

Psychological Consequences of Rape on Women in 1991-1995 War in Croatia and Bosnia and Herzegovina

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Aim To explore the short- and long-term psychological consequences of rape on women victims of rape during the 1992-1995 war against Croatia and Bosnia and Herzegovina.

Methods The study included 68 women victims of rape and was conducted at the Medical Center for Human Rights, Zagreb, Croatia, from 1992 to 1995. Testimony method and a questionnaire were used to retrospectively obtain the description of rapes and symptoms women suffered immediately after rape and at the time of the study, ie, 11.9 ± 2.4 months after the trauma. Structured clinical interviews were conducted to diagnose psychiatric disorders that were present at the time of study, according to the third edition of Diagnostic and Statistical Manual of Mental Disorders.

Results The raped women were Croatian and Muslim (Bosniak) women, residents of Croatia and Bosnia and Herzegovina. Forty-four of them were raped more than once, 21 were raped every day during their captivity, and 18 were forced to witness rapes. Most of the rapes ($n = 65$) were accompanied by physical torture. The most frequent psychological symptoms felt immediately after the rape were depressiveness ($n = 58$), avoidance of thoughts or conversations associated with the trauma ($n = 40$), and suicidal ideas ($n = 25$). Although none of the women had a psychiatric history before the rape, at the time of study 52 suffered from depression, 51 from social phobia, 21 from posttraumatic stress disorder (PTSD), and 17 had sexual dysfunctions. These disorders were often comorbid. Out of 29 women who got pregnant after rape, 17 had artificial abortion. The decision to have an abortion was strongly predicted by suicidal thoughts and impulses (odds ratio, 25.8; 95% confidence interval, 2.53-263.2).

Conclusion War-time rapes had deep immediate and long-term consequences on the mental health of women victims of rapes and their social and interpersonal functioning.

Rape is defined as unlawful sexual intercourse without consent of the victim (1). However, given all the consequences of rape for victims, this definition is rather limited. Investigations into psychological consequences of peacetime rape in women victims have found that it produces polymorphous psychological difficulties, such as post-traumatic stress disorder (PTSD) (2-5), depression (2-4), anxiety (3), sexual dysfunctions (5), dissociative disorders (5), suicide attempts (2), and alcohol or substance abuse (2). Guidelines for the optimal management of rape victims include evidence-gathering activities, prophylaxis against sexually transmitted diseases, provision of emergency contraception, and psychiatric help (6). Providing counseling and psychiatric care immediately after the rape might be crucial in promoting recovery and preventing later problems. Unfortunately, in war circumstances, implementation of most of these recommendations often remains impossible.

The wars in Bosnia and Herzegovina and Rwanda in early 1990s were characterized by systematic mass rapes of civilians, mostly women (7). According to the Geneva Convention from 1949 and Additional Protocols from 1977 (8), rape and sexual assault against women during the war are considered an offense of crime against humanity. However, they often remain unreported and unrecognized. An important step in the recognition and legal persecution of war-time rapes was made with the establishment of The International Criminal Tribunal for the former Yugoslavia (ICTY) and The International Criminal Tribunal for Rwanda (ICTR), which recognized rape as a specific war crime (9).

Understanding that perpetrator can be caught and punished might encourage the victim to report the crime. In our study, we tried to find the most suitable method to motivate the victims to talk about the trauma. This allowed us to document the features of crime while providing psychotherapeutic treatment at the same time. Assessments on the number of women raped in the

war against Croatia and Bosnia and Herzegovina are available, but there are no precise data on all features and consequences of those crimes. Out of 1926 Muslim (Bosniak) and Croat refugees from Bosnia and Herzegovina who answered the first 16 questions of the Harvard Trauma Questionnaire, about 6% had been victims and/or witnesses of sexual torture (10). A study of 55 women victims of sexual torture in wars against Croatia and Bosnia and Herzegovina found that almost all of them were raped during 1992, mostly in the region of city of Banja Luka, the site of the infamous Bosnian Serb concentration camps Omarska, Trnopolje, and Keraterm (11). According to the Final Report of United Nations Commission issued in 1995 (12), there were 480 camps for civilian and military prisoners under Serbian control after 1991. The system of Serbian war camps included all previously known types of camps, but the ones for carrying out mass rapes presented the most drastic novelty in the history of war camps. According to the place and manner of crime, it was possible to discern three different models of rapes during the war against Croatia and Bosnia and Herzegovina (13). The first included rapes committed by individuals or small groups to spread fear among the targeted ethnic group and to rob it. It occurred before the commencement of widespread armed conflict in the region. Women were raped in their own homes, and the word about it spread through their villages. That caused many people to flee in fear that it might happen to them too. The second type of systematic rapes was committed by individuals or small groups during the battles and occupation of territories. This model often included public rapes, which were also aimed to frighten people and make them flee. The third model was committed by individuals and groups who raped women captured in camps, hotels, and private brothel-camps set up for Serbian soldiers to "have fun."

The aim of this study was to determine the psychological consequences in women victims of

systematic mass rapes committed during the war in Croatia and Bosnia and Herzegovina.

Subjects and methods

The study was conducted within the Program for Long-term Psychosocial Help for women victims of war at the Zagreb Medical Center for Human Rights from April 1992 to December 1995. Study subjects were 68 women who lived in small towns and villages in three Croatian war zones, the eastern Slavonia ($n = 8$), Banovina ($n = 5$), and villages around Zadar ($n = 2$); and the northwestern ($n = 19$) and eastern ($n = 34$) parts of Bosnia and Herzegovina. The inclusion criteria were female sex and the experience of the war-time rape. The women entered the study on average (\pm standard deviation) 11.9 ± 2.4 months after being raped or released from captivity during which they had been raped. Most women were contacted and recruited by Center workers offering professional help to the war victims through lectures and individual contacts at Croatian refugee camps in the eastern Slavonia and Zagreb.

Fifty-eight victims were recruited at the camps, 7 came to the Center in Zagreb on their own initiative, and 3 came after being persuaded by other women treated by the psychiatrist at the Center (Table 1). The women were aged between 14 and 83 years, but most were in their reproductive age (32 ± 6.4 years). More than half were housewives, married, with children, and had lower level of education. Many spent more than 30 days in captivity, during which majority was repeatedly raped and tortured by various perpetrators. Initially, there were 100 raped women recruited for the study, but 32 emigrated from Croatia and Bosnia and Herzegovina during the course of the study, which reduced the size of the study sample.

Method

The study was approved by the Institutional Ethical Committee and all women gave their

Table 1. Demographic characteristics of 68 women victims of war rape, at the time of study

| Characteristic | No. of women |
|--------------------------------|-----------------|
| Age group (y): | |
| ≤ 20 | 9 |
| 20-40 | 42 |
| ≥ 40 | 17 |
| Nationality: | |
| Croat | 37 |
| Muslim (Bosniak) | 31 |
| Place of residence: | |
| Croatia | 15 |
| Bosnia and Herzegovina | 53 |
| Marital status: | |
| married | 42 |
| single | 21 |
| widowed during the war | 1 |
| divorced before the war | 4 |
| No. of children: | |
| 0 | 23 |
| 1-3 | 40 |
| >3 | 5 |
| Education: | |
| total (mean \pm SD)* | 8.5 \pm 3.6 |
| no formal education | 7 |
| elementary school [†] | 40 |
| high school | 19 |
| college | 2 |
| Duration of captivity (d): | |
| total (mean \pm SD) | 35.2 \pm 18.4 |
| 1-10 | 18 |
| 11-30 | 15 |
| 31-60 | 18 |
| >60 | 17 |
| Pregnancy: | |
| conception as a result of rape | 29 |
| artificial abortion | 17 |
| child birth | 12 |
| child given for adoption | 11 |
| child kept | 1 |

*SD – standard deviation.

[†]Elementary school lasts 8 y.

written informed consent before entering the study.

Testimony method and a questionnaire were used to collect data and retrospectively obtain the descriptions and main features of the rape or rapes and the symptoms experienced following the rape. A structured clinical interview with each woman was conducted at the time of the study to determine the long-term consequences of rape on the mental health of the victims.

Testimony. Individual testimony was taken from each victim to achieve direct personal contact and to form a therapeutic relationship. We used the testimony method developed by psychologists Cienfuegos and Monelli during the Chilean dictatorship (14) and modified by Ager

and Jensen (15). Women were asked to talk about their lives and family histories, including work and social functioning prior to the trauma. This part was used as an introduction to the women's stories and interpretations of the impact of the rapes on their lives, and on the lives of their family members and friends. Assessment of the trauma was based on the victim's experience of the following events: forced sexual contact or rape, military combat experience, military service in a war zone, attack by any kind of weapon, any situation causing fear of being killed or seriously injured, and witnessing someone else being killed, seriously injured, or raped. The role of the interviewer (M.L.), a psychiatrist specifically trained to work with victims of war, was to provide psychological support and structure for the person to give a description of what she remembered. All testimonies were conducted in Croatian language with interviewer taking notes. Testimonies were not tape-recorded because all but one woman ($n = 67$) refused it.

Questionnaire. The questionnaire consisting of 44 multi-choice questions was specifically developed for the purpose of the study. It included questions on socio-demographic data, such as age of the victims at the time of study, their nationality, place of residence, and marital status and number of children at the time of study; level of education, employment, location where they were held in captivity, and duration of the captivity. Questions about the type and nature of the sexual torture included information on the number of times they were raped, the site where the rapes took place, general characteristics of the rapist, pregnancy that resulted from rapes, and the pregnancy outcome (decision to abort or give birth to the child). The third group of questions was conceptually based on acute stress reaction symptoms described in the third edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-III, ref. 16). These questions were related to the psychological and physical symptoms that appeared immediately after the rape, such

as sadness, depressiveness, anxiety, anger, self-acusation, suicidal ideas and impulses, suicide attempts, reduced awareness of surroundings, negation of the trauma, and avoidance of thoughts, feelings, or conversations associated with the trauma. Evaluation of autonomic system hyperarousal included questions on the following signs and symptoms: nausea, vomiting, headache, fatigue, sweating, flushing, or palpitations.

Structured clinical interview. This part of assessment was performed to determine the long-term consequences of rape on the mental health of victims and included a complete prior psychiatric history, a mental status examination, and a structured clinical interview for DSM-III (17). This allowed us to diagnose mental disorders in women victims according to the DSM-III classification (16). The presence of PTSD was determined on the basis of prevalence of persistent re-experiencing of the traumatic event, persistent avoidance of the stimuli associated with the trauma, and persistent symptoms of increased arousal even among women who failed to meet a minimum number of symptoms under each criterion required for the diagnosis of PTSD (16). In addition, the persistence of impaired social and other important areas of functioning were noted. None of the subjects had a history of psychiatric disorder. The whole procedure was conducted at an individual pace and consisted of 4-6 sessions per person (median, 5 sessions), over a period of 4-8 weeks (median, 5 weeks).

Statistical analysis

We used χ^2 test to compare the prevalence of different psychological symptoms and disorders present after the rape or at the time of study, with respect to age, nationality, marital status, education, and duration of captivity. Logistic regression analysis was performed to test for relationships between predictive variables (age, nationality, state of residency, marital status, education, duration of captivity, nature of the sexual torture and the characteristics of the rapist)

and the symptoms subsequent to the rape (depressiveness, suicidal ideas, and acute stress reactions), psychiatric disorders at the time of study (depression, social phobia, PTSD, and sexual dysfunctions) and conception outcomes (pregnancy, giving birth, or artificial abortion). The results were reported as odds ratios (OR) with 95% confidence intervals (CI). Values $P < 0.05$ were considered statistically significant. Statistical Package for Social Sciences for Windows, version 10.0 (SPSS, Inc., Chicago, IL, USA) was used for all statistical analyses.

Results

Rape characteristics

Most women were raped more than once and by different rapists (Table 2). Many were raped every day during their captivity. Almost a third of participants were forced to witness the rapes of other women. Two-thirds of women did not know their rapists personally; in other cases, they were their neighbors. Victims and their assailants were always of different nationalities. The rapists were Serbian soldiers or civilians, or Muslim (Bosniak) soldiers (Table 2). Women reported their rapists being drunk in almost half of the cases. The site of rape was a woman's home or some other house, Serbian war camp, or brothel camp. Sixty-six women were civilians and two were in military service. According to their testimonies, rapes occurred continually during Serbian occupation of Croatia and Bosnia and Herzegovina from 1991 to 1994. During that time, the non-Serbian population on the occupied territories decreased as the number of killings, tortures, and deportations increased. In 32 cases rapes occurred during the first 10 days of the Serbian occupation of the town or village. Most rapes were accompanied by verbal threats of death, physical injury, or injury to the family members and physical torture, which consisted of beating and slapping on the face, cutting, stabbing, stran-

Table 2. Characteristics of rapes and rapists as reported by 68 women victims of war rape

| Characteristics of rape | No. of women |
|----------------------------------|--------------|
| No. of rape events: | |
| more than once | 44 |
| every day | 21 |
| forced to witness rape | 18 |
| Threats and torture during rape: | |
| verbal threats | 65 |
| beating and slapping | 52 |
| cutting with a knife | 12 |
| stabbing with a sharp object | 11 |
| strangling | 4 |
| burning the skin | 3 |
| Nature of rape: | |
| vaginal penetration | 31 |
| touching and vaginal penetration | 37 |
| Characteristic of rapist: | |
| rapist(s) unknown | 47 |
| Serbian soldier | 57 |
| Serbian civilian | 6 |
| Muslim soldier | 5 |
| Place of rape: | |
| victim's home | 26 |
| Serbian war camp | 17 |
| a house | 12 |
| brothel camp | 8 |
| other | 5 |

gling, and burning of the skin. The nature of the rape was vaginal penetration and a combination of touching and vaginal penetration in 37 women. Sexual torture included insertion of foreign objects in vagina and other body openings, and forcing to perform various obscene acts.

Psychological symptoms immediately after rapes

Immediately after the trauma, victims suffered a number of physical symptoms including nausea, vomiting, headache, sweating, palpitations, and muscle pain, while the most frequent psychological consequences were depressiveness, avoidance of thoughts, feelings, or conversations associated with the trauma, negation of the trauma, and intense feelings of self-accusation (Table 3). Furthermore, 25 victims had suicidal ideas and impulses. Younger age was a weak predictor for suicidal thoughts and attempts (OR, 0.95; 95% CI, 0.9-1.0), whereas strong predictors were physical injuries suffered during the rape (OR, 7.2; 95% CI, 1.4-36.7), not knowing the rapist (OR, 8.18; 95% CI, 1.7-39.1), and vomiting after

the rape (OR, 5.2; 95% CI, 1.3-21.4). This set of predictors explained 33% of variance (Nagelkerke $R^2 = 0.327$). Avoidance of thoughts, feelings, or conversations associated with the trauma was less present among women with residency in Bosnia and Herzegovina (OR, 0.1; 95% CI, 0.01-0.56; Nagelkerke $R^2 = 0.498$). Women who experienced physical torture during the rape were more likely to have intense feelings of self-accusation (OR, 7.8; 95% CI, 1.7-35.5; Nagelkerke $R^2 = 0.440$).

Psychological symptoms at the time of study

At the time of the study, ie, approximately a year after the trauma, most victims suffered from depression and social phobia, whereas PTSD and sexual dysfunctions were present in fewer women (Table 3). These disorders were often co-morbid, with social phobia with depression being most frequent (Table 3). Logistic regression analysis did not show age, nationality, marital status, education, and duration of captivity as predictive variables of the psychological disorders diagnosed in these women. However, the prevalence rates of these disorders showed a significantly different distribution (Table 4). Out of 21 women

Table 3. Psychological symptoms of 68 women victims of rape immediately after the rape and at the time of the study

| Symptoms immediately after the rape | No. of women |
|--------------------------------------|--------------|
| Physical: | |
| nausea | 60 |
| vomiting | 54 |
| headache | 52 |
| sweating | 17 |
| palpitations | 9 |
| muscle pain | 35 |
| Psychological: | |
| depressiveness | 58 |
| avoidance | 40 |
| negation | 18 |
| self-accusation | 18 |
| suicidal ideas and attempts | 25 |
| Psychiatric disorders: | |
| depression | 52 |
| social phobia | 51 |
| PTSD* | 21 |
| sexual dysfunctions | 17 |
| Comorbidities: | |
| PTSD and depression | 5 |
| social phobia and depression | 41 |
| social phobia and PTSD | 5 |
| social phobia and sexual dysfunction | 5 |

*Posttraumatic stress disorder.

with PTSD, 17 said the rape was the most traumatic experience they had, while for the others it was witnessing killings of their family members. There was no significant difference in the prevalence rates of psychiatric disorders with respect to women's age (Table 4). Psychogenic amnesia or inability to recall important aspect of the trauma was more prominent among married women (13/42 vs 1/21, $\chi^2_1 = 5.56$, $P = 0.018$) and those who were in captivity <30 days (11/34 vs 3/34, $\chi^2_1 = 6.6$, $P = 0.01$). Restricted range of affect, as a symptom of avoidance, was more noticeable among women with higher level of education (11/21 vs 13/47, $\chi^2_1 = 5.05$, $P = 0.025$). Impaired relationship with a partner was more pronounced among women who were in a relationships but not married (18/20 vs 26/42, $\chi^2_1 = 10.14$, $P = 0.017$) and among Muslim women (25/29 vs 19/36, $\chi^2_1 = 7.63$, $P = 0.049$). Single women had more pronounced sense of a foreshortened future (17/21 vs 19/42, $\chi^2_1 = 4.58$, $P = 0.032$) together with impaired social functioning due to changes in relationships with family members and friends (18/21 vs 24/42, $\chi^2_1 = 8.9$, $P = 0.030$). Impaired social functioning was also more pronounced among women with higher level of education (17/21 vs 25/47, $\chi^2_1 = 8.6$, $P = 0.035$). Sexual dysfunctions seemed to be more prominent among single women (11/21, vs 6/42, $\chi^2_1 = 8.5$, $P = 0.004$) and among those who were in captivity for shorter period (11/34 vs 6/34, $\chi^2_1 = 3.91$, $P = 0.048$).

Twenty-nine raped women (42.6%) got pregnant. Logistic regression analysis showed that significant predictors of pregnancy were younger age (OR, 0.92; 95% CI, 0.86-0.98) and being raped once (OR, 7.42; 95% CI, 1.81-30.34). These two variables explained 45% of variance (Nagelkerke $R^2 = 0.450$). Seventeen women had artificial abortion, while 12 gave birth to healthy children. Suicidal thoughts and impulses after the rape were significant predictor of artificial abortion (OR, 25.8; 95% CI, 2.5-263.2), explaining 48% of variance (Nagelkerke $R^2 = 0.488$). Only one

Table 4. Long-term psychological consequences of rape found in 68 women at the time of study (11.9 ± 2.4 months after the rape)

| Characteristics | Depression (n = 52) | Social phobia (n = 51) | Sexual dysfunctions (n = 17) | PTSD* (n = 21) | Inability to recall an important aspect of the trauma (n = 14) | Restricted range of affect (n = 24) | Sense of a foreshortened future (n = 36) | Impaired social functioning (n = 42) | Impaired relationship with a partner (n = 44) |
|----------------------------------|------------------------|------------------------------|------------------------------------|-------------------|----------------------------------------------------------------------|----------------------------------------------|------------------------------------------------|-----------------------------------------------|--------------------------------------------------------|
| Age (years): | | | | | | | | | |
| <20 (n = 9) | 6 | 5 | 2 | 6 | 0 | 6 | 6 | 7 | 3 |
| 21-39 (n = 42) | 33 | 33 | 9 | 12 | 7 | 15 | 25 | 23 | 36 |
| >40 (n = 17) | 13 | 13 | 4 | 3 | 7 | 3 | 5 | 12 | 5 |
| Nationality: | | | | | | | | | |
| Croat (n = 37) | 32 | 28 | 9 | 8 | 7 | 15 | 19 | 21 | 19/36 |
| Bosniak (n = 31) | 20 | 23 | 8 | 13 | 7 | 9 | 17 | 21 | 25/29 |
| Marital status: | | | | | | | | | |
| married (n = 42) | 31 | 36 | 6 | 8 | 13 | 15 | 19 | 24 | 26 |
| not married (n = 26) | 21 | 15 | 11 | 13 | 1 | 9 | 17 | 18 | 18/20 |
| Education (years): | | | | | | | | | |
| 0-8 (n = 47) | 37 | 36 | 11 | 12 | 11 | 13 | 23 | 25 | 28 |
| 9-16 (n = 21) | 15 | 15 | 6 | 9 | 3 | 11 | 13 | 17 | 16 |
| Duration of captivity (days): | | | | | | | | | |
| ≤30 (n = 34) | 25 | 23 | 11 | 11 | 11 | 13 | 19 | 21 | 22 |
| ≥31 (n = 34) | 27 | 28 | 6 | 10 | 3 | 11 | 17 | 21 | 22 |

*Posttraumatic stress disorder.

woman in our study kept the child after delivery, while all of the others (n = 11) gave their children for adoption.

Discussion

Our study showed that rape was a strong trauma, resulting in various psychiatric disorders in all women in the study, including long-term depression, social phobia, PTSD, and sexual dysfunctions. The studies into consequences of war-time rapes on civilians (18,19) or female veterans (20,21) often connected the trauma of rape with chronic PTSD, a disorder characterized by a continuous re-experience of the trauma, avoiding behavior, and symptoms of hyperarousal. The importance of studying PTSD relates to the occurrence of chronic PTSD, because of its severe psychopathology, and not acute stress reactions, which are more likely to result in complete resolution of symptoms (5).

Rape, together with other superimposed war-related traumatic events, resulted in high long-term prevalence rates of depression and social phobia in women victims included in our study. It might be possible that the genesis of this phenomenon is partially related to the traditional background of the victims under study. Accord-

ing to their testimonies, the posttraumatic period was characterized by reduced subjective confidence, feelings of worthlessness, and disgrace they thought they had brought to their families. The women tended to avoid social situations because they were concerned about the feelings of their family members and friends who knew about the rape, and because of fear of blame. However, causal mechanisms could not be easily inferred from data we collected and the psychological responses to the trauma of rape were individually specific for each woman.

Almost half of women got pregnant as a result of rape. Women who were raped once, compared with those repeatedly raped, had seven times higher risk of pregnancy. This finding suggests an association between prolonged exposure to stress and conception, but the mechanisms of this interaction are still unclear and require further investigation. Most women said that the unwanted pregnancy made their mental recovery more difficult. Women who had experienced suicidal thoughts after the rape were more likely to have artificial abortion, which may indicate that they suffered particularly humiliating trauma. According to the results of a US study, rape-related pregnancy rate is 5.0% per rape among victims of reproductive age, ie, those aged 12-45 years (22). However, this

rate can change in war circumstances, especially when women are systematically raped. About 5000 children were born as a result of mass rapes during the genocide in Rwanda in 1994, sometimes called "children of bad memories" (23).

Female sexual dysfunctions include hypoactive sexual desire, sexual arousal disorder, orgasmic disorder, and postcoital dysphoria (16). In our study, it was not possible to identify the type of sexual dysfunction on the basis of information collected via clinical interview. We showed that single women or those in relationships but not married had more difficulties in posttraumatic period due to more prominent sexual dysfunctions. This result is consistent with previous findings showing that these symptoms persisted for years after the assault (24). It also suggests that marriage itself provides a certain level of protection and support. Also, we found that more Bosniak (Muslim) than Croat women thought the relationship with their partner worsened after the trauma. This could be explained by the fact that Bosniak women come from a more traditional culture. The social environment and personal upbringing influence the victim's reaction to rape. In societies with patriarchal social structure, victims refuse to talk about the trauma and do not want the event to be documented even in medical files. Victims often refuse any kind of psychiatric treatment and professional help (25,26). To overcome these problems in dealing with victims of rape, we used the testimony method developed by the Chilean psychologists Cienfuegos and Monelli to obtain information about the repressive Pinochet regime, but it proved to have therapeutic effect on the victims of torture (14,15,27). The testimony method was used in almost all participants. While giving the testimony, the victim has a chance to perceive the trauma from another perspective. A raped woman moves from the role of victim to the role of witness, which is an important psychotherapeutic step. After that, the victims are much more inclined to accept psychiatric help. Gradually, they become ready to

talk openly about the event, allow the therapist to have an insight into their condition, and go through a diagnostic procedure. It might be an advantage to have therapists of the same cultural and social environment as the victims, because it may foster better personal contact and understanding between them. Also, there is no need for a translator as a third party person.

Most women in our study did not know their rapists before the traumatic event, which suggests that the rapes were committed not only by paramilitary soldiers from the country, but also by the members of military and paramilitary units from other parts of former Yugoslavia. Rapes in these cases might have been more violent and humiliating, and women were more likely to have suicidal thoughts and impulses after the rape. Bassiouni reported that the number of committed rapes decreased with the increase of media attention for war events in this region (28), which indicates that war commanders may have been able to control the perpetrators. Almost two-thirds of women were raped repeatedly. Besides, some women were forced to witness rapes of other women, usually their mothers, daughters, and neighbors, which were extremely humiliating and painful events.

Limitations of our study are related to the nature of the problem that we explored. It was not possible to reach the victims immediately after the rape, so we gathered the data on immediate reactions on trauma retrospectively, based on the victim's memory and testimony. Therefore, change of women's impressions and interpretations over time might have influenced the magnitude of the observed associations. Although the assessments were performed by an experienced psychiatrist trained to work with the war victims, especially victims of sexual assaults, two independent assessments could have increased both reliability and validity of the data. However, the study was performed during the war and early post-war period when the applied study design was the only one possible to carry through

successfully. Also, building a therapeutic alliance with the victims was a long-lasting and extremely delicate process and bringing another person to witness women's testimonies might have been counterproductive.

In conclusion, war-time rapes left deep and lasting consequences on the mental health of the victims and their families. Many suffered from depression and social phobia, which were often comorbid. Finally, causal relations between the trauma and its consequences could not be revealed from the data we collected. Future studies are needed to establish to what extent the psychological consequences depend on a multi-dimensional nature of trauma in situations of war.

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