

# Poor reproductive health among a group of socially damaged Middle Eastern women: a cross-sectional study

Gohar Mohammadi<sup>1</sup>  
Sedigheh Amiraliakbari<sup>2</sup>  
Ali Ramezankhani<sup>3</sup>  
Hamid Alavi Majd<sup>4</sup>

<sup>1</sup>The International Branch of Shahid Beheshti University of Medical Sciences, <sup>2</sup>School of Nursing and Midwifery, <sup>3</sup>School of Health, <sup>4</sup>Department of Biostatistics, Faculty of Paramedical Science, Shahid Beheshti University of Medical Sciences, Tehran, Iran

**Background:** Despite the scope of violence against women and its importance for reproductive health, few data are available on the reproductive health issues among women having experienced violence.

**Methods:** This study described the reproductive disorders complicating social harm among 98 socially damaged women seeking care from drop-in centers who were of Persian ancestry, able to communicate and comprehend the contents of the questionnaire, and had history of domestic violence. The questionnaire had five dimensions: demographics, reproductive health, sexual performance, sexual behavior, and violence. Reproductive health included data on gestation, unplanned pregnancy, abortion, contraception, and cervical cancer screening. Data on sexual performance was acquired via the Persian version of sexual function scale, which has been demonstrated to have acceptable external validity in Iranian population. For sexual function, data was gathered on age at first intercourse and whether a participant had ever engaged in an oral or anal sexual activity.

**Results:** Mean age of participants was 33.4 years. Forty-seven percent of participants were married, 34.8% were divorced, 9.8% were widowed, and 8.7% were single. Mean age at first marriage was 16.4 (4.3) years and mean age at first sexual relationship was 16 (3.9) years. Illiteracy was observed among 18.5% of participants. Elementary education was reported by 22.8%, while only 3.3% of participants reported academic studies. Fifty-five percent were unemployed and 44.6% reported to be working at the time of the study. It was observed that 72.8% of participants were inflicted physically, as well as emotionally and sexually. The violence was reported to be exerted by husband (42.6%), parents (38.4%), or both (19.0%). Among 39 participants who ran away from home, 38 participants reported to be inflicted by violence. Unwanted pregnancy was reported by 64.6% of the participants. Abortion was reported in 50.0% of participants. Contraception was completely ignored in 44.6% of participants. Among eligible women, 53.3% never participated in cervical cancer screening examination. Mean sexual performance scale score was 21.9 (5.5) and 75 (83.3%) participants scored less than 28.

**Conclusion:** A high prevalence of poor reproductive health was documented among a group of Middle Eastern socially damaged women.

**Keywords:** sexual behavior, domestic violence, pregnancy, drop-in center, abortion, contraception, cervical cancer screening

## Introduction

Violence is a major obstacle to development. Violence against women in particular hinders progress in achieving development targets. Despite the growing recognition of violence against women as a public health and human rights concern, and of the obstacle it poses for development, this type of violence continues to have an unjustifi-

Correspondence: Sedigheh Amiraliakbari  
Niyayesh Complex, Niyayesh Cross-  
Section, Vali Asr St, Tehran, Iran  
Tel +98 21 8865 5366  
Fax +98 21 2272 9238  
Email asa\_akbari@yahoo.com

ably low priority on the international development agenda and in planning, programming, and budgeting.<sup>1,2</sup> Deviant women are at increased risk of violence. In Islamic state, a “deviant woman,” that is, one who engages in an illegitimate sexual relationship, holds a precarious position. On the other hand, she is pitied as a victim of social ills; on the other, whether she turns to selling sex because of dysfunctional family life, deception, or economic needs, she leads a “pathological” life and must be cured. She is at once “socially damaged” (äseeb-dideh-ye ejtema’ee) and “socially deviant” (monhæref-e ejtema’ee). In the past few years, World Health Organization, the American Medical Association, International Federation of Obstetricians and Gynecologists, Royal College of Nursing, and other professional medical organizations have made statements about the public health importance of violence against women.<sup>3</sup> Islamic republic of Iran policies refer to two groups of “socially deviant” women: (1) acutely at social-harm risk (dær mæ’ræz-e äseeb-e ejtemä’ee-e häd) are the highly at-risk who run away from their families, have no guardian or visible means of support, or the savvy to manage their lives on their own, and (2) socially damaged women (special) (zænän-e äseebdide-ye ejtemä’ee-vijheh) includes those who engage in prostitution or “women” who do not adhere to moral and social values and engage in illegitimate sex, though accrue no income in this way.<sup>4</sup> In many ways, violence against women is a very well-studied, and certainly much discussed, problem. Its legal implications have been extensively analyzed, in particular how to deal with, and prosecute perpetrators.<sup>5</sup> However, there are certain issues which have been almost entirely overlooked but which are vital for a fuller understanding of the lives of women who have been harassed. The most obvious ones surround matters of reproductive health and pregnancy, which have been almost entirely neglected. This study examined reproductive health among socially harmed women with a history of domestic violence.

## Methods and participants

### Study design and sample

This was a cross-sectional study designed to examine the scale and scope of reproductive disorders complicating social harm among socially damaged women. The interviews were conducted between May 2010 and August 2010 in Tehran, Iran. All women (n = 98) who sought care from socially damaged women rehabilitation centers (also known as drop-in centers or harm reduction centers) were invited to participate in a face-to-face interview and were included in the current analyses (n = 92) if they were of Persian ancestry,

able to communicate and comprehend the contents of the questionnaire, and had history of domestic violence. The questionnaire had five dimensions: demographics, reproductive health, sexual performance, sexual behavior, and violence. Reproductive health included data on gestation, unplanned pregnancy, abortion, contraception, and cervical cancer screening. Data on sexual performance was acquired via the Persian version of sexual function scale, which has been demonstrated to have acceptable external validity in Iranian population.<sup>6–8</sup> For sexual function, data was gathered on age at first intercourse and whether a participant had ever engaged in an oral or anal sexual activity.

## Definitions of terms

Violence was defined based on the three main components namely physical, emotional, and sexual violence.<sup>9</sup> Domestic violence was defined as a pattern of abusive behaviors by one or more family member; sexual disorder was defined in participants whose sexual function scale score was smaller than 28.<sup>8</sup>

## Statistics

Data are reported as either mean (standard deviation) or frequency (%) for continuously and categorically distributed variables, respectively. The statistical significance level was set at a two-tailed type I error of 0.05. Findings among socially damaged women were compared to those obtained from general population.<sup>10</sup> Confidence intervals for differences were derived by implementing 1000 bias-corrected bootstrap resampling method.<sup>11</sup> The hypothesis for binomial random variables was also tested. The null hypothesis was that the probability of a success in a trial (in this case reproductive health characteristics) is #p.<sup>12</sup> Here, #p were corresponding frequencies in the general population as reported by Safarinejad.<sup>10</sup> All statistical analyses were performed using Stata version 11 (StataCorp LP, College Station, TX).

## Results

Mean (standard deviation) age of participants was 33.4 (9.6) years. Forty-seven percent (46.7) of participants were married, 34.8% were divorced, 9.8% were widowed, and 8.7% were single. Mean age at first marriage was 16.4 (4.3) years and mean age at first sexual relationship was 16 (3.9) years. Illiteracy was observed among 18.5% of participants. Elementary education was reported by 22.8%, while only 3.3% of participants reported academic studies. Fifty-five percent (55.4%) were unemployed and 44.6% reported to be working at the time of the study.

Among socially damaged women seeking care from drop-in centers, 72.8% reported to be inflicted physically, as well as emotionally and sexually. Experiences of two or one type of violence were reported by 20.7% and 6.5% of participants, respectively. The violence was reported to be exerted by husband (42.6%), parents (38.4%), or both (19.0%). Among 39 participants who ran away from home, 38 participants reported to be inflicted by violence.

Pregnancy and abortion were reported in 89.1% and 50.0% of participants, respectively. Unwanted pregnancy was reported by 64.6% of the participants. Contraception was completely ignored in 44.6% of participants. The most commonly used contraception method was condom (37.0%), followed by tubectomy (8.7%), injecting progesterone (2.2%), withdrawal (4.3%), intrauterine devices (2.2%), and oral contraception pills (1.1%). Among eligible women, 53.3% never participated in cervical cancer screening examination.

Ninety out of 92 participants reported to have sex during the last 30 days leading up to the interview, with 43.3% engaging in anal and 35.6% engaging in oral sexual activity. Mean sexual performance scale score was 21.9 (5.5) and 75 (83.3%) participants scored less than 28. Low birth weight was reported by 34 (45.9%), irregular menstrual bleeding by 58.6%, and menopause by 22 (23.9%) participants.

Table 1 demonstrates the different aspects of reproductive health among socially damaged women as compared to the general population. The reproductive health of socially damaged women was statistically significantly poorer than those of women from general population. The single exception observation was the prevalence of injectable contraceptive usage.

## Discussion

In this study a high prevalence of violence among socially damaged women seeking care from socially damaged women rehabilitation centers was documented. A high prevalence of sexual dysfunction was observed. Socially damaged women were observed to have poor reproductive health. Reproductive health among women from general population was previously demonstrated with respect to unwanted pregnancy, abortion, contraception, giving birth to a low birth weight newborn, and sexual dysfunction.<sup>10</sup> In almost all areas, socially damaged women were observed to have less favorable health.

The United Nations defines violence against women as any act of gender-based violence that results in, or is likely to result in, physical, sexual or mental harm, or suffering to women, including threats of such acts, coercion, or arbitrary deprivation of liberty, whether occurring in public or in private life.<sup>13</sup> There are many forms of violence against women, including sexual, physical, or emotional abuse by an intimate partner, physical or sexual abuse by family members or others, sexual harassment and abuse by authority figures (such as teachers, police officers, or employers), trafficking for forced labor or sex, and such traditional practices as forced or child marriages, dowry-related violence, and honor killings where women are murdered in the name of family honor. Systematic sexual abuse in conflict situations is another form of violence against women.<sup>13</sup> In the current study, socially damaged women reported to frequently suffer all three main aspects of domestic violence namely physical, emotional, and sexual.

Women's reproductive and sexual health clearly is affected by gender-based violence. It has been shown that

**Table 1** Comparison of reproductive health characteristics of the socially damaged women with those of general population

Characteristics	Socially damaged women	General population	Difference (95% confidence intervals for difference)	P value
Unwanted pregnancy	65.0	18.6	46.4 (35.0 to 57.0)	<0.001
Abortion	50.0	3.5	46.5 (35.0 to 58.0)	<0.001
Contraception	55.4	78.9	23.5 (27.0 to 50.0)	<0.001
Condom	37.0	9.3	27.7 (-13.0 to -34.0)	0.001
Tubectomy	8.7	17.4	8.7 (-14.6 to -2.8)	0.011
Injectable progestin	2.2	2.6	-0.4 (-3.5 to 2.6)	<0.781
Interrupted coitus	4.3	19.2	-14.9 (-19.1 to -10.6)	0.001
Intrauterine devices	2.2	8.1	-5.9 (-7.0 to -2.7)	0.001
Oral contraception	1.1	19.3	-18.2 (-20.4 to -16.1)	<0.001
Low birth weight	45.9	7.2	38.7 (2.0 to 4.0)	0.001
Sexual dysfunction	83.3	31.5	50.0 (41.3 to 57.6)	0.001

**Notes:** Data are presented as percentages. Confidence intervals for differences were derived by implementing 1000 bias-corrected bootstrap resampling method. *P* values denote exact hypothesis tests for binomial random variables. The null hypothesis is that the probability of a success in a trial (in this case frequency of each reproductive health characteristics) is #p.<sup>12</sup> Here, #p are corresponding frequencies in the general population as reported by Safarinejad.<sup>10</sup>

women who experienced intimate partner abuse were three times more likely to have a gynecological problem than non-abused women.<sup>14</sup> Early childbearing, often a result of early and forced marriage, can result in a range of health problems, including effects of unsafe abortion. Abuse limits women's sexual and reproductive autonomy.<sup>15–17</sup> Women who have been sexually abused are much more likely than nonabused women to use family planning clandestinely, to have had their partner stop them from using family planning, and to have a partner refuse to use a condom to prevent disease.<sup>18</sup> In line with previous reports, a low rate of contraception among socially damaged women was observed. Although, some investigators have proposed awareness and availability of contraceptive methods as culprits; factors that might have contributed to this problem remained to be clarified.<sup>19</sup> Condoms were observed to be the most frequently used contraception method. The same finding has been reported previously.<sup>20</sup> Although the current study, allowing for its cross-sectional nature, could not provide any insight into the reason why condoms are the most frequently used contraception method, it is hypothesized that having multiple partners, fear from sexually transmitted diseases, and availability of condoms might have potentially rendered it such a priority among socially damaged women's preferences.

Unwanted pregnancy has been previously reported to be commonly observed among socially damaged women. Violence has been shown to double the risk of unplanned pregnancy.<sup>21–23</sup> Survivors of abuse have been reported to be more likely to practice high-risk sexual behaviors, experience unintended pregnancies, and suffer from sexual dysfunction than nonabused women.<sup>24–26</sup> A high prevalence of sexual dysfunction among socially damaged women was documented.

Induced abortion has been shown to occur among socially damaged women with higher frequency than among general population.<sup>27</sup> Causal effect of violence on incidence of induced abortion has not been documented though. Bagherzadeh et al demonstrated that socially damaged women are more likely to give birth to a newborn with low birth weight.<sup>28</sup> Some investigators have shown the physical violence to increase the risk of sexual organ damage, unplanned pregnancy, unsafe abortion, dysmenorrhea, sexual function disorders, urinary tract infections, infertility, substance abuse, sexually transmitted disease, acquired immunodeficiency syndrome, and having multiple partners.<sup>29–35</sup>

As compared to other populations, Persian socially damaged women were less likely to participate in cervical cancer screening programs, ie, Pap cervical smear test.<sup>36,37</sup>

This could be alarming, taking into account the link proposed to exist between multiple-partner sexual activity and cervical cancer,<sup>38</sup> in the light of the high prevalence of multiple-partner sexual relationships observed in this subpopulation. Brady et al demonstrated that violence increases the risk of having multiple partners. They observed that associations between violence involvement and other forms of health risk behavior are bidirectional. That is, adolescents who engage in sexual behavior with multiple partners are also at risk for later violence involvement.<sup>39,40</sup>

## Conclusion

A high prevalence of poor reproductive health was documented among a group of Middle Eastern socially damaged women. The pervasiveness of violence and its association with reproductive health underscores that violence in general is an important determinant for reproductive health risks.

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## Authors' contributions

GM prepared and analyzed the data, interpreted the results, and drafted the article. SA, AR, and HAM critically revised the manuscript.

## Disclosure

The authors report no conflicts of interest in this work.

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