

Conflict-related and sexual trauma in treatment-seeking Arabic-speaking men: a cross-sectional study

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Summary

Background Sexual trauma in the context of conflict and displacement is considered one of the most serious and stigmatising forms of human rights violations. Although it has occurred throughout history, research data on this topic is scarce, especially regarding male survivors and Arabic-speaking countries. In the present study, we examined sexual and conflict-related trauma prevalence rates and those of other trauma types, as well as associations with sociodemographic and psychological characteristics among men from Arabic-speaking countries in the Middle East and North Africa (MENA) region seeking treatment via the internet.

Methods In a cross-sectional and exploratory study design, prevalence rates of different trauma types were examined in a sample of treatment-seeking Arabic-speaking men. Sociodemographic characteristics, psychological symptom scores, disclosure rates, and trauma-related cognitive alterations were compared between participants reporting sexual trauma only (STo), conflict-related trauma only (CRTo), both trauma types (ST + CRT), and other trauma types (Non-ST/CRT). For the primary outcomes (psychological symptoms and trauma exposure) the group differences were analysed using an ANOVA and post-hoc pairwise group comparisons. The data collection took place between February 2021 and March 2023.

Findings In total, 3903 men were initially screened. Of these, 2138 men indicated having experienced at least one traumatic event from a list of 23 types of events (man-made and non-man-made trauma) and were included in the study (age median: 25, age interquartile range: 10). 22% ($n = 471$) of participants were categorised into the STo group, 5.9% ($n = 127$) into the ST + CRT group, 18.6% ($n = 397$) into the CRTo group, and 53.5% into the Non-ST/CRT group ($n = 1143$). The ST + CRT group scored higher on measures of depression and posttraumatic stress disorder (PTSD) compared to all other groups; significant differences between the groups were found on both these primary outcomes (depression: $F(df) = 3.65 (3, 503.33)$, $p < 0.05$; PTSD: $F(df) = 5.71 (3, 507.57)$, $p < 0.01$). However, these outcomes did not differ significantly between the ST + CRT group and the STo group. Furthermore, the STo and ST + CRT groups showed the highest scores for trauma appraisal and posttraumatic maladaptive beliefs, with no significant differences between them. Notably, the STo group scored significantly lower on the measure of disclosure to others than both the CRTo group (adjusted mean difference [aMD] = -1.14 , 95% CI [$-1.56, -0.71$], $p < 0.001$) and the Non-ST/CRT group (aMD = -0.90 , 95% CI [$-0.58, -1.22$], $p < 0.001$). Additionally, the STo group scored greater trauma-related guilt compared to the CRTo (aMD = 0.45 , 95% CI [$0.29, 0.61$], $p < 0.001$) and the Non-ST/CRT groups (aMD = 0.21 , 95% CI [$0.33, 0.09$], $p < 0.001$).

Interpretation The results of this exploratory study reveal that a substantial proportion of Arabic-speaking treatment seeking men from different countries in the MENA region reported experiences of sexual and conflict-related trauma, which were associated with high psychological symptom scores. The parallels with survivors of sexual violence occurring in other contexts emphasise the need for sensitivity of researchers and practitioners when assessing sexual violence in male patients. Clinicians should furthermore bear in mind the cognitive alterations and significant barriers to disclosure, which reflect societal taboos and stigma, when working with survivors.

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Keywords: Conflict-related sexual violence (CRSV) against men; MENA region; Trauma; Mental health consequences; Disclosure

Research in context

Evidence before this study

Research on male survivors of sexual violence in conflict settings is scarce, particularly in Arabic-speaking countries. We searched APA PsycInfo and PubMed for peer-reviewed studies published from January 1, 2000, to May 31, 2024. Only publications written in or providing at least an abstract and/or summary in English or German language were reviewed. The search terms used were (“conflict-related sexual violence” OR “CRSV”) AND (“male survivors” OR “men”) AND “psych*“. In addition to a few original research studies that were mainly conducted in sub-Saharan Africa, there was one systematic review examining health outcomes of sexual violence in civilians of all genders in conflict zones from 1981 to 2014. From the Middle East & Northern Africa (MENA) region, only one original study focused on the psychological symptoms of conflict-related sexual violence against Arabic-speaking men.

Added value of this study

This study provides a significant contribution by utilising an online platform to reach a stigmatised, underserved, and hard-to-reach population, specifically Arabic-speaking men

who reported experiences of trauma including conflict-related and sexual violence. To our knowledge, this is the first study to examine trauma-related cognitive outcomes in this population using standardised, quantitative psychological measures. By investigating differences in mental health outcomes, such as psychological symptoms and cognitive alterations, among survivors of distinct traumatic experiences, our findings offer valuable insights that serve to improve access to effective and tailored treatment.

Implications of all the available evidence

Experiences of sexual and conflict-related trauma have severe mental health impacts on male survivors which lead to high barriers for disclosure, particularly after experiencing sexual trauma. Our findings suggest similar consequences of CRSV and sexual violence occurring in other contexts, such as facing societal taboo, stigma, or increased feelings of guilt. There is an urgent need for both further research as well as implementation and adjustment of survivor-specific treatment programmes addressing these issues.

Introduction

“The term ‘conflict-related sexual violence’ refers to rape, sexual slavery, forced prostitution, forced pregnancy, enforced sterilization and other forms of sexual violence of comparable gravity perpetrated against women, men, girls or boys that is linked, directly or indirectly (temporally, geographically, or causally) to a conflict. This link may be evident in the profile of the perpetrator; the profile of the victim; in a climate of impunity or State collapse; in the cross-border dimensions; and/or in violations of the terms of a cease-fire agreement.”¹

Conflict-related sexual violence (CRSV) is a form of gender-based violence and a human rights violation that can affect persons of any gender. For good reasons, the focus of science, activism, and policy, has been primarily on female survivors.² When studying CRSV, gender disaggregation is important to identify similarities and differences between its nature, prevalences and consequences.³ CRSV against men and boys has long been largely ignored, not only by political institutions and decision-makers as well as civil society organisations,^{4,5} but also by researchers from all disciplines, including psychology.^{6,7} Various obstacles, on the individual, the community, and the institutional level, impede the reporting of sexual violence and its

psychological consequences. Such obstacles include feelings of shame, guilt, fear of stigma,⁸ gender roles (perceived incompatibility of masculinity and victimisation, narratives of “emasculatation”, or homosexualisation),⁹ victim/survivor status, and legal consequences (e.g., survivors’ fears that others will not believe them or that the perpetrator will retaliate¹⁰; criminalisation of any homosexual activity⁹). Hence, there is a considerable likelihood of unreported cases among male survivors^{4,7} and it must be assumed that the reported figures underestimate the actual magnitude of CRSV against men and boys.

Insights from psychological and epidemiological research that is not specific to male survivors or to the intersection of sexual and conflict-related violence allow for initial conjectures regarding the psychological dimensions of consequences of CRSV: War-related as well as sexual violence are highly correlated with the probability of developing posttraumatic stress disorder (PTSD).¹¹ Furthermore, sexual violence in general has been shown to be associated with a high risk and greater severity of PTSD, depression, anxiety, and substance use disorders, and also with problems in relationships as well as regarding sexual intimacy and health.^{12–14} In a systematic review of patterns of trauma exposure, O’Donnell et al.¹⁵ found that survivors of sexual trauma

showed a higher risk of developing psychiatric disorders compared to survivors and witnesses of physical assaults. When sexual trauma occurs within the context of conflict, it can be assumed that survivors are also subjected to other potentially traumatic events associated with violent conflict, such as hunger, displacement, or economic crises.

Empirical studies that analysed consequences of CRSV against men and boys show corresponding findings. In their systematic review, Ba and Bhopal¹⁶ reported that the most frequent mental health outcomes of CRSV on civilians were PTSD, anxiety, and depression. Johnson et al.¹⁷ conducted a population-based survey examining war-related psychological stress in Liberia, including 786 men, and found that among the male participants, 32.6% of former soldiers and 7.4% of civilians reported CRSV. The prevalence of PTSD among these survivors of CRSV was especially high, lying at 81% for the soldiers and 46% for the civilians. Another population-based survey focusing on conflict-related psychological stress was conducted in the Democratic Republic of Congo and included 405 men, of whom 21.5% reported CRSV.¹⁸ These survivors likewise showed high prevalence rates of mental disorders: 56.0% suffered from PTSD, 50.1% from substance use disorders, 47.5% from depression, and 39.3% from suicidal ideation, with 22.8% reporting at least one suicide attempt. Chynoweth et al.¹⁹ conducted a qualitative exploratory study on characteristics and impacts of sexual violence against men and boys in conflict and displacement in multiple countries (e.g., Bangladesh, migrants from the Democratic Republic of Congo, Somalia, and South Sudan). The findings revealed a range of psychological symptoms, including intrusive thoughts, sleep disturbances, suicidal ideation, feelings of isolation, and loneliness. More specifically, the survivors described feelings of guilt, anger, shame, and self-blame. In a sample of 106 detained male Syrian citizens, Kivlahan et al.²⁰ found high rates of reported CRSV and associated protracted psychological symptoms such as intrusive memories and avoidance as well as increased feelings of anger, distrust, and self-isolation years after the detention. In their study on sexual violence in Northern Uganda, Kinyanda et al.²¹ analysed a sample of 813 persons who had been internally displaced during the war between the central government and the rebel group. In total, 28.6% of the female and 6.7% of the male participants reported war-related sexual violence, and 70% of these affected participants reported significant psychological distress. In a sample of 60 men from Croatia and Bosnia, who were seeking psychosocial support after experiencing sexual violence during imprisonment in the wars in the former Yugoslavia, all participants were found to meet the diagnostic criteria for PTSD.²²

Data on conflict-related violence and its psychological consequences are not as scarce as data on sexual

violence in the context of conflicts. The consequences of violent conflicts are manifold, with the destruction of political, economic, socio-cultural, and healthcare infrastructure substantially impacting people's lives.²³ A substantial portion of the civilian population experience violence that leads to traumatic events, and many are forced to flee their home towns or countries. Additionally, natural disasters or economic crises can further contribute to forced migration.²⁴ Various meta-analyses have reported high rates of posttraumatic stress and a strong prevalence of mental disorders among survivors of violent conflicts. For instance, from a total number of $k = 118$ studies with civilians from the Eastern Mediterranean Region who had been exposed to continuous violent conflict, war, or associated human rights abuses, Stein et al.²⁵ reported a pooled estimate of proportions of posttraumatic stress of 31%. Similarly, Morina et al.²⁶ found prevalences of 27% and 26% for depression and PTSD, respectively, among civilian war survivors. The authors pointed out that gender explained some of the variance in prevalence rates, with samples including more women showing higher prevalence rates for PTSD. A meta-analysis comparing civilian and military populations exposed to war found similarly high prevalence rates of posttraumatic stress in both groups (25.7% for civilians vs. 21.3% for military personnel), whilst levels of depression and anxiety were higher in the civilian group than in the military group.²⁷ For refugees and asylum seekers, a meta-analysis including but not limited to countries of origin from the Middle East & Northern Africa (MENA) region such as Syria, Iraq, Sudan, and the Palestinian territories, found a prevalence of 31.5% for PTSD and of 31.5% for depression.²⁸

It can be summarised that males who experience CRSV are—similarly to females—exposed to an especially high risk of severe psychological burden, leading to various mental disorders.^{16–22} Moreover, due to gender norms and roles, male survivors of CRSV often face taboo and stigma, creating significant barriers to disclosure and help-seeking behaviour.^{4,7} However, given that (non-)disclosure of sexual violence has important psychological consequences,^{29–31} there is an urgent need for detailed and systematic assessments of CRSV against males and its health consequences.⁷

With regard to psychological consequences, cognitive alterations might play an important role, as dysfunctional thoughts have been shown to impact the development and maintenance of PTSD in general^{32–36} but also the processing and handling of emotions associated with sexual violence (e.g., shame, guilt). Additionally, an investigation of posttraumatic appraisals, i.e., “people's assessments of their thoughts, feelings (including affective states), and behaviors”³⁷ might enable differences in PTSD or trauma-related depression severity to be disentangled. For instance, studies have demonstrated associations between PTSD and feelings such as anger, shame, self-blame, betrayal, and alienation (feeling

disconnected from oneself and others).^{38,39} Moreover, shame has been shown to be associated primarily with PTSD^{40,41} whereas post-traumatic self-blame has been mainly associated with depression.³⁷ Beck et al.⁴² argued that different appraisals can be a result of varying trajectories of individual posttraumatic processes, in which cognitions and emotions change over time.

While some documentations of CRSV against men and boys exist for armed conflicts of the recent past,^{9,43–45} quantitative data on the prevalence of CRSV and its associated mental health consequences are limited. In their systematic review of 20 studies examining the health outcomes of CRSV on civilians between 1981 and 2014, Ba and Bhopal¹⁶ found only eight studies that included data on male survivors. The included studies were mainly from sub-Saharan Africa, i.e., the Democratic Republic of Congo, Liberia, and Uganda.

Very few analyses have focused on migrants and refugees (of all genders) who have experienced sexual violence and have resettled in Europe.^{46–48} Moreover, aside from one retrospective study analysing data from Syria,²⁰ there is a notable absence of quantitative data from Arab-speaking populations in the MENA region. Aside from a series of revolutions, armed conflicts, terrorist attacks, widespread violence, wars, and economic recessions in the last decades in this region,^{23,49} and anecdotal evidence pointing to the prevalence of CRSV as a method of torture, comprehensive research is scarce. This gap is particularly evident when examining CRSV, not only due to the region's protracted conflicts but also because of strong gender norms and the criminalisation of homosexual activity. In sum, research on CRSV against males is limited, and quantitative data from different recent conflict-affected regions is especially lacking.

Against the background of the aforementioned research gaps, the present cross-sectional study aimed to reduce this deficit of quantitative data on CRSV against men and its associated mental health consequences by focusing on differences between survivors of different traumatic events (e.g., sexual trauma, conflict-related trauma, sexual and conflict-related trauma) and assessing prevalence rates of traumatic events and associated sociodemographic, psychological, and cognitive characteristics. Focusing on Arabic-speaking countries in the MENA region, we hypothesised that treatment-seeking male survivors of conflict-related and sexual trauma would report substantially higher levels of PTSD and depressive symptoms (primary outcomes) compared to male survivors of non-sexual conflict-related violence and male survivors of sexual violence outside of conflicts. Furthermore, we expected that survivors of conflict-related and sexual trauma would experience more posttraumatic maladaptive beliefs and negative trauma appraisals, and report higher trauma-related guilt, whilst scoring lower on the measure of disclosure to others than the other groups (secondary

outcomes). However, it seems important to emphasise that these reflections and hypotheses are rather exploratory in nature and should be understood as a first cautious approach to the phenomenon of CRSV against men and boys in Arabic-speaking countries, especially with respect to the data characteristics of the present analyses, being described in detail below.

Methods

Study design and participants

The current cross-sectional and exploratory study is part of a larger open-label dissemination treatment study.^{50,51} The aim of the treatment study was to investigate the efficacy of online psychotherapeutic interventions in Arabic-speaking individuals experiencing posttraumatic stress or depressive symptoms (for a detailed description of the treatment programme see Stein et al.⁵⁰ and El-Haj-Mohamad et al.⁵¹). The written-based therapist-guided treatment and the assessments were free-of-cost and delivered through a secure online platform programmed specifically for the project, with all interactions between therapists and participants conducted on this platform. It was accessible for Arabic-speaking individuals from anywhere in the world, regardless of the participants' geographic location. Participants were mainly recruited from a range of Arabic-speaking countries in the MENA region, including but not limited to Egypt, Saudi Arabia, Syria, Jordan, and Iraq, as well as individuals who may have relocated from these countries to other regions. Consequently, the participants in this study were Arabic-speaking individuals seeking online assistance for posttraumatic stress disorder or depression. Upon providing written informed consent, participants completed an initial assessment that included questionnaires on socio-demographic information, trauma exposure, and psychological symptoms (such as depression, anxiety, and posttraumatic stress). This baseline data was used for the current study and served as the starting measure for their participation in the intervention. All eligible participants who completed the screening questionnaires were offered one of the treatments.

For recruitment, we used internet advertisements e.g., on social media, local partner organisations, word-of-mouth recommendations, and a programme website.⁵² The programme website provided general information about PTSD, depression, various treatment alternatives, and the purpose of the study. Participants were informed about the voluntary nature of participation and that their data would be protected by rigorous security measures. To be included in the present analysis, participants had to be able to read and write in Arabic, identify as male, and have access to the internet. Furthermore, potential participants needed to report at least one traumatic experience. Hence, the participants of the study were treatment-seeking males from

Arabic-speaking countries who had experienced trauma. The STROBE guidelines for cross-sectional reporting were applied in the preparation of this article.⁵³

Ethics

The studies involving human participants were reviewed and approved by the ethics committee at the Freie Universität Berlin (126/2016). All participants provided their written informed consent to participate in this study.

Procedures

Data collection and assessment process

The data collection took place between February 2021 and March 2023. All measures were assessed online before the start of the intervention. The screening questionnaire covered sociodemographic data, i.e., age, education, country of origin, country of residence, and two binary questions inquiring whether participants had to flee from their home country as a consequence of an armed conflict or fear of persecution, and whether they had previously received treatment for their present mental health problems. Following this, the outcome measures mentioned below were assessed.

Outcomes

The primary outcomes include measures of psychological symptoms, i.e., depression, posttraumatic stress symptoms (PTSD), and somatisation, as well as trauma exposure. Secondary outcomes include measures of disclosure and cognitive alterations. Table 1 presents an overview of all primary and secondary outcomes assessed and the respective measures.

Exposure to traumatic events was assessed using a measure derived from combining the trauma event lists

of two standardised questionnaires: the Harvard Trauma Questionnaire (HTQ)⁵⁴ and the first part of the Posttraumatic Diagnostic Scale (PDS).⁵⁵ Item 16 (“Severe injury, damage, or death inflicted on others”) of the Life Events Checklist for DSM-5 (LEC-5)⁵⁶ was additionally included. In total, this measure encompassed 23 items assessing exposure to various types of traumatic events, with multiple answers possible. Respondents may have experienced the events themselves, witnessed them in others, or learned that a relative or close friend had experienced the events, or may have been exposed to aversive details of the events in the course of their professional duties. In the analysis, we used the sum score, representing the number of different traumatic events reported by participants.

Depressive symptoms were assessed using the Beck Depression Inventory II (BDI-II),⁵⁷ which is a widely used self-report inventory. The frequency of each symptom within the last two weeks is rated on a Likert scale ranging from *not at all* (0) to *completely* (3). Various studies have found evidence to support the reliability and validity of the BDI-II across different populations, including Arabic-speaking populations.^{58–60} In the present sample, internal consistency of the BDI-II lay at $\alpha = 0.89$.

Somatisation was measured using the Patient Health Questionnaire-15 (PHQ-15),⁶¹ which contains 15 items assessing somatic complaints, each rated on a Likert scale ranging from *not affected* (0) to *strongly affected* (2). The Arabic version of the questionnaire has shown external validity in primary care patients in Saudi Arabia.⁶² Internal consistency of the PHQ-15 in the present sample was $\alpha = 0.84$.

Posttraumatic stress symptoms were assessed using the Posttraumatic Stress Disorder Checklist (PCL-5),⁶³

Outcome category	Construct	Measure	Answer format	Total no. of items	Range of total score
Primary (trauma exposure and psychological symptoms)	Exposure to traumatic events	Trauma list combining Harvard Trauma Questionnaire (HTQ), ⁵³ Posttraumatic Diagnostic Scale (PDS), ⁵⁴ and Life Events Checklist for DSM-5 (LEC-5) ⁵⁵	True/false	23	1–23
	Depression	Beck Depression Inventory II (BDI-II) ⁵⁶	4-point Likert scale	21	0–63 (sum score)
	Somatisation	Patient Health Questionnaire-15 (PHQ-15) ⁵⁷	3-point Likert scale	15	0–30 (sum score)
	Posttraumatic stress symptoms	Posttraumatic Stress Disorder Checklist (PCL-5) ⁵⁸	5-point Likert scale	20	0–80 (sum score)
Secondary (disclosure and cognitive alterations)	Disclosure	One-item-measure asking about frequency of disclosure	9-point Likert scale	1	0–8
	Trauma-related guilt	Trauma-Related Guilt Inventory (TRGI) ⁵⁹ —guilt cognitions subscale	5-point Likert scale	22	0–4 (mean score)
	Posttraumatic maladaptive beliefs	Posttraumatic Maladaptive Beliefs Scale (PMBS) ⁶⁰	7-point Likert scale	15	7–105 (sum score)
	Trauma appraisal	Trauma Appraisal Questionnaire (TAQ) ⁶¹	5-point Likert scale	54	54–270 (sum score)

Table 1: Overview of outcomes assessed and respective measures.

which is a self-report measure encompassing 20 items corresponding to the PTSD symptoms listed in the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5).⁶⁴ Each item refers to one symptom of PTSD, grouped into four symptom clusters: re-experiencing, avoidance, negative alterations in cognition and mood, and hyperarousal. The frequency of each symptom referring to the last 4 weeks is rated on a Likert scale ranging from *not at all* (0) to *extremely* (4). The PCL-5 has shown satisfactory validity^{65,66} and is recommended for assessing posttraumatic distress in Arabic-speaking populations.⁶⁷ Internal consistency of the PCL-5 in the present study was $\alpha = 0.92$.

Disclosure refers to “verbal, interpersonal expressions of self-relevant information”⁶⁸ that reveal a discloser’s “concealable stigmatized identity”⁶⁸ to a trusted confidant. It was assessed using one item asking whether the respondent had talked to others (e.g., friends, family, acquaintances) about the most stressful event (other than psychological professionals). Answers were given on a Likert scale ranging from *never* (0) to *daily* (8).

Trauma-related guilt refers to the experience of distressing emotions while negatively appraising action or inaction during a traumatic event as inconsistent with a person’s value system.⁶⁹ The Trauma-Related Guilt Inventory (TRGI)⁷⁰ is a self-report questionnaire that measures cognitive and emotional attributes of guilt related to a traumatic event. It is composed of three subscales: global guilt (four items), distress (six items), and guilt cognitions. The latter was used in the present study. Items were rated on a Likert scale ranging from *not at all true* (0) to *extremely true* (4). The guilt cognitions subscale has shown high internal consistency and construct validity in a trauma sample.⁷⁰ Internal consistency of the TRGI guilt cognitions subscale in the present study was $\alpha = 0.90$.

The *Posttraumatic Maladaptive Beliefs Scale* (PMBS)⁷¹ assesses beliefs in response to traumatic events. It comprises three subscales: threat of harm, self-worth and judgement, trustworthiness of others. Items are rated on a Likert scale ranging from *not at all true* (1) to *completely true* (7). The PMBS has been shown to be reliable and valid.⁷¹ Internal consistency of the PMBS in the present study was $\alpha = 0.78$.

The *Trauma Appraisal Questionnaire* (TAQ)⁷² assesses what participants have felt, experienced and thought during the past month when reflecting on the traumatic event. It is a self-report measure comprising six distinct subscales: betrayal, self-blame, fear, alienation, anger, and shame. Items are rated on a Likert scale ranging from *strongly disagree* (1) to *strongly agree* (5). The TAQ has shown satisfactory reliability and validity.⁷² Internal consistency of the TAQ in the present study was $\alpha = 0.96$.

The measures were translated using the forward-backward translation method as no validated Arabic

versions were available at the time of the study planning.

Statistics

For this study, only complete screening measures were included. Therefore, no missing data had to be excluded or imputed. The analysis plan comprised two steps: First, sociodemographic and trauma characteristics were examined. Second, psychological symptoms, along with measures of disclosure and cognitive alterations were compared in an exploratory manner among participants who reported 1) sexual trauma only (STo) vs. 2) conflict-related trauma only (CRTo) vs. 3) both sexual trauma and conflict-related trauma (ST + CRT) vs. 4) non-sexual and non-conflict-related trauma (Non-ST/CRT). Participants were stratified into these four groups based on the traumatic events they reported: The first group, “Sexual Trauma only” (STo), reported at least one sexual traumatic event (i.e., sexual assault by a family member or acquaintance, sexual assault by a stranger) but no conflict-related traumatic event (i.e., combat deployment in war or stay in a war zone). The second group, “Conflict-Related Trauma only” (CRTo), reported a conflict-related traumatic event but no sexual traumatic event. The third group (ST + CRT) reported at least one sexual traumatic event and one conflict-related traumatic event. The fourth group (Non-ST/CRT) reported at least one traumatic event but no sexual or conflict-related traumatic event.

To examine group differences in categorical data, Pearson’s χ^2 test was used. For ordinal data, we used the Kruskal–Wallis test with pairwise Wilcoxon tests for post-hoc comparison. For age and the psychological symptoms group differences in continuous variables were analysed using an ANOVA with Welch’s F-test. Welch’s F-test is reliable and is recommended irrespective of homogeneity/heterogeneity of variances as it yields unbiased results.^{73,74} When the ANOVA revealed significant group differences, post-hoc pairwise group comparisons were used, following Field’s recommendations regarding test selection.⁷⁵ Accordingly, Hochberg’s GT2 test was used due to unequal group sizes, or the Games–Howell test was used in cases where the assumption of homogeneity of variances was violated (significance of Levene’s test). For the measures of disclosure, guilt, trauma appraisal and its subscales as well as posttraumatic maladaptive beliefs and its subscales, linear regression was used to determine the mean differences between the four groups. For control of confounding, the regression models have been adjusted for the demographic variables age, education, family status, and experience of flight.

For the *p* values a cut-off of .05 was used for significance testing. No corrections for multiple testing were applied, neither for the multiple primary outcomes nor for the multiple comparisons. Statistical analyses were

conducted using the program R (version 4.2.1) and IBM SPSS Statistics (Version 21 for Windows).

Role of funding source

The funder had no role in study design, data collection, data analyses, data interpretation, or writing of report.

Results

A total of 3903 male individuals registered, provided informed consent, and completed the screening questionnaires, of whom 2535 participants (65.0%) reported at least one traumatic experience and thus qualified for the study. Of these, 390 (15.4%) men were excluded from the analysis due to incomplete screening data. The final sample of the present analysis thus included $N = 2138$ men. From these, $n = 302$ men entered into treatment after taking part in a clinical interview.

Sociodemographic characteristics

A summary of sociodemographic characteristics of the sample is given in [Table 2](#). The sample consisted of $N = 2138$ male participants with a mean age of 27 years ($SD = 8.05$, range 18–70). 41% ($n = 877$) of the participants reported having a college diploma. The study included participants from 49 different countries of origin. The five most represented countries were Egypt ($n = 726$, 34.0%), Saudi Arabia ($n = 290$, 13.6%), Syria ($n = 284$, 13.3%), Jordan ($n = 126$, 5.9%), and Iraq ($n = 121$, 5.7%). Regarding current places of residence, participants were living in 67 different countries, with the highest proportion from Egypt ($n = 728$, 34.1%), Saudi Arabia ($n = 272$, 12.7%), Jordan ($n = 141$, 6.6%),

Morocco ($n = 115$, 5.4%), and Iraq ($n = 111$, 5.2%). In total, 15.9% ($n = 341$) of the participants indicated that they had to flee their home country as a consequence of an armed conflict or fear of persecution. On average, participants reported experiencing 4.5 out of 23 different traumatic events (range 1–23).

Prevalence rates and group comparisons

The five most frequently reported traumatic event types were being close to death ($n = 907$, 42.4%), poor health without access to medical care ($n = 857$, 40.1%), serious accident, fire or explosion ($n = 609$, 28.5%), unnatural death of a family member or friend ($n = 580$, 27.1%), and lack of food and water ($n = 532$, 24.9%). A total of 28.0% ($n = 598$) of the participants reported at least one sexual traumatic event and 24.5% ($n = 524$) reported one conflict-related traumatic event. [Figure A](#) in the [Supplementary material](#) presents the prevalence rates of all reported traumatic events.

Building the first group for comparison, $n = 471$ (22.0%) men reported at least one sexual traumatic event and no conflict-related trauma (STo). Of this group, $n = 178$ men (37.8%) men reported sexual assaults by a stranger, $n = 112$ men (23.8%) reported sexual assaults by a family member or acquaintance, and $n = 181$ men (38.5%) reported both types of sexual assaults. In the second group, $n = 397$ (18.6%) men reported at least one conflict-related traumatic event and no sexual traumatic events (CRTo). In the third group, $n = 127$ (5.9%) men reported at least one sexual traumatic event and at least one conflict-related traumatic event (ST + CRT). In the fourth group, $n = 1143$ (53.5%) men reported at least one traumatic event but neither a sexual nor a conflict-related traumatic event (Non-ST/CRT). [Figures B–E](#) in the [Supplementary material](#) provide detailed prevalence data, showing the frequency of traumatic events for each of the four groups separately.

Differences between the groups were found for all sociodemographic variables ([Table 3](#), Welch's F-test, Kruskal–Wallis test, Pearson's χ^2 test; all $p < 0.05$). A post-hoc test confirmed that men in the CRTo group were significantly older than men in the STo and Non-ST/CRT groups (both $p < 0.05$). Even though the frequencies point to a difference in educational levels ($p < 0.05$ for the Kruskal–Wallis test), indicating a lower level of education in the ST + CRT group, post-hoc analyses revealed that these differences were not significant (all $p > 0.05$ in pairwise comparisons). Experience of flight was more prevalent in the CRTo and ST + CRT groups than in the two groups with non-conflict-related trauma (STo, Non-ST/CRT).

Primary outcomes

[Fig. 1](#) shows mean scores on the measures of psychological symptoms for each of the four groups. The ST + CRT group showed the highest mean scores on all scales and the STo group showed the second highest

Characteristics	Total sample ($N = 2138$)
Age, M (SD)	27.1 (8.05)
Education, n (%)	
No school-leaving qualification	54 (2.5%)
Middle school	2215 (10.1%)
High school	992 (46.4%)
College or university degree	877 (41.0%)
Family status, n (%)	
Single	1431 (66.9%)
In a relationship	198 (9.3%)
Married/partnership	453 (21.2%)
Divorced	54 (2.5%)
Widowed	2 (0.1%)
Experience of flight, n (%)	
Yes	341 (15.9%)
No	1797 (84.1%)
Past treatment, n (%)	
Yes	503 (23.5%)
No	1635 (76.5%)

Table 2: Sociodemographic characteristics of participants.

Variable	STo n = 471	CRTo n = 397	ST + CRT n = 127	Non-ST/CRT n = 1143	χ^2 (df)	F(df)	p
Age (M, SD)	26.2 (7.6) ^a	28.8 (8.2) ^{ab}	28.0 (7.5)	26.8 (8.0) ^b	-	8.86 (3, 497.30) ^c	<0.001
Education (n, %)					8.34 (3) ^d	-	0.040
No school-leaving qualification	10 (2.1%)	16 (4.0%)	6 (4.7%)	22 (1.9%)			
Middle school	53 (11.3%)	46 (11.6%)	20 (15.7%)	96 (8.4%)			
High school	237 (50.3%)	158 (39.8%)	55 (43.3%)	542 (47.4%)			
College or university degree	171 (36.3%)	177 (44.6%)	46 (36.2%)	483 (42.3%)			
Experience of flight (n, %)					481 (3) ^e	-	<0.001
No	435 (92.4%)	210 (52.9%)	71 (55.9%)	1081 (94.6%)			
Yes	36 (7.6%)	187 (47.1%)	56 (44.1%)	62 (5.4%)			
Past treatment (n, %)					9.03 (3) ^e	-	0.029
No	339 (72.0%)	302 (76.1%)	94 (74.0%)	900 (78.7%)			
Yes	132 (28.0%)	95 (23.9%)	33 (26.0%)	243 (21.3%)			

Note. N = 2138. STo: at least one sexual trauma but no conflict-related trauma; CRTo: at least one conflict-related trauma but no sexual trauma; ST + CRT: at least one sexual trauma and one conflict-related trauma; Non-ST/CRT: at least one trauma but no sexual or conflict-related trauma. Percentages add up to 100% per variable within columns. P values in bold indicate statistical significance at $p < 0.05$. ^aWithin a row, means with the same exponents differ significantly ($p < 0.05$) from each other according to Games-Howell test. ^cComparison based on Welch's test. ^dComparison based on Kruskal-Wallis test. ^eComparison based on Pearson's χ^2 -test with Yates continuity correction.

Table 3: Group comparison: sociodemographic characteristics.

mean scores on most scales. Significant differences between the groups were found on all measures of psychological symptoms (Table 4, Welch's F-tests; all $p < 0.05$) except for PTSD re-experiencing and somatisation.

Post-hoc tests confirmed multiple significant pairwise differences ($p < 0.05$). There were no significant differences between the STo and ST + CRT groups. Compared to CRTo, ST + CRT scored significantly higher for depression, PTSD symptoms overall, PTSD avoidance, PTSD negative alterations in cognitions and mood, and PTSD hyperarousal. Significant differences were also found between ST + CRT and Non-ST/CRT regarding PTSD symptoms overall and PTSD negative alterations in cognitions and mood.

All pairwise differences between the groups regarding the experience of potentially traumatic events were significant ($p < 0.05$), with the ST + CRT group reporting the highest number of events, followed by CRTo, STo, and Non-ST/CRT, respectively.

Secondary outcomes

Fig. 2 shows the mean scores on the disclosure and cognition measures across the four groups. Adjusted linear regression predicted significant differences in disclosure and all total scores of cognitive alterations between the groups (see Table 5; all $p < 0.05$), including their subscales, with the exception of the PMBS trustworthiness of others subscale. Detailed results for the trauma appraisal (TAQ) and posttraumatic maladaptive

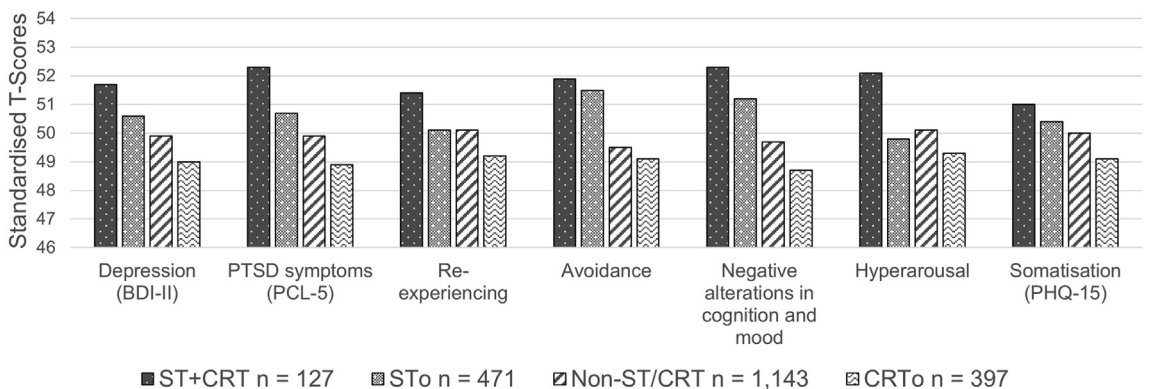


Fig. 1: Group comparison: psychological symptoms. Note. N = 2138. STo: at least one sexual trauma but no conflict-related trauma; CRTo: at least one conflict-related trauma but no sexual trauma; ST + CRT: at least one sexual trauma and one conflict-related trauma; Non-ST/CRT: at least one trauma but no sexual or conflict-related trauma. For comparability between the different scales, all values were transformed into standardised T-scores (M = 50, SD = 10).

Variable	STo n = 471	CRTo n = 397	ST + CRT n = 127	Non-ST/CRT n = 1143	F(df) ^g	p
Depression (BDI-II)	34.8 (13.3)	32.7 (12.1) ^a	36.2 (11.2) ^a	34.0 (12.9)	3.51 (3, 503.47)	0.015
PTSD symptoms (PCL-5)	47.5 (16.7) ^a	44.4 (17.0) ^{ab}	50.3 (14.5) ^{bc}	46.1 (17.5) ^c	5.55 (3, 507.75)	0.001
Re-experiencing	10.1 (5.7)	9.6 (5.6)	10.9 (5.4)	10.1 (5.7)	1.86 (3, 495.17)	0.135
Avoidance	4.7 (2.7) ^{ab}	4.0 (2.6) ^{ac}	4.8 (2.5) ^c	4.1 (2.8) ^b	7.29 (3, 500.60)	<0.001
Negative alterations in cognition and mood	18. (6.4) ^{ab}	17.1 (6.5) ^{ac}	19.5 (5.6) ^{cd}	17.8 (6.6) ^{bd}	7.52 (3, 504.87)	<0.001
Hyperarousal	13.9 (5.8)	13.6 (5.7) ^a	15.2 (4.9) ^a	14.1 (5.9)	3.27 (3, 508.09)	0.021
Somatisation (PHQ-15)	13.0 (5.8)	12.2 (5.7)	13.3 (5.5)	12.7 (5.6)	1.65 (3, 492.18)	0.176
Exposure to traumatic events	4.9 (3.3) ^{abc}	6.3 (4.2) ^{ade}	10.0 (5.0) ^{bdf}	3.1 (2.5) ^{cef}	158.28 (3, 444.40)	<0.001

Note. N = 2138. STo: at least one sexual trauma but no conflict-related trauma; CRTo: at least one conflict-related trauma but no sexual trauma; ST + CRT: at least one sexual trauma and one conflict-related trauma; Non-ST/CRT: at least one trauma but no sexual or conflict-related trauma. P values in bold indicate statistical significance at p < 0.05. ^{a, b, c, d, e, f}Within a row, means with the same exponents differ significantly (p < 0.05) from each other according to Hochberg's GT2 post-hoc test for PTSD re-experiencing and somatisation, or Games-Howell test for depression, PTSD symptoms overall, PTSD avoidance, PTSD negative alterations in cognition and mood, PTSD hyperarousal, and number of traumatic events. ^gComparison based on Welch's test.

Table 4: Group comparison: psychological symptoms and trauma exposure.

beliefs (PMBS) subscales can be found in Tables A and B in the [Supplementary material](#).

The adjusted mean differences (aMD) predicted by the regression models were significant (p < 0.05) between several groups. On average, the STo group showed a significant decrease in disclosure to others compared to the CRTo group (aMD = -1.14, 95% CI [-1.56, -0.71], p < 0.001) and the Non-ST/CRT group (aMD = -0.90, 95% CI [-0.58, -1.22], p < 0.001). Conversely, the CRTo group showed a significant increase in disclosure to others compared to the ST + CRT group (aMD = 0.70, 95% CI [0.11, 1.30], p < 0.05).

Trauma-related guilt (TRGI) was highest in the STo group, which showed a significant increase compared to both the CRTo group (aMD = 0.45, 95% CI [0.29, 0.61],

p < 0.001) and the Non-ST/CRT group (aMD = 0.21, 95% CI [0.33, 0.09], p < 0.001).

Men from the ST + CRT group reported the highest scores for overall trauma appraisal (TAQ) and post-traumatic maladaptive beliefs (PMBS). Again, the adjusted mean differences were significantly higher compared to the CRTo and the Non-ST/CRT. However, no significant difference was found when compared with the STo group.

The same applies to most of the subscales of trauma appraisal (TAQ) and posttraumatic maladaptive beliefs (PMBS): The ST + CRT group scored highest on all subscales, but significant differences were found when compared to the CRTo or Non-ST/CRT groups. The STo group, however, scored comparably high on all of the

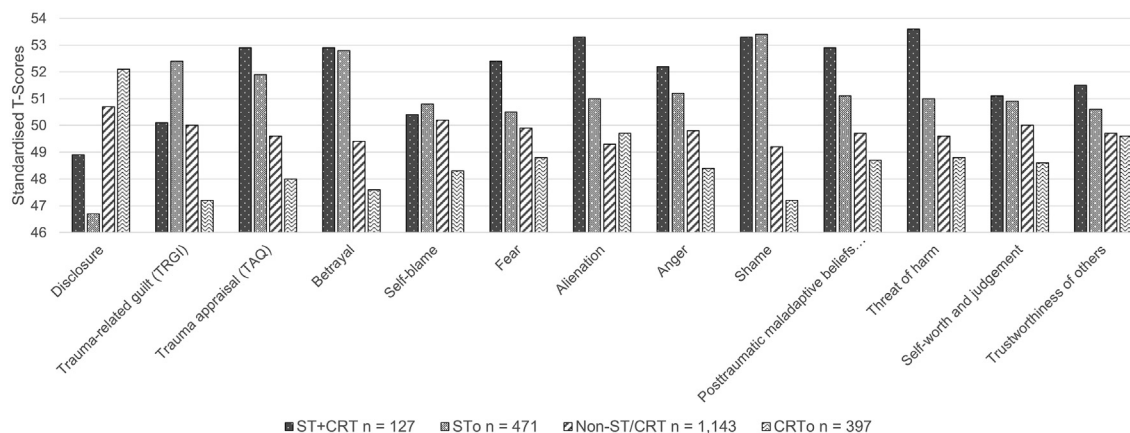


Fig. 2: Group comparison: disclosure and cognitive alterations. Note. N = 2138. STo: at least one sexual trauma but no conflict-related trauma; CRTo: at least one conflict-related trauma but no sexual trauma; ST + CRT: at least one sexual trauma and one conflict-related trauma; Non-ST/CRT: at least one trauma but no sexual or conflict-related trauma. For comparability between the different scales, all values were transformed into standardised T-scores (M = 50, SD = 10).

Comparison	Adjusted mean difference (95% CI)			
	Disclosure	Trauma-related guilt (TRGI)	Trauma appraisal (TAQ) overall score	Posttraumatic maladaptive beliefs (PMBS) overall score
Non-ST/CRT vs. CRT _o	-0.23 (-0.61, 0.15)	0.25 (0.10, 0.39)***	9.83 (2.67, 16.99)**	2.04 (-0.46, 4.55)
Non-ST/CRT vs. ST + CRT	0.47 (-0.98, 1.04)	0.00 (-0.21, 0.21)	-11.52 (-22.26, -0.79)*	-4.25 (-8.00, -0.49)*
ST _o vs. Non-ST/CRT	-0.90 (-0.58, -1.22)***	0.21 (0.33, 0.09)**	9.29 (15.36, 3.22)***	1.88 (4.01, -0.24)
ST _o vs. CRT _o	-1.14 (-1.56, -0.71)***	0.45 (0.29, 0.61)***	19.12 (10.99, 27.25)***	3.93 (1.08, 6.77)**
ST _o vs. ST + CRT	-0.43 (-1.04, 0.17)	0.21 (-0.02, 0.43)	-2.23 (-13.63, 9.16)	-2.36 (-6.35, 1.63)
CRT _o vs. ST + CRT	0.70 (0.11, 1.30)*	-0.24 (-0.47, -0.02)*	-21.36 (-32.63, -10.08)***	-6.29 (-10.27, -2.34)***
Predictor	Effect size (partial eta squared η_p^2)			
Group	0.03	0.02	0.02	0.01

Note. N = 2138. ST_o: at least one sexual trauma but no conflict-related trauma; CRT_o: at least one conflict-related trauma but no sexual trauma; ST + CRT: at least one sexual trauma and one conflict-related trauma; Non-ST/CRT: at least one trauma but no sexual or conflict-related trauma. Regression models have been adjusted for age, education, family status, and experience of flight; Adjusted mean differences in bold are statistically significant at: *p < 0.05. **p < 0.01. ***p < 0.001.

Table 5: Linear regression: disclosure and cognitive alterations.

subscales, with some differences reaching significance but others not.

Discussion

Of all men from the treatment-seeking sample from Arabic-speaking countries, 28% reported having experienced sexual traumatic events in conflict- or non-conflict-related contexts, and more than 5% reported both sexual *and* conflict-related trauma (ST + CRT). The results show that participants who reported both sexual and conflict-related trauma were more likely to originate from countries such as Egypt, Syria, and Iraq, which are characterised by a relatively higher global terrorism index.⁷⁶ Furthermore, the sociodemographic characteristics of the present sample show that refugees were overrepresented in the two groups involving conflict-related trauma. These findings suggest that a substantial proportion of men from these populations survived sexual trauma that happened in the context of conflict. Our data on the psychological consequences of such trauma are in line with previous literature indicating a high symptom severity among male survivors of sexual and conflict-related trauma.^{16–22} In the present study, men reporting ST + CRT showed higher scores regarding the primary outcomes, i.e., depressive and PTSD symptoms, compared to those reporting CRT_o or Non-ST/CRT. Moreover, the ST + CRT group showed a higher level of exposure to potentially traumatic events compared to other groups (ST_o, CRT_o, Non-ST/CRT). This corresponds to the findings of a systematic review¹⁵ on patterns of trauma exposure, which identified *high trauma classes* with a high level of exposure to different trauma types. Several studies have also revealed a high symptom severity and more trauma exposure among female survivors of CRSV.^{18,77–80}

The ST + CRT and ST_o groups did not differ significantly in the measures of psychological symptoms. This underlines the impact of sexual violence as

an interpersonal trauma on the mental health of the survivor. The group comparisons regarding the secondary outcomes, i.e., disclosure to others and trauma-related cognitive alterations, shed further light on the psychological processes associated with sexual and conflict-related trauma vs. other traumatic events. The ST_o group disclosed the least, and the difference was significant compared the CRT_o and the Non-ST/CRT group, but not to the ST + CRT group. This indicates that experiences of sexual trauma carry the highest amount of stigma. One possible explanation for this finding seems to lie in the variance in trauma-related guilt cognitions, which was also highest in the ST_o group. Correspondingly, the CRT_o group disclosed the most and showed the lowest scores for trauma-related guilt. Our results suggest that feelings of guilt regarding sexual trauma play a dominant role in this context. This interpretation is in line with the model conceptualising the disclosure processes among male survivors, as developed by Schöenberg et al.³¹ In their qualitative study, which analysed interviews with clinical experts working with male CRSV survivors, they found that these disclosure processes were influenced by several factors: the perpetrator-victim context, characteristics of the traumatic event(s) (i.e., form, frequency, intensity), the subjective understanding thereof, societal discrimination, perceptions of masculinity, cultural-specific norms, and the trauma sequelae. Feelings of guilt, as a psychological consequence of trauma, were identified as significant barriers to disclosure.

Another element of the model of Schöenberg et al.³¹ can be related to the descriptively lower levels of disclosure (and, correspondingly, higher levels of feelings of guilt) observed in the ST_o group compared to the ST + CRT group. A prison or political context of the trauma was identified by the authors as a factor facilitating disclosure, which can be understood in the following way: especially in contexts of armed conflicts involving human rights violations or war crimes,

survivors are more likely to receive broader political or community recognition. This can reduce fear of stigmatisation and, in turn, increase the likelihood of disclosure.

In addition, relating to the feelings of guilt, a parallel can be drawn with research in female survivors of CRSV: Hauser and Griese⁸¹ described that survivors are often accused of sharing blame with the perpetrator and thus suffer from feelings of shame and guilt. Moreover, one's self-concept and attitude towards oneself and one's body is changed. For male survivors, it might be suggested that it is primarily the accusation of shared blame that leads to feelings of guilt. However, the findings might also relate to a perceived incompatibility of the social norms the men have lived with before the traumatic experiences and the numerous effects of these events: If a survivor has internalised a norm that he is expected to ward off sexual assault, it stands to reason that he would feel guilty if he failed to do so, but more as a result of his failure to live up to long-lived ideals than (only) as a result of shared blame.² As a framework to analyse such processes, the concept of "displacement from gendered personhood" was developed.⁸² In addition, if homosexuality is stigmatised or criminalised and male rape survivors are referred to as homosexual, feelings of guilt would appear to be a reasonable response.

A pattern similar to the one for psychological symptoms emerged with regard to trauma appraisal and posttraumatic maladaptive beliefs. These variables were highest for ST + CRT and STo, with no significant differences between the two groups. Accordingly, it appears that survivors of STo are affected by trauma appraisals and posttraumatic maladaptive beliefs in a similar way to survivors of ST + CRT.

In summary, study participants who were survivors of ST + CRT showed the highest trauma exposure and suffered from increased posttraumatic and depressive symptoms as well as from trauma-related maladaptive beliefs and appraisals. In terms of feelings of guilt, survivors of non-conflict-related sexual violence (STo) scored the highest and—possibly as a consequence—disclosed the least. These mixed findings might be interpreted in the following way: The context in which sexual violence takes place—conflict-related or not—may play a secondary role for the severity of posttraumatic symptoms compared to non-sexual forms of violence. Therefore, it could be assumed that survivors of sexual violence report the most symptom burden regardless of the context of sexual violence. Moreover, in all approaches to supporting survivors of sexual violence, particular attention should be given to addressing feelings of guilt and reducing barriers to disclosure.

Several limitations of the present study should be noted when evaluating and interpreting the present findings. In general, the findings were exploratory and

further research is needed to verify the outcomes and conclusions drawn. Furthermore, the cross-sectional study design limits the ability to infer causal relationships, and reverse causation, such as psychological symptoms leading to increased risks of (re)experiencing trauma, must not be ignored. The assessed variables provide only an estimate of the prevalence of sexual and conflict-related trauma in Arabic-speaking men and its associations with sociodemographic characteristics, psychological symptoms, and cognitive alterations.

The generalisability of the results is limited due to the non-random recruitment process, which relied on participants who were seeking treatment. This raises the risk of selection bias, as the study addressed a specific subgroup of individuals. Despite the sizable sample, these factors could influence the findings and should be considered when interpreting the results.

Due to the study design, it cannot be ascertained whether a reported sexual trauma happened in the context of a reported conflict-related trauma, or whether these two traumatic events occurred independently, as the measure of exposure to traumatic events only asks about event types separately. Therefore, further investigations, which characterise the context of experienced sexual violence in more detail, are needed to better interpret the present findings regarding impact on reported psychological symptoms and cognitive alterations from a comparative perspective.

It should also be acknowledged that when reporting traumatic events, participants may have experienced the events themselves, witnessed them in others, learned that a relative or close friend had experienced the events, or been exposed to aversive details of the events in the course of their professional duties. This means that in cases when participants did not experience the traumatic event themselves, they may still be considered survivors, though the person directly involved in the event might not have been male. Finally, for the questionnaires on disclosure and cognitive alterations, the participants were instructed to relate their answers to the worst traumatic event, which may, but does not necessarily, refer to the sexual and/or conflict-related trauma. Also, due to the project and study design, issues regarding sexual intimacy and health were not assessed and could therefore not be analysed, even though they are known to be impacted by CRSV.¹²

Only about one out of four survivors of any trauma type studied had received prior treatment (range 21–28%), showing the need for an extension of treatment options. The large number of reports on sexual and conflict-related trauma in the present study, along with the severe symptom experienced by Arabic-speaking men seeking treatment, confirm the importance of assessing CRSV in greater detail. More data on short- and long-term consequences regarding the mental and physical health of male survivors of CRSV are needed. The results of such analyses should then be

compared to findings from research in female survivors, which is relatively more extensive.^{81,83} To understand both gender-specific and non-gender-specific consequences of CRSV, it remains crucial to investigate similarities and differences between individuals identifying as female, male, or non-binary. This should help determine whether research findings and possible interventions for female survivors can be transferred to male and non-binary survivors, or whether interventions need to be adapted. Since the life periods (childhood, adolescence, adulthood) in which CRSV is experienced impact its psychological effects on the survivors,⁸⁴ it shall be important for future analyses to account for both the timing of the trauma and the time elapsed since the event(s). Moreover, the similarities in the psychological consequences of CRSV compared to sexual violence occurring in other contexts warrant further attention, for example regarding feelings of guilt and processes of disclosure. Future research is needed to address these questions with greater nuance. A better understanding of the existing barriers to reporting experiences of sexual violence would greatly enhance research efforts in this field and the development of suitable interventions for survivors. Furthermore, potential experiences of flight and displacement can impede access to treatment, compromise safety, and exacerbate the lack of basic survival support, which further complicates PTSD and depression symptoms as well as their treatment. Our research has demonstrated that online assessments and culturally sensitive adaptations have significant potential for reaching more stigmatised and hard-to-reach populations, such as survivors of sexual and conflict-related violence. This is especially important, as contextual and sociocultural variables—such as limited access to and lack of transparency of alternative support systems or communicative taboos—that otherwise form barriers to disclosure processes can be mitigated this way. Experiences of CRSV often remain unspoken; however, disclosure and recovery can be seen as interdependent processes in which disclosure must be approached carefully as an iterative and dialogical process. This also entails understanding and respecting survivors' choices about what and when to share and with whom, thus framing the process of disclosure and non-disclosure as a negotiation of agency.³¹ Psycho-educational programmes can, for instance, further increase trust in recovery pathways and reduce barriers to disclosure. Initial corresponding experiences have been gathered in the larger context of a project for female target groups,⁸⁵ and similar efforts are necessary for male survivors of CRSV as well.

The severe impacts of sexual and conflict-related trauma with regard to trauma appraisals and post-traumatic maladaptive beliefs can lead to significant clinical and practical consequences. Furthermore, the high barriers to disclosure, especially for sexual trauma,

reflect the taboos and stigmas which render targeted and protected treatment settings even more crucial.

Contributors

BW, CK, and MB designed the overall study project, YN and MB supervised the sub-study. MV and FS carried out the statistical analyses and drafted the manuscript. MV, FS, MB, BW, YN, and CK carefully revised the manuscript. MV and FS accessed and verified the underlying data. All authors contributed to the article, revised and approved the final version of the manuscript.

Data sharing statement

The detailed sociodemographic information of the dataset does not fully protect the anonymity of the respondents. For this reason, the entire dataset cannot be made publicly available. However, excerpts of the data on a higher level of aggregation can be provided upon justified request to the corresponding author.

Declaration of interests

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at <https://doi.org/10.1016/j.eclinm.2024.102973>.

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