

ORIGINAL ARTICLE

Examine the Frequency of Postnatal Depression in Mothers having Malnourished Infants

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ABSTRACT

Background: Healthy child development is dependent on a mentally and physically healthy mother. Depressions in mother can adversely affect their offspring healthy growth.

Aim: To estimate the frequency of post-natal depression in mothers having malnourished infants.

Place and duration of study: Department of Psychiatry, Balochistan Institute of Psychiatry & Behavioral Sciences, Quetta from 1st January 2020 to 31st December 2020.

Methodology: In this case control study 250 mothers (125 were malnourished infants or toddlers mothers and other 125 from healthy weight infants/toddlers mothers) were interviewed to assess their depression state. Their stress inducing factors, age and other clinical comorbidities were also documented.

Results: Mean mother age of malnourished infants/toddlers was 28.1±6.6 years in comparison to 27.8±5.2 years of healthy weight infants/toddlers mother's respectively. Twenty four percent malnourished infant/toddlers' mothers were single parent. Unemployed spouse of mothers to malnourished infant/toddlers were found at higher frequency (51.06%) than of healthy infant/toddlers (23.4%). The frequency of post-natal depression among mothers of malnourished infants/toddlers was observed in 57.6% cases

Conclusion: Out of total 57.5% mothers of malnourished children suffering from post-natal depression there are 15.2% to 9.6% those having moderate to highly moderate post-natal depression.

Keywords: Post-natal depression, Malnourish, Infants, Toddlers

INTRODUCTION

A child health is highly dependent on his or her early year social, emotional and cognitive development. In developing countries as well as in many countries from western world child upbringing, feeding and caring is mainly a mother responsibility. In situations where mother herself is facing emotional, mental and physical stress the health of the child is consequently affected¹. The child health in relation with mother mental health is a high focused research area in western world²⁻⁴.

Fifty million children all over the globe are malnourished with 90% of these children are residing in low income countries.⁵ In cases where nutritional demands of a child would not be fulfilled the child would not be able to grow healthy⁶. As the rapid growth of a child occur in its initial first two years. Research has proved that depressed mothers with mental stress are not able to concentrate well on their child nutritional requirements^{6,7}.

Women who are in the age of child bearing are mostly affected by depression. This depression could be due to family stress, avoidance from responsibilities, economical instabilities or unhappy married lives. Women when deliver their new born have high risk of developing depression due to added responsibility, lack of sleep and self-care especially within the first year of their child birth⁸⁻¹³.

The prevalence of post-natal depression is estimated up to 15% in developed countries with almost two fold high in developing and under developed countries like Pakistan and India.¹⁴⁻¹⁷

The present study was designed to estimate the prevalence of post-natal depression among women with malnourished children and to provide an authentic data for future management of this mega issue.

MATERIALS AND METHODS

This case control study was conducted at Department of Psychiatry, Balochistan Institute of Psychiatry & Behavioral Sciences, Quetta from 1st January 2020 to 31st December 2020. A total of 250 infants or toddlers were enrolled. Hundred and twenty five malnourished infant/toddler mothers were compared with 125 healthy infant/toddler mothers by a convenient sampling technique.

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After attaining ethical permission from the institution as well as consent of the participants the mother of each child was interviewed for collecting information regarding her mental status and depression. A PHQ-9 well established questionnaire was used for documented depression in mothers. All those women who were suffering from any terminal diseases bringing severe depression were not included in the study. The maximum age of infant and toddler was taken as between 0-2 years. The questionnaire was designed in accordance to WHO guidelines. Data regarding mother stress factors (marital status, employment history, education and income) was documented. Data was statistically analyzed in terms of frequencies and percentages. Chi square test was applied on qualitative data. P value less than 0.05 was taken as significant.

RESULTS

In the current study 250 mothers from 125 malnourished and 125 health infants/toddlers were enrolled. The mean age of mothers of malnourished infant/toddler was 28.1±6.6 years while of mothers having healthy infant/toddler was 27.8±5.2 years respectively. There was a higher prevalence of divorced/widowed mothers of malnourished infant/toddlers than healthy controls. No significant trend of breastfeeding less than 12 months was seen in cases than controls (Table 1).

Unemployed spouse of mothers to malnourished infant/toddlers were found at higher frequency (51.06%) than of healthy infant/toddlers (23.4%). About 36.8% mothers to malnourished infant/toddlers were having a family monthly income less than 36k (Table 2).

Table 1: Comparison of age, marital status and breast feeding between cases and controls

Cases and controls			
Variable	Cases	Controls	P value
Mean age	28.1±6.6	27.8 ±5.2	0.32
Divorced/ widowed	30 (24%)	10 (8%)	0.05
Married	94 (75.25)	115 (92%)	
Unknown	1	-	
Hypertension/Diabetes			
Yes	16 (12.8%)	16 (12.8%)	1.00
No	109 (87.2%)	109 (87.2%)	
Breast Feeding (months)			
≤12	70 (56%)	76 (60.8%)	0.64
> 12	55 (44%)	49 (39.2%)	

Majority of the mothers to malnourished infants/toddlers were primary educated with their spouses having secondary level education, while the mothers and spouses of healthy weight infants/toddlers were mostly secondary level educated (Fig. 1).

The frequency of post-natal depression among mothers of malnourished infants/toddlers was observed in 57.6% cases with 9.6% those having moderately severe depression. In comparison to these cases the frequency of depressed mothers in healthy weight infants/toddlers were found as 4.8% (Table 3).

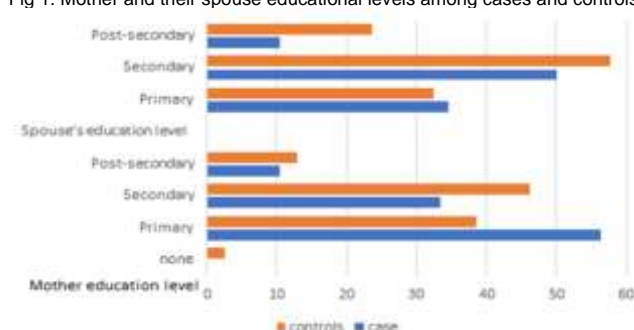
Table 2: Employment and Income history among cases and controls

Variable	Cases	Controls
Mother's employment history		
Unemployed	69 (55.2%)	72 (57.6%)
Employed	56 (44.8%)	53 (42.4%)
Spouse's employment history		
Unemployed	48 (51.1%)	27 (23.4%)
Employed	46 (48.9%)	88 (76.5%)
Family income per annum		
< 36,000	46 (36.8%)	4 (3.2%)
36,000–150,000	52 (41.6%)	66 (52.8%)
> 150,000	27 (21.6%)	55 (44%)

Table 3: Frequency distribution of Post-natal depression among mothers of malnourished and healthy weight infants/toddlers

Variable	Cases	Controls	P value
None	53 (42.4%)	118 (94.4%)	<0.05
Mild	41 (32.8%)	5 (4%)	
Moderate	19 (15.2%)	1 (0.8%)	
Moderately severe	12 (9.6%)	1 (0.8%)	

Fig 1: Mother and their spouse educational levels among cases and controls



DISCUSSION

Malnourishment in children is strongly associated with socioeconomic status and maternal depression, especially for low income countries.¹⁸ Maternal depression significantly escalates the prevalence of malnutrition in children. A Pakistani study documented high frequency of mental disorders among Pakistani women. The study also elaborated the fact that post-natal depression can also be noticed in women with healthy weight children.^{19,20} The present study also reported the same but with a low frequency of depression amongst controls as compared to the incidence of depression in mothers of malnourished infants/toddlers.²¹

Studied over the globe has estimated the frequency of post-natal depression in various ways. Most of such studies has enrolled those malnourished children whose mothers were suffering from psychological impairment due to long hospital stay of neonates.²² In present study, most of the study cases were belonging to low socioeconomic background, this might be a reason to elevate the incidence of maternal depression among these women.

Maternal depression might be associated with child malnourishment. This could attribute to their behavioural changes and compromising attitude on their parenting behaviour. Depression in mothers may interfere with overall care of the baby, breastfeeding and focused nutritional demands²³. Post-natal depression has been evidently proven of preventing in establishing secure bond and attachment between mother and child^{24,25} which in turn adversely affect child's emotional and physical health.

Additionally having a malnourished child could also increase the chances of psychological distress in mothers. Moreover, as the neonate was extremely weak or had extremely low birth, elevates the chances of their survival, also show worse consequences in mothers in terms of helplessness and hopelessness²³.

CONCLUSION

A high frequency of 57.5% post-natal depression was observed in mothers of malnourished children related to their stress life style.

Conflict of interest: Nil

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