

Prospective study on prevalence and risk factors of post natal depression in Rawalpindi/Islamabad, Pakistan

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Objective: To determine prevalence of post natal depression (PND) in our part of the world and correlate risks with obstetric and demographic variables.

Methodology: This observational cross sectional study was conducted at Quaid-e-Azam International Hospital Islamabad and Al-Sadiq-SSH Rawalpindi, Pakistan, from March to May 2014. Women delivering in QIH or SSH and those attending for their baby's vaccination at 4 to 12 weeks post partum were included; those having previous psychiatric illness were excluded. Data were collected by interviewing them. PND symptoms were defined when subjects had Edinburgh Postnatal Depression Scale score of

10 or higher. Variables included were age, education, family setup, parity, baby's sex, and emotional response.

Results: Out of 380 women, PND was seen in 88 (23%) women. Social support showed a decrease in risk by 20%. Elderly and professional women and those showing negative response were at a higher risk 38.46 % and (39%).

Conclusion: Post natal depression is a common occurrence. Social support from a joint family system plays a significant role in reducing risk of PND. (Rawal Med J 201;41:64-67).

Key words: PND, social support, emotional reaction.

INTRODUCTION

Safe motherhood has always been a great concern. In addition to mothers physical health, a lot of focus is being laid on her mental state as well. Postnatal depression (PND) is considered as a significant public health issue.¹ WHO-UNFPA has clearly identified maternal mental health as fundamental in attaining the Millennium Development Goals. PND encompasses disorders ranging in severity from baby blues to postpartum psychosis² and affects 10-15% of mothers in Western, economically developed societies,³ the incidence appears to be higher in developing countries. Diagnostic Statistical Manual of Mental Disorders (DSM-IV) states that start of postpartum depression is in first 4 weeks after childbirth.⁴ Postpartum blues are of short duration and may not require formal treatment but supportive care only. Depending on the severity of disorder, it can last longer for 3 to 6 months, be more debilitating and may require medical care. Rarely postpartum psychosis requires psychiatric care.

The quality of life for such women and their families

is severely compromised, may even result in marital breakdown. In most severe cases, women report fear of hurting themselves or their newborns.⁵ PND and anxiety have consistently been demonstrated to have adverse impact on maternal-infant interaction and attachment⁶ and its subsequent affects on children's health, development, and behavior are also well documented.

The etiology of PND remains unclear, as several biological, psychological and social predisposing risk factors may be contributing. We cannot yet be certain of biological level mechanisms that alter the genotypic and phenotypic response to perinatal adversity but the triggering of genetic, neuroendocrine and physiological mechanisms by psychological and nutritional stress are regarded as strong contenders.⁸ The results of a preliminary investigation suggest that genetic polymorphisms in HTR2A, the gene encoding the 5HT2A receptor, may be associated with PND.⁹ Among psychosocial causes, recent stressful events, and history of depression after a previous pregnancy, during present pregnancy or at other times have been

strongly associated. Women who suffered from depression during pregnancy have a five times higher risk of developing postpartum depression, and women with anxiety during pregnancy have a three times higher risk.¹⁰ Lack of social support is another important factor.

Non-communicable diseases including mental disorders in developing countries may increase many folds by 2020,¹¹ but research on psychological morbidity, particularly puerperal psychosis and depression, may help us meet the challenge for assessing and reducing global burden of the disease. Internationally, subject has been studied widely but information from Pakistan is limited. This study aims at investigating prevalence of PND and assessment of relationship between depression and variables such as maternal age, education, in particular family support, and emotional response to pregnancy outcomes in women of Islamabad and Rawalpindi, Pakistan.

METHODOLOGY

This observational, cross sectional study was conducted at the Quaid e Azam International Hospital Islamabad (QIH) and Al-Sadiq Saad Shaheed Hospital Rawalpindi, Pakistan from March 2014 to June 2014. The study was approved by Ethical Committee of QIH and all the objectives and requirements for this study were formally explained to them in their native language, written consent was obtained. Depressive symptoms were assessed in all women who reported to hospital between 4-12 weeks post partum for routine postpartum follow-up or for their baby's vaccination. Those known to have any previous psychiatric illness were excluded.

A proforma was developed, completed and analyzed. It was in form of a questionnaire divided into three parts: first part dealt with socio demographic variables, which include age, education, and occupation; second part contained obstetric history variables and the third part contained Edinburgh postnatal depression scale (EPDS). It is a self-administered questionnaire and consists of 10 questions on mother's feelings over the last seven days. This measure has been used widely and is a validated tool designed to be specific to the postpartum period.¹² Participants who scored

10 or higher on the EPDS were considered as possible PND, and those who scored less than 10 were considered normal. The sensitivity and specificity of the EPDS have been found to be 75-97%, respectively.¹³ All data were analyzed through SPSS Version 22.

RESULTS

A total of 380 postpartum females were included in this study; 88 had PND showing prevalence of 23%. Those living in nuclear family setup had considerably higher incidence; 51 cases (26%) as compared to those living in a joint family 37 patients (20%). Negative emotional reaction to pregnancy was associated with very high risk; 63 out of 166 cases (39%); whereas only 25 out of 214 (11%) cases who welcomed their baby were sufferers.

Table 1. Socio demographic data with postnatal depression.

PND	Yes	%	No	%	Total
	88	23	292	77	380
Family Setup					
Joint	37	10	145	40	182
Nuclear	51	13	147	37	198
Emotional Reaction					
Un welcome	64	17	102	30.5	166
Welcome	24	6	190	44.5	214
Baby Sex					
Boy	34	9	134	40	168
Girl	54	14	158	37.5	212
Age in yrs.					
<25	13	3	42	38	55
25-34	48	13	170	39	218
35-45	22	6	72	38.5	94
>45	5	1	8	31	13
Education					
Uneducated	5	1	20	40	25
Secondary	19	5	71	39.5	90
Graduate	38	10	146	39.5	185
Professional	25	7	55	34.5	80
Parity					
Primi	20	10	79	40	99
G2	33	11	117	38.5	151
G3	13	10.5	50	39.5	63
Multigravida	21	15.5	46	34.5	67

Incidence was comparatively higher in ones who delivered baby girls 54 (25%) than having those

delivered baby boy, 34 (20%). The mean age of participants was 35.5 years (range 18-45 years). PND was highest among 45 years age group, 5 out of 13 participants (38.46%); 25 women were illiterate, 5 cases (20%) had PND. A number of 80 were employed professional women, PND was prevalent among 25 (31%). In this study 67 patients were multigravida; 21 of them (31%) had PND whereas in all other groups 20-22% were sufferers (Table 1).

DISCUSSION

Most mothers experience mild and transient symptoms, resolving spontaneously after a few days. In 10-15%, symptoms are more persistent and disabling. Findings suggest that the mother's age is a predictor of PND. Existing estimates for the prevalence of PND in all populations of adolescent mothers ranges from 16% to 44%.¹⁴ In this study, it was found to be 24% at <25 years, 22% at 25 to 34 years age, 23% at 35 to 44 yrs age group. However, situation was different in elderly, >45 years age group; in these PND was found to be much higher 5 of 13 cases (38.4%). These findings are consistent with other studies.¹⁵ Studies have generally found a higher likelihood of postpartum depression among mothers with unintended and unwanted births.¹⁶

The association between social support and depression during pregnancy has been confirmed by studies from both developing and developed countries. Findings highlight the importance of social support in decreasing perceived stress and symptoms of PPD in women.¹⁷ A significant geographic difference of the prevalence of PND¹⁸ was also observed. Compared to Rawalpindi, Islamabad had relatively higher prevalence rates, accounting for 40.4%, and 59.6% respectively. In Pakistan, more studies need to be conducted as we have social and cultural differences in our four provinces of the country.

The negative and long term consequences of PND necessitate early detection and management of mothers at risk.¹⁹ There is growing evidence that PND can be effectively treated and possibly prevented.²⁰ Screening should become routine by using the EPDS 5 weeks postpartum for early detection and management. Routine postpartum visits have shown to be feasible and well-child visits

are another opportunity.²¹ A psychiatrist and a social worker must attend postnatal care units for advise. Taking a psychiatric history in antenatal care units is important to detect high risk cases.

CONCLUSION

Post natal depression was found in 23% post partum women. PND needs more emphasis in terms of screening, identification of high risk cases, early detection and management. Improved quality of care; social support ; higher literacy rate and better socio-economic status are positive factors in reducing maternal morbidity.

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Conception and design: Ghazala Sadiq
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