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ORIGINAL ARTICLE

Nutritional status of under-two years old children of depressive mothers presented to Hayatabad Medical Complex Peshawar.

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ABSTRACT... Objective: To determine the frequency of malnutrition among less than2-year-old children of depressed mother presented to HMC. **Study Design:** Cross-sectional study. **Setting:** Psychiatry Unit, Hayatabad Medical Complex, Peshawar. **Period:** July 2021 to February 2022. **Material & Methods:** A sample size 364 mothers were selected through random sampling technique. Data was collected on a structured questionnaire and analyzed using SPSS version 24 for windows. **Results:** Mean age of mothers were 26±3 SD. Among 364 women, 130(35.72%) were normal, 125(34.34%) were having moderate depression and 109(29.94%) were having severe depression. Nutritional status of their children showed 88(24.18%) normal children, 152(41.75%) were moderate and 124(34.06%) were having severe malnutrition. Depression showed significant association with child nutrition. **Conclusion:** Depression in women is the major cause of malnutrition in first two year of child life. Effective strategies especially during postnatal period can help to alleviate the depression in women.

Key words: Children, Depression, Malnutrition.

INTRODUCTION

Maternal mental wellbeing is the most important factor for wellbeing of infants especially during early age of life.[1] Depression is very common in women of child bearing age especially during postpartum period, affecting infant health and nutrition tremendously.[2]

Numerous studies across the globe shows high prevalence of malnutrition among children of depressed women. A case control study in Kenyya shows positive association (odd ratio>1) among mothers who has depression as compared to normal women.[3] Similarly another study in Sudan also showed high rates of malnutrition among children of depressed women i.e about (41.5%).[4] Jacqueline et al in their study found 84 (49%) of malnutrition among 171 children whose mothers was depressed.[5]

Depression in mothers is much more common in South Asian women which has adverse consequences in child nutrition status. A study conducted in India shows postpartum depression has positive association on child nutritional status.[6] In Pakistan various studies conducted that shows a positive association of depression in mothers and its impact on child nutritional status. A study conducted by Qamer et al in Karachi showed a positive association between mother depression and child nutritional status. Their study showed 40 percent women were having depression and the prevalence of stunting and underweight was 36.6% and 35.4%, respectively.[7]

The mother with depression are at risk of emotional and behavioral problems which can deteriorate the care of children of that mother, hence can impair the overall growth and development of child specially during the early dependence period (<2 years). Most of the studies have determined the prevalence of depression among

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female and its impact on their health; however, the impact of depression of mother on child health is not properly addressed in Pakistan. This study aims to determine the proportion of malnutrition among under-2-year-old children of mother with depression.

MATERIAL & METHODS

A cross-sectional study was conducted in psychiatry unit of Medical Teaching institute, Hayatabad Medical Complex, Peshawar from July 2021 to February 2022. A sample size of 364 was calculated using 95% confidence interval and 5% margin of error using epi info calculator. All mother of child bearing age (<2 years) with known case of depression having at least one live under-2 years child presented to psychiatry unit of Hayatabad Medical Complex during data collection period using non probability convenient sampling technique. Once the mother is identified were requested to bring her under-2-year child for nutrition assessment in next follow-up. The nutritional status of the child was assessed on the basis of mid upper arm circumference (MUAC) followed by standard anthropometric procedure i.e. height for age, weight for height and weight for age was calculated. 11.5- 12.5 cm on MAUC was considered as moderate and those less them 11.5 cm was considered as severe malnutrition. Data collected was analyzed using SPSS version 24 for windows. The association between depression of mother and nutritional status of child were assessed using Chi-square Test where P-value <0.05 s considered significant.

RESULTS

Mean age of women were 26±3SD. Majority of women i.e 79% were having age less than 30. Regarding educational status 88% had no formal education while 6.8% had primary and 4% were middle pass. Socioeconomic status showed that 78.02% belonged to poor family, 17.86%. from middle-class family and 4.12% were having good socioeconomic status.

Among 364 women, 130(35.72%) were normal, 125(34.34%) were having moderate depression and 109(29.94%) were having severe depression. Nutritional status of their children showed 88(24.18%) normal children, 152(41.75%) were moderate and 124(34.06%) were having severe malnutrition. Depression showed significant association with child nutrition.

Table-I shows association of depression with nutritional status of mothers. As shown in table depression is significantly associated with malnutrition in children (P-value <0.05).

DISCUSSION

The present study showed significant relationship between depression in mothers and child nutritional status. Severely depressed mothers were having high level of malnourished children. A study conducted in Pakistan concluded that there is impact of maternal depression on infant llness.[8]. Our results are comparable with findings of previous studies.[9,10]

Furthermore our finding is also supported by another study and also reported a negative effect of maternal depressive symptoms on their young one nutritional status.[11] The impact of clinically diagnosed maternal depression on child growth has been frequently examined and found to be extensively significant in normal as well as in clinical settings.[12] The depressive mothers are comparatively less active and cannot take a good care of their kids which results in malnourishment and this s too supported by another study in which they noted that an overall lower socioeconomic profile may promote a sense of hopelessness

Depression Level	Normal Nutritional Status	Moderate Malnutrion	Severe Malnutrition	Total	P-Value
No depression(normal)	51 (39.8%)	55 (42.4%)	24 (17.6%)	130(35.72%)	0.003
Moderate	22 (17.6%)	60 (48%)	43(34.4%)	125(34.34%)	
Severe	15 (13.6%)	37(33.9%)	57(52.2%)	109(29.94%)	
Tortal	88(24.18%)	152(41.75%)	124(34.06%)	364(100%)	

Table-I. Association of depression with nutritional status of child

among mothers and may adversely influence their performance in the parenting role.[13] in a study performed in Malawi also found that mothers with mental health problems had infants with significantly lower nutritional status.[14] Depressive mothers cannot feed their kid well and adversely affect their nutritional status and Prior research has also shown that sub-optimal child feeding practices are associated with maternal depressive symptoms, stress, and anxiety which adversely affect their nutritional status.[15] Another study performed in Pakistan also found that the children of depressive mothers are malnourished as compared to the children of non-depressive mothers.[16] Thus, t s possible that even undiagnosed or untreated maternal depression can lead to child's hampered development, possibly mediated by alterations of mother warmth and affection. Therefore we can say that mother with depressive symptoms has negative impact on the nutritional status of their children.

Regarding the frequency of malnourished children of depressive mothers the results of our study are comparable to a previous study performed in pakistan.[17] in the current study we found that younger children are more affected from malnutrition, this findings supported by previously performed which stated that the malnutrition s significantly higher in children less than two years of age.[18,19] in another study higher frequency s noted in younger children .e. less than two years of age.[20] There's adverse impact of maternal depression on younger child growth has been frequently examined and found to be significant.[21]

CONCLUSION

Our study concluded that the maternal depressive symptoms have significant relationship with nutritional status and higher frequency of malnourished children associated with depressive mothers. The screening and earlier detection and treatment of depressive symptoms in mothers as well as child malnutrition may alter the risk of poor physical growth parameters among children.

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AUTHORSHIP AND CONTRIBUTION DECLARATION

No.	Author(s) Full Name	Contribution to the paper	Author(s) Signature
1	Shafqat Ullah	Study design, Collection of data, Analysis.	
2	Ramsha Hamid	Data collection.	
3	Humera Gabeen	Data interpretation.	
4	Amir Hamza	Drafted the study, Interpretation of results.	
5	Saeed Maqsood	Manuscript preparation.	
6	Khalid Mehmood Qureshi	Study design.