Prevalence of Domestic Violence against Women and Its Visibility in Southeast Iran

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Abstract

Background: We aimed to estimate the prevalence of domestic violence against women at Reproductive Age (WARA) and its visibility in southeast of Iran.

Methods: Adopting a modified time-location sampling, we recruited 933 WARA in the city of Kerman, Iran from Aug to Dec 2019. Domestic violence (DV) was divided into three main categories: Physical, psychological, and sexual. Data were obtained by direct and Network Scale-Up (NSU) methods through self–administered questionnaires. Generalized Estimating Equations (GEE) was used to determine the association between socio-economic variables and the violence experience. Visibility was defined as the ratio of NSU over direct estimates.

Results: Using the direct method, the annual prevalence of psychological violence was estimated at 60.9%. Corresponding figures for physical and sexual violence were 34.7% and 37.7%, respectively. NSU estimates were about one-third of the direct estimates. Divorced and widowed, self-employed, and less educated women were more likely to experience DV.

Conclusion: While the average DV was as high as 44%, its visibility was as low as 33%. Nearly two-thirds of domestic violence against women remains undisclosed. This indicates a high level of stigma perceived around this type of violence.

Keywords: Domestic violence; Women; Iran

Introduction

Violence against women is a public health problem that is not limited to a particular race, religion, or culture. It is recognized as a global health problem that affects almost one-third of women worldwide (1). Violence can target women regardless of the type of relationships they are engaged in. Additionally, these types of violence can become considered normal in societies (2). Domestic violence (DV) is defined as any form of violence against another person to harm or control them. DV is committed against a female victim by a household member such as a partner, husband, ex-partner, family members, friends,

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and parents. These people establish a friendly relationship with the victim and confront them in a family setting (3). Domestic violence against women (DVAW) can affect the security, peace, growth, and well-being of the family. DVAW is categorized as physical, psychological, and sexual (4).

Physical Violence (PhV): This violence is of a physical nature where one deliberately hits another person; kicking, biting, or threatening violence that can cause physical harm (5).

Psychological Violence (PsV): This type of violence includes isolating the victim from family and friends, humiliation, economic restrictions, or keeping them from their favorite objects as well as using numerous kinds of control behaviors(5). Although this type of violence does not involve physical injury, it can have a profound effect on the personal mental health and, ultimately, the physical health of the victim.

Sexual violence (SV): This is the violence of a completed or attempted sex act against the victim's will. It includes non-consensual sex, abusive sexual contact, non-contact sexual abuse, and sexual harassment (6).

DVAW is a serious threat to the mental and physical health of victims. These effects are not limited to women, but threaten the health of the whole society. For example, in children, the effects can manifest as academic problems, low self-esteem, aggression, and even delinquency or corruption (7). DVAW is associated with many long-term health problems including, but not limited to, depression, stress, chronic pain, physical disabilities, drug and alcohol abuse, nightmares and sleep disorders, migraine headaches, and suicide (8). Women with a history of sexual abuse can be at risk for unwanted pregnancy or sexually transmitted infection (8).

Around the world, nearly one-third (30%) of women in a relationship reported experiencing some form of physical or sexual violence by their intimate partner (1). The results of two studies showed that the prevalence of physical and or sexual intimate partner violence against women varied from 1.1% to 27.1% in countries in America and from 8.2% to 32.1% in countries in Asia and Pacific regions (9, 10). In Iran, DVAW is a serious health problem. A systematic review

study was conducted in the country. The results of this study showed estimated the prevalence of DV to be 66%. Geographical classification revealed that the prevalence of DV varied from 59% in the center to 75% in the west of the country (11).

The majority of cases of DVAW are not exposed (12). Reasons for not disclosing violence to the police or law enforcement agencies include shame, the desire to protect the perpetrator, stigmatization, guilt, and fear (12). Given the cultural norms that govern the Iranian community, efforts are made to discuss and solve problems within the family environment, and Iranian families avoid disclosing problems to foreigners (13). Most women in Iran depend financially on their husbands (14). Therefore, financial needs, fear of homelessness, or loss of custody are why Iranian women cannot disclose violence against themselves. Much of the violence is not reflected in official statistics, making it challenging to develop effective interventions and plans to support vulnerable women.

Due to the hidden nature of violence, direct methods could fail to address the issue. Hence, we used the NSU method to estimate the prevalence of DVAW. The NSU method is an indirect method for estimating the size of hard-to-reach populations (15). This method has been widely used worldwide to estimate the prevalence of hidden behaviors such as abortion (16), drug use, alcoholism (17), and high-risk sexual behaviors (15).

The prevalence of DVAW, on the one hand, and its non-disclosure by victims, on the other, have turned this social and health problem into a hidden crime prevalent in various societies. Therefore, we aimed to estimate the prevalence of domestic violence against WARA by direct and NSU methods in 201۹; the preceding year to the time of this study.

Methods

Eligibility and Sampling method

Adopting a time-location sampling, we approached 1,000 women aged 15-49 yr who lived in the city of Kerman (the capital of the largest

province in southeast Iran) for at least five years. To recruit the sample, we selected busy places such as hairdressers, parks, and clinics. Women with a previous positive history of psychological problems were not included. Nine-hundred thirty-three recruited participants verbally consented to this study. The data were collected from Aug to Dec 2019.

The data in this study were collected in three phases. In the first phase, we asked about the participants' demographic information including age, marital status, women's education, married women's occupation, the spouse's education, and the spouse's job. In the second phase, we asked whether the respondent experienced DV. In the last phase, we asked indirect questions to estimate the prevalence of DV. A woman exposed to any case of physical, mental, psychological, or sexual violence is the one given at least one positive answer to the questions in the related domain of violence. The questionnaire was developed based on the data from other studies conducted in different countries, and the items in the questionnaire were adapted to the cultural conditions of Iran. This questionnaire consists of three domains of physical, psychological, and sexual violence. Each domain was evaluated with 5, 9, and 10 questions, respectively.

The domain of PhV in this questionnaire includes acts of violence such as slapping, pushing, kicking, boxing, pulling the hair, trying to strangle, biting, burning the organ, and throwing an object toward the victim's body.

The psychological domain of the questionnaire includes preventing the victim from seeing parents, friends, children, or other relatives, inattention to the victim, accusing the victim of infidelity, expressing distrust, threatening to divorce, threatening to commit suicide or murder, insulting, shouting blaming or embarrassing the woman, preventing her from practicing her religious commitments and checking the victim's mobile phone. The sexual domain includes sexual intercourse without the woman's consent, unusual sexual coercion, forced sex without protection against pregnancy or sexually transmitted infections, compulsion to have sex with a person other than the spouse, intentionally hurting (causing sexual pain), sexual insults, and forcing the victim to watch vulgar movies.

Data Analysis
Direct method
Women were asked which violence they had experienced during the past 12 months. Definitions of violence, provided by WHO and Women's Aid Federation of England, were applied (18).

Indirect NSU method
NSU methodology assumes that the prevalence in a network of a randomly selected sample is more or less similar to that of the population. In the NSU method, we asked women about the total number of women they knew abused. The standard definition of 'knew' was applied. To minimize recall bias, we asked participants to stratify their replies into family and non-family subgroups. The summation of these two subgroups was used as the final network size (shown by 'C'). In addition, participants were asked how many of those abused had experienced psychological, physical, and sexual violence in the past 12 months (shown by 'm').

Data cleaning strategies
Women who live in Kerman, on average, knew 152 women in all age groups abused (19). Women who claimed that they knew more than ١٥٢ women aged 15-49 were excluded (n=49). As 'm' is a fraction of 'C', respondents whose C was greater than m, were excluded as well. C value for a small proportion of respondents was missing, replaced by the mean network size of other respondents. As a sensitivity analysis, those with missing C were excluded and results were compared with that of mean citation.

Visibility Factor (VF)
One pitfall with NSU methodology is that respondents might not be aware of the sensitive characteristics of members of their network. This is because sensitive information is not always transferred among the members. To get an esti-

mate of the visibility of DV, we divided the NSU over direct estimates (20).

Ethics approval

The study protocol has been approved by the Ethics Committee of Kerman University of Medical Sciences. (Code of Ethics: IR.KMU.REC.1398.166).

Results

The mean age (SD) of participants was 30 (7.99). More than half of the participants had university degrees, and only less than 10% had less than a diploma. Corresponding figures for their spouses were 44.3% and 12.8%, respectively. About half of the women were married and 34.3% were single, and 8.6% and 7.1% were engaged or divorced or widows, respectively.

The prevalence of different types of violence

Direct and NSU annual prevalence of different types of violence were 60.9% and 21.6% for psychological, 34.7% and 10.5% for physical, and 37.7% and 13.4% for sexual (Table 1).

Visibility factor of violence

VF value for all types of violence was significantly lower than '1' (Table 1). On average, the visibility factor for all types of violence was 34%, indicating that about two-thirds of violence, experiences remained invisible.

Prevalence of violence in subgroups

Using the direct method, the prevalence of all types of violence in widowed women was higher than other groups (Table 2). While 72% of widowed women reported experiencing PsV, the corresponding figure among singles was 55%. With respect to the SV percentage point, the difference between married and single women was 36% (54.7% versus 18.7%).

In terms of age group, no significant difference was seen. Both the education level of women and their husbands were negatively correlated with the experience of violence. An increase in the education of women or their husbands was associated with a decrease in violence experienced (Table 2).

Table 1: The last year prevalence of types of violence against women

Type of violence	Direct (%) (95% CI)	Indirect (%) (95% CI)	Visibility coefficient (P-value)[a]
PsV	60.9(57.7,64.1)	21.6(21.2,22.1)	0.35(<0.001)
PhV	34.7(31.7,37.9)	10.5(10.2,10.8)	0.30(<0.001)
SV	37.3(34.1,40.5)	13.4(13.0,13.7)	0.36(<0.001)

[a] Comparison indirect ratio to direct estimate method

Factors affecting violence experience

Multifactorial GEE model suggests that, relative to married cases, single women are 65% less likely to report an experience of violence. Widowed women were 90% more likely to experience violence. In comparison with those having a univer-

sity degree, those with an education lower than diploma were 2.15 (95%CI:1.35, 3.43) times more likely to experience violence. The corresponding figure for those with a diploma was 1.61(95%CI:1.22, 2.14) (Table 3).

Table 2: The effect of the studied factors on DVAW

Variables	Levels	Experience PsV			Experience PhV			Experience SV		
		Yes Number (percent)	No Number (percent)	P-value	Yes Number (percent)	No Number (percent)	P-value	Yes Number (percent)	No Number (percent)	P-value
Marital status	Single	171(55.3)	138(44.7)		67(21.8)	240(78.2)		57(18.7)	248(81.3)	
	Engaged women	59(75.6)	19(24.4)	0.002	31(40.3)	46(59.7)	<0.001	44(57.9)	32(42.1)	<0.001
	Married	272(60.3)	179(39.7)		174(39.0)	272(61.0)		197(43.9)	252(56.1)	
	Divorced or widows	46(71.9)	18(28.1)		35(56.5)	27(43.5)		35(54.7)	29(45.3)	
Age categories	Under 30	277(63.7)	158(36.3)		151(35.0)	281(65.0)		155(36.0)	276(64.0)	
	30-40	179(57.6)	132(42.4)	0.146	105(34.3)	201(65.7)	0.952	119(38.8)	188(61.2)	0.724
	40-50	67(56.3)	52(43.7)		42(35.9)	75(64.1)		43(36.1)	76(63.9)	
Women's education	Under diploma	58(72.5)	22(27.5)	0.008	42(53.2)	37(46.8)	<0.001	37(46.3)	43(53.8)	<0.001
	Diploma	218(63.9)	123(36.1)		151(45.1)	184(54.9)		155(46.0)	182(54.0)	
	University degree	271(56.5)	209(43.5)		116(24.3)	361(75.7)		138(28.9)	339(71.1)	
Occupation of women	Housewives	253(61.6)	158(38.4)		147(36.4)	257(63.6)		156(38.2)	252(61.8)	
	Employee	58(53.2)	51(46.8)		27(24.8)	82(75.2)		40(36.7)	69(63.3)	
	Student	145(57.5)	107(42.5)	0.056	62(24.8)	188(75.2)	<0.001	67(26.8)	183(73.2)	<0.001
	Self-employment	84(69.4)	37(30.6)		67(56.3)	52(43.7)		63(52.9)	56(47.1)	
Spouse education	Under diploma	55(74.3)	19(25.7)	0.04	42(57.5)	31(42.5)	<0.001	41(56.2)	32(43.8)	
	Diploma	156(63.2)	91(36.8)		111(45.3)	134(54.7)		120(49.0)	125(51.0)	0.019
	University degree	149(58.4)	106(41.6)		73(29.2)	177(70.8)		101(39.8)	153(60.2)	
Spouses' jobs	Employee	75(55.6)	60(44.4)		35(26.5)	97(73.5)		48(36.1)	85(63.9)	
	Worker	35(71.4)	14(28.6)		26(53.1)	23(46.9)		24(49.0)	25(51.0)	
	self-employment	211(64.9)	114(35.1)	0.057	137(42.7)	184(57.3)	0.002	161(49.8)	162(50.2)	0.062
	Unemployed or retired	26(52.0)	24(48.0)		21(9.6)	29(8.7)		23(46.0)	27(54.0)	

Psychological violence (PsV)

In our study, the most common type of DVAW was PsV at 60.9% which is consistent with the previous study conducted in Iran (26). This has been the case in general, regardless of demographic information on women. Single women were more likely to be exposed to PsV by their family and relatives (parents, sisters, and broth-ers), while married women experienced this type of violence mostly from their fiancé or spouse.

In Turkey, the prevalence of emotional violence was 24.4% in Çanakkale and 43.7% in Kars (21). The prevalence of PsV against women in our study was estimated more than that of Turkey (21), India (11.4%) (22), Erbil, Iraq (43.3%) (24), and less than Pakistan (81.8 %) (23).

Table 3: Factors affecting women violence experience

Variables	Level	Univariate			Multivariable		
		OR	C.I	P-value	OR	C.I	P-value
Marital status	Married	REF					
	Single	0.51	(0.40,0.65)	<0.001	0.35	(0.24,0.50)	<0.001
	Engaged women	1.52	(1.03,2.24)	0.04	1.21	(0.76,1.93)	0.41
	Divorced or widows	1.72	(1.12,2.65)	0.013	1.90	(1.18,3.05)	0.008
Age categories	Under 30	REF					
	30-40	0.95	(0.75,1.21)	0.69	0.83	(0.65,1.15)	0.80
	40-50	0.92	(0.66,1.29)	0.65	0.76	(0.56,1.09)	0.75
Occupation of women	Housewives	REF					
	Self-employment	1.76	(1.26,2.46)	0.001	1.86	(1.29,2.67)	0.001
	Employee	0.74	(0.52,1.04)	0.087	0.99	(0.67,1.47)	0.961
	Student	0.68	(0.53,0.89)	0.004	1.13	(0.77,1.65)	0.542
Women's education	University degree	REF					
	Under diploma	2.33	(1.58,3.43)	<0.001	2.151	(1.35,3.43)	0.001
	Diploma	1.86	(1.479,2.33)	<0.001	1.61	(1.22,2.14)	0.001
Spouses' jobs	Self-employment	REF					
	Employee	0.59	(0.42,0.828)	0.002			
	Worker	1.23	(0.742,2.039)	0.423			
	Unemployed or retired	0.78	(0.478,1.29)	0.339	N.A		
Spouse education	University degree	REF					
	Under diploma	2.27	(1.46,3.54)	<0.001			
	Diploma	1.49	(1.11,2.00)	<0.001	N.A		

Discussion

In general, 64.1% of the female participants in our study were victims of DV over the past year.

The results of our study found a higher prevalence of violence compared to a previous study done in Turkey (21), India (27%) (22), Pakistan (more than 50%) (23), and Erbil, Iraq (45.3%) (24). In comparison with a previous Iranian study, the results were similar to some provinces of Iran (11). Apart from different cultural contexts discussed as being a very influential factor in creating violence (25), a higher rate of violence in our study could be explained by other factors using methodological considerations. These factors could be a different definition of target population or violence type. Our study targeted all women regardless of their marital status, and the type of violence was defined as any violence not only occurring by the spouse, but by any other

persons. Other studies included only spouse abuse or violence committed solely on married women (21-23).

Physical violence (PhV)
The prevalence of PhV against women was 34.7% in our study. Single women were most often violated, physically, by their fathers, brothers, and male relatives, while this type of violence experienced by married women was mostly perpetrated against them by their fiancé or spouse. Our study showed that this type of violence was 41.1% in married women or women married at least once, more than India (22.5%)(22), but less than another Iranian study (28%)(26) and Pakistan (56.3%)(23).

Sexual violence (SV)
In our study, the prevalence of SV against women was 34.7%. This type of violence was mostly perpetrated against them by their boyfriends or fiancés. Our result is estimated more than Iraq

(24) and another study of Iran (18%)(26), and less than Pakistan (53.4 %)(23).

One of the most important factors regarding the difference in the prevalence rate of violence, in our study and other studies, is the cultural, religious, social-economic, and political differences between countries and even cities of a country. Cultural factors can potentially play an important role in changing the prevalence of violence and attitudes toward its acceptance (27). In some countries or regions, violence against women is seen as a personal, private, and family issue, not a social and criminal issue that requires the intervention of welfare agents, the police, and the judiciary systems (27). This kind of training and upbringing is imposed on children by the family, especially the mothers, to accept violence and be silent. Shame, embarrassment, or fear of being re-abused makes them silent. In most of these countries, women are still financially dependent on their husbands, so they try to endure violence against themselves through self-sacrifice and hide it in order to protect their families and children. Therefore, these cases in some studies can be mentioned as reflecting a few reasons for the concealment of violence against women.

Factors affecting violence

Many factors can contribute to the prevalence of DVAW. Our results showed that divorced or widowed women were 90% more likely to experience violence relative to the cases of married women.

Although it is felt that terminating undesirable marriages puts an end to the DVAW, this is not the case in reality. Divorced women, despite being separated from their husbands, are still abused often by their ex-husbands (28).

In this study, the age category had no effect on DV figures. In Turkey, the relationship between age and the prevalence of DVAW was significant (29). In Ethiopia, younger women were more likely to be abused (30). In Iran, there is a significant relationship between age and violence against women (26). The reason for the differences can be the inclusion of women in the study in terms of their marital status and their age range

moreover in our study in addition to spouse abuse, family violence against women was also considered.

There is a significant relationship between jobs women hold and their husbands, as well as DV against them (29, 31). Women working freelance were 86% more likely to be abused than were housewives. Spousal violence is more likely to be exposed to working women because they are more likely to challenge their husbands' authority (31). Of course, a woman's type of employment may be associated with violence against her. Self-employment has the potential to put more pressure on women because of their job characteristics. Women who are victims of DV are more likely to take part-time, casual work than women who do not (32). Women married to an employed husband were 41 times less likely to be abused than women whose husbands were self-employed. Women whose husbands had difficulty finding or retaining employment were more likely to experience violence (31). The jobs of being an employee, in Iran, are stable jobs with consistent salaries, while freelance or self-employed jobs are not stable jobs with the same income. This issue can affect, the ratio of violence men show against their spouses.

Our study showed that the education of women or their husbands was inversely related to DVAW. Low level of education among women or their husbands is recognized as one of the risk factors for DVAW. The more educated women and their husbands are, the less violence there is against these women (23, 26, 33).

Limitations

Women who participated in this study did so voluntarily. Self-administered questionnaires were used to collect the data, resulting in the possibility of recall bias. Due to family dignity, DVAW in Iran has always been associated with social stigma and, therefore, might indicate a low visibility factor. After the participants were confident that their information would be confidential, they agreed to participate in the research. There are

many factors associated with DVAW that were not included due to the limitations of the questionnaire.

Conclusion

The most common type of violence against women was psychological violence. Most of this type of violence against single women is perpetrated by their parents, brothers, and sisters and married women were exposed to this type of violence by their fiancé or spouse. Given the secret nature of all forms of violence against women, abuse remains concealed, which could affect the referral of victims to a psychiatrist or medical center. In fact, DVAW can be considered a hidden threat to their health. Despite the high prevalence of violence, especially PsV, the health care provided to women is still unsatisfactory. The problem of DVAW depends on many factors and, in practice, healthcare systems cannot eliminate the problem of violence. This requires extensive public education.

Journalism Ethics considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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Conflict of interest

The authors declare that there is no conflict of interest.

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