Discover Social Science and Health

Research

Prevalence of intimate partner violence in pregnant women during the COVID-19 epidemic in Qazvin-Iran 2021

Nahid Hadiloo[1] · Fatemeh Lalooha[2] · Mohammad Ebrahim Sarichloo[3] · Sonia Oveisi[4]

Received: 30 September 2023 / Accepted: 12 March 2024
Published online: 19 March 2024

Abstract

Introduction Intimate partner violence (IPV) in pregnant women is considered one of the most important types of violence, which can include physical, psychological abuse and sexual violence. During the lockdown due to COVID-19, the home is at risk of becoming a very dangerous place for victims of domestic violence. We aimed to determine the prevalence of IPV and associated factors in pregnant women in Qazvin, Iran.

Methods This cross-sectional study was conducted on 450 pregnant mothers who were referred to the Kowsar Hospital Prenatal Clinic in Qazvin in 2021. Participants were assessed using a questionnaire consisting of four parts (demographic data, Abuse Assessment Screen (AAS) for domestic violence, The Revised Conflict Tactics Scale (CTS2) for IPV. Data were collected and analysis was performed via SPSS software version 22 using a non-parametric test; Mann–Whitney and × 2 tests.

Results The overall prevalence of IPV was higher in pregnant women than their husbands in Qazvin. The most common form of IPV was psychological aggression (24.8%), followed by scale of injury (8.2%), physical (3.3%) and sexual (4.2%) violence. In addition, analysis of the AAS questionnaire shows that psychological violence is the most common form of domestic violence among pregnant women.

Conclusion In this study, IPV in pregnant women has increased slightly compared to studies conducted in the years leading up to the COVID-19. Risk of IPV was not related to previous COVID-19 infection. Collaborative efforts between various stakeholders and policy actions must be taken to ensure the safety and protection of pregnant women during this challenging time.

Keywords Intimate partner violence (IPV) · Pregnancy · COVID-19 · Iran

1 Introduction

Partner abuse during pregnancy is associated with adverse maternal and neonatal outcomes. Worldwide statistics show that less than 15 percent of pregnant women experience domestic violence [1, 2]. According to the World Health Organization, 45% of pregnant women have experienced physical and/or sexual violence by an intimate partner during their pregnancy [3].

✉ Sonia Oveisi, soniaoveisi@gmail.com | [1]Faculty of Medicine, Qazvin University of Medical Sciences, Qazvin, Iran. [2]Department of Obstetrics and Gynecology, School of Medicine, Kosar Teaching Hospital, Qazvin University of Medical Sciences, Qazvin, Iran. [3]Department of Psychiatry, School of Medicine, Qazvin University of Medical Sciences, Qazvin, Iran. [4]Department of Pediatrics, School of Medicine, Metabolic Diseases Research Center, Research Institute for Non-Communicable Diseases, Qazvin University of Medical Sciences, Qazvin, Iran.

Pregnant women who experienced intimate partner violence had a higher risk of preterm birth, low birth weight, and perinatal mortality [4]. Additionally, partner abuse has been linked to postpartum depression [5] and increased maternal and neonatal hospitalization rates [6]. Intimate partner violence during pregnancy negatively impacts maternal mental health, leading to decrease quality of life for women [7]. Pregnancy and motherhood can be particularly challenging for women during this period, with additional stressors such as a relationship breakup potentially exacerbating the already high levels of stress, which is accompanied by physiological and psychological changes [8]. Existing violence (IPV) would continue or worsen, and abusive partners might have less access to maternity care. IPV during pregnancy has many maternal implications, so early screening is crucial for this vulnerable group and can reduce later abuse [9, 10]. Therefore, IPV testing should be evaluated and responded to during this period, given the health implications for both mother and baby and the multiple contact points with medical practitioner [11].

Domestic violence, including Intimate Partner Violence (IPV), was affected by pandemics COVID-19. The stay-at-home regulations in place due to the COVID-19 pandemic have led to many challenges in the area of gender inequalities and personal, social and family relationships, including statistical changes in the area of Intimate Partner Violence [12–15]. Following the COVID-19 pandemic on March 2020, which infected thousands of people, lockdown-related measures were enacted across the world [16]. In addition to the impact at the community level, there was disruption at the family level, raising the question of whether intimate partner violence (IPV) is associated with stress levels in pregnant women during the time of COVID-19. We aimed to investigate the prevalence of Intimate Partner Violence in pregnant women during the COVID-19 epidemic in Qazvin-Iran in 2021.

2 Method and material

2.1 Study design

This cross-sectional study was performed in pregnant women participants during COVID-19 pandemic in Prenatal Center of Kausar Qazvin Hospital, from September to February of 2021. Human Research Ethics Committee has been granted by Ethical approval code at of Qazvin university medical of sciences. Quantitative data were collected on each gestation group of 450 pregnant women during pregnancy who were included in this study. Informed consent was obtained from them. Participants with a history of abortion, mental illness (based on self-reports), and drug use from psychiatry, or those who did not wish to participate in the study or wished to withdraw were excluded from the study procedures.

2.2 Measures

The research tool provided questions on demographics, experiences with IPV, domestic violence, and experiences with COVID-19. Participants were asked about their experiences during pregnancy in the COVID-19 pandemic as the December 2020 deployment lasted for most of the year. Measures used for the current analysis include:

2.2.1 Demographics

Participants were asked to self-report demographic information on the survey including age, educational experiences, employment status, residency, homeowner, reproductive coercion, past COVID-19 infection.

2.2.2 Physical, sexual, and psychological IPV

The Conflict Tactics Scale Revised–Short Version (CTS2) [17], a validated IPV measure, was used to assess physical, psychological, and sexual IPV in the past 12 months. The CTS-2 items examined are divided into five categories, including: Negotiation, Physical Assault, Injury scales, Sexual coercion, Psychological Aggression. We used questions from the short version of the CTS2, twelve psychological aggression questions, eight physical aggression questions, six negotiation questions, six trauma scales, and eight sexual coercion questions. The psychometric characteristics of this scale include internal reliability (mean reliability coefficient: 0.77, alpha coefficient: 0.34), appropriate coefficients for the scales of psychological aggression (0.78) and physical assault (0.80) in a sample of pregnant women, injury scales (0.74), sexual

coercion (0.17–0.42). Psychological questions included "I destroyed something belonging to my partner or threatened to hit my partner" and "my partner destroyed something belonging to me or threatened to hit me". Physical questions included "I had a sprain, bruise, or small cut, or felt pain the next day because of a fight with my partner" and "my partner had a sprain, bruise, or small cut or felt pain the next day because of a fight with me". The sexual questions included "I used force (like hitting holding down, or using a weapon) to make my partner have sex" and "My partner used force (like hitting, holding down, or using a weapon) to make me have sex" [13, 18, 19].

2.2.3 Abuse assessment questionnaire (AAS)

A useful tool for identifying domestic violence during pregnancy is the five-item Abuse Assessment Screen (AAS), which is widely used in clinical practice. Body maps are included in the questionnaire to indicate where physical harm is occurring. The AAS tool is proven to identify abused pregnant women, especially at their first regular visit during pregnancy. The dual variables included in the questionnaire relate to questions about physical, psychological or sexual violence during pregnancy and in the previous year, the answers to which are closed (yes–no), as well as psychometric data [20, 21].

2.3 Statistical analysis

Data were analyzed using SPSS.25 software. The quantitative and qualitative variables of the demographic characteristics of the participants were described using descriptive statistics (mean ± standard deviation) and frequency, respectively. The Mann–Whitney test was used to compare past IPV values from COVID-19 during the pandemic and an unwanted pregnancy. The comparison between IPV of males and females in terms of their frequency and percentage was performed by X^2 test. The level of significance was set at $p < 0.05$.

3 Results

The study involved 450 pregnant women (Table 1). Just over half of the women were ≤ 54 years old (M = 30.3, *SD* = 6). Most women had a university degree or below (*n* = 199, 47.3%) and were not employed (*n* = 348, 80.10%). Over eighty percent of the women lived in urban areas (*n* = 339, 82.50%), while the rest lived in rural areas. The demographic analysis also showed that the mean age of the women's husbands was 35 years old (*SD* = 5). The vast majority (*n* = 265, 66.90%) of the family were homeowner. Similar to the women, most men had a university degree or below (*n* = 183, 45.60%). Most women had a planned pregnancy (*n* = 303, 70.20%) and had no past COVID-19 infection (*n* = 310, 71.40%).

3.1 Domestic violence during the COVID-19 pandemic with AAS

The women who participated in this study experienced low levels of domestic violence (psychological (n = 77, 18%), physical (n = 26, 6%), sexual (n = 8, 1.8%)) during the pandemic. The most frequent type of violence was psychological and the least frequent was sexual violence (Table 2).

3.2 Intimate partner violence (IPV) during COVID-19 pandemic

There were statistically significant ($p \leq 0.05$) higher mean CTS-2 scores for pregnant women psychological IPV during the pandemic (psychological mean = 0.91) as compared to their husbands psychological IPV (psychological mean = 0.63). In addition, the negotiation and injury scales are statistically significant ($p \leq 0.001$) in pregnant women and their husbands. There were no significant differences ($p > 0.05$) in the CTS-2 scores for physical and sexual violence (Table 3).

3.3 Associative factors with wanted pregnancy and COVID-19 history during the pandemic

Frequency of violent behavior by pregnancy history and COVID-19 pandemic were analyzed separately for two groups of women (A) and their husbands (B). According to Chi-Square, there was no significant association between

Table 1 The demographic character of the women and their husbands: age, education, residence, homeowner employment status, planned pregnancy, and history of COVID-19 infection

Variable	Quantitative data (Mean ± SD)	Minimum	Maximum
Age			
Woman	30.3 ± 6	16	54
Man	35 ± 5	20	55
Number of family members in the home	2.98 ± 1.08	2	10
Gestational age (weeks)	28.5 ± 9.43	4	41
Parity	2 ± 1	1	6
Variable	Qualitative data	N (%)	
Education			
Women			
Illiterate		8 (1.9)	
Elementary and high school		77 (18.7)	
Diploma		128 (31.1)	
University		199 (48.3)	
Men			
Illiterate		8 (1.9)	
Elementary and high school		91 (22)	
Diploma		126 (30.4)	
University		183 (45.6)	
Employment status			
Women			
Unemployed		348 (80.1)	
Employed		86 (19.9)	
Men			
Unemployed		14 (3.25)	
Employed		420 (96.75)	
Residency			
Urban		339 (82.5)	
Rural		72 (17.5)	
Homeowner			
Yes		265 (66.9)	
No		131 (33.1)	
Planed pregnancy			
Yes		303 (70.2)	
No		131 (30.6)	
Past COVID-19 infection			
Yes		124 (26.6)	
No		310 (71.4)	

contracting COVID-19 and wanting to conceive, and signs of violence in both women and their husbands, only a significant association between contracting COVID-19 and sexual abuse. However, the incidence of individuals with psychological aggression, negotiation, degree of injury, and sexual assault, and without a history of COVID-19 was higher in both groups of women and their husbands than in those with COVID-19 (Tablea 4 and 5).

Table 2 Frequency of the pregnant woman's domestic violence (AAS) during COVID-19 pandemic

Variables		Frequency (%)
Have you ever been emotionally or physically abused by your partner or someone important to you?	Yes	77 (18.0)
	No	356 (82.0)
Within the last year, have you been hit, slapped, kicked or otherwise physically hurt by someone?	Yes	26 (6.0)
	No	408 (94.0)
Since you have been pregnant, have you been hit, slapped, kicked or otherwise physically hurt by someone?	Yes	13 (3.0)
	No	421 (97.0)
Within the past year, has anyone forced you to have sexual activities?	Yes	8 (1.8)
	No	426 (98.2)
Are you afraid of your partner or anyone you listed above?	Yes	24 (5.6)
	No	410 (94.4)

Table 3 The mean of each type of IPV during the COVID-19 pandemic by t-test result analysis for women and their husbands

	Female Mean ± SD	Male Mean ± SD	Z	P value
Negotiation	3.75 ± 4.26	2.62 ± 2.90	− 5.234[a]	0.001
Physical assault	0.2005 ± 1.07	0.173 ± 0.68	− .779[a]	0.436
Injury scales	0.31 ± 1.55	0.09 ± 0.52	− 3.355[a]	0.001
Sexual coercion	0.13 ± 0.84	0.22 ± 1.10	− 1.833[a]	0.067
Psychological aggression	0.91 ± 2.13	0.63 ± 1.5	− 2.211[a]	0.027

[a]Mann–Whitney test

Table 4 Associative factors with wanted pregnancy and COVID-19 history during the pandemic in pregnant women

A		Female				Female			
		COVID-19				Wanted pregnancy			
		no	yes			no	yes		
		N (%)	N (%)	Chi score	P value	N (%)	N (%)	Chi score	P value
Negotiatiosn	No	61(21.8)	24(21.6)	0.001	0.97	23(19.3)	62(22.8)	0.59	0.44
	Yes	219(78.2)	87(78.4)			96(80.7)	210(77.2)		
Physical Assault	No	290(94.5)	116(96.7)	0.9	0.34	122(95.3)	284(95)	0.021	0.89
	Yes	17(5.5)	4(3.3)			6(4.7)	15(5)		
Injury scales	No	279(93.6)	112(91.8)	0.45	0.5	119(92.2)	272(93.5)	0.21	0.65
	Yes	19(6.4)	10(8.2)			10(7.8)	19(6.5)		
Sexual coercion	No	301(97.4)	113(95.8)	0.79	0.38	121(96)	293(97.3)	0.52	0.47
	Yes	8(2.6)	5(4.2)			5(4)	8(2.7)		
Psychological Aggression	No	221(75.9)	82(75.2)	0.02	0.89	90(76.3)	213(75.5)	0.025	0.88
	Yes	70(24.1)	27(24.8)			28(23.7)	69(24.5)		

4 Discussion

In this cross-sectional study, we aimed to investigate the prevalence of Intimate Partner Violence in 450 pregnant women during the COVID-19 epidemic in Qazvin-Iran in 2021. The results of the study showed that most pregnant women in our study had no experienced multiple types of IPV over their pregnancy. Psychological, injury-scale, and negotiated IPV scores in the pregnant women were significantly higher than their husbands during the pandemic.

Table 5 Associative factors with wanted pregnancy and COVID-19 history during the pandemic in their husbands

B		Male				Male			
		COVID-19				Wanted pregnancy			
		No	Yes			No	Yes		
		N (%)	N (%)	Chi score	P value	N (%)	N (%)	Chi score	P value
Negotiation	No	67(22.9)	25(22.1)	0.03	0.86	63(22.5)	29(23.2)	0.24	0.88
	Yes	225(77.1)	88(77.9)			217(77.5)	96(76.8)		
Physical assault	No	279(92.7)	112(91.8)	0.1	0.75	272(92.5)	119(92.2)	0.009	0.92
	Yes	22(7.3)	10(8.2)			22(7.5)	10(7.8)		
Injury scales	No	292(96.7)	112(94.9)	0.73	0.39	283(96.6)	121(95.3)	0.42	0.52
	Yes	10(3.3)	6(5.1)			10(3.4)	6(4.7)		
Sexual coercion	No	290(94.8)	108(88.5)	5.22	0.02	282(94.3)	116(89.9)	2.67	0.1
	Yes	16(5.2)	14(11.5)			17(5.7)	13(10.1)		
Psychological aggression	No	221(76.5)	82(71.3)	1.17	0.28	214(75.6)	89(73.6)	0.19	0.66
	Yes	68(23.5)	33(28.7)			69(24.4)	32(26.4)		

The prevalence of IPV in pregnant women reported by Jahanfar et al. [22] (60.30%) and (60.80%), respectively [23]. The results of our study in comparison with another study which conducted in Qazvin in 2014 [24] showed there was a slight increase IPV during the COVID-19. In another study from Iran, the overall prevalence of IPV was 93.1%. Psychological violence was the most prevalent type (92.9%), followed by sexual (11%) and physical (7.7%) violence. Furthermore, psychological violence and sexual violence increased during COVID-19 Pandemic (P value < 0.05) [25]. These results support the findings of a study conducted during total quarantine in Jordan, where significant levels of all types of IPV were previously identified (65.10%, 30.70%, and 15.30% for psychological, physical, and sexual violence, respectively) and during the full lockdown (50.20%, 13%, and 11.20%, respectively) [26]. These results suggest that violence is an ongoing experience, beginning early and continuing throughout life [27]. In addition to emergencies such as the COVID-19 pandemic, women also suffer from IPV during pregnancy [28, 29]. Moreover, the low IPV values found in our study differ from those of other Arab countries were 5–91% for psychological, 6–59% for physical, and 3–40% for sexual IPV [30]. Similarly, IPV with low levels have been reported for Europe and North America (4.20% and 28.60% for psychological, 2.10% and 9% physical, and 0.50% and 8.90% for sexual, respectively) [31]. In our study in the comparison with the other studies, the results showed that higher levels of IPV occurred during the pandemic. Our results support the findings of Lyons and Brewer (2021) who reported an increase in the duration of victim intimacy with the abuser during the COVID-19 pandemic, like a prison [32, 33]. Research has shown a concerning rise in partner abuse during the COVID-19 pandemic [34, 35]. Preliminary studies suggest that lockdown measures, social isolation, and economic stressors during the pandemic contribute to increased rates of intimate partner violence [36]. Pregnant women face specific challenges during the pandemic that increase their vulnerability to partner abuse. Restrictions on healthcare access, reduced social support systems, isolation, and increased stressors can exacerbate the risk of violence [37]. Women may be hesitant to seek help due to fear of contracting COVID-19 or limited resources available [38]. However, higher levels of psychological IPV during the pandemic than previously, which contradict with previous study conducted that found lower level of psychological IPV in the quarantine [26]. This difference in results may be due to the fact that the COVID-19 illness was new in April 2020 and the spouses would have become emotionally closer to each other due to their fear of COVID-19 and would have found safety and comfort in being with their spouses, which could have reduced the incidence of violence in domestic violence [39, 40].

However, physical and sexual forms of IPV did not increased during pandemic despite our expectation. The reason for this lack of change could be that the participants were pregnant, since the primary concern of parents during pregnancy is to protect the fetus. Previous studies have shown that pregnancy is a protective factor against IPV [41, 42].

Findings suggest it is important to educate and outreach to communities based on the knowledge, attitude and cultures [43] to empower women who suffer from IPV to resolve problems with their husbands. Women seen in clinics during pregnancy should be screened for IPV, with follow-up to be sure linkage and engagement to services occurred [44]. Such follow-up might be done by phone, text or in-person and needs adequate funding and problem-solving in the

event of logistical (e.g., lack of childcare, transportation, etc.) or relational obstacles (e.g., lack of social support). Effective models exist for such linkage and follow-up including systems that utilize patient or health Navigators (e.g., [45]). Although Navigators are frequently used effectively in other countries [46], they are not as widespread at this time in Iran. Intervention Mapping has been used to design and implement effective interventions based on cultural needs and local ecologies [47] and provides a road map for wide scale deployment of evidence-based practices such as Navigators. In addition, navigators are often trained in brief engagement techniques such as motivational interviewing [48], which has also been effectively adapted to other cultures [49]. It is important for healthcare providers to be knowledgeable about this issue to identify and support pregnant women who may be experiencing violence. Collaborative efforts between healthcare providers, policymakers, and community organizations are needed to effectively address partner abuse and improve overall health outcomes for pregnant women and their children.

4.1 Limitations and future directions

The sample was collected from a single clinic and was cross-sectional. Future studies may collect across multiple clinics and assess women prospectively. Although data were collected from only one clinic, sample size was large so that the study was adequately powered to find meaningful effects. Future studies may wish to better assess women's male partners directly, including IPV. In addition, predictors may include dynamic factors (e.g., relationship quality, social supports), rather than focus on more static factors (e.g., education), so that interventions might improve more malleable predictors. Also, more detailed assessment of factors related to COVID-19 (e.g., social isolation, loss of a loved one, fear of infection, fear of vaccination, etc.), in addition to prior infection, may reveal additional predictors of adjustment [50].

5 Conclusion

In this study, IPV in pregnant women has increased slightly compared to studies conducted in the years leading up to the COVID-19. Risk of IPV was not related to previous COVID-19 infection. Collaborative efforts between various stakeholders and policy actions must be taken to ensure the safety and protection of pregnant women during this challenging time.

Author contributions Sonia Oveisi, Fateme Lalooha, Mohammad Sarijloo designed study. Sonia Oveisi analyzed and interpreted the patient data regarding the IPV and Background Characteristics among Pregnant Women during COVID-19. Nahid Hadiloo performed this study and contributed to write the manuscript. All authors read and approved the final manuscript.

Funding No funds, grants, or other support was received.

Data availability The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate Ethics approval and consent to participate: Ethics review and approval was obtained from the Ethics Committee of Qazvin Medical Science University (IR.QUMS.REC.1399.553). Informed consent was obtained from all individual participants included in the study.

Consent for publication Not applicable

Competing interests The authors declare that they have no competing interests funding in this study.

References

1. Gallup GG Jr, Burch RL. Intimate partner violence and relationship maintenance. In: Mogilski JK, Shackelford TK, editors. The oxford handbook of evolutionary psychology and romantic relationships. Oxford: Oxford University Press; 2023. p. 413.
2. James L, Brody D, Hamilton Z. Risk factors for domestic violence during pregnancy: a meta-analytic review. Violence Vict. 2013;28(3):359–80.
3. Mills-Koonce WR, et al. The dark triad and intimate partner violence among pregnant women. Personality Individ Differ. 2023;214:112332.
4. Alhusen JL, et al. Intimate partner violence during pregnancy: maternal and neonatal outcomes. J Womens Health. 2015;24(1):100–6.
5. Brandon AR, et al. A history of the theory of prenatal attachment. J Prenatal Perinatal Psychol Health APPPAH. 2009;23(4):201.
6. El Kady D, et al. Maternal and neonatal outcomes of assaults during pregnancy. Obstet Gynecol. 2005;105(2):357–63.
7. Gharacheh M, et al. Domestic violence during pregnancy and women's health-related quality of life. Global J Health Sci. 2016;8(2):27.
8. Negussie A, Girma E, Kaba M. A phenomenological study of the lived experiences of partner relationship breakup during pregnancy: psychosocial effects, coping mechanisms, and the healthcare providers' role. Front Global Women's Health. 2023;4:1048366.
9. Schrubbe L, et al. Intimate partner violence against women during pregnancy: a systematic review and meta-analysis protocol for producing global and regional estimates. Syst Rev. 2023;12(1):107.
10. Morrison PK, et al. Co-occurring substance use and intimate partner violence in pregnant and postpartum women: a systematic literature review. J Family Violence. 2023. https://doi.org/10.1007/s10896-023-00609-4.
11. Vakili F, et al. The relationship between social determinants of health and fear of contracting infectious diseases in pregnant women presenting to health centers in Kashan, Iran: a path analysis study. BMC Psychiatry. 2023;23(1):359.
12. Krishnamurti T, et al. Mobile remote monitoring of intimate partner violence among pregnant patients during the COVID-19 shelter-in-place order: quality improvement pilot study. J Med Internet Res. 2021;23(2):e22790.
13. Parra-Saavedra M, et al. Attitudes and collateral psychological effects of COVID-19 in pregnant women in Colombia. Int J Gynaecol Obstet. 2020;151(2):203–8.
14. McIntosh K, Hirsch MS, Bloom A. Coronavirus disease 2019 (COVID-19). UpToDate Hirsch MS Bloom. 2020 Mar;5(1):873.
15. Zahmatkesh MRR. The impact of COVID-19 outbreak on the mental health of the pregnant women: a systematic review. J Pediatrics. 2020;9:13185.
16. Yoo C, Ross C. Exploratory study of determinants of the spread of COVID-19 before shelter-in-place orders. Transp Res Rec. 2023;2677(4):181–91.
17. Straus MA, Douglas EM. A short form of the revised conflict tactics scales, and typologies for severity and mutuality. Violence Vict. 2004;19(5):507–20.
18. Chapman H, Gillespie SM. The revised conflict tactics scales (CTS2): a review of the properties, reliability, and validity of the CTS2 as a measure of partner abuse in community and clinical samples. Aggress Violent Beh. 2019;44:27–35.
19. Straus M, et al. The revised conflict tactics scales (CTS2): development and preliminary psychometric data. J Family Issues J FAM ISS. 1996;17:283–316.
20. Soeken KL, McFarlane J, Parker B, Lominack MC. Abuse assessment screen (AAS). 1992.
21. Antoniou E, Ioannidi-Kapolou E, Daglas M, Vivilaki V, Karamitros D, Dafermos V, Iatrakis G. Abuse Assessment Screen (AAS) questionnaire: The Greek validation. Clin Exp Obstetrics Gynecol. 2010;37(4):313.
22. Jahanfar S, Malekzadegan Z. The prevalence of domestic violence among pregnant women who were attended in Iran University of Medical Science Hospitals. J Family Violence. 2007;22(8):643–8.
23. Dortag-e-Raberi S, et al. Prevalence of violence among pregnant women attending to health care centers in west of Tehran. Iran J Nurs. 2010;23(65):61–72.
24. Oveisi S, Mahboobi M, Chen H. Investigating the criminals exposed to inter-partner violence and child abuse: a case–control study. Soc Health Behavior. 2020. https://doi.org/10.4103/SHB.SHB_4_20.
25. Maharlouei N, et al. Intimate partner violence during pregnancy in COVID-19 pandemic: a cross-sectional study from South-west of Iran. BMC Public Health. 2023;23(1):325.
26. Abujilban S, et al. Intimate partner violence against pregnant Jordanian women at the time of COVID-19 pandemic's quarantine. Journal of interpersonal violence. 2022;37(5–6):2442–64.
27. Centers for Disease Control and Prevention. Intimate partner violence surveillance: uniform definitions and recommended data elements. Atlanta, GA: National Center for Injury Prevention and Control, Division of Violence Prevention, 2015.
28. Jetelina KK, Knell G, Molsberry RJ. Changes in intimate partner violence during the early stages of the COVID-19 pandemic in the USA. Inj Prev. 2021;27(1):93–7.
29. Abujilban S, et al. Pregnant women's experiences with intimate partner violence one year after the COVID-19 pandemic in Jordan. Nursing Open. 2023. https://doi.org/10.1002/nop2.1669.
30. Elghossain T, et al. Prevalence of intimate partner violence against women in the Arab world: a systematic review. BMC Int Health Hum Rights. 2019;19:1–16.
31. Román-Gálvez RM, et al. Prevalence of intimate partner violence in pregnancy: an umbrella review. Int J Environ Res Public Health. 2021;18(2):707.
32. Lyons M, Brewer G. Experiences of intimate partner violence during lockdown and the COVID-19 pandemic. J Family Viol. 2021. https://doi.org/10.1007/s10896-021-00260-x.
33. Smyth C, et al. COVID-19 lockdowns, intimate partner violence and coercive control. Aust J Soc Issues. 2021;56(3):359–73.
34. Boserup B, McKenney M, Elkbuli A. Alarming trends in US domestic violence during the COVID-19 pandemic. Am J Emerg Med. 2020;38(12):2753.
35. Peterman A, et al. Pandemics and violence against women and children. Washington, DC: Center for Global Development; 2020.
36. Mamun MA, Ullah I. COVID-19 suicides in Pakistan, dying off not COVID-19 fear but poverty?—the forthcoming economic challenges for a developing country. Brain Behav Immun. 2020;87:163–6.

37. Sabri B, et al. Effect of COVID-19 pandemic on women's health and safety: a study of immigrant survivors of intimate partner violence. Health Care Women Int. 2020;41(11–12):1294–312.
38. Shorey S, Chan V. Lessons from past epidemics and pandemics and a way forward for pregnant women, midwives and nurses during COVID-19 and beyond: a meta-synthesis. Midwifery. 2020;90:102821.
39. Begawala M, Umarji O. Closer in quarantine: a study of successful marriage in social isolation. Yaqueen Institute. 2020.
40. Rashid Soron T, et al. Domestic violence and mental health during the COVID-19 pandemic in Bangladesh. JMIR Form Res. 2021;5(9):e24624.
41. Bağcıoğlu E, et al. Decrease in domestic violence during pregnancy: a study from Turkey. J Interpers Violence. 2014;29(2):203–16.
42. Van Parys A-S, et al. Intimate partner violence and pregnancy: a systematic review of interventions. PLoS ONE. 2014;9(1):e85084.
43. Oveisi S, et al. Mothers' attitudes toward corporal punishment of children in Qazvin-Iran. J Fam Viol. 2010;25:159–64. https://doi.org/10.1007/s10896-009-9279-7.
44. Oveisi S, et al. Primary prevention of parent-child conflict and abuse in Iranian mothers: a randomized-controlled trial. Child Abuse Negl. 2010;34(3):206–13. https://doi.org/10.1016/j.chiabu.2009.05.008.
45. Salimzadeh H, et al. Feasibility of colon cancer screening by fecal immunochemical test in Iran. Arch Iran Med. 2017;20(12):726–33.
46. Budde H et al. What are patient navigators and how can they improve integration of care? 2022.
47. Oveisi S, et al. Program development using intervention mapping in primary healthcare settings to address elder abuse: a randomized controlled pilot study. Brain Behav. 2021;11(6):e02153. https://doi.org/10.1002/brb3.2153
48. Ustjanauskas AE, et al. Training in patient navigation: a review of the research literature. Health Promot Pract. 2016;17(3):373–81.
49. Oveisi S, et al. The impact of motivational interviewing on relapse to substance use among women in Iran: a randomized clinical trial. BMC Psychiatry. 2020;20:1–7. https://doi.org/10.1186/s12888-020-02561-9.
50. Oveisi S, Karimi R, Mahram M. Note from Iran: self-reported elder abuse in Qazvin, 2012. J Elder Abuse Negl. 2014;26(3):337–40. https://doi.org/10.1080/08946566.2014.883947.