Original Research Article

Utilization of Edinburgh Post Natal Depression Scale (EPDS) as Screening Tool for Predicting Life Events related to Anxiety & Depression during Perinatal Period: An Implication of Preventive Psychiatry

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ABSTRACT

Background: Postpartum depression (PPD) is depression that occurs after having a child. Feelings of postpartum depression are more intense and last longer than those of "baby blues," a term used to describe the worry, sadness, and tiredness many women experience after having a child. This study was undertaken with the objective to assess the magnitude of risk of Post-Partum Depression in mothers admitted for institutional delivery in JK Hospital
Methods: It is a cross sectional analytical study. Study was conducted in outpatient department of Psychiatry of JK Hospital, Kolar, Bhopal which is a tertiary care institution. Study was conducted for 6 months amongst the population of mothers who were referred to Psychiatry OPD and who delivered in a week before period. Convenience sampling method was adopted to conduct the study. The EPDS was the main scale used in the study.
Results: Out of 8 variables of study only education level of mothers was found to be insignificant statistically. Rest of the other variables were calculated as statistically significant in our study. Edinburg Postnatal Depression Scale rating was adopted with a cut off of 8, which revealed that about 51.61% of mothers were falling outside the risk boundary of postpartum depression.
Conclusions: The EDPS is useful scale for screening for post natal depression in mothers that have recently undergone a delivery though further studies are needed to validate these findings.

Keywords: Post natal depression, Edinburgh Post Natal Depression Scale, Pregnancy, Post partum depression, Depression

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INTRODUCTION

Postpartum depression (PPD) is depression that occurs after having a child. Feelings of postpartum depression are more intense and last longer than those of "baby blues," a term used to describe the worry, sadness, and tiredness many women experience after having a child. "Baby blues" symptoms typically resolve on their own within a few days [1].

How often postpartum depression symptoms occur, how long they last, and how intense they feel can be different for each person. The symptoms of postpartum depression are similar to symptoms for depression, but may also include: Crying more often than usual, Feelings of anger, Withdrawing from loved ones, Feeling numb or disconnected from your child, Worrying that you will hurt the child, Feeling guilty about not being a good mom or doubting your ability to care for the child.

Experiences that may put some women at a higher risk for depression can include: Stressful live events, Low social support, Previous history of depression, Family history of depression, Difficulty getting pregnant, Being a mother to multiples, like twins, or triplets, Being a teen mother, Preterm (before 37 weeks) labor and delivery, Pregnancy and birth complications, Having a child who has been hospitalized etc. Depression can also occur among women with a healthy pregnancy and birth [1].

Depression is one of the most prevalent mental health disorders across the globe. It interferes with interpersonal relationships and affects the performance of everyday activities [2]. Depression is responsible for a considerable amount of health expenditure, with high economic impact at the level of households, firms and governments [3]. The latest Global Burden of Disease study showed that major depressive disorder was the second leading cause of years lived with disability (YLDs) and a major contributor to the burden of suicide and ischemic heart disease worldwide [4]. In order, to quantify the substantial burden of this onus in different geographical locations/cultures, an ordered reference standard scale is needed to group the symptomatology under relevant headings with certain weightage.

The Edinburg Postnatal Depression Scale was originally concocted for the identification of postpartum depression disorders for use in clinical and research settings. It is a self-administered, 10-item scale; each item has four possible responses from 0 to 3, with a minimum score of 0 and a maximum of 30. The scale expresses the intensity of depressive symptoms over the preceding seven days [5].

But for general population, among women the best cut-off point was ≥8 with values of sensitivity and specificity of 84.4% (67.2 – 94.7%) and 81.3% (75.5 – 86.1%), respectively. Using the cut off point of ≥8 and with a prevalence of MDE (Major Depressive Episode) in the population of about 10 %, around 20% of individuals will be EPDS positive and when referred to mental health services, half will be diagnosed with MDE. To be used as a diagnostic test, the EPDS cut-off point needs to be higher, with a suggested cut-off point of ≥13, favouring the specificity instead of the sensitivity [6].

Postnatal customs, such as the period of seclusion at home observed in many cultures, can negatively affect care-seeking behaviour in the postpartum period. Furthermore, mothers may be reluctant to admit their suffering either because of social proscription associated with depression or concerns about being labelled as a mother who failed to deliver the responsibilities of child care. In the current public health system in most low- and middle-income countries, including India, primary-care workers are supposed to be in regular contact with recently delivered mothers. However, at postnatal visits community health workers tend to focus on promoting essential infant care practices, with lower priority given to the mother's health [7]. These factors might explain, to some extent, the lack of availability of reliable, routine data on the burden of postpartum depression in low- and middle-income countries [7].

EPDS screening for postpartum depression provides an opportunity for health personnel to counsel the mother and family members on the signs and symptoms of postpartum depression and about the ways of overcoming it. So, keeping above details in mind, this study was undertaken with the objective to assess the magnitude of risk of Post-Partum Depression in mothers admitted for institutional delivery in JK Hospital.

METHODOLOGY

It is a cross sectional study. Study was conducted in outpatient department of Psychiatry of JK Hospital, Kolar, Bhopal which is a tertiary care institution. Study was conducted for 6 months amongst the population of mothers who were referred to Psychiatry OPD & who delivered in a week before period. Convenience sampling method was adopted to conduct the study. As per our inclusion criteria only those patients who have completed more than 7 days after giving birth, and who were willing to participate in the study were included. Patients who delivered in recent past that is less than a week span were excluded from the study. Also, females in their antenatal period were excluded from the study. Variables under study were all the 10 points of Edinburg Postnatal Depression Scale, various socio demographic factors like age, education, socio economic status, occupation, type of occupation, type of family, urban or rural life style etc. Edinburg Postnatal Depression Scale was used as an epidemiological tool and outcome data of each & every variable was tabulated in word excel for statistical calculations. Mothers scoring ≥12 were considered as potential members for post-partum depression in future days.

Informed consent was taken and confidentiality of data was maintained. Due permission was taken from the Institutional Ethical Committee.

STATISTICAL ANALYSIS

Chi square test for goodness of fit was applied to assess the weightage of socio-demographic factors association statistically. Alpha error was set for 5%.

RESULTS

Table No 1: Distribution of study population as per various socio-demographic factors

Socio-demographic factors	**Number (Total=31)**	**Percentage% (100%)**	**P Value of Chi Square Test (Goodness of Fit)**
Religion			$1.11*10^{-9}$
Hindu	27	87.09%	
Muslim	4	12.9%	Highly Significant
Others	0	0%	
Education			0.325680363
Up to 5^{th} - 7th	6	19.3%	
Up to 10th	8	25.80%	Not Significant
Up to 12^{th}	6	19.35%	
Graduate etc.	2	6.4%	
Illiterate	9	29.03%	
History of Mental Retardation			$2.58*10^{-8}$
Present	0	0%	
Absent	31	100%	Highly Significant
Occupation			$1.78*10^{-6}$
Productive work (1)	0	0%	
Employed Outside (2)	8	25.8%	Highly Significant
Unemployed (3)	23	74.19%	
Types of Occupation			$9.13*10^{-13}$
Homemaker (1)	23	74.19%	
Unskilled (2)	7	22.5%	
Semiskilled (3)	0	0%	Highly Significant
Skilled (4)	0	0%	
Professional (5)	1	3.22%	
Socioeconomic status			$3.52*10^{-6}$
Low class	23	74.19%	
Middle class	7	22.5%	Highly Significant
High class	1	3.22%	
Type of Family			0.00016
Nuclear	5	16.12%	
Joint	26	83.87%	Highly Significant
Type of Residence			0.00064
Urban	25	80.6%	
Rural	6	19.35%	Highly Significant

Out of 8 variables of study only education level of mothers was found to be insignificant statistically. Rest of the other variables were calculated as statistically significant in our study. Edinburg Postnatal Depression Scale rating was adopted with a cut off of 8, which revealed that about 51.61% of mothers were falling outside the risk boundary of postpartum depression.

Table No 2: Distribution of study population as per Edinburg Postnatal Depression Scale rating

EPDS Scores	Rating Criteria	Number of Patients	Percentage of Patients
	0 to ≤ 8	16	51.61%
	9 to ≤ 16	13	41.9%
	17 to ≤ 30	2	6.45%
	≤ 12 ≤	25 & 6	80.64% & 19.35%

DISCUSSION

In our pilot study, total prevalence was derived as 19.35% which is comparable to worldwide prevalence of low and middle income group countries [7,9].

Risk factors for postpartum depression included financial difficulties, birth of a female child, marital conflict, lack of support from the family, past history of psychiatric illness, high parity, complications during pregnancy and low maternal education [7].

Other factors include such as overcrowding, inadequate housing, breakdown of traditional family structures leading to fragmented social support systems, increased work pressure, high cost of living and increased out-of-pocket expenditure on health care [7].

In a meta-analysis done on Indian studies, the pooled prevalence of postpartum depression was 22% (95% CI: 19–25). Although facility-based deliveries are increasing in many low- and middle-income countries, a high proportion of pregnant mothers still deliver at home. Beyond the lack of awareness of postpartum depression by health professionals, there are issues that may be barriers to prompt recognition and management of the illness.7 In India, women who deliver at a health facility often stay for less than 48 hours after delivery [7]. This leaves little opportunity for health personnel to counsel the mother and family members on the signs and symptoms of postpartum depression and when to seek care [7].

Another part of the reason is the stigma that exists that either prevents mothers for asking for help or in following through on treatments like therapy or psychiatric medication. Whatever the reason, when women are not treated for PPD, research shows they are less able to bond with their children or care for them properly. They are more likely to medicate themselves with alcohol or drugs. And they may end up with lifelong chronic depression or anxiety. It's hundreds of thousands of children who are in harm's way. We know postpartum depression affects children's development and puts them at a higher risk of future psychiatric illness. In fact, maternal depression during infancy has a bigger impact on a child's development than later exposure to maternal mental illness [8].

PPD is an environmental factor that influences the mother, infant and the mother–infant doublet. When PPD is chronic, suboptimal patterns of mother–infant reciprocity develops. Secure attachment is hindered, negatively effecting neurological, social, emotional and cognitive developmental outcomes. Empirical findings and the nature of infant development call for a comprehensive treatment approach to PPD. Early assessment by primary care medical providers is vital to providing intervention in a timely manner. Primary care providers need to be familiar with the supports available in their community for the treatment of PPD. The mother, the infant and their relationship are each important aspects of intervention in order to optimize the emotional and cognitive outcomes of mothers and infants. Addressing these factors comprehensively is supported by the literature. Factors relevant to the ecological niche of the family require careful examination and intervention. Intervention that incorporates family, community and cultural contributions further supports the family's ecological niche [9].

In some traditional environments, the range of postpartum depression is less than other settings. Cultural rituals have their own pros and cons and two opposite outcomes. This kind of support can be effective in providing physical comfort. On the other hand, it can act as a significant source of mental conflict & emotional disturbance [10].

CONCLUSION

It is concluded that via early diagnosis by screening of pregnant & post-partum cohort of mothers through some validated epidemiological tool, prevention of postpartum depression in many vulnerable ones is possible. So, an evidence-based approach is needed to implement the multi-pronged interventions after

overcoming methodological challenges. Various constructs are to be designed which can be measured directly and objectively for this subjective phenomenon. Counselling, support groups and medicines like antidepressants, estrogen etc will help in overcoming the situation.

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