

## Relation Between Intimate Partner Violence During Pregnancy and Postpartum Mother Psychological Wellbeing

Amal Gamal Mohamed Ahmed<sup>1</sup>, Marwa Mostafa Saeed<sup>1</sup>, Hoda Abdou Hussein<sup>2</sup>, Heba Galal El Nahas<sup>1</sup>

<sup>1</sup>Family Medicine Department, Faculty of Medicine, Cairo University.

<sup>2</sup>Psychiatry and Addiction Medicine Department, Faculty of Medicine, Cairo University

### KEYWORDS

Intimate partner violence, postpartum depression, postpartum anxiety

### ABSTRACT

Background: Intimate partner violence (IPV) may be physical violence, psychological or sexual abuse by a current or former intimate partner. It is an avoidable global public health problem. IPV in pregnancy, despite being a common problem but remains a neglected condition (1). The severity of violence from a partner during pregnancy was reported to be greater than violence before pregnancy due to possibly change in a couple's relationship and lifestyle accompanying pregnancy (2). Numerous studies revealed that experiencing IPV during pregnancy negatively affects both mothers and infants during the post-partum period(3). Objectives: to assess prevalence of postpartum depression and anxiety and assess possible relation between partner violence during pregnancy and postpartum psychological health. Design: prospective cohort study Method: This study was carried out on 176 pregnant women attending antenatal care to explore the possible relation between intimate partner violence and postpartum depression and anxiety. The assessment was done during the second trimester by screening the sociodemographic factors, screening of intimate partner violence was done using the Arabic version of the Composite Abuse Scale. Postpartum assessment by screening of maternal depression was done by the Arabic version of the Edinburgh post-partum depression scale, and screening of anxiety using the Arabic version of Perinatal Anxiety Screening Scale. Results: the prevalence of intimate partner violence during pregnancy was 19.3%. Near half of participants suffered from postpartum depressive illness and around one quarter suffered from possible depression. More than half of participants suffered from mild to moderate postpartum anxiety. Partner violence had also significant relation with depression during pregnancy and postpartum with p-value <0.001 for both. Conclusions: intimate partner violence may be a risk factor for postpartum depression and anxiety.so, we should screen for it and learn how to deal with this problem.

## 1. Introduction

Intimate partner violence is described as behaviours that use assault and control over an intimate partner through the use of violence, including physical, psychological, and sexual violence (2). It is a major public health issue with significant social and economic costs (4).

Studies of IPV during pregnancy in low-income and middle-income countries reported prevalences of 2–35% for physical violence, 9–40% for sexual violence, and 22–65% for psychological violence (5). Several studies have highlighted that beyond physical injuries and death, individuals exposed to IPV are more likely to report a range of negative mental health outcomes that are both acute and chronic in nature(6).

Maternal violence experiences were significantly associated with the developing of perinatal depression (7). There is extensive literature which establishes that partner violence had mental and emotional effects on women including loss of self-esteem and decision-making ability, depression, anxiety, phobias, self-harm, somatization, post-traumatic stress disorder and dissociative disorders (8). IPV during pregnancy can be a precursor for the intergenerational transmission of mental health problems and the propensity to poorer general health, and thus might contribute to both individual and global burdens of mental and physical health problems (5). The overall prevalence of depression is 17% (9) It has been projected that by the year 2030 if interventions are not developed as part of preventive measures, depression might be the top three leading causes of death globally (10). The prevalence of postpartum depression PPD ranged from 0.9% to 25.5% in developed countries, and from 8.2% to 38.2% in developing countries (7). Postpartum depression can predispose to chronic recurrent depression, which may negatively affect the mother–infant relationship and child growth and development (11).

## **2. Methodology**

This study aimed to determine the effect of intimate partner violence during pregnancy on postpartum mother psychological health. It is a prospective cohort study carried out on pregnant females attending primary health care centers for antenatal care and they were followed after delivery to screen their mental health state.

### **Sample size**

Based on evidence from previous similar study (Claire Bahatiet al.,2022)(12) and by considering depression proportion among abused women (29.2%) and depression among non-abused women was (9.4%). Stata® 18 was used to estimate the sample size a one-sample paired-proportions test. Assuming 80% power, 0.05 level of significance. The required sample size is 124 participants, but we increased to 176 for possible drop out.

### **Ethical approval**

Approval was obtained from the institutional (Institutional review board code: MD-323-2021; date of approval: 9-11-2021). After written consent was obtained from participants at the beginning of the face-to-face interview, a clarification of study objectives was provided, followed by a statement disclosing that responding is voluntary and a rationale for refusing to participate is not required. According to the Declaration of Helsinki, all steps of data collecting, entry, and analysis were conducted in a highly confidential and private manner.

Assessment during pregnancy: after taking written consent from pregnant females who wanted to participate in this study, we assessed Intimate partner violence screening by composite abuse scale (CAS) (4) (Arabic version). This evaluation of partner violence uses women responses to 29 items. Women were asked to rate how often in the past 12 months they experienced 29 abusive presented in six points ranging from never (0) to daily (5)

Postpartum assessment: screening of postpartum depression by Edinburgh Postnatal Depression Scale (EPDS) (12) and postpartum anxiety by Perinatal Anxiety Screening Scale (PASS) (13).

the Edinburgh Postnatal Depression Scale (EPDS) by Moussa & Emadeldin (14), which is a 10-item self-report questionnaire administered to screen for depressive symptoms in the antenatal and postnatal periods. A score of 10 or greater indicates possible depression, while respondents with a score greater than 13 are likely to be suffering from a depressive illness of varying severity. Psychometric studies of the test have shown an alpha value of 0.87, a sensitivity of 85%, a specificity of 77%, and a positive predictive value of 83% (15).

Perinatal Anxiety Screening Scale (PASS) Arabic version (14). PASS is a valid and reliable 31-item self-report instrument designed to screen for problematic anxiety in antenatal and postpartum women. It differentiates between high and low risk for presenting with an anxiety disorder by measuring four domains that address specific symptoms of anxiety as they present in perinatal women but not diagnostic scale (13).

PASS classification of anxiety severity is as follows: participants with scores from 0-20 are considered asymptomatic, mothers with scores from 21-41 have mild-moderate anxiety symptoms, and scores from 42-93 have severe symptoms.

### **Statistical analysis**

Data were statistically described in terms of mean, standard deviation (SD), or frequencies (number of cases) and percentages when appropriate. Comparison of numerical variables between the study groups was done using Student t test for independent samples. P values less than 0.05 was considered statistically significant. All statistical calculations were done using computer program SPSS (Statistical Package for the Social Science; SPSS Inc., Chicago, IL, USA) release 15 for Microsoft Windows (2020).

### 3. Result and Discussion

Table (1): Sociodemographic characteristics of the study participants (n=176):

	<u>N</u>	<u>%</u>
<b>Age group</b>		
18 year or less	14	8
More than 18 year	162	92
<b>Residence</b>		
Rural	129	73.7
Urban	46	26.3
<b>Consanguinity</b>		
Yes	43	24.4
No	133	75.6

As shown in table (1) regarding participant's age, it ranged from 16 to 42 years. Near three quarters of participant's residence (73.7%) was in rural area. About one quarter of participants showed positive consanguinity.

Figure (1): Composite Abuse Scale (CAS) of the studied group (n=176):

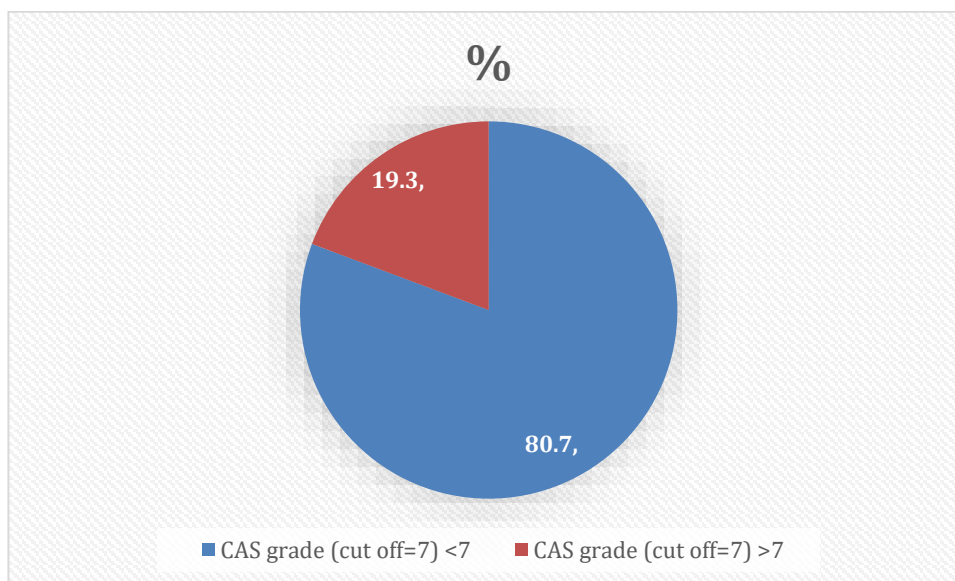


Figure (1) shows that the prevalence of intimate partner violence was 19.3%.

Table (2): Psychological status of participant mothers (n=176):

		<b>Post-partum psychological state</b>	
		<u>N</u>	<u>%</u>
EPDS grade for postpartum depression	No	54	30.7
	Possible depression	43	24.4

	Depressive illness	79	44.9
PASS grade for postpartum Anxiety	Asymptomatic	52	29.5
	Mild to moderate	96	54.5
	Severe	28	15.9

Table (2) shows around near half (44.9%) of participants suffered from postpartum depressive illness and around one quarter (24.4%) suffered from possible depression. More than half (54.5%) of participants suffered from mild to moderate postpartum anxiety.

Table (3): Associations between partner violence (CAS) and psychosocial factors (n=176)

	CAS grade 7		P value
	less than 7 N (%)	More than 7 N (%)	
<b>Post EPDS grade</b>			<b>&lt;0.001</b>
No	53(37.3)	1(2.9)	
Mild	36(25.4)	7(20.6)	
Illness	53(37.3)	26(76.5)	
<b>Post-anxiety grade</b>			<b>0.003</b>
No	48(33.8)	4(11.8)	
Mild	77(54.2)	19(55.9)	
Illness	17(12)	11(32.4)	

Partner violence had also significant relation with depression during pregnancy and post-partum with p-value <0.001 for both.

### Discussion:

As regards intimate partner violence during pregnancy around one fifth of mothers suffered from intimate partner violence. This is different from the study of Sexton et al (2018) who reported that intimate partner violence was a distressingly common experience for women across the globe in the United States 36% of women report experiencing IPV in their lifetime (16). The data reported from the Egypt Demographic and Health Survey (EDHS) from 2005 and 2014 stated that the prevalence of violence among ever-married women in Egypt was 29.4% (17).

Major Depressive Disorders (MDD) can occur at any point in life. In the current study, we used EPDS to screen for postpartum depression. High prevalence of postpartum depression 44.9% among study participants. This is contradictory to the findings a prospective cohort called the MINA-Brazil study which reported the prevalence of depression was only 20% in the post-partum period (18).

The postpartum period is a major transition for many women, given the psychological, social, and physiological challenges that take place during this time. All these changes increase the vulnerability for the onset or exacerbation of mental health problems among women. Around 10–30% of women will suffer from depression during the postpartum period and post-partum anxiety estimates range

from 13 to 40% (19).

perinatal period has its specific profile of worries and anxiety which would never be identified if the researcher or clinician had not been searching for. In this study PASS screening tool for anxiety was used during pregnancy and post-partum. More than half of participants 54.5% suffer from mild to moderate post-partum anxiety. Not in line with a huge study of 8323 women found that only (13%) of them suffered from postpartum anxiety (13).

Unfortunately, Partner violence was considered a risk factor for maternal depression as majority of abused mothers had depressive illness (76.5%) in post-partum period. It is also a risk factor for maternal post-partum anxiety with p value 0.003.

#### **Recommendation:**

The study results have important clinical implications by raising the importance for partner violence screening during pregnancy. we also recommend maternal mental state screening after delivery to provide needed help. We should highlight the partner violence problem in our community and provide awareness on how to deal with it. This is due to its effects on mother mental health

#### **4. Conclusion and future scope**

Partner violence is strongly related to the mother's mental health. partner violence may be a risk factor for postpartum depression and anxiety.so, we should screen for it and learn how to deal with this problem.

#### **Acknowledgment:**

We thank all participants for their time and support.

Consent to participate:

After participants were adequately briefed on the study's goals, their written informed consent was obtained.

#### **Conflict of interests:**

The author(s) declared no potential conflicts of interest

Funding: None.

#### **Data availability:**

The data supporting this study's findings are available on request from the corresponding author. They are not publicly available as they contain information that could compromise the privacy of research participants

#### **Reference**

- [1] Román-Gálvez RM, Martín-Peláez S, Fernández-Félix BM, Zamora J, Khan KS, Bueno-Cavanillas A. Worldwide Prevalence of Intimate Partner Violence in Pregnancy. A Systematic Review and Meta-Analysis. *Front Public Heal.* 2021;9(August):1–8.
- [2] Kita S, Haruna M, Matsuzaki M, Kamibeppu K. Associations between intimate partner violence (IPV) during pregnancy, mother-to-infant bonding failure, and postnatal depressive symptoms. *Arch Womens Ment Health [Internet].* 2016;19(4):623–34. Available from: <http://dx.doi.org/10.1007/s00737-016-0603-y>
- [3] Park S, Greene MC, Melby MK, Fujiwara T, Surkan PJ. Postpartum Depressive Symptoms as a Mediator Between Intimate Partner Violence During Pregnancy and Maternal-Infant Bonding in Japan. *J Interpers Violence.* 2021 Oct 1;36(19–20):NP10545–71.

- [4] Ford-Gilboe M, Wathen CN, Varcoe C, MacMillan HL, Scott-Storey K, Mantler T, et al. Development of a brief measure of intimate partner violence experiences: The Composite Abuse Scale (Revised)-Short Form (CASR-SF). *BMJ Open*. 2016;6(12).
- [5] Oram S, Fisher HL, Minnis H, Seedat S, Walby S, Hegarty K, et al. The Lancet Psychiatry Commission on intimate partner violence and mental health: advancing mental health services, research, and policy. *The Lancet Psychiatry*. 2022;9(6):487–524.
- [6] Bahati C, Rukundo G, Nyirahabimana N, Izabayo J, Niyonsenga J, Sezibera V. The prevalence of mental disorders among intimate partner violence exposed and non-exposed Rwandans: Findings from a national cross-sectional survey. *Psychiatry Res [Internet]*. 2022;310(February):114465. Available from: <https://doi.org/10.1016/j.psychres.2022.114465>
- [7] Zhang C, Xiong S, Luo J, Nie R. Mother-infant bonding during the early postnatal period in a sample of Chinese primiparous mothers. 2019;319(Ichssr):13–8.
- [8] Buchanan F, Power C, Verity F. The Effects of Domestic Violence on the Formation of Relationships Between Women and Their Babies: “I Was Too Busy Protecting My Baby to Attach.” *J Fam Violence*. 2014;29(7):713–24.
- [9] Lim G. Perinatal depression. *Curr Opin Anaesthesiol*. 2021;34(3):233–7.
- [10] Alshikh Ahmad H, Alkhatib A, Luo J. Prevalence and risk factors of postpartum depression in the Middle East: a systematic review and meta-analysis. *BMC Pregnancy Childbirth*. 2021;21(1):1–12.
- [11] Upadhyay RP, Chowdhury R, Salehi A, Sarkar K, Singh SK, Sinha B, et al. Postpartum depression in india: A systematic review and meta-analysis. *Bull World Health Organ*. 2017;95(10):706–17.
- [12] Cox JL, Holden JM, Sagovsky R. Detection of Postnatal Depression: Development of the 10-item Edinburgh Postnatal Depression scale. *Br J Psychiatry*. 1987;150(JUNE):782–6.
- [13] Somerville S, Dedman K, Hagan R, Oxnam E, Wettinger M, Byrne S, et al. The Perinatal Anxiety Screening Scale: development and preliminary validation. *Arch Womens Ment Health*. 2014;17(5):443–54.
- [14] Sehairi Z. Validation Of The Arabic Version Of The Edinburgh Postnatal Depression Scale And Prevalence Of Postnatal Depression On An Algerian Sample. 2020. *مجلة الباحث في العلوم الإنسانية والاجتماعية*;(January 2020):341.
- [15] Puente CP, Suso-ribera C, Rico SB, Mar D, Catal P. Is the Association between Postpartum Depression and Early Maternal – Infant Relationships Contextually Determined by Avoidant Coping in the Mother ? 2021;
- [16] Sexton MB, Bennett DC, Muzik M, Rosenblum KL. Resilience, Recovery, and Therapeutic Interventions for Peripartum Women with Histories of Trauma. 2018. 115–129 p.
- [17] Yaya S, Hudani A, Buh A, Bishwajit G. Prevalence and Predictors of Intimate Partner Violence Among Married Women in Egypt. *J Interpers Violence*. 2021;36(21–22):10686–704.
- [18] Silva BP da, Neves PAR, Mazzaia MC, Gabrielloni MC. Common mental disorders and perinatal depressive symptoms: an integrative review. *Rev Bras Enferm*. 2020;73Suppl 1(Suppl 1):e20190823.
- [19] Liu CH, Hyun S, Mittal L, Erdei C. Psychological risks to mother – infant bonding during the COVID-19 pandemic. 2021;(March).