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Psychiatry

PREVALENCE OF POSTPARTUM DEPRESSION DURING THE COVID-19 PANDEMIC: A CROSS-SECTIONAL STUDY.

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ABSTRACT **Aims & Objectives:** To Study the Prevalence of postpartum Depression during the COVID19 pandemic. Materials & Methods: A cross-sectional study was performed from September 2020 to january 2021 and 203 women at 6–12 weeks postpartum who visited our OPD in department of psychiatry in SKIMS Medical college Bemina. The study was approved by the ethical committee of SKIMS MCH. All the study participants were thoroughly evaluated on the basis of history and mental status examination. Edinburgh Postnatal Depression Scale was used to assess the postpartum depression during COVID-19 pandemic. **Results:** Out of 203 females who participated in our study, majority of our participants were in the age group 25-29 years i.e 93 (45.8%), 49 (24.1%) participants were in the age group of 20-24 years, 45 (22.2%) were in the age group of 30-34 years and 16 (7.9%) were in the age group 35-39 years. Prevalence of depression was 34.98% i.e., in 71 out of 203 studied females according to EPDS. More in age group 35-39 years with prevalence of 56.3%. Majority of depressive symptoms were present in patients who were graduate 58.3%, more in urban areas 42.4%, who were employed 42.9% and who were residing in nuclear family with a prevalence of 54.5%. **Conclusion:** The findings of this study highlight the need to strengthen existing maternal mental health programs, with a view to reduce the burden of postpartum depression. Pregnancy is an ideal time for women to be screened for various psychiatric morbidities. Therefore, obstetricians should play a key role in identifying women at risk and provide adequate treatment. Ideally, a mental health component should be incorporated as an integral part of maternal health policies. It has been recommended that early screening during pregnancy and intervention when needed may decrease the incidence of psychiatric disorders during pregnancy and postpartum period.

KEYWORDS : Prevalence, Postpartum, Depression, COVID-19 Pandemic

INTRODUCTION

In the International Classification of Diseases- tenth edition, Postpartum disorders are grouped under behavioural syndromes associated with physiological differences and physical factors as mental and behavioural disorders associated with puerperium, not elsewhere classified. In ICD- 10 duration criteria is 6 weeks.[1] Postpartum blues which is very common, ranging from 50-75% and is self limiting. Careful monitoring during this period is essential, since a small proportion of women with postpartum blues may develop postpartum depression.[2-4] The mild to moderate depression occurs in 10-13% of new-born mothers, occurring weeks to months after birth. The consequences of misdiagnosing or not treating postpartum depression can be serious. For the mother, untreated depression can lead to the development of a chronic depressive illness and poses a risk of suicide.[5] Psychiatric disorders during pregnancy are associated with poor maternal health and inadequate prenatal care.[6,7] Maternal psychiatric disorders during pregnancy and the postpartum period are also associated with numerous adverse outcomes for the offspring, including maladaptive fetal growth and development, poor cognitive development and behavior during childhood and adolescence, and negative nutritional and health effects. Therefore, Maternal morbidity and mortality are not the only reasons why effective action is necessary to deal with postpartum illnesses, but the impact it has on the family and the child and the subsequent bonding.[8,9]

After the outbreak of Corona virus disease 2019 (COVID-19), caused by the novel corona virus (SARS-CoV-2), had severe impact on physical health as well as had major negative impacts on mental health. Previous studies showed that mental health problems, such as depression, anxiety, insomnia, and post-traumatic stress disorder (PTSD), suddenly increased after the COVID-19 outbreak.[10-12]

Most of the previous studies conducted give the estimate of the prevalence of psychiatric disorders which range from 15% to 29%.[13,14]

There are various studies on the prevalence of psychiatric disorders after the outbreak of pandemic however very few studies related to postpartum depression during COVID-19 pandemic. This study aims to assess the prevalence of PPD among women during the COVID-19 pandemic.

AIMS & OBJECTIVES

To Study the Prevalence of postpartum Depression during the COVID19 pandemic: a cross-sectional study.

MATERIALS & METHODS

This cross-sectional study was performed from September 2020 to January 2021 in the department of psychiatry SKIMS Medical College Bemina Srinagar. Women at 6–12 weeks postpartum who were referred from department of Gyanecology and obstetrics to our OPD were included in the study. The study was approved by the ethical committee of SKIMS MCH. 203 consecutive participants fulfilling the inclusion criteria were recruited for the study. All the study subjects were thoroughly evaluated on the basis of history and mental status examination. Key relatives were interviewed for data confirmation whenever needed. Edinburgh Postnatal Depression Scale was used to assess the postpartum depression during COVID-19 pandemic.

Inclusion criteria
- Female participants with Age 18 and above in their postpartum period.
- Patients ready to give informed consent for participating in the study.

Exclusion criteria
- Patients defying the age criterion for inclusion.
- Patient not giving the consent for participation in the study.
- Patients with past history of psychiatric illness.

Instruments
- **ICD-10 criteria.**[1]
- **Edinburgh Postnatal Depression Scale**: EPDS has been used and validated in many countries and cultures worldwide. It is a self-rating screening scale for depressive symptoms during pregnancy and postpartum period. It is composed of 10 items; each item is scored on a four-point scale 0–3, the score ranges from 0 to 30. The scale rates the intensity of depressive symptoms. Five items are concerned with dysphoric mood, two with anxiety, and three with guilt, and one each for not coping and suicidal ideas. A score of more than 10 suggests minor or major depression may be present.[15]

RESULT

Sociodemographic profile		
Age (years)	Frequency	Percentage
Age (years)	No.	%age
20-24	49	24.1
25-29	93	45.8
30-34	45	22.2
35-39	16	7.9%
Eductaion		
No Formal Education	70	34.5
Primary	86	42.4
Secondary	23	11.3
Graduate	24	11.8
Residence		
Rural	137	67.5
Urban	66	32.5
Occupation		
Housemaker	189	93.1
Employed	14	6.9
Type of Family		
Nuclear	22	10.8
Joint	181	89.2

Table 3: Prevalence of depressive symptoms among study patients using EPDS

Depressive symptoms	No.	%age
Yes	71	34.98
No	132	65.02
Total	203	100

Table 5: Showing prevalence of depression as per age

Age (years)	Depression	No Depression	Prevalence	P-value
20-24	7	42	16.66	0.023*
25-29	33	60	35.5	
30-34	12	33	26.7	
35-39	9	7	56.3	
*Statistically Significant Difference (P-value<0.05)				

Table 7: Showing prevalence of depression as per residence

Residence	Depression	No Depression	Prevalence	P-value
Rural	43	94	31.4	0.122
Urban	28	38	42.4	

Table 9: Showing prevalence of depression as per type of family

Type of Family	Depression	No Depression	Prevalence	P-value
Nuclear	12	10	54.5	0.041*
Joint	59	122	32.6	
*Statistically Significant Difference (P-value<0.05)				

DISCUSSION

The purpose of the present study was to find out the prevalence of postpartum depression during COVID-19 pandemic. To our knowledge, this study was among one of the first studies with respect to the postpartum depression during COVID-19 from Kashmir.

In our study, majority of the participants were in the age group of 20-40 years. The mean age was 27.3± 4 years. Majority of the participants belonged to rural areas and was residing in joint families. Most of the participants were educated up to primary class and were house makers. In a study done by Avita Rose Johnson et al, the mean age of the women was found to be 22.4 ±2.5 years. Muneer et al, have also reported that the majority of the patients in their study had mean age around 25 years which is almost similar to our study.[16]

In our study high prevalence of psychiatric morbidity i.e., 56.3% was found in the later age group of 35-39 years which is supported by Marcus, et al who conducted a study on Depressive Symptoms among Pregnant Women found high prevalence of depression in the later age group.[17] In another study Kazi et al reported that increasing age was significantly associated with total depression scores. The similar result was highlighted in other study where they concluded that older women reported higher rates of morbidity than younger women.[18]

The prevalence of postpartum depression in the present study was 34.98%. This is in consistent with the studies.[19,20] Our study showed

higher prevalence of postpartum depression which was not in consistent with other studies.[21] In other study the estimated prevalence of postpartum depression in women was 11.8%.[22] Deng AW et al. in a study found the prevalence of PPD was 20.03% in these women.[23] Reasons for higher prevalence could be the psychological impact of COVID-19 pandemic on females who were very worried about their health as well as about health of their infants.

The prevalence of postpartum depression was found in participants residing in urban areas as compared to those in rural areas. This could be explained by the fact that urban population had more impact during pandemic because of dense population, congested accommodations and loss of jobs and low incomes. Also decreased in social interaction during pandemics were more in urban areas as compared to rural areas.

In our study, women who were living in nuclear settings showed greater risk of developing perinatal psychiatric morbidities as compared to those from joint family settings. This is largely because risk factors for postpartum depression such as having low levels of social support and non availability of other relatives because of restrictions during COVID-19 pandemic.

CONCLUSION

- The findings of this study highlighted the need to strengthen existing maternal mental health programs, with a aim to reduce the burden of perinatal psychiatric morbidities.
- There is need in the contribution for the development of strategies for protecting maternal mental health.
- We need to strengthen the maternal health policies during and after the COVID-19 pandemic.
- Early screening during pregnancy and intervention when needed may decrease the incidence of psychiatric disorders during pregnancy and postpartum period.
- Regular counseling, establishing contact with family members through virtual mode and making telepsychiatry accessible would in long run help in decreasing apprehensions and subsequent psychological problems during pregnancy and postpartum period.

Limitations

Some of the limitations of the present work are as follow:

- Small sample size.
- The present study was cross –sectional. A prospective design with at least one follow up with control group would have been better.

REFERENCES

1. ICD 10 World Health Organization. The ICD-10 Classification of Mental and Behavioural Disorders. Clinical Descriptions and Diagnostic Guidelines. Geneva: WHO 1992.
2. Cox JL, Murray D, Chapman G. A controlled study of the onset, duration and prevalence of postnatal depression. Br J Psychiatry 1993;163:27-31.
3. 9. Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision. Washington, DC: American Psychiatric Association; 2000.
4. 10. O'Hara MW, Swain AM. Rates and risk of postpartum depression—a meta-analysis. Int Rev Psychiatry 1996;8:37-54.
5. Sit D, Rothschild AJ, Wisner KL. A review of postpartum psychosis. J Womens Health (Larchmt) 2006;15:352–68.
6. Kelly RH, Danielsen BH, Golding JM, Anders TF, Gilbert WM, Zatzick DF. Adequacy of prenatal care among women withpsychiatric diagnoses giving birth in California in 1994 and 1995. Psychiatr Serv 1999;50:1584–1590.
7. 13. Kelly RH, Danielson BH, Zatzick DF, et al. Chart-recorded psychiatric diagnoses in women giving birth in California in 1992. Am J Psychiatry 1999;156:955–957.
8. Punamaki RL, Repokari L, Vilska S, et al. Maternal mental health and medical predictors of infant developmental and healthproblems from pregnancy to one year: does former infertility matter? Infant Behav Dev 2006;29:230–242.
9. Connor PD, Sampson PD, Streissguth AP, Bookstein FL, Barr HM. Effects of prenatal alcohol exposure on fine motor coordination and balance: A study of two adult samples. Neuropsychologia 2006;44:744–751.
10. Lu YC, Shu BC, Chang YY, Lung FW. The mental health of hospital workers dealing with severe acute respiratory syndrome. Psychother Psychosom. 2006;75:370–5.
11. Rubin GJ, Potts HW, Michie S. The impact of communications about swine flu (influenza a H1N1v) on public responses to the outbreak: results from 36 national telephone surveys in the UK. Health Technol Assess. 2010;14(34): 183–266.
12. Wang C, Pan R, Wan X, Tan Y, Xu L, Ho CS, Ho RC. Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. Int J Environ Res Public Health. 2020;17(5):1729
13. Sheehan DV, Lecrubier Y, Sheehan KH, Amorim P, Janavs J,Weiller E, et al. The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSMIV and ICD-10. J Clin Psychiatry 1998; 59 (Suppl 20):22–33.
14. Faisal-Cury A, Rossi Menezes P. Prevalence of anxiety and depression during pregnancy in a private setting sample. Arch Womens Ment Health 2007;10:25–32.
15. Motzfeldt I. Prevalence of postpartum depression in Nuuk, Greenland--a cross-sectional study using Edinburgh Postnatal Depression Scale. Int J Circumpolar Health. 2013 Aug 5;72.
16. Avita Rose Johnson, Sineesh P Joy, Niresh C, Rajitha K, NishmaMonteiro, Linju Varghese, VinoliyaSudha and Twinkle Agrawal. Psychological Distress and Risk of Anxiety among Women Availing Antenatal Services at a Hospital in Rural South India. ISSN: 2347-3215 Volume 4 Number 4 (April-2016) pp. 166-173.

17. Marcus SM, Flynn HA, Blow FC, Barry KL. Depressive symptoms among pregnant women screened in obstetrics settings. J Women's Health (Larchmt). 2003 May;12(4):373-80.
18. Rao PS.Longitudinal studies on maternal morbidity. [Unpublished] 1991. Presented at the International Union for the Scientific Study of Population [IUSSP] Committee on Anthropological Demography and ORSTOM Seminar on Socio-Cultural Determinants of Morbidity and Mortality in Developing Countries: the Role of Longitudinal Studies, SalyPortudal, Senegal, October 7-11, 1991. 30 p.
19. Peiqin Liang, Yiding Wang , Si Shi , Yan Liu, Ribo Xiong. Prevalence and factors associated with postpartum depression during the COVID19 pandemic among women in Guangzhou, China: a cross-sectional study. Liang et al. BMC Psychiatry (2020) 20:557.
20. Klainin P, Arthur DG. Postpartum depression in Asian culture: a literature review. Int J Nurs Stud. 2009;16(10):1355–73.
21. Armony-Sivan R, Shao J, Zhao G, Xu G, Zhou M, Zhan J, et al. No relationship between maternal iron status and postpartum depression in two samples in China. J Pregnancy. 2012;2012:521431.
22. Ding G, Niu L, Vinturache A, Zhang J, Lu M, Gao Y, et al. "Doing the month" and postpartum depression among Chinese women: a Shanghai prospective cohort study. Women Birth. 2020;33(2):e151–8.
23. Deng AW, Xiong RB, Jiang TT, Luo YP, Chen WZ. Prevalence and risk factors of postpartum depression in a population-based sample of women in Tangxia community, Guangzhou. Asian Pac J Trop Med. 2014;7(3):244–9.