

# Prevalence and determinants of intimate partner violence in Babol city, Islamic Republic of Iran

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معدل انتشار العنف بين شركاء الحياة الحميميّين ومحدّداته في مدينة بابول في جمهورية إيران الإسلامية

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**الخلاصة:** أجرت الباحثات دراسة مسحية على 2400 امرأة متزوجة راجعن عيادات التوليد وطب النساء وتنظيم الأسرة في مدينة بابول، في جمهورية إيران الإسلامية، للتعرف على معدل انتشار العنف بين شركاء الحياة الحميميّين ومحدّداته. وقد تعرّضت 15% من النساء عموماً لعنف جسدي من قبل أزواجهن خلال العام المنصرم، وتعرّضت 42.4% للعنف الجنسي و81.5% منهن إلى درجات مختلفة من العنف النفسي. ولوحظ ترابط يُعتدُّ به إحصائياً بين عنف شريك الحياة الحميم وبين انخفاض الدخل لدى شريكة حياته، أو عمرها الذي يساوي أو يقل عن عشرين عاماً، أو البطالة، أو تدني التحصيل العلمي، أو عدم الحمل أو عدم تملك المسكن. ولم يكن هناك ترابط يُعتدُّ به إحصائياً بين العنف وبين عدد الولادات أو طول مدة الزواج. وعند إجراء التحوُّف المتعدد المتغيرات، تبين أن أقوى العوامل المتنبئة عن العنف الجسدي كان البطالة بين النساء، أما أقوى العوامل المتنبئة عن العنف النفسي والجنسي فكان السكن في الريف. ويتّضح مما تقدّم أن تمكين النساء من خلال تعزيز فرص العمل وتحسين مستوى التعليم قد يخفف من اختطار للتعرض لعنف شريك الحياة الحميم.

**ABSTRACT** To determine the prevalence and determinants of intimate partner violence, 2400 married women attending public clinics in Babol, Islamic Republic of Iran, were screened for domestic violence. Overall, 15.0% of women had suffered physical abuse from their husbands in the previous year, 42.4% sexual abuse and 81.5% various degrees of psychological abuse. A significant association with intimate partner violence was found for women with low income, age  $\leq$  20 years, unemployed, low education, non-pregnant and non-houseowners. There was no significant relationship between violence and parity or length of marriage. On multivariate regression, the strongest predictor of physical abuse was unemployment of the woman, whereas for psychological and sexual abuse it was rural residence. Empowering women through promoting employment and improving education may reduce the risk of intimate partner violence.

## Prévalence et déterminants de la violence exercée par le partenaire intime dans la ville de Babol (République islamique d'Iran)

**RÉSUMÉ** Afin de déterminer la prévalence et les facteurs de la violence exercée par le partenaire intime, on a interrogé 2400 femmes mariées qui fréquentaient les centres publics de consultations d'obstétrique, de gynécologie et de planification familiale à Babol (République islamique d'Iran) pour chercher à savoir si elles avaient fait l'objet de violence familiale. En tout, 15,0 % des femmes avaient subi des violences physiques de la part de leur conjoint dans les 12 mois précédant l'enquête, 42,4 % des violences sexuelles et 81,5 % des violences psychologiques à des degrés divers. On a trouvé une association significative avec la violence exercée par le partenaire intime pour les femmes ayant de faibles revenus, âgées de 20 ans, ne travaillant pas, ayant un faible niveau d'instruction, non enceintes et non propriétaires de leur logement. Il n'y avait pas de relation significative entre la violence et le nombre d'enfants ou la durée du mariage. À l'analyse de régression multivariée, le facteur prédictif de violence physique le plus fort était l'inactivité professionnelle de la femme tandis que pour la violence psychologique et sexuelle, c'était la résidence rurale. L'autonomisation des femmes par la promotion de l'emploi et l'amélioration de l'éducation peut réduire le risque de violence exercée par le partenaire intime.

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## Introduction

Violence against women is a major health and human rights issue. Worldwide, at least 1 in 5 of the world's female population has been physically or sexually abused by a man or men at sometime in their life. It has been estimated that violence against women is as serious a cause of death and incapacity among women of reproductive ages as cancer, and a greater cause of ill health than traffic accidents [1]. Domestic violence or intimate partner violence is one of the most common forms of violence against women. The deleterious effects of domestic violence on women's health are so serious that it has been recognized as a public health crisis with far-reaching effects on society [2].

Intimate partner violence has long-term negative health consequences for survivors, even after the abuse has ended [3,4]. These effects can manifest as poor health status, poor quality of life and high use of health services [5-7]. Intimate partner violence is one of the most common causes of injury in women [8]. Women who are abused are frequently treated within the health care system. However, they generally do not present with obvious trauma, even in accident and emergency departments [9]. Recent studies have demonstrated that screening women for domestic violence can predict future violence [10]. By ignoring the issue, health care professionals may be losing an opportunity to reduce or prevent the consequences of domestic violence. It is important, however, to recognize that inept domestic violence screening may put battered women in danger and that women who leave their partner are at increased risk [11].

Obstetrics, gynaecology and family planning health services typically serve both healthy and sick women and provide a unique opportunity for routine domestic

violence screening to all clients receiving services. This study aimed to screen for, and estimate the prevalence of, 3 types of intimate partner violence among women attending public obstetrics, gynaecology and family planning health services in Babol city, Islamic Republic of Iran. We also identified the personal, socioeconomic and family function characteristics associated with domestic violence.

## Methods

### The project

In a collaboration between the obstetrics and gynaecology department, midwifery department and psychology department of Babol University of Medical Sciences, a project was set up to screen for domestic violence among women attending public obstetrics, gynaecology and family planning health services in Babol city, Islamic Republic of Iran. The goal was to provide information for a policy calling for routine screening for domestic violence. The first stage of the project was a 4-hour in-service education for midwifery staff which trained midwives in project clinics to screen and identify of victims of domestic violence and to prevent intimate partner violence among women through identifying possible victims and counselling them. The second stage was to implement a screening questionnaire for domestic violence. For this study, a sample of women attending clinics of the public health services in Babol city were interviewed about their experiences with intimate partner violence.

### Sample

Babol city was divided into 3 areas according to the socioeconomic status (SES) of the population (high, middle and low status areas) and 1 public health service clinic was

selected from each of those 3 areas. We recruited patients attending obstetrics and gynaecology and family planning clinics. The inclusion criteria were married women who had a husband during the past year and who gave written informed consent to enter the study. Women are used to attending such clinics and often attend alone. Thus the refusal rate among the women was low. We started screening at the 3 clinics at the same time and continued until 800 women in each clinic were entered in the study. Thus, we recruited 2400 women from November 2002 to August 2003. The women were interviewed at the clinic by the midwife in a private room. The interview lasted between 30 and 50 minutes. The women were unaccompanied by either the husband or a female friend; women attending with their husbands were not entered in the study. As they were familiar with the midwives and they were interviewed in private, the women were generally free from fear.

### Screening questionnaire

After obtaining informed consent, midwifery staff interviewed the sample of women attending the clinics and completed a questionnaire for each participant. The abuse assessment form was developed in the department of obstetrics with the collaboration of the departments of midwifery and psychiatry. We adapted the abuse assessment screening from the 2001 American College of Obstetricians and Gynaecologists form [12], but added many questions about different types of violence which were culturally adapted. A pilot study was carried out to determine the validity and reliability of this form before the start of the project.

The abuse assessment form consisted of questions that cover the woman's personal characteristics and 3 sections about her

experiences of physical, sexual and psychological abuse. Women were asked to indicate which, if any, of various kinds of abuse they had experienced from their partner in the year prior to the interview. Nine questions covered the experiences of physical abuse, 3 questions about sexual abuse and 15 questions about emotional/psychological abuse (question items were the same as Table 1). If a woman responded positively to any item, we considered her to be abused. A non-abused woman was one who had no experience of any item of violence. We estimated the severity of violence by assigning a score of 1 for every item checked. Thus, the range of scores for physical, sexual and psychological abuse were 0–9, 0–3 and 0–15 respectively. We also added the scores of the 3 types of violence and calculated the total score of violence for each woman (range 0–27).

At the end of every visit, the midwifery staff assessed the degree of risk for that woman and if necessary counselled her about the best intervention strategy for primary prevention and referred her to advocacy services. All victims of physical or sexual violence or moderate and severe psychological abuse were referred for psychiatric consultation.

### Analysis

The data was analysed using *SPSS*, version 10 software. The correlation between independent variables such as education, job and residence were tested using Pearson  $\chi^2$ -test (2-sided). We considered  $P < 0.05$  as significant. We applied ANOVA test for comparing of the mean of scores of violence and age of groups or the length of marriage. Multivariate regression was applied to predict the factors that affected the risk of violence from husbands.

**Table 1 Prevalence of physical, psychological and sexual abuse experienced by married women attending clinics in different socioeconomic status areas of Babol city, Islamic Republic of Iran**

Type of abuse	High status area (n = 800) %	Middle status area (n = 800) %	Low status area (n = 800) %	Total (n = 2400) %	P-value <sup>a</sup>
<i>Physical abuse</i>					
Slapping	7.8	9.1	14.1	10.3	< 0.001
Pushing	5.5	6.9	10.3	7.5	< 0.001
Shooting	3.1	8.5	10.6	7.4	< 0.001
Punching	3.9	7.6	10.3	7.3	< 0.001
Kicking	4.1	6.5	9.0	6.5	< 0.001
Whipping	0.9	1.5	2.5	1.6	0.03
Choking	0.3	1.1	1.4	1.0	0.1
Stabbing	0	1.1	1.3	0.8	0.008
Burning	0	0.1	0.5	0.2	0.07
<i>Sexual abuse</i>					
Forced sexual intimacy	10.5	50.1	31.4	30.7	< 0.001
Forced intercourse	1.3	42.9	32.5	25.6	< 0.001
Forced non-vaginal sex	11.1	17.0	22.4	16.8	< 0.001
<i>Psychological abuse</i>					
Shouting	37.3	39.8	46.8	41.3	< 0.001
Preventing wife's employment	37.1	40.3	41.4	39.6	0.1
Insulting	37.3	21.0	38.5	32.3	< 0.001
Claiming ownership right to wife	10.1	37.3	27.6	25.0	< 0.001
Showing contempt in public	9.6	31.5	25.1	22.1	< 0.001
Criticizing	14.8	23.5	25.8	21.3	< 0.001
Giving threatening looks	10.5	17.1	18.6	15.4	< 0.001
Restricting wife's leaving house	5.4	19.0	18.0	14.1	< 0.001
Restricting communication	5.8	16.8	15.4	12.7	< 0.001
Inquiring about wife's expenses	4.8	15.8	14.3	11.6	< 0.001
Ridiculing in public	5.8	12.8	16.0	11.5	< 0.001
Making threats to leave house	5.6	9.3	12.1	9.0	< 0.001
Refusing to give money	3.0	13.1	11.0	9.0	< 0.001
Pursuing	1.0	5.0	7.5	4.5	< 0.001
Making threats to property	0.9	4.6	7.0	4.2	< 0.001

*n* = total number of women attending clinics in these areas.

<sup>a</sup>P-value for difference between frequencies of abuse in different types of clinic.

## Results

A total of 2400 patients made 2715 visits during the study period. We recruited 800 patients at clinics in high SES areas, 800 patients from clinics in middle SES areas and 800 patients from clinics in low SES areas. The mean (SD) age of the women was 28.2 (6.6) years and mean (SD) parity was 1.7 (1.1). Of the women, 71.3% were seen for family planning and the remainder were seen for gynaecology (15.5%) and prenatal care visits (13.2%).

### Prevalence of abuse

The prevalence of abusive experiences during the preceding 12 months is shown in Table 1. Physical violence was experienced by 15.0% of the women, sexual abuse by 42.4% (forced sexual intimacy 30.8%, forced intercourse 28.1% and forced nonvaginal sex 16.8%) and psychological/emotional abuse by 81.5% (mild 68.4%, moderate 10.6%, severe 2.5%). The following kinds of violence were more common for physical abuse: slapping, pushing, shooting and punching (Table 1). For psychological abuse, the most common actions were shouting, preventing the woman's employment, insulting, criticizing, clai-

ming ownership right to wife and showing contempt in public.

The relationship between scores on physical, sexual and psychological abuse and total scores of violence and partner abuse are shown in Table 2. On average, the scores of women attending clinics in high SES areas were 58% lower for physical violence, 66% lower for sexual violence and 44% lower for psychological abuse compared with women in low SES areas.

The prevalence rates of physical, psychological and sexual abuse during pregnancy were 9.1%, 82.3% and 36.3% respectively.

### Characteristics of abused women

The relationship between the characteristics of the women and mean total scores for violence are shown in Table 3. There were significant differences between the mean total score of violence and the following variables for the woman: low versus high education (< 6 years compared with > 12 years), unemployed versus employed, age ≤ 20 versus > 20 years, rural versus urban residence, low versus middle or high family income (< 1 500 000 rials per month, 1 500 000 to 3 000 000 rials per month, > 3 000 000 rials per month respectively) (US\$ 1 ≈ 8000 rials at the time of the study),

Table 2 Mean scores for partner violence experienced by married women attending clinics in different socioeconomic status areas of Babol city

Type of abuse (maximum score)	Mean (SD) violence score			P-value <sup>a</sup>
	High status area (n = 800)	Middle status area (n = 800)	Low status area (n = 800)	
Physical abuse (max. 9)	0.25 (0.92)	0.40 (1.23)	0.60 (1.36)	< 0.001
Sexual abuse (max. 3)	0.29 (0.68)	1.08 (1.03)	0.86 (1.02)	< 0.001
Psychological abuse (max. 15)	1.82 (1.17)	3.08 (3.09)	3.24 (3.03)	0.001
Total violence (max. 27)	2.53 (2.95)	4.41 (4.77)	4.92 (5.15)	< 0.001

n = total number of women attending clinics in these areas.

SD = standard deviation.

<sup>a</sup>P-value for difference between means.

**Table 3 Relationship between women's characteristics and mean total score of violence for married women attending clinics in Babol city**

Characteristic	Mean (SD) total violence score	P-value
<i>Woman's education</i>		
High education (< 6 years)	3.03 (3.17)	< 0.001
Low education (> 12 years)	4.71 (5.22)	
<i>Woman's employment</i>		
Employed	3.48 (4.30)	< 0.001
Unemployed	4.27 (4.80)	
<i>Residence</i>		
Urban	4.09 (4.72)	< 0.001
Rural	5.48 (5.25)	
<i>Woman's age (years)</i>		
≤ 20	5.40 (5.60)	
21–30	4.20 (4.10)	< 0.001
31–40	3.90 (4.60)	
> 40	3.50 (3.60)	
<i>Length of marriage (years)</i>		
≤ 5	4.37 (4.80)	
6–10	4.36 (5.20)	> 0.05
11–15	3.96 (4.80)	
16–20	3.60 (3.50)	
> 20	2.20 (5.50)	
<i>Parity</i>		
0	4.50 (4.90)	
1–2	4.20 (4.80)	> 0.05
≥ 3	3.70 (3.70)	
<i>Family's monthly income</i>		
Low (< 1500000 rial <sup>a</sup> )	4.71 (5.22)	
Middle (1500000–3000000 rial)	3.12 (3.13)	< 0.001
High (> 3000000 rial)	2.84 (3.26)	
<i>Pregnancy</i>		
Pregnant	3.59 (3.68)	0.001
Non-pregnant	4.31 (4.91)	
<i>Houseownership</i>		
Non-houseowner	4.63 (5.12)	< 0.001
Houseowner	3.85 (4.42)	

<sup>a</sup>US\$ 1 ≈ 8000 rials at the time of the study.

SD = standard deviation.

pregnant versus non-pregnant, and non-houseowner versus houseowner ( $P < 0.05$ ).

There were no significant differences be-

tween the mean total scores of violence and length of marriage or parity ( $P > 0.05$ ).

On univariate analysis, the variables that were significantly ( $P < 0.05$ ) associated with an increase in physical, sexual and psychological abuse were: low woman's education, rural residence, non-pregnancy, non-houseowner, woman's age  $\leq 20$  years, length of marriage  $> 5$  years and woman's unemployment. The variable which not significantly ( $P > 0.05$ ) associated with violence on univariate analysis was parity.

### Predictors of abuse

All variables were considered for the multivariate regression model. On multivariate analysis, the strongest predictor of physical violence among the clinic attenders was unemployment of the woman (OR = 2.95; 95% CI: 1.48 to 5.91) (Table 4). Other strong (OR  $> 2$ ) predictors of physical abuse were: woman's age  $\leq 20$  years (OR = 2.23; 95% CI: 1.59 to 3.14), non-houseowner (OR = 2.15; 95% CI: 1.68 to 2.75) and low income (OR = 2.05; 95% CI: 1.53 to 2.75). Other less strong but statistically significant predictors were non-pregnancy status and

low woman's education. Length of marriage, parity and residence were not associated with physical abuse on multivariate analysis.

For sexual abuse, the strongest predictor on multivariate analysis was the area of residence. The odds of a rural woman suffering abuse were 50% higher than those of urban women (OR = 1.56, 95% CI: 1.16 to 2.10). The other variables were not associated with sexual abuse on multivariate analysis. The strongest predictor of 3 types of partner violence on multivariate analysis was rural residence (OR = 1.97, 95% CI: 1.14 to 3.41).

For psychological abuse, on multivariate analysis the strongest predictor of violence among the clinic attenders was rural residence (OR = 1.3; 95% CI: 0.95 to 2.03). Other predictors of psychological abuse were low education (OR = 0.67; 95% CI: 0.51 to 0.88) and low income (OR = 0.38; 95% CI: 0.27 to 0.53). Length of marriage, parity, pregnancy, age, employment and homeownership were not associated with psychological abuse on multivariate analysis.

Table 4 Independent predictors of physical violence for married women attending clinics in Babol city

Predictors	Odds ratio	95% CI	P-value
Unemployed <i>versus</i> employed (woman)	2.95	1.48 to 5.91	0.002
Age $\leq 20$ <i>versus</i> $> 20$ years (woman)	2.23	1.59 to 3.14	$< 0.001$
Non-houseowner <i>versus</i> houseowner	2.15	1.68 to 2.75	$< 0.001$
Low income <i>versus</i> middle income	2.05	1.53 to 2.75	$< 0.001$
Non-pregnant <i>versus</i> pregnant	1.80	1.20 to 2.83	0.005
Low education <i>versus</i> high education (woman)	1.70	1.35 to 2.27	$< 0.001$
Rural <i>versus</i> urban residence	0.76	0.52 to 1.11	0.76
Length of marriage $\leq 5$ <i>versus</i> $> 5$ years	1.10	0.87 to 1.51	0.31
Parity 0 <i>versus</i> parity $\geq 1$	0.81	0.55 to 1.04	0.58

CI = confidence interval.

## Discussion

The results of this study show that the prevalence of psychological, physical and sexual abuse is high in this sample of Iranian women (15.0%, 81.5% and 42.4% respectively). Studies of health centre attendees in other countries show the prevalence of intimate partner violence varies between 4% and 33% [13–15]. The wide discrepancies in the prevalence of violence against women may reflect different definitions of violence in every society, the method of screening, religious beliefs and cultural issues [16].

The findings of this research as well as many other studies supports the view that poverty and its associated stress are key contributors to intimate partner violence. Although violence occurs in all SES groups, it is more frequent and severe in lower SES groups [17–27]. The results of this study suggest that low education, being unemployed and residence in a rural area are strong predictors of risk of intimate partner violence for women. In many studies, high educational attainment of women is associated with low levels of violence [26–31]. Education confers social empowerment via social networks, self-confidence and ability to use information and resources available in society, and may also translate into wealth. Some previous studies suggest that financial independence of women is protective against violence [32,33], although in other studies, employment of women did not have a protective role against partner abuse [18,29]. Circumstances in which the woman but not her partner is working convey additional risks [34]. The results of Maziak's study on the association of residence with partner abuse is similar to

this study [17], but in some studies urban or rural residence are not risk factors [18,27].

In this study, the prevalences of physical, psychological and sexual abuse during pregnancy were 9.1%, 82.3% and 36.3% respectively. Some previous studies show that partner violence decreases during pregnancy. Saltzman found that the prevalence of abuse across 16 states of the United States of America was 7.2% during the 12 months before pregnancy, 5.3% during pregnancy, and 8.7% around the time of pregnancy [35]. Kramek found that the prevalence of physical and psychological abuse during pregnancy was 25% [36].

There are several implications of this study. Public health services can play an important role in the detection of domestic violence and improve their responses to the victims. Abused women may present to health services before they present to criminal justice or social service agencies, and if abuse is identified, they can receive interventions that increase their safety and improve their health. This project demonstrated the efficacy of screening in detecting the victims of partner violence by the staff of health services in the Islamic Republic of Iran and is an important first step in addressing the problem of partner violence in this community. Thus, assessment for intimate partner violence of all women should be considered in all health care services. Another implication is that partner violence is often predictable and preventable. This study suggests that major strategies for prevention of partner violence are empowering women and improving their status in society with the promotion of sexual equality in all rights especially in employment and education.

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