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# FACTORS RELATED TO POSTPARTUM DEPRESSION AMONG WOMEN IN SIALKOT

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**ABSTRACT:**

**OBJECTIVE:** To assess the factors related to postpartum depression among women in Sialkot

**METHODS:** A cross-sectional multi-centers study conducted in 10 hospitals like Imran Idrees Teaching Hospital, Idrees Hospital, Islam Centre Hospital, Bashir Hospital, Allama Iqbal Memorial Teaching Hospital, Government Sardar Begum Civil Hospital, Tehsil Headquarter(THQ) Pasrur, Combined Military Hospital(CMH), Dr. Abdul Sattar Hospital, Amina Hospital, located in Sialkot, Punjab, Pakistan from June 2022 - August 2022. According to Edinburgh postnatal depression scale the women were interviewed from different hospitals of Sialkot. The depression in participants was graded as mild, moderate and severe based on the Edinburgh postnatal scale score.

**RESULTS:** 200 participants were included in the study; 20 each belonging to 10 different hospitals. The evaluations revealed that 134 out of 200 participants suffered or likely have a chance to suffer from depressive illness. Among them 22% showed possibility of depression, 13% showed fairly high possibility of depression and 27% cases showed probable depression. However in 38% of women no sign and symptoms of postpartum depression (according to Edinburgh postnatal depression scale) were seen. High risk factors responsible for possible postpartum depression among women were C-section (74%) prevalence, previous abortion/miscarriage history (38.7%), unplanned pregnancy (35.5%) and others. High risk factors that caused fairly high possibility of postpartum depression among women were C-section (76.9%), Dissatisfaction with in-laws (53.8%) depression during first trimester (46.1%), financial issues (75%), abortion history (30.8%) and others. Factors related to probable depression were untreated depression during pregnancy, any mental disorder, domestic violence, C-section, dissatisfaction with in-laws and financial issues.

**CONCLUSION:** There is high prevalence of PPD among women in Sialkot (62%). The wide range of factors include untreated depression during first trimester, unplanned pregnancy, dissatisfaction with in-laws, antidepressants taken before pregnancy, bad gynecological history, mode of delivery, discrimination between baby boy/girl and others.

**KEYWORDS**: Postpartum Depression, Edinburgh postnatal depression scale, Risk factors.

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## INTRODUCTION:

Depression is often observed as earnest medical ailment that negatively impacts how you feel, think and act. Depression causes feeling of sadness, loss of interest in activities (once you enjoyed). Postpartum means the time after childbirth.

Depression suffered by a mother after childbirth, typically arising from the combination of hormonal changes, psychological adjustment to motherhood, and fatigue results in postnatal/postpartum depression. Postpartum depression (PPD) is the incapacitating but treatable mental malady that represents one of the frequent complicacies of child bearing. [1]

In the American Psychiatric Associations diagnostic and Statistical Manual of Mental Disorder 5th edition (DSM-5) PPD was included as major depressive episode "with Peripartum onset if onset of behavior symptoms occurs during parturiency or within 4 weeks following childbirth. [2] PPD affects up to 1 in 7 women (about 15%). Symptoms of PPD often include sleep disturbance, anger, impatience, having devastated feelings and obsessional pre-occupation with babies' health and feeding suicidal ideation and apprehensions about causing harm or impairment to the baby have been reported [3]

The predicted prevalence of PPD ranges from 6.5 to 12.9% or even higher in developing countries[1,4.] The universal prevalence of PPD was found to be approximately 17.22% (95% CI 16.00-18.51) in largest meta-analysis of PPD [5]. Studies conducted in Malawi, South Africa and Ethiopia identified a high prevalence of PPD 26 %, 34% and 33% correspondingly [6,7,8]. Southern Asia, Western Asia, Eastern Asia, South Eastern Asia having the PPD prevalence 22.32%, 19.83%, 17.39% and 13.53% respectively. Prevalence in New Zealand, Ghana, Egypt, Korea, Afghanistan, India and Pakistan is 10.58%, 3%, 22.99%, 9.29%, 60.93% ,18.81% and 35.45% respectively.[5] In rural areas, prevalence of PPD in civilized countries is (21.5%) which is less than that of developing countries (31.1%) [9].The dominant risk factor is untreated depression and anxiety during pregnancy [3]. After childbirth PPD was contributed by rapid decrease in the reproductive hormones, despite a specific pathology is unknown. Additional to hormone changes [10]genetic factors [11,12] negative life events [1,13] and others contribute to postpartum depression. Diminished functioning, increases the risk of marital conflicts, impaires infant caregiver attachments and creates flaws in emotional, social and cognitive development of a child [14] in serious cases may leads to suicide or infanticide. [15,16] as the results of PPD.

## MATERIALS AND METHODS:

To assess the factors related to postpartum depression among women in Sialkot,

A cross-sectional multi-centers study was conducted among women who were in postpartum period with a sample size of 100 women.

Edinburgh postnatal depression scale was interviewed among 20 women from each hospital (total 10 hospitals from where data was collected). The participants were selected on the basis of Systematic Random Sampling. However, the women who refused

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to be a part of the study were excluded and replaced by volunteer ladies.

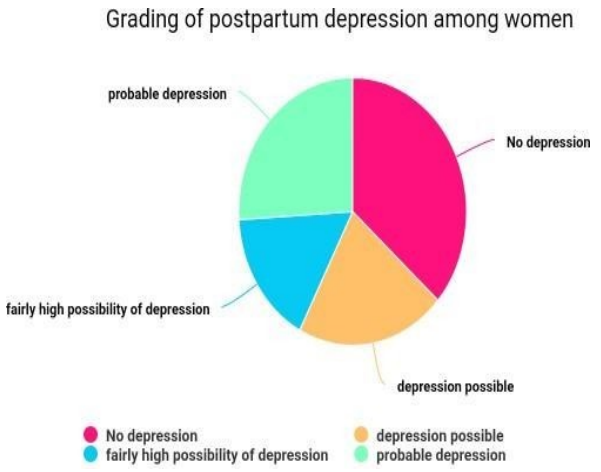
The response forms were then scored and graded according to Edinburgh postnatal depression scale grading criteria. Total score 30.

1. Less than 8 showing no depression
2. 9-11 points showing possible depression
3. 12-13 points showing fairly high depression
4. 14 or higher scores show probable depression

## 5. RESULTS:

There were 200 participants in the study; 20 each belonging to 10 different hospitals. The evaluation revealed that 134 out of 200 participants were suffered or likely had a chance to suffer from depressive illness. Among them 22% showed possibility of depression, in 13% fairly high possibility of depression was evaluated and 27% cases revealed probable depression. However, 38% women confirmed depression according to Edinburgh postnatal depression scale.

**Figure-1**



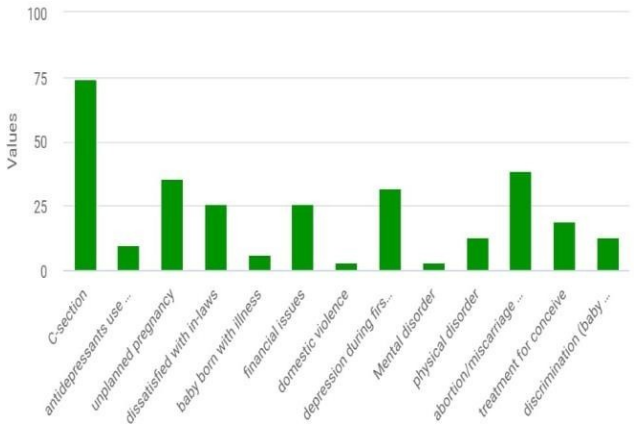

Different factors responsible for different grades of depression were evaluated and given in the table with their relative frequencies.

High risk factors responsible for possible postpartum depression among women are C-section (74%) prevalence, previously abortion/miscarriage history contributes 38.7%, unplanned pregnancy 35.5% and others. All factors with their relative frequencies are shown below.

**Figure-2**

| Sr. No. | Features | Depression possible | Fairly high possibility of depression | Probable depression |
|---|---|---|---|---|
| 1. | C-section | 74% | 76.9% | 50% |
| 2. | Antidepressants used before pregnancy | 9.6% | 30.8% | 25% |
| 3. | Unplanned pregnancy | 35.5% | 23.1% | 35% |
| 4. | Dissatisfied with in-laws | 25.8% | 53.8% | 75% |
| 5. | Baby born with illness | 6.4% | 23.1% | |
| 6. | Financial issues | 25.8% | 30.8% | 80% |
| 7. | Domestic violence | 3.2% | 23.1% | 60% |
| 8. | Depression during 1st trimester | 32.2% | 46.1% | 90% |
| 9. | Mental disorder | 3.2% | 7.7% | 23% |
| 10. | Physical disorder | 12.9% | 15.38% | 11% |
| 11. | Abortion / miscarriage history | 38.7% | 30.8% | 30% |
| 12. | Treatment for conception | 19.3% | 23.1% | 11% |
| 13. | Discrimination ( baby boy/ girl) | 12.9% | 15.38% | 100% |

**Figure-3**



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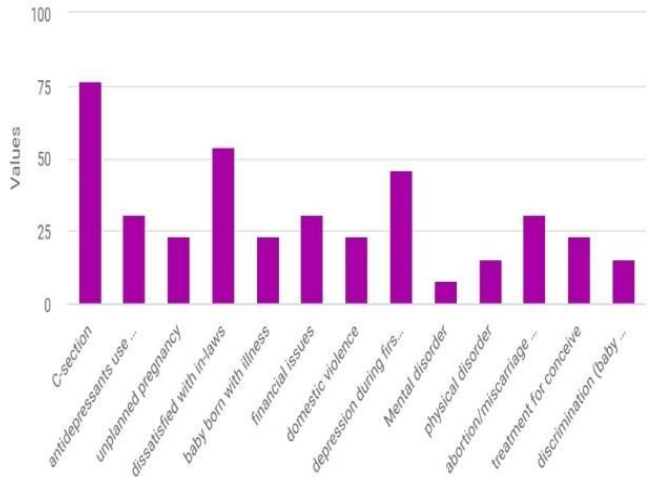
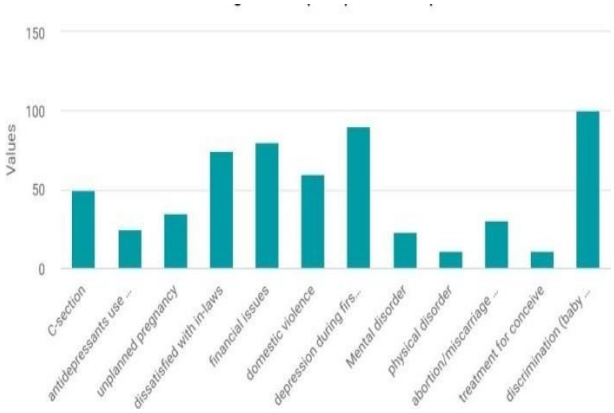
High risk factors that cause fairly high possibility of postpartum depression among women are cesarean section (76.9%), Dissatisfaction with in-laws (53.8%), depression during first trimester (46.1%), financial issues (75%), abortion history (30.8%) and others. All factors with their relative frequencies are shown in the graph.

**Figure-4**




Factors related to probable depression are untreated depression during pregnancy, any mental disorder, domestic violence, cesarean, dissatisfaction with in-laws and financial issues etc.

**Figure-5**




**DISCUSSION:**

PPD affects women all around the world. So, it's a vital public health issue [17]. Prevalence rate of PPD is 28-63% among Pakistani women. [18] Studies conducted by us in different hospitals of Sialkot City showed that out of 200 subjects, 134 subjects were suffering from depressive illness. Among them 22% showed possible postpartum depression, 13% fairly high possibility of postpartum depression and 27% cases revealed probable postpartum depression. Meanwhile 38% childbearing women showed no sign and symptoms of postpartum depression.

Studies conducted in Peshawar showed mild 27%, moderate 15.4% and high risk patients 12.9% for developing postpartum depression [19]. In Karachi PPD prevalence within the time span of one year of childbirth was 28.8% (77 women; 95% C.I.: 23.4 to 34.2).[20] In Rawalpindi 56% mothers were having PPD. [21] Comparing the results of these 4 cities of Pakistan which had showed that prevalence of PPD among

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women has attained the alarming situation, which places Pakistan among the highest I n Asia. [18]

In our studies, 65% women belongs to Urban areas who are suffering from PPD and 35% belongs to rural areas, so prevalence of PPD is higher among the women of urban areas. Age is considered as an important factor. Our study showed 35% women having age ranging from 18-25 years, 55% women in 26-35 years and 10% in between 36-55 years who are suffering from PPD. So, middle aged women are more prone towards development of PPD in Sialkot. Analysis of studies conducted in Peshawar showed age ($p<0.001$), education (p-0.001), socioeconomical class (p- 0.013), Abortion/miscarriage history (p-0.009) and mode of delivery (p-0.011). [19] PPD development among women having bad gynecological history had higher ratios such as 24%.

Any disability in child also leads to development of postpartum depression among mothers (9%). Studies in Karachi showed disability in child is related to PPD among mothers [20] C-section is a trend now a days but it also increases the risk of development of postpartum depression among mothers (41%). Women having C-section were more depressed than those having vaginal delivery[22]. Women belonging to low socio-economic class had higher risk of developing postpartum depression. In Rawalpindi, studies showed that those women who belong to lower socio-economic class had more psychological symptoms during and also after pregnancy.[21]

Discrimination between baby boy and baby girls in most areas of Pakistan leads to development of PPD among mothers. Strong association was found between giving birth to female infant and development of PPD in South Asia.[23] Relationship with in-laws is another factor which leads to development of depression among women [23].

Behavior of different members of in-laws influence the health of mother and infant and it has close relationship with development of PPD among mothers. [24]

In developing countries, major issue is financial problems in families which builds up stress [25] and leads to PPD (75%) according to our data. Domestic violence and abusive behavior of husband strongly influence mother's health[26,27,28]. Data analysis showed 9% women suffering from PPD are the victim of domestic violence.

Unplanned pregnancies is also nvolved in development of PPD [29,30,31]. Out of 63% of mothers having PPD 18% have unplanned pregnancy.

## CONCLUSION:

There is high prevalence of PPD among women in Sialkot (62%). The wide range of factors include untreated depression during first trimester, unplanned pregnancy, dissatisfaction with in-laws, antidepressants taken before pregnancy, bad gynecological history, mode of delivery, discrimination between baby boy/girl, financial issues and others.

## RECOMMENDATION

Increasing preferred PPD is also alarming for the policy makers to recognize the growing prevalence of PPD earlier and develop a sustainable public health strategy like counselling desks that are an immense need of hour in hospitals and other social setups.

## REFERENCES:

1. Howard LM, Molyneaux E, Dennis C-L, Rochat T, Stein A, Milgrom J. Non-psychotic mental disorders in the perinatal period. Lancet 2014;384:1775-1788
2. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, 5th ed.: DSM-5. Arlington, VA: American Psychiatric Publishing, 2013.
3. Wisner KL, Sit DKY, McShea MC, et al. Onset timing, thoughts of self-harm, and diagnoses in postpartum women with screen-positive depression findings. JAMA Psychiatry 2013;70:490-498
4. Gaynes BN, Gavin N, Meltzer-Brody S, et al. Perinatal depression: prevalence, screening accuracy, and screening outcomes. Evid Rep Technol Assess (Summ)2005:1-8
5. Wang, Z., Liu, J., Shuai, H. et al. Mapping global prevalence of depression among postpartum women. Transl Psychiatry 11, 543 (2021). https://doi.org/10.1038/s41398-021-01663-6
6. Tomlinson M, Cooper P, Murray L. The mother–infant relationship and infant attachment in a south African peri-urban settlement. Child Dev. 2005;76(5):1044– 54.
7. Harpham T, Huttly S, De Silva MJ, Abramsky T. Maternal mental health and child nutritional status in four developing countries. J Epidemiol Community Health. 2005;59(12):1060–4.
8. Stewart RC, Umar E, Kauye F, Bunn J, Vokhiwa M, Fitzgerald M, et al. Maternal common mental disorder and infant growth–a cross-sectional study from Malawi. Matern Child Nutr. 2008;4(3):209–19.
9. Villegas L, McKay K, Dennis CL, Ross LE. Postpartum depression among rural women from developed and developing countries: a systematic review. J Rural Health. 2011;27:278–88.
10. Mehta D, Newport DJ, Frishman G, et al. Early predictive biomarkers for postpartum depression point to a role for estrogen receptor signaling. Psychol Med 2014;44:2309-2322
11. Couto TCE, Brancaglion MYM, Alvim-Soares A, et al. Postpartum depression: a systematic review of the genetics involved. World J Psychiatry 2015;5:103- 111
12. Guintivano J, Arad M, Gould TD, Payne JL, Kaminsky ZA. Antenatal prediction of postpartum depression with blood DNA methylation biomarkers. Mol Psychiatry 2014;19:560-567
13. Norhayati MN, Hazlina NHN, Asrenee AR, Wan Emilin WMA. Magnitude and risk factors for postpartum symptoms: a literature review. J Affect Disord 2015;175:34- 52
14. Stein A, Pearson RM, Goodman SH, et al. Effects of perinatal mental disorders on the fetus and child. Lancet

2014;384:1800-1819

15. Esscher A, Essén B, Innala E, et al. Suicides during pregnancy and 1 year postpartum in Sweden, 1980-2007. Br J Psychiatry 2016;208:462-469
16. Lindahl V, Pearson JL, Colpe L. Prevalence of suicidality during pregnancy and the postpartum. Arch Women Ment Health 2005;8:77-87
17. Fisher J, Mello MCd, Patel V, Rahman A, Tran T, Holton S, et al. Prevalence and determinants of common perinatal mental disorders in women in low and lower- middle income countries: a systemic review. Bull World Health Organ 2012; 90: 139- 49.
18. Sulaiman, Salima & Shaikh, Kiran & Chagani, Jehanara. (2013). Postpartum Depression in Pakistan. Nursing for women's health. 17. 147-52. 10.1111/1751- 486X.12024.
19. Afsheen A, Khan KA, Nosheen J, Mehreen S, Anwar R, Iftikhaar B. Postpartum depression and its accomplices in Peshawar; a metropolitan yet traditional city of Pakistan. Professional Med J 2021; 28(8):1147- 1155. https://doi.org/10.29309/TPMJ/2021.28. 08.6078
20. Ali, N.S., Ali, B.S. & Azam, I.S. Post partum anxiety and depression in peri-urban communities of Karachi, Pakistan: a quasi-experimental study. BMC Public Health 9, 384 (2009). https://doi.org/10.1186/1471-2458-9- 384
21. Rahman, A. and F. Creed, Outcome of prenatal depression and risk factors associated with persistence in the first postnatal year: Prospective study from Rawalpindi, Pakistan. Journal of affective disorders, 2007. 100(1): p. 115-121.
22. Malik, Madeeha & Hussain, Azhar & asim, zirwa & Hashmi, Ayisha. (2017). Assessment of Postpartum Depression Among Women Having Different Modes of Delivery: A Cross-Sectional Study From. 1719 1729.
23. Patel V., Rodrigues M., DeSouza N. Gender, poverty, and postnatal depression: a study of mothers in Goa, India. Am. J. Psychiatry. 2002;159:43– 47.
24. Green K, Broome H, Mirabella J. Postnatal depression among mothers in the United Arab Emirates: socio-cultural and physical factors. Psychol Health Med. 2006;11:425–31.
25. Gelaye B, Rondon MB, Araya R, Williams MA. Epidemiology of maternal depression, risk factors, and child outcomes in low-income and middle- income countries. Lancet Psychiatry. 2016;3:973–82.
26. Upadhyay RP, Chowdhury R, Aslyeh S, Sarkar K, Singh SK, Sinha B, et al. Postpartum depression in India: a systematic review and meta-analysis. Bull World Health Organ. 2017;95:706–717C.
27. Patel HL, Ganjiwale JD, Nimbalkar AS, Vani SN, Vasa R, Nimbalkar SM. Characteristics of postpartum depression in Anand District, Gujarat, India. J Trop Pediatr. 2015;61:364–9.
28. Ongeri L, Wanga V, Otieno P, Mbui J, Juma E, Stoep AV, et al. Demographic, psychosocial and clinical factors associated with postpartum depression in Kenyan women. BMC Psychiatry. 2018;18:318.
29. Bener A, Gerber LM, Sheikh J. Prevalence of psychiatric disorders and associated risk factors in women during their postpartum period: a major public health problem and global comparison. Int J Women's Health. 2012;4:191–200.

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ISSN Print: 2959-6920
Vol. 1, Issue 2, 2022

30. Parsons CE, Young KS, Rochat TJ, Kringelbach ML, Stein A. Postnatal depression and its effects on child development: a review of evidence from low- and middle- income countries. Br Med Bull. 2012;101:57–79.
31. Bell AF, Carter Davis JM, Golding J, Adejumo O, Pyra M, et al. Childbirth and symptoms of postpartum depression and anxiety: a prospective birth cohort study. Arch Women's Ment Health. 2016;19:219–27.CS,