COMPARISON OF POST-NATAL DEPRESSION AMONG WOMEN OF UPPER, MIDDLE AND LOWER SOCIOECONOMIC STATUS


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ABSTRACT

Background: Postnatal Depression (PND) is depression with onset usually 6 weeks of delivery. The prevalence of PND according to western studies is 13-19% and in India rates are 11-26.3%. Socioeconomic Status (SES) is an important determinant of health, nutritional status, mortality and morbidity of an individual. Women belonging to Upper SES have ability to access to all the up to date facilities available in the market required during pregnancy, delivery and post-delivery whereas considering women of lower SES, they lack even the basic of the adequate facilities and access to mental health services and are least likely to report symptoms of depression. This scenario calls for more studies on PND, in an attempt to better understand the disease and its associations, with a view to prevention, early diagnosis and management.

Materials and Methods: An observational study was conducted for duration of 1 year in metropolitan city with a sample size of 300 women between age of 20-30 years also the inclusion criteria consisted of women who had Full term normal vaginal delivery, immediate postpartum to 6 weeks postpartum and primiparous women .

Outcome Measures: Women were classified into Upper, Middle and lower SES using the Modified Kuppuswamy Scale. A Score of 26-29 –Upper Class, 11-15 middle class and <5 lower class. Women were screened for depression using the Edinburgh Postnatal Depression Scale. (EPDS). A score of e=10 on the EPDS was used as a measure of primary outcome, depression.

Results: Mean scores of PND was 1.58, 10.58 and 14.80 of upper, middle and lower SES women respectively which was analysed statistically and found to be significant.

Conclusion: This study concludes that there is significant difference in the level of postnatal depression when compared between upper, middle and lower socioeconomic status women.

KEY WORDS: Postnatal depression, Socioeconomic Status, Edinburgh Postnatal Depression Scale.

INTRODUCTION

Depression in women during their childbearing years is a major public health concern. Because childbirth is a complex life event associated with numerous bio psychosocial changes, it may trigger psychiatric disorders in women with predisposing genetic or psychosocial vulnerabilities [1]

Postnatal Depression (PND), also known as postpartum depression is defined as depression with onset usually 6 weeks of delivery. Symptoms are found to occur anytime from
immediately after delivery to up to a year post-delivery [2]. It presents with variety of ways and with varying degrees of severity. Many women feel a bit down, tearful or anxious in the first week after giving birth. This is often called as the “baby blues” and is so common that it’s considered normal. The “baby blues” don’t last for more than two weeks after giving birth. There is still considerable conflict of ideas as to the cause of these disruptive illnesses. Hormonal, neuro-endocrine and even social factors are all said to play a part [3].

Risk factors: for postnatal depression include lower socioeconomic status, multiparity, disappointment with the sex of the child, female sex of the child, congenital malformations of the child, antenatal depression, lack of social support, marital status, child-care stress, adolescent pregnancy, poor relationship satisfaction, infant temperament, and low self-esteem [4].

Symptoms: PND can be linked to mental symptoms like – 1. Mother may feel sad and depressed. 2. She may constantly worry about herself and her baby. 3. She may feel unable to cope and have a sense of futility and hopelessness. 4. She may be tired to the point of exhaustion, but may be unable to sleep. 5. She may probably suffer from a loss of libido and may have a delayed return to menstruation [3].

Physical symptoms include: 1. Ankle swelling, 2. Loss of hair, 3. Non–dietary weight gain may also be present [3].

In very severe postnatal depression the mother may feel suicidal or may be frightened that she will harm her baby [3].

There can also be several immediate and long term adverse effects on children. Children of depressed mothers tend to have less effective sharing and less initial sociability with strangers, more behavioural problems and more instances of malnutrition as well as significantly affected cognitive and emotional development in the long run [2].

Despite the adverse consequences, it has been found that more than half the cases of postnatal depression are not detected by healthcare providers. This scenario calls for more studies on postnatal depression, in an attempt to better understand the disease and its associations, with a view to prevention, early diagnosis and management. This is especially crucial in low and middle income regions like India, which have high rates of postnatal depression [2]. Each member of the caring team has responsibility to watch for the signs of any of these disorders occurring in women in the early postnatal days and also in the weeks and months which follow once they have returned home. The obstetric physiotherapist, who may have come into contact with a woman antenatally, during labor and on the postnatal ward, and who may continue to see her at subsequent mother and baby exercises classes, may be the one member of the team who has known the mother continuously, and will therefore be most able to recognize any changes and alert the mother’s health visitor and general practitioner.

Socioeconomic Status (SES) is an important determinant of the health, nutritional status, mortality, and morbidity of an individual. SES also influences the accessibility, affordability, acceptability, and actual utilization of available health facilities. There are many different scales to measure the SES of a family. The modified Kuppuswamy scale is commonly used to measure SES. This scale includes the education, occupation of head of family and income per month from all sources. This scale classifies the study populations into upper, middle and low SES [5].

Women belonging to upper SES has the ability to access to all the up to date facilities available in the market required during pregnancy, delivery and post-delivery whereas considering women of lower SES lacks even the basic of the adequate facilities for e.g. nutritional support, lower education, lack of familial support, poverty, and minimal social support. Women with lower incomes are less likely to have adequate access to mental health services and are least likely to report symptoms of depression to health care professionals. They are at a greater risk of developing both antenatal depression and postnatal depression [4].

Aims and Objectives: 1. To classify women between 20-30 years of age into upper, middle and lower socioeconomic status using modified kuppuswamy Scale. 2. To find out the occurrence...
of PND among women between 20-30 years of age using Edinburgh Postnatal Depression Scale.
3. To compare level of PND among upper, middle and lower SES women.

MATERIALS AND METHODS

An observational study was conducted for duration of 1 year in metropolitan city with a sample size of 300 women between age of 20-30 years. Samples were selected by convenient sampling technique. The inclusion criteria consisted of women between 20-30 years of age; women who had full term normal vaginal delivery; immediate postpartum to 6 weeks postpartum; primiparous women; women willing to participate. Exclusion criteria were illiterate women unable to comprehend study language; post-partum hemorrhage; any congenital genetic problems detected in the child; assisted delivery; pre-mature delivery; any neurological problem detected in mother as well as child; still birth and low birth weight infants.

Procedure: Subjects were screened according to the inclusion and the exclusion criteria. Prior to the study a written consent was given in the language best understood by the subjects and the whole procedure was explained to the subjects. After selecting the subjects, 300 subjects were divided into three groups- Group A including 100 Upper SES women; Group B including 100 Middle SES women; Group C including 100 Lower SES women. The subjects were then administered the Edinburgh Postnatal Depression Scale (EPDS). The answers given by the subjects were recorded as a data that was processed further for analysis.

RESULTS

Data Analysis

DEMOGRAPHIC DATA

<table>
<thead>
<tr>
<th>N=100</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (20-30 years)</td>
<td>25.86</td>
<td>±1.75</td>
</tr>
</tbody>
</table>

In this study group age of subjects were ranging from 20-30 with mean age 25.86.

<table>
<thead>
<tr>
<th>N=100</th>
<th>Mean</th>
<th>SD</th>
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<tbody>
<tr>
<td>Age (20-30 years)</td>
<td>24.77</td>
<td>±1.69</td>
</tr>
</tbody>
</table>

In this study a group age of subjects were ranging from 20-30 with mean age 24.77.

Table 1c: Lower socioeconomic status women.

<table>
<thead>
<tr>
<th>N=100</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Age (20-30 years)</td>
<td>22.7</td>
<td>±1.78</td>
</tr>
</tbody>
</table>

In this study group age of subjects were ranging from 20-30 with mean age 22.7.

Graph: Comparison of post-natal depression among women of upper, middle and lower socioeconomic status in the age group 20-30 years.

Inference: The above graph shows comparison of postnatal depression among upper, middle and lower socioeconomic status, statistical unpaired t-test was applied and it was statistically significant. (p-value=0.000000022).

Table 2: Showing the statistical data for EPDS.

<table>
<thead>
<tr>
<th>Class</th>
<th>EPDS (Mean)</th>
<th>SD</th>
<th>p-value (p&lt;0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>1.58</td>
<td>±2.53</td>
<td>2.2E-08</td>
</tr>
<tr>
<td>Middle</td>
<td>10.55</td>
<td>±2.70</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>14.8</td>
<td>±3.81</td>
<td></td>
</tr>
</tbody>
</table>

Inference: The above table shows the mean values of EPDS among upper, middle and lower socioeconomic.

DISCUSSION

The purpose of our study was to compare postnatal depression among women of upper, middle and lower socioeconomic status within age group 20-30 years. The need of the study was the scare of literature in this field of study and to find out whether the economic strata and social conditions affect the level of depression. The study was done among sample size of 100 women belonging to each class viz upper, middle and lower socioeconomic status. Informed consent was taken and women who were willing were first administered Modified Kuppuswamy Scale and then Edinburgh Postnatal Depression Scale. The data was analysed using unpaired t-test.
Edinburgh postnatal depression scale (0.79) is a 10 item scale which is widely used in screening for postnatal depression. It is a self-administered scale. Subjects who scored 10 or above in EPDS were considered to have screened positive for postnatal depression.

In our study it was found that the level of postnatal depression among lower socioeconomic status women is higher compared to middle and upper socio-economic status women in the age group 20-30 years which means that there is an association between Socioeconomic Status (SES) of the women and postnatal depression. Possible reasons of lower socioeconomic status women suffering from postnatal depression could be family income, lack of poverty, disappointment with the sex of the child, lack of adequate access to maternal health services, transportation, partner support and lower education. We also found depressed women to be more likely to report stress and have low self-esteem.

There are few investigations of maternal depression in developing countries. Vikram et al. (2002) conducted a study which stated that depressive disorder was detected in mothers at 6-8 weeks after childbirth. The key findings of the study were that postnatal depression is a common mental illness which is a consequence of pre-existing antenatal morbidity and which is associated with greater maternal disability and use of health services. The study concluded that maternal and infant health policies, a priority in low-income countries, must integrate maternal depression as a disorder of public health significance. Interventions should target mothers in the antenatal period and incorporate a strong gender-based component.

In our study we found that upper socioeconomic status women are very less likely to suffer from postnatal depression as they have the ability to get adequate access to the best medical health services. Kurtz Landy et al. (2008) conducted a study where it was found that socioeconomically disadvantaged women experienced poorer mental health and inequalities in health and health care. In their daily lives they face chronic stressor such as poverty, lack of social support, isolation, racism, violence, language barriers, and low levels of education. These challenges create a complex burden of psychosocial, functional, and physical health risks which obstruct their access to material resources and health care, and in turn put them at high risk for poor health outcomes and poor quality of life altogether contribute them to experience higher rates of postnatal depression.

Limitations and Suggestions: Limitations: 1. As already mentioned women experience stress and low self-esteem after childbirth, in context to this validated tool was not used for assessing self-esteem and stress in study subjects. 2. Severity of depression was not considered. 3. A community based study with a large sample size could contribute to a better understanding of possible social and environmental factors contributing towards the development of postnatal depression. Suggestions: 1. Level of depression can be compared between full term normal vaginal delivery and lower segment cesarean section.

CONCLUSION
This study concludes that there is significant difference in the level of postnatal depression when compared between upper, middle and lower socioeconomic status women. It is also seen that economic strata and social conditions do affect the level of depression among women belonging to these three classes.

Clinical Implications: Awareness program regarding postnatal depression can be conducted. Healthcare providers must integrate depression screening into prenatal patient assessment throughout the course of pregnancy and through the first 3 months postpartum or later. More importantly, healthcare providers need to become educated in the trajectory of postpartum mood disorders.

ABBREVIATIONS
PND - Postnatal Depression (PND)
EPDS - Edinburgh Postnatal Depression Scale (EPDS)
MKS - Modified Kuppuswamy Scale (MKS)

ACKNOWLEDGEMENTS
We thank principal, guide and all staff of DPO’S Nett College of Physiotherapy, Thane, respected parents for support, suggestions, co-operation,
and last but not the least almighty for keeping spirits high and successful attempt throughout the study.

**Conflicts of interest:** None

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**How to cite this article:** Dhwani.Prakash.Sidhpura, Satish Pimpale, Ajay Kumar. COMPARISON OF POST-NATAL DEPRESSION AMONG WOMEN OF UPPER, MIDDLE AND LOWER SOCIOECONOMIC STATUS. Int J Physiother Res 2018;6(2):2643-2647. DOI: 10.16965/jipr.2018.105