

## Original Article

**Determinants of Violence Types among Reproductive Age Women:  
A Cross-Sectional Study in Sarab City**Safieh Kananikandeh<sup>1</sup> Mojgan Mirghafourvand\*<sup>2</sup>

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**Abstract**

**Background and Purpose:** Violence against reproductive age women harms other health priorities, such as family planning and maternal health. This study aimed to identify the determinants of violence among reproductive age women.

**Materials and Methods:** This cross-sectional study was conducted among 182 married women, 15-49 years old in Sarab City, Iran, through simple random sampling in 2018. Data were collected by a self-designed questionnaire including demographic characteristics, physical, psychological, verbal, economic, and sexual violence. Then, it was analyzed using an independent samples t-test, one-way ANOVA, Pearson Correlation, and multivariate linear regression.

**Results:** The prevalence of physical, psychological, sexual, economic and verbal violence in women was 11(6%), 14(7.7%), 18(9.9%), 24(13.2%), and 37(20.3%), respectively. Husband's older age and husband's older age of marriage increased (B= 0.14, 95% CI= 0.00 to 0.28) and decreased (B= -1.17, CI=-0.27 to -0.06) verbal violence against women. Illiteracy in spouses reduced physical violence (B=-2.43, CI= -4.58 to -0.27) and sexual violence (B= -1.62, CI= -3.08 to -0.16) and in women, it reduced psychological violence (B= -2.63, CI= -4.81 to -0.45). Spousal smoking reduced physical (B= -0.97, CI= -1.78 to -0.17), psychological (B= -1.17, CI= -2.01 to -0.33), and verbal (B= -1.22, CI= -1.96 to -0.48) violence; however, women's alcoholism (B= 7.31, CI= 0.27 to 4.43) and having children from a previous marriage of the woman (B= 0.06, CI= 0.04 to 1.16) increased physical violence. The highest economic violence was seen in female employees (B= 1.31, CI= 0.35 to 2.27). Psychological (B= -4.92, CI= -7.89 to -1.49) and sexual (B= -2.16, CI= -4.09 to -0.22) violence was less experienced in men's second marriage.

**Conclusion:** Considering the high prevalence of verbal violence and related factors, conducting the necessary screenings to recognize it in time, teaching communication skills and anger management to husbands seems essential.

**Keywords:** Violence; Risk Factors; Determinant; Women; Fertility; Reproductive Age

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## 1. Introduction

Violence against women is a type of gender-based violence that, regardless of age, race, ethnicity, and country causes or is likely to result in physical, psychological, or sexual harm to women (1-3). This behavior deprives women's authority or freedom that occurs in public or private life in the form of threats (4, 5). Based on the evidence, one-third of women are affected by violence during their lifetime worldwide (1). The extent of this violence and its impact on the health of women, families, and society has made it a significant health problem (3), and it is among the most important causes of disability and death (6). Figures show that, universally, 40%-70% of the female casualties have been killed by their spouses (7).

Violence against women exists in countries all around the world (2), and is common in developed and developing countries (8). Hence, based on the report of the World Health Organization, domestic violence varied from 15% in Japan to 71% in Ethiopia (7). In Iran, as in other nations, violence against women is an important social issue, while providing reliable and accurate statistics on the prevalence of violence against this group, which is hidden or ignored relatively, is a difficult task. The information obtained from detailed scientific studies on violence is still insufficient (2, 9), including Sarab city in East Azerbaijan Province, Iran. However, according to conducted studies in the period 2000 to 2014, domestic violence in east and south, west, north, and center of Iran was 70%, 75%, 62%, and 59%, respectively (10). Research in Tabriz City, Iran, has revealed 42% violence against women and 19% during pregnancy (11). Some experts consider the cause of

violence to be intrinsic, while others consider it to be acquired (2). Based on the available evidence, the effective factors in causing violence include religious attitudes (7), attitudes toward women, attitudes toward marriage and family formation, social attitudes about violence, lack of economic support, the masculine structure of formal organizations, and women's ignorance of the possibilities (2), educational, economic and social policies, cultural norms, and social inequalities (12).

Violence against women, in addition to the violation of human rights, has devastating social, economic (such as costs related to police, hospital and health services, legal costs, and social support services), health, and psychological or emotional consequences (such as chronic depression, panic attacks, anxiety, and low self-esteem) (5, 7, 8, 13-15). Violence against women of reproductive age also causes the loss of their health, more than diseases such as breast and uterine cancer, painful deliveries, and accidents. It also negatively affects other important health priorities; for instance, family planning, physical health, immune system, mental health, sexual and reproductive health, prevention of sexually transmitted diseases, and AIDS (2, 8, 14). Besides, it has been pointed out that partner violence is a risk factor for women committing suicide (3).

Based on this background, ending this phenomenon is one of the priorities of the United Nations Development Programme to achieve gender equality (16). Given that awareness of domestic violence has increased worldwide since the first report on battered women was published in the early 1970s (17), so a deep understanding of the conditions, causes, and results appear to be essential to control and prevent violence against women (7).

Hence, this study aimed to assess the determinants of violence types among reproductive-age women (15-49 years) referred to health centers. Identifying these determinants can help health policymakers provide evidence-based information to design health strategies, interventions, and guidelines for preventing and controlling violence against women.

## 2. Material and Methods

This cross-sectional study was performed on women of reproductive age (15-49 years old) in Sarab city in East Azarbaijan Province, Iran in 2018. Inclusion criteria included being married, being in reproductive age (15-49 years), age of 18-55 years for their husbands at the time of marriage, full consciousness, no psychological disorders, and personal consent to participate in the study. Exclusion criteria also included failure to complete the questionnaire, lack of access to the mother for any unpredictable reason, and having mental disorders.

Cochran's Method, considering  $\alpha = 0.05$ , the 18% of prevalence of violence according to previous studies (11), and precision (d) = 0.05 was used to determine the sample size in a statistical population of women of reproductive age (9394 women). The sample size was determined to be 222 individuals. Sampling started after obtaining the code of ethics from the ethics committee of Tabriz University of Medical Sciences. Sarab has four urban health centers. The number of samples was determined in proportion to the population of women covered by each of the four centers. Sampling has been done simultaneously in all urban centers; thus, women with inclusion criteria were selected randomly among the household files.

After giving the necessary information to the participants about the research design and how to answer the questions, the informed written consent was obtained from all participants. The questionnaires were completed by eligible participants through self-report method.

Demographic information included questions about age, level of education, occupation, marriage age, history of smoking, drug and alcohol addiction in men and women, the number of marriages, wanted marriage, having a child from the previous marriage, and infertility.

A self-designed questionnaire including physical violence, psychological violence, verbal violence, economic violence, and sexual violence was used to collect data. The items of the mentioned questionnaire were designed by reviewing different tools from related studies and the opinions of the expert panel. The validity of the questionnaire was confirmed using content and face validity by ten members of the panel of experts. The content validity index and content validity ratio of items were in the range of 0.81-1 and 0.75-1, respectively. The questionnaire's reliability for the dimensions of physical, psychological, verbal, economic, and sexual violence has been calculated by Cronbach's alpha method to be 0.74, 0.71, 0.84, 0.76, and 0.71, respectively.

Scales included the physical (e.g. have your husband ever thrown the object at you?), psychological (e.g. has your husband threatened to hurt you?), verbal (e.g. has your husband cursed you?), economic (e.g. is your husband providing you the necessities of life?), and sexual violence (e.g. did your husband have sex with you without your consent?). Response options for the existence of the

violence in a question were "yes" and "no". Two points were given for the "yes" option and one point for the "no" option. On the scale of physical violence with 17 items, the lowest score was for the "Yes" answer (34 points), and the highest score was for the "No" answer (17 points). The lowest and the highest scores on the psychological violence scale with 20-items were 20 and 40, on the verbal violence scale with 8-items were 8 and 16, on the economic violence scale with 9-items were 9 and 18, and on the sexual violence scale with 9-items were 9 and 18. The highest and the lowest scores for scales showed the highest and the lowest considered violence, respectively. The raw scores were categorized into three levels of violence, low, moderate, and high in accordance with the cut-off points of physical violence  $\leq 22$ , 23–28, and  $\geq 29$ , cut-off points of psychological violence  $\leq 26$ , 27–33, and  $\geq 34$ , cut-off points of verbal violence  $\leq 10$ , 11–13, and  $\geq 14$ , and cut-off points of economic and sexual violence  $\leq 11$ , 12–14, and  $\geq 15$ .

To analyze the collected data SPSS Software, version 16 was used. After checking the normality of the data using the Kolmogorov-Smirnov test, descriptive statistics were used to determine the frequency of violence in women of reproductive age by types of violence, and mean as well as standard deviation was used to determine the variable score in statistical tests. Independent samples t-test was also used to examine the relationship between the mean score of violence with family income variables, male and female

smoking history, polygamy, male and female drug and alcohol addiction, the number of marriages, wanted marriage, having male and female children from previous marriages, infertility problems, and medical history. In addition, a one-way ANOVA test was used to determine the difference between the mean score of types of violence with education and occupation of men and women, and the correlation Pearson test was used to determine the relationship between types of violence with the age and marriage age of man and woman. Besides, the researchers run multivariate linear regression to control the role of confounding variables (e.g. age, level of education, household income level, and history of smoking and addiction).

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### 3. Results

14 women were excluded due to dissatisfaction, 19 due to incompleteness of the questionnaire, and seven due to self-reported mental disorder and abnormal communication symptoms. Finally, the study was conducted with the participation of 182 women.

Of the 182 participants, one-third had a high school education, and more than half had a low income. The occupation of most women of reproductive age was housekeeping (Table 1).

**Table 1.** The socio-demographic in women of reproductive age (N = 182)

Variable	woman N(%)	man N(%)	Variable	woman N(%)	man N(%)
<b>Age (Year)*</b>	29.95 ± 8.36	34.90 ± 8.33	<b>Drug and Alcohol Addiction</b>		
<b>Age of Marriage (Year)*</b>	19.84 ± 4.30	25.13 ± 5.23	Yes	2 (1.1)	5 (2.7)
<b>Education</b>			No	180 (98.9)	177 (97.3)
<b>Illiterate</b>	10 (5.5)	7 (3.8)	<b>Number of Marriage</b>		
<b>Primary</b>	24 (13.2)	27 (14.8)	first	177 (97.3)	178 (97.8)
<b>Secondary school</b>	36 (19.8)	43 (23.6)	second	5 (2.7)	4 (2.2)
<b>High school</b>	60 (33.0)	47 (25.8)	<b>Infertility</b>		
<b>University</b>	52 (28.6)	58 (31.9)	Yes	4 (2.2)	0
<b>Job</b>			No	178 (97.8)	0
<b>Housewife</b>	147 (80.8)		<b>History of Disease</b>		
<b>Work at home</b>	5 (2.7)		Yes	16 (8.8)	
<b>Employee</b>	30 (16.5)	37 (20.3)	No	166 (91.2)	
<b>Self-employment</b>		91 (50.0)	<b>Wanted Marriage</b>		
<b>Worker</b>		54 (29.7)	Yes	170 (95.0)	
<b>History of Smoking</b>			No	9 (5.0)	
<b>Yes</b>	4 (2.2)	40 (22.0)	<b>Income level</b>		
<b>No</b>	177 (97.8)	142 (78.0)	Low	102 (56.0)	
<b>Having a Child from the Previous Marriage</b>			Medium	80 (44.0)	
<b>Yes</b>	2 (1.1)	0			
<b>No</b>	180 (98.9)	182 (100.0)			

\*These values indicate the mean (SD)

The prevalence of physical, psychological, sexual, economic, and verbal violence in pregnant women was 11 (6%), 14 (7.7%), 18 (9.9%), 24 (13.2%), and 37 (20.3%), respectively. Among these, the highest rate belonged to verbal violence.

According to the result of Pearson correlation test, a significant relationship was found between the age of marriage of women and physical and economic violence ( $r=0.16$ ;  $p=0.027$ ), but this relationship was not very strong; while there was no relationship between the age of men, the marriage age of men, and the age of women with physical ( $P=0.576$ ,  $0.560$ ,  $0.753$ ), psychological ( $P=0.310$ ,  $0.360$ ,  $0.190$ ), sexual ( $P=0.658$ ,  $0.151$ ,  $0.809$ ), economic ( $P=0.664$ ,  $0.090$ ,  $0.260$ ),

and verbal violence ( $P=0.315$ ,  $0.077$ ,  $0.258$ ), respectively.

Besides, a significant relationship was observed between female education level with physical ( $P=0.002$ ), verbal ( $P=0.023$ ), and economic ( $P<0.001$ ) violence based on a one-way ANOVA. Tukey's post hoc test results showed that physical, verbal, and economic violence scores were higher in women with a university education than other women. One-way ANOVA showed a significant relationship between male education level and physical, economic, and sexual violence. The Tukey post hoc test also revealed differences in the scores of physical, economic, and sexual violence in men with a university degree compared to

other men. Thus, the physical, economic, and sexual violence scores were higher in men with a university education than men with elementary education, compared to men with secondary, elementary, and no education, and compared to men with illiterate and high school education, respectively.

In examining the frequency of violence types among women of reproductive age based on occupation, there was no difference between groups among women. Nevertheless, according to the Tukey post hoc test, a statistically significant difference was found between male employees and workers in verbal violence and economic violence.

Based on the independent samples t-test, only a significant difference was found between male smoking with verbal and psychological violence and between income level and physical and economic violence. Based on other factors (number of marriages/wanted marriages/having children from previous marriages/history of illness), only statistically significant

difference was found between wanted marriages and verbal, economic, and sexual violence. It is worth mentioning that the t-test could not be performed due to the unavailability of the 'yes' option for the variables of having another spouse and having a child from the previous marriage of the man. Besides, no significant relationship was observed between infertility with types of violence.

The multivariate linear regression showed that increasing the age and marriage age of spouses increased and decreased the verbal violence, respectively. Illiteracy of spouses reduced physical violence and sexual violence and in women, reduced psychological violence. Spousal smoking reduced physical, psychological, and verbal violence; however, women's alcoholism and having children from a previous marriage increased physical violence. The highest economic violence was seen in female employees. Meanwhile, psychological and sexual violence was less experienced in the second marriage of men (Table 2).

**Table 2.** Multivariate regression analysis of demographic and clinical factors with different types of violence in women of reproductive age

Variable	Violence types				
	Physical B (95% CI)	Psychological B (95% CI)	Verbal B (95% CI)	Economic B (95% CI)	Sexual B (95% CI)
<b>Woman's Edu*</b>					
1	-0.73 (-2.82 to 1.34)	-2.63 (-4.81 to -0.45)	-1.53 (-3.46 to 0.38)	-0.23 (-1.75 to 1.29)	-1.29 (-2.71 to 0.11)
2	-0.54 (-1.99 to 0.90)	-0.48 (-2.00 to 1.02)	-0.41 (-1.75 to 0.92)	0.28 (-0.77 to 1.34)	-0.16 (-1.14 to 0.82)
3	-0.77 (-2.09 to 0.54)	-0.44 (-1.82 to 0.93)	-0.37 (-1.59 to 0.83)	-0.28 (-1.24 to 0.68)	-0.45 (-1.34 to 0.44)
4	-0.41 (-1.53 to 0.70)	-0.77 (-1.94 to 0.39)	-0.91 (-1.94 to 0.12)	-0.52 (-1.33 to 0.29)	-0.55 (-1.31 to 0.20)
5	Ref				
<b>Man's Edu*</b>					
1	-2.43 (-4.58 to -0.27)	-1.02 (-3.27 to 1.22)	-0.34 (-2.33 to 1.63)	-1.55 (-3.12 to 0.02)	-1.62 (-3.08 to -0.16)
2	-0.27 (-1.75 to 1.21)	-0.22 (-1.77 to 1.33)	-0.22 (-1.59 to 1.15)	-0.50 (-1.59 to 0.58)	-0.15 (-1.16 to 0.85)
3	-0.87 (-2.09 to 0.35)	-0.09 (-1.37 to 1.18)	-0.63 (-1.77 to 0.49)	-0.34 (-1.24 to 0.54)	-0.18 (-1.01 to 0.64)
4	-0.13 (-1.22 to 0.94)	0.11 (-1.02 to 1.25)	0.06 (-0.94 to 1.06)	-0.04 (-0.84 to 0.74)	0.11 (-0.65 to 0.85)
5	Ref				
<b>Woman's Job<sup>#</sup></b>					
1	1.81 (-0.39 to 4.03)	0.93 (-1.37 to 3.25)	0.21 (-1.83 to 2.26)	0.98 (-0.63 to 2.60)	-1.12 (-2.63 to 0.37)
2	1.04 (-0.27 to 2.35)	-0.26 (-1.64 to 1.10)	0.07 (-1.13 to 1.29)	1.31 (0.35 to 2.27)	-0.00 (-0.89 to 0.89)
3	Ref				
<b>Man's Job<sup>a</sup></b>					
1	-0.19 (-1.25 to 0.86)	-0.38 (-1.49 to 0.72)	-0.28 (-1.26 to 0.69)	-0.15 (-0.92 to 0.62)	-0.11 (-0.83 to 0.60)
2	0.31 (-0.51 to 1.14)	0.19 (-0.67 to 1.05)	0.33 (-0.43 to 1.09)	-0.01 (-0.62 to 0.59)	0.06 (-0.49 to 0.62)
3	Ref				
<b>Female Smok<sup>b</sup></b>	0.45 (-1.77 to 2.67)	0.53 (-1.79 to 2.86)	0.04 (-2.00 to 2.10)	-1.31 (-2.94 to 0.30)	-1.46 (-2.97 to 0.04)
<b>Male Smok<sup>b</sup></b>	-0.97 (-1.78 to -0.17)	-1.17 (-2.01 to -0.33)	-1.22 (-1.96 to -0.48)	-0.24 (-0.83 to 0.34)	-0.26 (-0.80 to 0.28)
<b>Female Addi<sup>c</sup></b>	7.31 (0.27 to 14.34)	-6.01 (-13.36 to 1.33)	-0.69 (-7.18 to 5.80)	1.13 (-4.01 to 6.27)	1.16 (-3.60 to 5.94)
<b>Male Addi<sup>c</sup></b>	0.06 (-4.79 to 4.91)	3.15 (-1.91 to 8.22)	1.07 (-3.40 to 5.55)	-0.90 (-4.45 to 2.63)	1.61 (-1.68 to 4.90)
<b>Income<sup>d</sup></b>					
1	0.40 (-0.43 to 1.24)	0.52 (-0.34 to 1.39)	-0.10 (-0.87 to 0.67)	0.39 (-1.21 to 1.00)	-0.01 (-0.58 to 0.55)
2	Ref				
<b>Woman's Age</b>	-0.04 (-0.88 to 0.78)	-0.03 (-0.90 to 0.83)	0.03 (-0.73 to 0.08)	-0.12 (-0.73 to 0.48)	0.05 (-0.50 to 0.62)
<b>Man's Age</b>	0.07 (-0.07 to 0.22)	0.09 (-0.06 to 0.25)	0.14 (0.00 to 0.28)	-0.01 (-0.12 to 0.09)	0.05 (-0.04 to 0.16)
<b>Woman's Mar<sup>e</sup></b>	0.09 (-0.74 to 0.93)	-0.02 (-0.90 to 0.85)	-0.06 (-0.83 to 0.71)	0.16 (-0.44 to 0.78)	-0.05 (-0.62 to 0.51)
<b>Man's Mar<sup>e</sup></b>	-0.09 (-0.20 to 0.01)	-0.09 (-0.21 to 0.02)	-1.17 (-0.27 to -0.06)	-0.01 (-0.09 to 0.06)	-0.02 (-0.10 to 0.04)
<b>Disease<sup>f</sup></b>	-0.18 (-1.55 to 1.19)	-0.16 (-1.59 to 1.27)	-0.47 (-1.74 to 0.79)	-0.71 (-1.72 to 0.29)	-0.27 (-1.20 to 0.65)
<b>Wan Marr<sup>g</sup></b>	-6.25 (-8.35 to -4.15)	-3.73 (-5.93 to -1.54)	-3.14 (-5.08 to -1.21)	-2.07 (-3.60 to -0.53)	-1.80 (-3.22 to -0.37)
<b>Woman's Num Mar<sup>h</sup></b>	1.34 (-0.93 to 3.63)	2.20 (-0.17 to 4.59)	0.39 (-1.70 to 2.50)	0.86 (-0.82 to 2.50)	0.52 (-1.02 to 2.07)
<b>Man's Num Mar<sup>h</sup></b>	-1.72 (-4.57 to 1.12)	-4.92 (-7.89 to -1.94)	-1.60 (-3.69 to 1.55)	-1.71 (-3.79 to 0.36)	-2.16 (-4.09 to -0.22)
<b>Having Child<sup>i</sup></b>	0.60 (0.04 to 1.16)	0.02 (-0.55 to 0.61)	0.21 (-0.30 to 0.73)	0.21 (-0.19 to 0.62)	0.19 (-0.18 to 0.58)
<b>Infertility</b>	-1.13 (-3.43 to 1.16)	-1.42 (-3.82 to 0.97)	-0.57 (-2.69 to 1.55)	0.52 (-1.15 to 2.20)	0.22 (-1.33 to 1.78)

\* Education: 1. Illiterate, 2. Primary, 3. Secondary School, 4. High scholl, 5. University

<sup>#</sup> 1. Work at home, 2. Employee, 3. Hosewife<sup>a</sup> 1. Employee, 2. Worker, 3. Self-employment<sup>b</sup> Smoking History<sup>c</sup> Addiction<sup>d</sup> Income Level: 1. Medium, 2. Low<sup>e</sup> Age of Marriage<sup>f</sup> History of Female Disease<sup>g</sup> Number of Marriage<sup>h</sup> Wanted Marriage<sup>i</sup> Having a Child from the Previous Marriage

#### 4. Discussion

This study aimed to determine the determinants of violence in women of reproductive age (15-49 years) in Sarab city-Iran in 2018. The highest frequency was related to verbal violence, which was consistent with studies among women referring to forensic medicine in Urmia-Iran (2), among women aged 19-60 referring to health centers in Rafsanjan-Iran (18), and women of reproductive age in Shiraz urban health centers (7). Moreover, in a study in East Sudan, verbal violence was the most common form of violence against women and the participating women experienced various forms of insults and verbal threats (19). But according to the Family Research Institute in Turkey, the prevalence of physical and verbal violence against women was 16.5 percent and 12.3 percent, respectively (20). In general, one of the causes of verbal violence was found to be the possibility that men were not familiar with all aspects of violence culturally and socially and its lack of evaluation in pursuing the abused person.

In the present study, the lowest frequency of violence was related to physical violence. This finding was inconsistent with the results of other studies (2, 8, 9, 13). Because in these studies, physical violence had the second rank, and in a study among married women in Ravansar city (9), the third rank in terms of frequency. Hence, individuals were more likely to view physical violence contrary to the prevailing culture, family norms, and personality traits.

In expressing the relationship between age and violence, various studies have shown conflicting results. In some cases, increasing age has increased violence and, in some cases, it has reduced violence (2, 21-25). This study's findings also showed a significant relationship between men's age and their age of marriage with verbal

violence. The prevalence of verbal violence has also increased with the age of men, which was in contradiction with a study among women in Tabriz (26), while such result was consistent with a study in Rafsanjan (18). In the study of Rafsanjan, the authors stated that with increasing age after 40 in couples, especially in women, the frequency of violence against women has increased (18). Possible reasons include the couple's traditional thinking and the family's patriarchal view, increasing anxiety, and coinciding with retirement.

According to the findings of the present study, the prevalence of verbal violence decreased in men who smoked and got married at an older age. The findings of two studies in Tabriz and Golestan among women confirmed these results (26-27). In another study, most people who experienced economic, physical, and verbal violence married in less than 15 years (2). Possible causes of this relationship include not having enough skills to play the role of spouse and using violence instead of a problem-solving style when facing problems at a young age and an increasing rate of assimilation of spouses with each other in the older age.

Based on the results of the current study, the lowest prevalence of psychological violence was observed among illiterate women and smoking men. These findings were consistent with the results of other studies (18, 28). Moreover, a study in Kasala showed that women's higher education increased psychological violence (19). While in a study in Ardebil higher education for women reduced psychological violence, which was contrary to the findings of our study (29). In the present research, like a study in Nepal (30), women's educational level was not protective against violence.



Probably due to the profound impact of culture and religion in the region, increasing women's education did not play a role in controlling violence. Hence, it is possible for most couples to have a rational view of their marital challenges because of their shared religious beliefs. Furthermore, the study found that less psychological violence has been used against women and men who had experienced a second marriage; this was also inconsistent with a conducted study among women referred to healthcare centers in Rafsanjan city (18). Perhaps despite the failed experience in the first marriage, men are more inclined to communicate effectively and better with their spouses and maintain family stability. This study showed that wives of illiterate men and wives with a history of smoking experienced less physical violence. Findings of violence concerning male education level were not consistent with other studies' results (13,14, 31). Despite this, among the women referred to Karaj Forensic Medicine Center (23), there was no significant relationship between violence and men's education level. Since the factor of culture is effective in the occurrence of health behaviors (7), in the present study, it seemed that men, due to the existing cultural context and deeply religious and spiritual beliefs, found the expression of physical violence against women displeasing and did not consider it in accordance with the norms of family and society; since physical violence was found to be the least common in this study, it may confirm this point. Besides, people with lower levels of education were likely to have lower expectations of their spouses and, at the same time, more forgiveness. It is also possible that people often solve problems with thought and reflection.

In line with the results of this study showing that men with a history of smoking reported less physical violence, a study in Ghana found no association between smoking and domestic violence (13). However, in another study in southern Ethiopia, spouses' cigarette smoking significantly increased physical violence among reproductive-age women (6). Based on the evidence, smoking exacerbates the incidence and severity of physical violence against reproductive age women and directly affects mental and emotional functioning to lower self-esteem and self-control, making people less able to negotiate nonviolent conflict resolution in a relationship (6), but in the current study, smoking may have reduced this type of violence by providing false and temporary relief to these people (32).

According to the findings, the highest prevalence of physical violence was seen in women who had children from their previous marriage and addicted women. In contrast, in a conducted study in North India, the physical violence was associated with the variable of childlessness (33). Therefore, this issue may cause tension and violence to the wife due to her inability to afford long-term care for her child or lack of emotional connection with her child. Regarding the increase in the rate of physical violence in addicted women, researchers in their studies stated that woman's addiction was directly related to violence, and addicted women were found to be more threatened than others (14, 31, 34, 35). Thus, due to its effect on a person's willpower and control in his/her actions, addiction may force a person to behave in a way that he/she cannot have proper social relations with others. Therefore, he/she may receive

feedback on his/her behavior in the form of violence from others.

The results of the present study also showed the lowest prevalence of sexual violence in illiterate spouses and spouses who experienced their second marriage. Like this finding, in a study in North India, it was found that women who were married to a man with a high level of education experienced significantly higher risks of forced sex (33). While according to other studies, sexual violence in illiterate men was higher (18-19). The study in rural Nepal also showed the spouse's level of education as a protective factor against violence (30). Therefore, the women under study probably refused to disclose the issue properly due to the cultural norms that govern the society and need adherence to a series of values.

In this study, lower frequency rates of sexual violence were reported in women whose husbands remarried. This finding was not similar to a conducted study among women referred to healthcare centers in Rafsanjan city (18). In that study, it was found that all women whose husbands had been married more than once reported high violence levels. Therefore, in our study, it seemed that female satisfaction in sexual intercourse was very important for their husbands.

Based on the study's findings, a higher prevalence of economic violence was observed in female employees, which was consistent with the study findings among women in Kerman (31). However, other studies showed that women's employment was associated with various forms of violence, and the risk of violence in working women was high (15, 36). Therefore, socioeconomic status was recognized as a structural factor in violence, and the prevalence of violence in

low-income families was higher than affluent families (2).

No significant relationship was also found between infertility problems and types of violence in the present study regarding clinical variables. Perhaps the reason was the low number of these people. Despite this, based on the findings of a study among Tehrani women, 47% of them have experienced sexual violence, which was related to many factors, including unwanted marriage (37). Based on another study among women in Urmia city, there was no significant relationship between forced marriage and types of violence (2). However, forced marriage was associated with domestic violence in a conducted study in Tehran (34). This association was also found in the present study. Therefore, if couples marry with heartfelt satisfaction, they will probably be successful in communicating and solving problems.

The current study had some limitations: The cross-sectional study, the husbands' non-participation, the possibility of the addiction, non-expression due to cultural and social reasons, the possibility of violence non-disclosure, lack of the generalization due to the small and cultural community, the possibility of the recall bias due to the self-report method, the self-designed questionnaire, and the sample size was less than the number calculated due to the lack of cooperation of women. Therefore, it was suggested that researchers consider these limitations in their future studies to generalize the results better and possibly reduce any bias.

## 5. Conclusion

The present study showed the highest and lowest levels of violence in verbal and physical violence, respectively. The

variables of age, age of marriage, occupation, education level of men and women, female addiction, having children from previous marriages of women, wanted marriage, smoking of spouses, and polygamy of spouses were the determinant factors on the types of violence. Due to the high prevalence of verbal violence and related factors, conducting the necessary screenings to recognize the problem in time, arranging classes to increase the couple's awareness, familiarity with their own and their spouses' rights, teaching communication and problem-solving skills to couples and anger management to husbands seems essential.

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### **Conflict of interest**

None declared.

### **References**

- Vijayalakshmi P, Gandhi S, Sai Nikhil Reddy S, Palaniappan M, Badamath S. Violence against women with mental illness and social norms and beliefs: nursing professional perspective. *Community Mental Health Journal*. 2021; 57(2): 212–8.
- Aghakhani N, Eftekhari A, Zare Kheirabad A, Mousavi E. Study of the effect of various domestic violence against women and related factors in women who referred to the Forensic Medical Center in Urmia city-Iran 2012-2013. *Scientific Journal of Forensic Medicin*. 2012; 18(2 and 3): 69–77.
- Duran S, Eraslan ST. Violence against women: Affecting factors and coping methods for women. *Journal of the Pakistan Medical Association*. 2019; 69(1): 53–7.
- Hassan M, Kashanian M, Rooh M, Vizheh M, Hassan M. Domestic violence against pregnant women: prevalence and associated factors. *Sociology of Women*. 2011; 1(4): 61–77.
- Grose RG, Chen JS, Roof KA, Rachel S, Yount KM. Sexual and reproductive health outcomes of violence against women and girls in lower-income countries: A review of reviews. *The Journal of Sex Research*. 2021; 58(1): 1–20.
- Siraneh ZY, Abeje A, Ashegu T, Hadra N. Physical violence and associated factors among women of reproductive age in Gedeo Zone, southern Ethiopia. *Ethiopian Journal of Health Sciences*. 2021; 31(5): 955-961.
- Godrati F, Yazdanpanahi Z, Akbarzadeh M. The relationship between religious attitude and domestic violence against women of reproductive age. *Journal of Midwifery and Reproductive Health*. 2019; 7(1): 1522-6.
- Gebrewahd GT, Gebremeskel GG, Tadesse DB. Intimate partner violence against reproductive age women during COVID-19 pandemic in northern Ethiopia 2020: A community-based cross-sectional study. *Reproductive Health*. 2020; 17(1): 1–8.
- Mohammadi F, Mirzaei R. Social factors affecting violence against women, case study: the city of Ravansar. *Journal Iran Social Studies*. 2012; 6(1): 101.
- Hajnasiri H, Gheshlagh RG, Sayehmiri K, Moafi F, Farajzadeh M. Domestic violence among Iranian women: a systematic review and meta-analysis. *Iranian Red Crescent Medical Journal*. 2016; 18(6).
- Alizadeh M, Samadirad B, Ravanshad Y, Khamenian Z, Azarfar A. A case control study of married women under the violence during pregnancy in Tabriz. *The Iranian Journal of Obstetrics, Gynecology and Infertility*. 2012; 15(32): 8-13.
- Oram S, Khalifeh H, Howard LM. Violence against women and mental health. *The Lancet Psychiatry* 2017; 4(2): 159–70.
- Owusu Adjah ES, Agbemaflle I. Determinants of domestic violence against women in Ghana. *BMC Public Health*. 2016; 16: 368.

14. Saberian M, Atash Nafas E, Behnam B. Prevalence of domestic violence in women referred to the health care centers in Semnan. *KOOMESH*. 2005; 6(2): 115–22.
15. Lasong J, Zhang Y, Muyayalo KP, Njiri OA, Gebremedhin SA, Abaidoo CS, Liu CY, Zhang H, Zhao K. Domestic violence among married women of reproductive age in Zimbabwe: a cross sectional study. *BMC Public Health* 2020; 20(1): 1–11.
16. UNDP. UNDP support to the integration of gender equality across the SDGs including goal 5. United Nations Development Program 2015; 1–16.
17. Ahmed AM, El Mardi AE. A study of domestic violence among women attending a medical centre in Sudan. *EMHJ-Eastern Mediterranean Health Journal*. 2005; 11 (1-2): 164-174.
18. Torkashwand F, Rezaeean M, Sheikhfathollahi M, Mehrabian M, Bidaki R, Garousi B, Movahedi M. The prevalence of the types of domestic violence on women referred to health care centers in Rafsanjan in 2012. *Journal of Rafsanjan University of Medical Sciences*. 2013; 12(9): 695-708.
19. Ali AA, Yassin K, Omer R. Domestic violence against women in Eastern Sudan. *BMC Public Health*. 2014; 14(1): 1-5.
20. Öyekçin DG, Yetim D, Şahin EM. Psychosocial factors affecting various types of intimate partner violence against women. *Turkish Journal of Psychiatry*. 2012; 23(2): 1-7.
21. Ali TS, Asad N, Mogren I, Krantz G. Intimate partner violence in urban Pakistan: Prevalence, frequency, and risk factors. *International Journal of Women's Health*. 2011; 3(1): 105–15.
22. Ghazanfari F. Effective factors on violence against women in Lorestan county towns. *Yafte*. 2011; 12(2): 5–11.
23. Shabani S, Mansournia N, Mansournia M, Bahrani N. Study of the susceptible factors in wife abuse among women referred to Karaj forensic medicine center in 2005: a case-control study. *Medical Sciences Journal of Islamic Azad University*. 2009; 18(4): 269–73.
24. Ghahari SH, Âtefvahid MK, Yousefi H. The prevalence of Spouse Abuse Among Married Students of Islamic Azad University of Tonekabon in 1383. *Journal of Mazandaran University of Medical Sciences*. 2006; 15(50): 83-9.
25. Ghazizadeh A. Domestic violence: a cross-sectional study in an Iranian city. *Eastern Mediterranean Health Journal*. 2005; 11 (5-6): 880-7.
26. Khanjani Z, Saedi S, Bahadori Khosrow Shahi J. Effective factors on the intensity of domestic violence against women: analysis of the role of pathognomy and demographic factors. *Woman and Study of Family*. 2010; 2(6): 67–84.
27. Fallah S, Rostamzade S, Ghelich M. Effective factors on confronting violence on married women. *Journal of Gorgan University of Medical Sciences*. 2016; 17(4): 91-7.
28. Fourozan AS, Dejman M, Baradaran-Eftekhari M, Bagheri-Yazdi A. A study on direct costs of domestic violence against women in legal medicine centers of Tehran (2002). *Archives of Iranian Medicine*. 2007; 10(3): 295–300.
29. Mohamadoghli S. Domestic violence against women (case study of Ardabil). *Journal of Family Research*. 2015; 11(52): 149–63.
30. Puri M, Frost M, Tamang J, Lamichhane P, Shah I. The prevalence and determinants of sexual violence against young married women by husbands in rural Nepal. *BMC Research Notes*. 2012; 5(1): 1–13.
31. Balali Meybodi F, Hassani M. Prevalence of violence against women by their partners in Kerman. Prevalence of violence against women by their partners in Kerman. *Iranian Journal of Psychiatry and Clinical Psycholog*. 2009; 15(3): 300–7.
32. Mirzaei M, Nazarzadeh M. Causes of smoking and hookah addiction and providing self-care strategies for adolescent female high school students in Ilam province. *Anti - Narcotics Studies Journal*. 2020; 11(43): 92–103.

33. Koenig MA, Stephenson R, Ahmed S, Jejeebhoy SJ, Campbell J. Individual and Contextual Determinants of Domestic Violence in North India. *American journal of public health*. 2006; 96(1): 132-8.
34. Nojomi M, Agaee S, Eslami S. Domestic violence against women attending gynecologic outpatient clinics. *Archives of Iranian Medicine*. 2007; 10(3): 309–15.
35. Derakhshanpour F, Mahboobi H., Keshavarzi S. Prevalence of domestic violence against women. *Journal of Gorgan University of Medical Sciences*. 2014; 16(1): 126–31.
36. Nouhjah S, Latifi S., Haghghi M, Eatesam H, Fatholahifar A, Zaman N, Farrokhnia F, Bonyadi F. Prevalence of domestic violence and its related factors in women referred to health centers in Khuzestan Province. *Behbood Journal*. 2011; 15 (4): 278-286.
37. Sheikhan Z, Ozgoli G, Azar M, Alavimajd H. Domestic violence in Iranian infertile women. *Medical Journal of the Islamic Republic of Iran*. 2014; 28: 152.