Section: Community Medicine

Original Research Article

TO STUDY THE PREVALENCE OF POSTPARTUM DEPRESSION IN URBAN FIELD PRACTICE AREA OF OSMANIA MEDICAL COLLEGE, HYDERABAD, TELANGANA

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ABSTRACT

Background: Mental disorders were the second leading cause of disease burden in terms of years lived with disability (YLDs) and the sixth leading cause of disability-adjusted life-years (DALYs) in the world in 2017, posing a serious challenge to health systems, particularly in low-income and middle-income countries[1] WHO theme for World Health Day 2017[2]- "Depression—let's talk". Sex differentials were observed in the distribution of mental disorders in India. The observed higher prevalence of depressive and anxiety disorders in females than in males has also been reported, which could be related to gender discrimination, violence, sexual abuse, antenatal and postnatal stress, and adverse socio-cultural norms[4].

Material and Methods: AIM: To Study the prevalence of Postpartum depression in urban field practice area of Osmania medical college, Hyderabad, Telangana. **Objectives of the study:** 1. To study the socio-demographic profile among the study subjects. 2. To Estimate the prevalence of postpartum depression among the study subjects. 3.To determine the risk factors associated with postpartum depression among the study subjects.

Results: The present study was conducted among N= 270 postpartum women residing in field practice are of osmania medical college. According to present study The prevalence of postpartum depression was found to be P=33.7%.

Conclusion: Maternal age, Lower socio-economic status, Unplanned pregnancy, Lack of support from husband and family contributed for posptpartum depression.

Keywords: Postpartum depression, multiparous, Tertiary health care centre.

INTRODUCTION

Mental disorders were the second leading cause of disease burden in terms of years lived with disability (YLDs) and the sixth leading cause of disability-adjusted life-years (DALYs) in the world in 2017, posing a serious challenge to health systems, particularly in low-income and middle-income countries.[1]

WHO theme for World Health Day 2017,[2]- "Depression—lets talk"

One in seven Indians were affected by mental disorders of varying severity in 2017. The proportional contribution of mental disorders to the total disease burden in India has almost doubled since 1990. In 2017, there were 197·3 million (95% UI 178·5–216·4) people with mental disorders in India, comprising 14·3% of the total population of the country. Mental disorders contributed 4·7% (3·7–5·6) of the total DALYs in India in 2017, compared with 2·5%. The highest contribution to DALYs due to mental disorders in India in 2017 was from depressive disorders (33·8%, 29·5–38·5)

and anxiety disorders (19·0%, 15·9–22·4). Depression is a common psychiatric disorder characterized by persistent sadness and a loss of interest in activities that you normally enjoy, accompanied by an inability to carry out daily activities, for at least two weeks.

According to DSM-5(Diagnostic and Statistical Manual of Mental Disorders), the diagnosis of a Major Depression Episode (MDE) requires five or more symptoms to be present within a 2-week period. One of the symptoms should, at least, be either a depressed mood (DM) or anhedonia (loss of interest or pleasure- LI). The secondary symptoms of MDE are appetite or weight changes (AW), sleep difficulties (insomnia or hypersomnia), psychomotor agitation or retardation (PAR), fatigue or loss of energy (FE), diminished ability to think or concentrate (C), feelings of worthlessness or excessive guilt (FW), and suicidality (SU).[3]

Sex differentials were observed in the distribution of mental disorders in India. The observed higher prevalence of depressive and anxiety disorders in females than in males has also been reported, which could be related to gender discrimination, violence, sexual abuse, antenatal and postnatal stress, and adverse socio-cultural norms.[4]

One of the challenging transition periods form others is the postpartumperiod. Depressive episodes can be twice higher than during other periods of a woman life.

Postpartum depression refers to any major depression or subclinical depression.

It is a considered as a social and mental health problem and is described as widespread complication of child-bearing. Postpartum depression was initially classified as a subtype of major depression, listed as "Major Depressive Disorder, with postpartum onset "in DSM-IVand is now classified as "Major Depressive Disorder, with peripartum onset "in the DSM-5. Postpartum psychiatric disorders can be divided into three categories: postpartum blues, postpartum psychosis and postpartum depression.

Postpartum blues -A transient mood disturbance characterized by mood liability, sadness, dysphoria, subjective confusion, and tearfulness with an incidence of 300-750 per 1000 mothers globally, may resolve in a few days to a week, has few negative squeal and usually requires only reassurance.

Postpartum psychosis (also known as puerperal psychosis)- characterized by depression, delusions, and thoughts of harming herself or her infant. It has a global prevalence ranging from0.89to2.6per1000births is a severe disorder that begins within four weeks postpartum and requires hospitalization.

Postpartum depression typically occurs within 4-6 weeks after childbirth and it may last several months or even a year.

In India prevalence ranges from 17-22%,[5]

Globally, the prevalence of postpartum depression ranges from 0.5% to 60.8 %.[6]

Recognizing the importance of mental disorders in reducing the total disease burden, India launched its first National Mental Health Policy in 2014 and a revised Mental Healthcare Act in 2017, with the objectives of providing equitable, affordable, and universal access to mental health care.[7,8]

The Ayushman Bharat (Healthy India) initiative launched in 2018 aims to provide comprehensive primary health care and health insurance coverage for non-communicable diseases including mental disorders, which could contribute to reducing the adverse effect of mental disorders at the population level.[9]

Despite these efforts by the government, poor implementation of mental health services in India has been documented, with a high treatment gap for mental disorders, poor evidence-based treatment, and gender-differentials in treatment.[10]

A shortage of mental health personnel in India exists, with two mental health workers and 0·75 psychiatrists per 100 000 population, which is much lower than the global average.[11] An integrated approach to detect, treat, and manage patient needs related to mental and physical health is urgently needed in India because people with mental disorders die prematurely and have excess disability.[12,13,14] Importantly, the positive association of depressive disorders and schizophrenia with suicide deaths, especially for females, needs urgent attention in primary care for suicide prevention, because Indian women have double the global suicide death rate.[15]

As far as mothers are concerned, onset of depression tends to affect the quality of the relationship with the spouse and on other social relationships, Infact depression during antenatal/postnatal period even influences the men in their ways of fathering

Some studies revealed that prenatal depression is an important determinant of the childhood conduct problems, suicidal ideas in the kids, and early onset of adult depression.[16]

Need for the study

Postpartum depression is a serious psychiatric disorder that is understudied (both clinically and experimentally) and under diagnosed.

Postpartum depression, the most common complication of childbirth. Signs and symptoms of poor mental health can be overlooked because of varied reasons, such as lack of knowledge or awareness about mental health among postpartum women, their attendees, health care workers or social stigma preventing them from seeking help.

It negatively impacts the mother and child contributing to Maternal and child mortality and morbidity.

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.

Despite this, Postpartum depression is one of the least addressed types of depression today.
Therefore Postpartum depression is a social health burden regardless of cultural identity and beliefs and it is a major pub¬lic health issue
The present study is intended to study the prevalence of Postpartum depression among women residing in urban slums as there were less number of studies, to bridge the existing knowledge gap and to motivate at risk mothers to attend counseling sessions/ referral to psychiatric evaluation to prevent Maternal Mortality Rate(MMR)and Infant Mortality Rate(IMR).

2. Aim of the study

To Study the prevalence of Postpartum depression in urban field practice area of Osmania medical college, Hyderabad, Telangana.

Objectives of the study

1. To study the socio-demographic profile among the study subjects.
2. To Estimate the prevalence of postpartum depression among the study subjects.
3. To determine the risk factors associated with postpartum depression among the study subjects.

MATERIALS AND METHODS

Study Setting

present study was carried out in Urban field practice area of Osmania Medical College, Harrazpenta, Hyderabad.

Study design: Cross-sectional study.

Study period: 2years from the date of approval from the ethical committee

Study Population: Postnatal mothers residing in urban field practice area of Osmania Medical college.

Inclusion Criteria: 1. All the motherswithin one year of delivery.
2. Mothers who give consent to participate in the study.

Exclusion Criteria:

1. Not willing to participate in the study.
2. Postpartum mothers with other medical illness
3. Mothers diagnosed with postpartum psychosis on medication

Sample size

Considering the prevalence of 22% as per the meta-analysis by ***Prakash Upadhyayet al***, absolute error as 5% with 95% confidence interval sample size was calculated using the formula.

$N = (Z)^2 * (P - Q)/L^2$

Where,

N = Number of study subjects to be included in the study

Z=95% confidence interval

Q=100–P

L = Allowable absolute error

$N = (1.96)^2 (22*78)/(5)^2$

N =264

Sampling technique: Simple Random Sampling

From each Anganwadi centre list of mothers enrolled was collected, they were line-listed and selected by simple random sampling method. Data collection was started after getting approval from institutional ethics committee. Participation in the study was voluntary and interview of subjects was carried out.

Study tool

Data was collected by using a Semi-structured, pre-designed questionnaire (Edinburgh postnatal depression scale). All the subjects were personally contacted and interviewed using semi-structured questionnaire until the required sample size of 274 is reached.

Statistical Analysis

The data collected using the questionnaire, was entered in excel sheet.
and data was analyzed using Microsoft excel and Open Epi version 3.3.0.

RESULTS

The present study was conducted among (N=270) Postnatal mothers residing in the field practice area of Osmania medical college. mean age of study subjects was 26.19±3.837. Out of the total study population 91(33.7%) were depressed and 179(66.3) were not depressed. According to the present study prevalence of postpartum depression among the study population was P = 33.7%.

Table 1: Distribution of study population based on demographic variable of study population

Variable	Category	Number (N)	Percentage (%)
Age	≤20	15	5.6
	21-25	109	40.4
	26-30	111	41.1
	≥31	35	13
Religion	Hindu	191	70.7
	Muslim	71	26.3
	Christian	8	3
Education	Literate	206	76.3
	Illiterate	64	23.7
Employee status	Un-employed	179	66.3
	Employed	91	33.7
Socio economic status	Upper	38	14.1
	Upper Middle	20	7.4
	Lower Middle	68	25.2

	Upper lower	130	48.1
	Lower	14	5.2
Type of family	Nuclear	154	57
	Joint	104	38.5
	3-Generation family	12	4.4
Over crowding	Present	108	40
	Absent	162	60
Mode of delivery	Vaginal	152	56.3
	LSCS	118	43.7
Gender of the new born	Male	128	47.4
	Female	142	52.6
Exclusive breast feeding	Yes	224	83
	No	46	17

Table 2: Association between various variable among study subjects

Study variable	Depression	No depression
Age ≤25 years	32(25.8%)	92(74.2%)
>25 years	59(40.4%)	87(59.6%)
Support from husband Yes	30(15.8%)	160(84.2%)
No	61(76.25%)	19(23.75%)
Family support Yes	31(16.7%)	155(83.3%)
No	60(71.4%)	24(28.6%)
Present Pregnancy Planned	51(27.9%)	132(72.1%)
Unplanned	40(46.0%)	47(54.0%)
Type of Family Nuclear	57(37.0%)	97(63.0%)
Joint	30(28.8%)	74(71.2%)
3-generation	4(33.3%)	8(66.7%)
Religion Hindu	64(33.5%)	127(66.5%)
Muslim	23(32.4%)	48(67.6%)
Christian	4(50.0%)	4(50.0%)
Socioeconomic class Upper	8(21.1%)	30(78.9%)
Middle	25(28.4%)	63(71.6%)
Lower	58(40.3%)	86(59.7%)
Gender of the newborn Male	28(21.9%)	100(78.1%)
Female	63(44.4%)	79(55.6%)
Domestic violence Yes	73(78.5%)	20(21.5%)
No	18(10.2%)	159(89.8%)
Mode of delivery Normal vaginal	30(19.7%)	122(80.3%)
LSCS	61(51.7%)	57(48.3%)

DISCUSSION

In the present study the prevalence of Postpartum depression was found to be 33.7% and is quite high. Similar study by Sujitha Gurram et al,[31] on " Prevalence of Postpartum depression and its associated risk factors" the prevalence of postpartum depression was found to be 24%.In a systematic review and meta-analysis by Ravi Prakash Upadhyay et al,[5] (2017) on " Postpartum depression in india" the overall pooled prevalence of postpartum depression was 22%(17-22%). In a study conducted by Saurav basu et al,[33] conducted a cross-sectional study on Postpartum depression burden and associated factors in mothers of infants at an urban primary health center in Delhi, the prevalence was found to be 29%. India in 2019. In the present study Prevalence of Postpartum depression was more in study subjects >25years than in age group ≤25years and the association between increased maternal age and postpartum depression was statistically significant (p value < 0.01)

In a study on depression among women during postpartum period in an urban slum of Bhubaneswar the by Krishna Mishra et al in department of community medicine, Kalinga institute of Medical sciences it was found that prevalence of postpartum depression was more in study subjects more than 30years of age suggesting that prevalence increases with increased maternal age.[34]

In the present study the Prevalence of Postpartum depression was more in study subjects belonging to lower socio-economic class. The decreasing trend in occurrence of postpartum depression from lower class to upper class was statistically significant (p value=0.01). Similar finding was observed in a study by Pooja Dhiman et al, Prevalence was more

in study subjects belonging to low socio-economic class and low in upper socio-economic class.[36]

Similar findings were observed in a study by Geetika singh et al,[32] and in a hospital based cross-sectional study by Gupta swapan et al,[44] in Maulana Azad Medical college.

Postpartum depression was more in study subjects delivered by LSCS compared to those delivered by NVD and the association was found statistically significant.

Prakash D Poke et al conducted an observational cohort study to asses the difference in postpartum depression among caesarean and vaginally delivered women at 6-week follow-up in hospitals in Pune District, India in 2017. They found similar association between LSCS and postpartum depression.[35] Similar finding was observed in a study by Krishna Mishra et al[34]on "depression among women during postpartum period in an urban slum of Bhubaneswar".

Postpartum depression was more when the gender of newborn was female and the association was found statistically significant.

C. N. Sheela and Shilpa Venkatesh,[39] conducted a prospective study in the Department of Obstetrics & Gynecology, St. John's Hospital, a tertiary health care center, Bangalore on "Screening for Postnatal Depression" in 2015. Their study revealed the same association.

Similar findings were reported in a study by Farheen Zaidi et al,[50] on "Postpartum Depression in Women: A Risk Factor Analysis" and in a study conducted by Srinidhi Koya et al on a prospective cohort study in south india.

CONCLUSION

Majority of the study subjects belong to the age group 26-30(41.1%), 53.3% of the study population belong to lower socioeconomic class. 57% of the study subjects belong to Nuclear family. 59.3% were Multiparous and Mode of delivery was vaginal in 56.3% study subjects. Gender of newborn was Female in 52.6% of study population. 83% of the study subjects were following exclusive breastfeeding practices and 17% were not following. Maternal age, Lower socio-economic status, Unplanned pregnancy, Lack of support from husband and family, Domestic violence, Mode of delivery(LSCS), Gender of new born(female), Pressure to have male child were found to be significantly associated with postpartum depression.

Limitations

Being cross-sectional design, we could arrive only at meaningful association but not causal directions of associations.

Recall bias may be present.

Subjective nature of the scale which may be influenced by emotional state of the subject leading to reporting bias.

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