Assess the prevalence of postpartum depression and its associated factors among postnatal mothers

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Abstract
The present study was aimed to assess the prevalence of postpartum depression and its associated factors among postnatal mothers in Amala Institute of Medical Sciences, Thrissur. The objectives of the study were to assess the prevalence of postpartum depression among postnatal mothers, identify the factors associated with postpartum depression and find the association between postpartum depression with selected baseline variables. The study was based on Hildegard Peplau’s theory of Interpersonal Relations. The research approach was quantitative and research design adopted was exploratory descriptive research design. A total of 230 postnatal mothers from 4-10 weeks of child birth attending the Obstetrics and Gynaecological outpatient department of Amala Institute of Medical sciences were selected by purposive sampling technique. After explaining about the study, an informed consent was obtained. Baseline variables and associated factors of postpartum depression were collected from the samples using structured questionnaire by interview method. Self administered Edinburgh Postnatal Depression Scale was used to assess prevalence of postpartum depression. Data was analysed using descriptive and inferential statistics.

The result revealed that the prevalence of postpartum depression was 11.3%. There was a significant association between single marital status with postpartum depression with p value 0.017 (p < 0.05), postpartum depression with educational status with p value 0.0001 (p < 0.001) and postpartum depression with occupational status with p value 0.0001 (p <1.1).

Keywords: prevalence, postpartum depression, associated factors, postnatal mothers

Introduction
Postpartum depression (PPD) is a common complication of women after childbirth. It is an important public health issue, affecting both the mother’s health and the child’s development [1].

The transition to motherhood can be a stressful time in the lives of women and brings with it a number of major life change. Apart from the physiological changes, the birth of a baby has an emotional impact on the mother. PPD is a serious mood disorder that may carry life-long consequences for a women and her family. Depression in the mother has an adverse effect upon her baby’s performance in developmental tests. Postpartum negative mood interferes with maternal-infant bonding and carries long term negative consequences for infant growth. Mothers with significant depressive symptoms had significantly poor physical and mental health related quality of life [2].

Objectives of the study
1. Assess the prevalence of postpartum depression among postnatal mothers
2. Identify the factors associated with postpartum depression among postnatal mothers
3. Find the association between postpartum depression with selected baseline variables

Review of literature
A cross sectional study was Prevention of this disabling disorder is possible if primary prevention is made early. Secondary and tertiary prevention can also minimize the prevalence and disability if timely diagnosis, appropriate treatment and follow-ups are done. Thus health workers need to be involved in the diagnosis of postpartum depression as they are highly involved in management of pregnant women and postnatal mothers. Screening for postpartum depression would improve the ability to recognize these disorders and hence necessitate enhanced care that ensures appropriate clinical outcomes [1].
Statement of the problem
A study to assess the prevalence of postpartum depression and its associated factors among postnatal mothers in Amala Institute of Medical Sciences, Thrissur. Conducted by Avita Rose Johnson on postnatal depression among women availing maternal health services in a rural hospital in South India, among 123 postnatal women in 2015. The results showed that 45.5% of the women screened positive for postnatal depression [4].

A systematic review and meta-analysis on postpartum depression by Ravi. P. Upadhyay, et al. shows that postpartum depression can predispose to chronic or recurrent depression, which may affect the mother-infant relationship. Children of mothers with postpartum depression have greater cognitive, behavioural and interpersonal problems compared with the children of non-depressed mothers [5].

Materials and methods
Research approach: Quantitative research approach.
Research design: Exploratory descriptive research design.
Setting: Obstetrics and Gynaecological outpatient department of Amala Institute of Medical Sciences, Thrissur
Population: All postnatal mothers from 4-10 weeks of child birth attending the Obstetrics and Gynaecological outpatient department of Amala Institute of Medical Sciences, Thrissur. Sampling technique: Purposive sampling Sample: All postnatal mothers from 4-10 weeks of delivery who meet the inclusion criteria.

Sample: Two hundred and thirty postnatal mothers.

Inclusion criteria
Postnatal mothers
• From 4 - 10 weeks of child birth
• Who are available at the time of data collection.

Exclusion criteria
Postnatal mothers
• Who are not willing to participate in the study.
• Who are not able to follow English / Malayalam

Tools / Instrument:
Tool I: Questionnaire to assess baseline variables
Tool II: Questionnaire to assess factors associated with postpartum depression
Tool III: Edinburgh Postnatal Depression Scale.

Results

Table 1: Frequency and percentage distribution of postnatal mothers according to level of postpartum depression n=230

<table>
<thead>
<tr>
<th>Level of postpartum depression</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>No depression</td>
<td>204</td>
<td>88.7</td>
</tr>
<tr>
<td>Depression</td>
<td>26</td>
<td>11.3</td>
</tr>
</tbody>
</table>

Table 2: Association between postpartum depression and occupational status n=230

<table>
<thead>
<tr>
<th>Occupational Status</th>
<th>Depression</th>
<th>Chi square test</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home maker</td>
<td>17</td>
<td>109</td>
<td>17.566</td>
</tr>
<tr>
<td>Office work</td>
<td>0</td>
<td>59</td>
<td></td>
</tr>
</tbody>
</table>

Significant at 0.05 level

Discussion
In the present study the prevalence of postpartum depression is 11.3% among postnatal mothers. A similar prospective cohort study was conducted by N Shrestha, P Hazrah, R Sagar on incidence and prevalence of postpartum depression in a rural community of India among 200 women in 2003. The result showed that prevalence was 12%.6 another quantitative study was conducted in 2012 by Desai Nimisha on prevalence and risk factors of postpartum depression among women availing maternal health services in rural areas of Belagavi, Karnataka, India among 346 mothers in 2016. The results showed that the literacy status was significantly associated with the prevalence of postpartum depression [8].

A cross sectional study was conducted by Filipa Decastro, et al. on risk and protective factors associated with postnatal depression in Mexican adolescents among 298 women, in 2011 and results revealed that postnatal depression was associated with lower levels of education [9].

Limitations
• The purposive sampling with small sample size limits generalization of findings.

Recommendations
Based on the study that had been conducted, certain suggestions are given for future studies.
1. A similar study can be done with large sample size.
2. These findings to be availed to the maternity staff of health care delivery system other related facilities to create awareness of the magnitude of PPD in the mothers.

Table 3: Logistic regression analysis of single marital status, educational status and occupational status

<table>
<thead>
<tr>
<th>Variables</th>
<th>β</th>
<th>S.E.</th>
<th>Adj. Odds ratio</th>
<th>95% CI for odds</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single marital status</td>
<td>1.370</td>
<td>0.656</td>
<td>3.937</td>
<td>1.089-14.237</td>
<td>0.037*</td>
</tr>
<tr>
<td>Educational status</td>
<td>1.183</td>
<td>0.343</td>
<td>3.264</td>
<td>1.666-6.395</td>
<td>0.001*</td>
</tr>
<tr>
<td>Occupational status</td>
<td>0.218</td>
<td>0.468</td>
<td>1.243</td>
<td>0.497-3.108</td>
<td>0.641</td>
</tr>
</tbody>
</table>

*significant at 0.05 level

Depression among 200 Gujarathi women. The results showed that the prevalence rate of postpartum depression was 12.5%.7 In the present study results showed that Fisher’s exact test value of postpartum depression and educational status is 17.713 with p value 0.0001. So there is a highly significant association between postpartum depression and educational status. A cross- sectional study was conducted by Kruthika, et al. on an epidemiological study of postnatal
Result shows that 11.3% of postnatal mothers had postpartum depression, single marital status, education status and occupational status were the risk factors for developing postpartum depression.
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1. A similar study can be done with large sample size.
2. These findings to be availed to the maternity staff of health care delivery system other related facilities to create awareness of the magnitude of PPD in the mothers.
Conclusion

Based on the study findings, it is concluded that the prevalence of postpartum depression was 11.3% which is significant and compared well with other studies. In the future, more research related to postpartum depression is essential to reduce the adverse effects of postpartum depression. Study suggests that it is important for the public to be aware of the magnitude of postnatal depression. This would create awareness among people about postnatal depression and alert health workers to take their time to recognize depression when dealing with postnatal mothers.

References


