



Original communication

## Intimate partner violence during pregnancy in Urmia, Iran in 2012



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### ABSTRACT

**Background:** In spite of enough prevalence data on Intimate Partner Violence (IPV) during pregnancy from many countries, there are still some regions such as the Middle East with relatively limited data. The purpose of research was to investigate the magnitude of IPV during pregnancy in an Iranian community. **Methods:** Thirty hundred fifty women during their postpartum period were invited to participate in a cross-sectional population-based study, but 10.6% of them refused participation. The data was compiled using the Abuse Assessment Screen questionnaire. **Results:** Of the 313 women, 55.9% reported violence during pregnancy. All types of violence were detected in victims during pregnancy, including psychological violence (43.5%), physical violence (10.2%), and sexual violence (17.2%). Intimate partner violence during pregnancy was significantly associated with lower education of the husbands (PR 1.64; 95% CI 1.15–2.36), un-employment of the husbands (PR 1.36; 95% CI 1.12–1.64), marriage duration of 5–9 years (PR 0.95; 95% CI 0.74–1.20) and gravidity of two (PR 0.80; 95% CI 0.59–1.08). **Conclusion:** The reported prevalence of IPV before and during pregnancy in this sample is substantially higher than estimates of exposure to violence in other parts of the globe, even the East Mediterranean region which has the highest prevalence estimation in the globe.

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### 1. Introduction

Although both men and women can be victims of violence, women are more likely to be physically assaulted. Furthermore, the perpetrator often is a family member. Violence Against Women (VAW) has been recognized as a public problem rather than a private problem since the 1980s, and one of the most common forms of VAW is Intimate Partner Violence (IPV).<sup>1</sup> Today, IPV has become to an emerging and universal public health concern, and it occurs in all socio-economic and religious groups.

Based on the United Nations Economic and Social Council definition in 1992, VAW is any act of gender-based violence that results in (or is likely to result in) physical, sexual, or psychological harm or suffering to women. Violence against women includes the threats of any of these acts such as, coercion, or the arbitrary deprivation of liberty, whether occurring in public or private life.<sup>2</sup> Intimate partner violence can range from physical violence (such

as slapping, hitting, pushing, kicking and beating) and sexual violence (including forced sexual intercourse and sexual assault) to psychological violence and controlling behaviors such as insults, belittling, threats of harm, forced social isolation, monitoring movements, and restricting access to employment.

Pregnancy is a time of great vulnerability for the development of physical and mental health risks. Therefore, intimate partner violence during pregnancy could be magnified due to its potential adverse health consequences on both the woman and her child. Some of the health consequences of intimate partner violence during pregnancy are fatal and some are non-fatal. For example, the outcomes include homicide, miscarriage, the physiological effects of stress on fetal growth and development, negative health behaviors, and physical and mental health outcomes.<sup>3–5</sup>

Many risk factors for IPV during pregnancy have been identified by previous studies especially in developing countries. Pregnant women are at high risk of experiencing violence because of their younger age<sup>6</sup> and sexual risk factors including transactional sex and having more sexual partner.<sup>7</sup> Other risk factors identified include couples individual factors such as: low level of education, low socio-economic status, increased substance use and experiencing violence as a child<sup>8</sup>; as well as community and social factors such as male dominance in the family and economic stress.<sup>9</sup>

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A large body of research from more than 90 countries details the prevalence of intimate partner violence. The World Health Organization's multi-country study on women's health and domestic violence against women found that the prevalence of physical intimate partner violence during a current or previous pregnancy ranged between 1% in urban Japan to 28% in Peru.<sup>10</sup> Prevalence data from 19 countries such as Australia, Denmark, the Philippines, and Uganda listed the prevalence rates for intimate partner violence during pregnancy, and the majority ranged between 4% and 9%.<sup>11</sup> The highest prevalence rate of IPV during pregnancy was reported from Egypt (32%), with India (28%), Saudi Arabia (21%), and Mexico (11%) appearing next on the scale.<sup>12</sup> A recent multi-center global systematic review on VAW reported striking findings such as 35% of women worldwide have experienced IPV and as many as 38% of all murders of women are committed by intimate partners. The prevalence of IPV was highest in some regions especially the Eastern Mediterranean where up to 37% of women reported having lifetime IPV.<sup>13</sup>

The prevalence of IPV in Iran has been reported from 36.8% in non-pregnant women<sup>14</sup> to 61.8% in infertile women.<sup>15</sup> Despite previous studies indicating the need to deal with the problem of VAW, it has received little attention in Iran, in a way that violence against women has not been recognized as a public health problem except for pregnant women. In Iran, domestic violence has recently been recognized as a reproductive health problem. Violence against women screening has been integrated in pre-pregnancy and pregnancy care services in the governmental sector by the Ministry of Health and Medical Sciences (MOHME) in Iran since 2006. However, there is no further plan in place for the positive cases for VAW (for example, referring them to the relevant units to receive support or to receive a specialized intervention).

It seems that conducting researches could play a critical role in bringing to light the issue of IPV against pregnant women. In spite of enough population-based prevalence data on lifetime IPV and IPV during pregnancy from many countries and regions, there are still some regions such as the Middle East and especially Iran where there are relatively limited data.<sup>2</sup> The objective for this study was to evaluate the magnitude of the problem of intimate partner violence during pregnancy in a sample of women during their first 48 h postpartum period.

## 2. Methods

This study was a cross-sectional study. Between February and September 2012, 350 women during their first 48 h postpartum (at the time of the first vaccination of their newborn child) attending to all hospitals located in Urmia district, Iran which covers approximately 100% of the district's one million population, were invited to participate in the study. Thirty seven (10.6%) refused to participate, thus the final sample comprised 313 women. To be eligible for the study, women had to be of Urmia district permanent resident, speak local or national language and be in their first two days postpartum period. Urmia district is the central city of the West Azerbaijan province located in the north-western part of Iran and sharing borders with Iraq, Turkey and Azerbaijan stand out with higher fertility and lower level of socio-economic development in contrast the whole country. The data were collected by six qualified interviewers who were family health and midwifery providers. They received training to apply the questionnaires and to respect the following ethical conditions: doing interview in a private area and without the presence of the husband, considering comfort and confidentiality during the application of the instruments, taking informed consent, and administrating interviews in local languages (Turkish or Kurdish). Face-to-face interviews lasted 10–20 min conducted in a private room. The Kappa value between the six

interviewers was 0.84. The sample size was determined based on  $r = 0.4$ ,  $\alpha = 0.05$  and  $\text{power} = 0.8$ , so 322 cases was calculated.

Two questionnaires were administered: first included questions on the socio-demographic and obstetrics variables such as age, education, employment, gravidity and marriage duration of the couples; second to detect violence which was an adapted Persian version of the Abuse Assessment Screen (AAS) developed by McFarlane et al.<sup>16</sup> The AAS is an effective tool for measuring physical and sexual abuse in lifetime and during pregnancy. Adapted AAS to target IPV included following questions: occurrence of physical and/or emotional violence in the woman's life; occurrence of physical and/or emotional violence during the last pregnancy; occurrence of sexual violence during the last pregnancy; and if the woman fears her husband. Data on frequency of violence and whether help was sought for that were included. In this study, we were referred to violence perpetrated by a man against a woman in the context of a heterosexual and official marital relationship. A positive event was defined as having at least one positive item in each domain of physical, mental and sexual violence either lifetime or during the current pregnancy.

Quality control assessment of data was performed by researchers using telephone interview with about 10% of the randomly selected cases. Statistical analysis was performed using the SPSS version 16 software package. Poisson regression with robust variance and log-binomial regression provides correct estimates and are a better alternative for the analysis of cross-sectional studies with binary outcomes than logistic regression.<sup>17</sup> Therefore, this method was used to estimate the prevalence ratio for each independent variable associated with IPV during pregnancy. A stepwise regression was performed. Frequency analyses were developed to establish the prevalence of IPV during pregnancy.

Permission to carry out the study and ethical clearance were obtained from the ethical committee of the Urmia University of medical sciences. Confidentiality of data was guaranteed to the participants.

## 3. Results

The study participants were newly delivered women. The characteristics and socio-demographic data of the participants are summarized in Table 1. Mean age of participants was 27.9 years ( $SD = 5.8$ ), ranging from 17 to 46. Most women had between 6 and 12 classes of education (41.2%) and a considerable proportion of them had completed their university studies (34.5%). Marriage duration for more than half of women (53.4%) was under four years, most of them were primi-gravida (66.5%), and 85.3% were unemployed. Table 1 also reports results from Poisson regression with robust variance analysis. Intimate partner violence during pregnancy was significantly associated with lower education of the husbands (PR 1.64; 95% CI 1.15–2.36), un-employment of the husbands (PR 1.36; 95% CI 1.12–1.64), marriage duration of 5–9 years (PR 0.95; 95% CI 0.74–1.20), and gravidity of two (PR 0.80; 95% CI 0.59–1.08). There were no significant associations between Intimate partner violence during pregnancy and women's age, educational level, and employment status ( $P > 0.05$  for all).

In the evaluation of violence, of the 313 women who answered the ASS questionnaire, 188 (60.1%) women reported experiencing IPV either before or during their recent pregnancies, whereas 147 (46.9%) reported having suffered violence before starting their recent pregnancies, and 175 (55.9%) reported violence during pregnancy. In fact, 46.9% of women reported occurrence of physical and/or emotional violence in their whole married life, before start of their last pregnancy. A total of 28 (8.9%) women reported experiencing violence which had been started only during pregnancy. When types of IPV during pregnancy were examined, all

**Table 1**  
Socio-demographic characteristics and association with intimate partner violence during pregnancy, prevalence ratios and 95% confidence interval in north-western Iran, 2013.

Variables	Total (N = 313) n (%)	IPV during pregnancy (N = 175) n (%)	Prevalence ratio (95% CI)	P
Age				0.137
≤ 19	15 (4.8)	7 (2.2)	0.81 (0.48–1.37)	
20–29	183 (58.8)	103 (32.9)	1.21 (0.94–1.55)	
≥ 30	115 (36.7)	65 (20.8)	1.00	
Education				0.323
0–5	76 (24.3)	50 (16.0)	1.03 (0.72–1.49)	
6–12	129 (41.2)	78 (24.9)	1.19 (0.87–1.63)	
Academic	108 (34.5)	47 (15.0)	1.00	
Husband's education				0.001
0–5	49 (15.7)	39 (12.5)	1.64 (1.15–2.33)	
6–12	156 (49.8)	88 (28.1)	1.03 (0.77–1.39)	
Academic	108 (34.5)	48 (15.3)	1.00	
Employment				0.914
Yes	46 (14.7)	19 (6.1)	1.00	
No	267 (85.3)	156 (49.8)	1.02 (0.64–1.62)	
Husband's employment				0.001
Yes	230 (73.5)	116 (37.1)	1.00	
No	83 (26.5)	59 (18.8)	1.36 (1.12–1.64)	
Marriage duration				0.009
≤ 4 years	167 (53.4)	80 (25.6)	0.71 (0.57–0.90)	
5–9 years	71 (22.7)	45 (14.4)	0.95 (0.74–1.20)	
≥ 10 years	75 (24.0)	50 (16.0)	1.00	
Gravidity				0.002
1	208 (66.5)	106 (33.9)	0.59 (0.43–0.79)	
2	66 (21.1)	40 (12.8)	0.80 (0.59–1.08)	
≥ 3	39 (12.5)	29 (9.3)	1.00	

types of violence were detected in the victims. On hundred thirty six (43.5%) of participants were reported psychological violence (such as verbal insults, constant humiliation, threats, fear of spouse, and intentional financial deprivation). Thirty two (10.2%) had

**Table 2**  
Socio-demographic characteristics and different types of intimate partner violence in north-western Iran, 2013.

Variables	Total (N = 313) n (%)	Types of intimate partner violence				
		Life time IPV (N = 147) n (%)	Types of IPV during pregnancy			
			Physical (N = 32) n (%)	Psychological (N = 136) n (%)	Sexual (N = 54) n (%)	Total (N = 175) n (%)
Age						
≤ 19	15 (4.8)	7 (2.2)	2 (0.6)	7 (2.3)	0 (0.0)	7 (2.2)
20–29	183 (58.8)	85 (27.2)	20 (6.4)	78 (24.9)	38 (12.2)	103 (32.9)
≥ 30	115 (36.7)	55 (17.6)	10 (3.2)	51 (16.3)	16 (5.1)	65 (20.8)
Education						
0–6	76 (24.3)	41 (13.1)	5 (1.6)	39 (12.5)	18 (5.8)	50 (16.0)
7–12	129 (41.2)	65 (20.8)	14 (4.5)	65 (20.8)	22 (7.1)	78 (24.9)
Academic	108 (34.5)	41 (13.1)	13 (4.2)	32 (10.2)	14 (4.5)	47 (15.0)
Husband's education						
0–6	49 (15.7)	35 (11.2)	9 (2.9)	30 (9.6)	11 (3.5)	39 (12.5)
7–12	156 (49.8)	70 (22.4)	11 (3.5)	71 (22.7)	29 (9.3)	88 (28.1)
Academic	108 (34.5)	42 (13.4)	12 (3.8)	35 (11.2)	14 (4.5)	48 (15.3)
Employment						
Yes	46 (14.7)	15 (4.8)	29 (9.3)	15 (4.8)	9 (2.9)	19 (6.1)
No	267 (85.3)	132 (42.2)	3 (1.0)	121 (38.7)	45 (14.4)	156 (49.8)
Husband's employment						
Yes	230 (73.5)	101 (32.3)	16 (5.1)	95 (30.4)	39 (12.5)	116 (37.1)
No	83 (26.5)	46 (14.7)	16 (5.1)	41 (13.1)	15 (4.8)	59 (18.8)
Marriage duration						
≤ 4 years	167 (53.4)	71 (22.7)	15 (4.8)	63 (20.1)	27 (8.7)	80 (25.6)
5–9 years	71 (22.7)	25 (8.0)	8 (2.6)	28 (8.9)	13 (4.2)	45 (14.4)
≥ 10 years	75 (24.0)	51 (16.3)	9 (2.9)	45 (14.4)	14 (4.5)	50 (16.0)
Gravidity						
1	208 (66.5)	87 (27.8)	24 (7.7)	81 (25.9)	33 (10.6)	106 (33.9)
2	66 (21.1)	31 (29.9)	4 (1.3)	32 (10.2)	11 (3.5)	40 (12.8)
≥ 3	39 (12.5)	29 (9.3)	4 (1.3)	23 (7.3)	10 (3.2)	29 (9.3)

experienced physical violence (such as: bruises, lacerations abdominal or thoracic injuries and broken bones), and 54 (17.3%) of women were victims of sexual violence (Table 2).

**4. Discussion**

Intimate partner violence during pregnancy is well recognized as an important health issue, leading to the planning and implementing various preventive strategies in many countries. Although progress has been made in documenting the prevalence and contextual determinants of IPV during pregnancy in many countries and diverse cultural and geographical settings in the world, several gaps in knowledge still exist, especially in the middle east countries.<sup>18</sup> To the best knowledge of the authors, there is no comparable population-based data on the prevalence of IPV during pregnancy in Iran. Available limited data on IPV prevalence estimates have come from small particular minority groups of women which are vary widely, from about 25% to 89.2%, with different severities.<sup>19–21</sup> Our study is the first report on the prevalence of IPV during pregnancy in a community based manner, because the sample was recruited from post-delivery care units and is likely to represent the women living in the areas of the study. The reported prevalence of IPV before (46.9) and during pregnancy (55.9) in this sample is one of the highest estimates of exposure to violence in the world. The prevalence of IPV in our sample is also higher than the East Mediterranean region which has the highest prevalence estimation in the world, where 37% of ever-partnered women reported having experienced IPV at some point in their lives.<sup>13</sup> It shows that the pregnancy does not protect women, with 8.9% (n = 28) of women reporting that the violence had started during pregnancy. An important strength of the present study is that, each woman who was recruited post-delivery was given opportunity to report violence from all stages of her pregnancy course. In addition, all interviews were performed in a private area, without the presence of the husband and administrating interviews in local languages in order to reduce the misclassification of violence.

The study findings highlight the all different types of violence. It is important to accent that the present study determined a relatively high prevalence of psychological type of IPV during pregnancy, mainly verbal insults. All the women who reported physical violence (10.2%), also stated that they had suffered emotional violence, 15.1% of the sample pointed out that they feared their intimate partner. Most of the previous studies do not include the “fear from partner” variable as a part of emotional violence; if considered, it makes the figure climb to 43.5% in the sample. This may represent a part of an ongoing pattern in reproductive health and getting pregnant in which there is widespread gender inequality. This finding is not surprising in this community in north-western Iran, a country as a known male-dominant nation. As psychological violence and stress during pregnancy may lead victims to suffer from poor reproductive health, it seems relevant to include the assessment of emotional violence during pre-pregnancy and pregnancy care.

Physical assault occurred relatively less frequent in the present study, the prevalence of physical IPV during pregnancy reached 10.2%, which is below the range of 25%–43% reported elsewhere<sup>10,18</sup> and also lower than the range of 0.4%–45% (a median of 28%) reported for the male-dominant nations, like as Iran.<sup>22</sup> The reason for this difference might be related to under-reporting by the women, or cultural aversion to physical abuse of a pregnant woman in this community.

Sexual violence was experienced by 17.2% of women during pregnancy in our study. This prevalence is similar to that found in the literature for the globe (6%–59%),<sup>10</sup> and is in the range of 20.7%–26.5% which was reported for women during pregnancy for Africa,<sup>23</sup> but is higher than neighboring countries for example Turkey, which was reported 3.4%.<sup>24</sup> Sexual violence is defined as being physically forced to have sexual intercourse when she did not want to, or being forced to do something sexual that she found humiliating.

We also found that IPV during pregnancy was significantly associated with some variables, including women with higher number of children ( $P = 0.002$ ) and those with higher marriage duration ( $P = 0.009$ ). Furthermore, having a partner with lower education level or unemployed were independently associated with being a target of IPV during pregnancy ( $P = 0.001$ ). Some previous studies has been shown that women's education and employment are protective against IPV, but our study showed that are true only for husband's education and employment.<sup>25,26</sup> It can be explain by Iranian specific culture, which the man is the head of the family. Because of this, it is easy for men to be violent with their wives, especially for unemployed men and those with lower education level. Statistical analysis were not adjusted for potential confounder variables, this point is a limitation of the current study.

The results presented in this study suggest the high prevalence of IPV during pregnancy, although there is no official report of violence detection in this high risk group. This implies that current screening for IPV in pre-pregnancy and pregnancy care services in public sector in Iran is non-functional. Our results also confirmed previous evidences regarding predominance of brief and direct questionnaires than normal obstetric interview during prenatal care in detection of IPV during pregnancy.<sup>27</sup> The findings of this study and the association between violence during pregnancy and adverse mother and child outcomes stress the need for the development of an IPV violence surveillance system, appropriate to the safe motherhood health-care units of the Iranian National Health System. Finally, in order to address IPV during pregnancy, Iran requires an effective multi-sectorial approach to improve women's health. Collaboration between the health sector and other members in the community would help to reduce society's tolerance of violence against women.<sup>28</sup>

It is important to emphasize that the present study revealed a considerably younger age of the participants, ranging from 17 to 46 years old. It means that marriage in child age is familiar in some parts of Iran. Child marriage is defined as a formal or informal marriage by an individual before reaching the age of 18.<sup>29</sup> According to a 2013 report, 4.9 percent of all marriages in Iran were child marriage. About 85% of these married children are girls.<sup>30</sup> Child marriage would be a range of limitations on girls such as access to education, reproductive rights and freedom from violence.<sup>31</sup>

Our study has several limitations that need to be acknowledged. First, we used a population-based quantitative approach to determine how widespread IPV during pregnancy was in Iran, which lacks a qualitative component to explore the meaning of those experiences and the responses of them to the violence. Second, our data were obtained through women's self-reports, which could have led to exaggeration of the violence reports in response to difficulties of pregnancy termination, or as reported on other settings, there may have been under-reporting of their violence experiences.<sup>32</sup> Third, we were not able to include the potential role of other risk factors, such as unwanted pregnancy, the sex of the child and circumstance of social support during pregnancy.

### Conflict of interest

None of the authors has conflict of interest in this research.

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