire: When are coping resources significant in reducing emotional distress? *Global Health Promotion*, 16(4), 5–15. <https://doi.org/10.1177/1757975909348125>
- Santos-Iglesias, P., Mohamed, B., Danko, A., & Walker, L. M. (2018). Psychometric validation of the female sexual distress scale in male samples. *Archives of Sexual Behavior*, 47(6), 1733–1743. <https://doi.org/10.1007/s10508-018-1146-2>
- Schnurr, P. P., Lunney, C. A., Forshay, E., Thurston, V. L., Chow, B. K., Resick, P. A., & Foa, E. B. (2009). Sexual function outcomes in women treated for posttraumatic stress disorder. *Journal of Women's Health* (2002), 18(10), 1549–1557. <https://doi.org/10.1089/jwh.2008.1165>
- Shifren, J. L., Monz, B. U., Russo, P. A., Segreti, A., & Johannes, C. B. (2008). Sexual problems and distress in United States women: Prevalence and correlates. *Obstetrics and Gynecology*, 112(5), 970–978. <https://doi.org/10.1097/AOG.0b013e3181898cdb>
- Silver, R. C., Holman, E. A., Andersen, J. P., Poulin, M., McIntosh, D. N., & Gil-Rivas, V. (2013). Mental- and physical-health effects of acute exposure to media images of the September 11, 2001, attacks and the Iraq war. *Psychological Science*, 24(9), 1623–1634. <https://doi.org/10.1177/0956797612460406>
- Solomon, Z., Dekel, R., & Zerach, G. (2009). Posttraumatic stress disorder and marital adjustment: The mediating role of forgiveness. *Family Process*, 48(4), 546–558. <https://doi.org/10.1111/j.1545-5300.2009.01301.x>
- Tran, J. K., Dunckel, G., & Teng, E. J. (2015). Sexual dysfunction in veterans with post-traumatic stress disorder. *The Journal of Sexual Medicine*, 12(4), 847–855. <https://doi.org/10.1111/jsm.12823>
- van Kolthoorn, A. (2018). *The relationship between positive body image and sexual satisfaction in women: The role of body awareness and subjective sexual arousal*. Masters Thesis, Utrecht University.
- Wilcox, S. L., Redmond, S., & Hassan, A. M. (2014). Sexual functioning in military personnel: Preliminary estimates and predictors. *The Journal of Sexual Medicine*, 11(10), 2537–2545. <https://doi.org/10.1111/jsm.12643>
- World Health Organization. (1992). *International statistical classification of diseases and related health problems* (10th Rev).
- Yehuda, R., Lehrner, A., & Rosenbaum, T. Y. (2015). PTSD and sexual dysfunction in men and women. *The Journal of Sexual Medicine*, 12(5), 1107–1119. <https://doi.org/10.1111/jsm.12856>
- Zerach, G., Anat, B. D., Solomon, Z., & Heruti, R. (2010). Posttraumatic symptoms, marital intimacy, dyadic adjustment, and sexual satisfaction among ex-prisoners of war. *The Journal of Sexual Medicine*, 7(8), 2739–2749. <https://doi.org/10.1111/j.1743-6109.2010.01784.x>