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Community Medicine

ASSESS THE MATERNAL DEPRESSION & AGENCY AMONG MOTHER OF CHILDREN LESS THAN 2YEAR AGE FROM RURAL UNDERSERVED AREA.

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ABSTRACT Maternal depression may contribute to the risk of growth impairment and illness through several ways, also likely to have significantly impact on foetal and child development. Community based cross sectional study was conducted in 50 villages of the Seloo and Hingana, Fifty villages were randomly selected using random number table for study, Mother of children less than 2 years of age, the average score of Maternal agency was 26.32 with SD 5.15 Mother with high maternal agency score are less likely to have their child under nourished. Maternal depression was Mean (SD) 14.32±5.15 .

KEYWORDS :

INTRODUCTION:-

Child growth is a process with a multi-factorial determination, involving genetic and environmental factors (food availability, feeding practices, health, and morbidity, besides general child care) that act by promoting or restricting the individual inherent potential for growth. Maternal depression may contribute to the risk of growth impairment and illness through several ways, including early cessation of breastfeeding and inadvertent reduced maternal attention to and care of children's needs and distress in pregnancy and during the child's first year does not only affect mothers, but is also likely to have significantly impact on foetal and child development[1]. Women's particularly low social status and disempowerment in LMI country, compared with other regions, create barriers to social development and result in severe consequences for child health and nutrition, including intra-uterine growth retardation, low birth weight and suboptimal child growth. Greater maternal decision making (agency), control and autonomy in the household likely improve child nutrition by improving child-care practices. Some studies have found women's status and empowerment to be associated with child height/length-for-age (HAZ/LAZ), weight-for-age (WAZ) or weight-for-height/length (WHZ/WLZ) Z-scores.[2]

Maternal agency is the notion that mothering can be empowerment and a location for social change for women, maternal agency means that action not only of literate mother but of any and all people who are guided by maternal attitudes are more likely to be found in women because of their monopoly on childbearing. Low maternal agency was associated with greater child under nutrition, while evidence of improved agency reduces the likelihood of under nutrition. Women who were underweight were twice as likely to have underweight or wasted child, while women who believed domestic abuse was justified were 20% more likely to have a stunted child evidence.[3] Women with mental health problems and particularly depression are less likely to provide the stimulating environment and adequate care for proper growth and development of their children. Infant of depressed mother are likely to be underweight and stunted compared to children of mothers without depression. Maternal depression may contribute to under nutrition in children by having a negative impact on interpersonal behaviour and parenting as well as impairment in social functioning associated with most psychiatric disorders.

MATERIALAND METHOD: -

Study setting-The study was conducted in 50 villages of the Seloo and Hingana block of Wardha & Nagpur district Maharashtra.

Study design- Community based cross sectional study was conducted in villages near "Bor" forest area.

Ethics committee approval – The study protocol was submitted to the Institutional Ethics Committee of DMIMS (DU) for approval.

Sample size - Fifty villages were randomly selected using random number table for study. Information of the total households is obtained from the records of the Anganwadi Centers of the respective villages was cross verified from either local administrative office/Gram panchayat or the ANM of the sub-centre. The entire study area covers an approximate population of 25000 with a mother child (under 2 years) dyad of approximately 526, 17 was not present at the time after two consecutive visits and 21 was migrated to other villages. Thus, the total sample size was 488.

Study Duration: Study was conducted from July 2016 to January 2017.

Study population- Mother of children less than 2 years of age.
INCLUSION CRITERIA – mother of children less than 2 years of age from the study area was included in the study after the written informed consent.

Exclusion – Mother dyad were excluded from the study if either mother was having an existing any clinically diagnosed mental health problem or if she was receiving any medication for mental health problem and families who were not present at household even after two consecutive visits were excluded from the study.

Data collection tool: - Maternal depression and agency- (Annexure V) To assess the maternal depression suffered by mother in past week. To assess the coping ability of mother for different situation. Increasing maternal agency could have a positive impact on child health.

Assessment of depression and agency:-Depression status assessment was done using the Centre for Epidemiological Studies Depression (CES-D) Scale. The CES-D scale comprises of 20 questions and responses and is used to assess depressive feelings and behaviours during the past week. Questions are statements expressing "negative thoughts" the responses are scored from 0 to 3 with 0 indicating that those "thoughts" were rarely had (at most 1 day) and 3 indicating that those "thoughts" were had most days (5–7 days) of the week and Four questions (4, 8, 12, and 16) are statements expressing "positive thoughts" are reverse scored. Mother copping ability assessment was done using the agency questionnaire. 10 questions use to assess the copping ability of mother. Maternal depression and agency are independent variable Maternal depression and agency tools is originally available in English language. The interview to the mother will be asked in local language *Marathi* (local language) and *Hindi.* The tool can estimate the maximum score in agency and depression are 40 and 60 respectively, whereas the minimum could be zero. As the agency score increases, the mothers are more likely to be empowered. In case of depression, mother are more likely to be depressed, if their depression score increases.

DATAANALYSIS:-

The data collection was done on predesigned & pretested questionnaire. The data was entered in MS excel and analyzed by *STATA* statistical software Descriptive statistics like Chi Square (χ^2), t-

test for mean, S.D, Regression, was used. level of statistical significance was set at 0.05.

OBSERVATION AND RESULTS: -

Table I(B): Socio-demographic profile of Mother participants (n=488)

VARIABLE	OBSERVATION	PERCENTAGE
Maternal age (in year)		
<=22	91	18.65%
23-27	315	64.55%
28-32	82	16.80%
>32	0	0
Maternal education		
Illiterate	0	0
Primary	15	3.07%
Secondary	267	54.71%
Higher Secondary	152	31.15%
Graduate and above	54	11.07%
Wealth index		
Lowest Quintiles	100	20.49%
2nd Quintiles	100	20.49%
3rd Quintiles	93	19.06%
4th Quintiles	104	21.31%
Highest Quintiles	91	18.65%

Table II shows: Socio-demographic profile of Mother participants. Mother's mean age calculated was 24.88(± 2.69), majority of participants belonged to 23-27 age group 315(64.55%) with mean (SD) 24.77(±1.29). Majority of mother were educated up to secondary education 267(54.71%) than Higher secondary 152 (31.15%), Graduate and above 54(11.07%) and primary 15(3.07%). Socioeconomic status- 104(21.31%) Participants belonged to 4th Quintiles (wealthy), followed by 2nd quintiles (poor) 100(20.49%), lowest Quintiles 100 (20.49%), Highest Quintiles 91(18.65%).

Table VI: Mean score of depression and agency among respondent mothers (n=488)

	Mean	**SD**
Agency	26.32	5.15
Depression	14.21	9.56

Table VI: shows the tool can estimate the maximum score in agency and depression are 40 and 60 respectively, whereas the minimum could be zero. As the agency score increases, the mothers are more likely to be empowered. In case of depression, mother are more likely to be depressed, if their depression score increases. On administering the tool, we observed that the mean score of agency and depression were 26.31± 5.15 and 14.21± 9.56 respectively.

DISCUSSION

Assess the Maternal Depression & Agency: -The average score of Maternal agency was 26.32 with SD 5.15 Mother with high maternal agency score are less likely to have their child under nourished, stunted or wasted then mother who have less agency score. On regression analysis statistically significant association was found between Socioeconomic status with maternal agency ($p<0.007$). Which signifies that mother who has good socio-economic status tends to have high agency. There are very few researches available on maternal agency. The present study, CES-D (Center for Epidemiologic studies Depression) scale was used to assess the Maternal Depression. The average score of Maternal depression was 14.21 with SD 9.56.Even though similar tool was used by **(Rodloff 1977)** [4]and the clinical cut off of 16 or more was used in descriptive analyses.

On regression analysis statically significant association found between Socioeconomic status with maternal depression($p<0.002$) .Similar findings were found in the study conducted by other Income and SES emerge as inconsistent risk factors for Maternal depression, reflecting the literature on common mental disorders in LICs in general **(Patel & Kleinman, 2003)**[5]**.** A longitudinal community-based study in rural Bangladesh **(Black et al., 2007)**[6]found evidence of a bivariate relationship between income and depression and another community-based study in rural India **(Chandran et al., 2002)** identified "low income" as a significant risk factor for the onset of Post natal depression in multivariate analyses. However, some studies from a wide range of settings found no bivariate association between income and PND. A study in urban Mongolia **(Pollock et al., 2009**) is unusual in its measurement of (family) income at two points in time – before and after the birth.

SUMMARY:- Maternal depressive disorders are a principal source of disability worldwide, particularly among women. Depression can have negative effects on early infant growth, a problem that might be more pronounced in low income countries with less favourable environments.

Depression and Agency:- The average score of maternal agency was 26.32± 5.15 and maternal depression was 14.21± 9.56.wealth index was statistically significant with maternal depression & agency.

CONCLUSION:-To conclude, the overall study shows Average score of Maternal depression was Mean (SD) 14.32±5.15 and Average score of Maternal agency was Mean (SD) 26.32± 5.15.

RECOMMENDATION:- The agency and depression scale is framed and validated in western settings which need to be modified on adapted in Indian setting. Improve women empowerment in tribal area. Women of these societies should be trained in different vocational courses like handloom and textile, poultry farm, dairy farm, food and nutrition etc.

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