



## ASSESSMENT OF NUTRITIONAL PRACTICES IN CHILDREN OF AGE GROUP 1 YEAR- 5 YEARS IN RURAL AREA OF SELOO

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**ABSTRACT** Breastfeeding May Enhance Child Survival Up To 5 Years Of Age Even In Malnourished Children. Malnutrition Is The Underlying Cause Of Child Deaths In Developing Countries Like India It Has Strong Association With Improper Feeding Practices Among Preschool Children. Cross-sectional Study Was Conducted At Rural Area Of Seloo. Mothers Having Children In Age Groups Of 1 To 5 Years Of Age Residing At Colony Were Included In The Study. We Made Two Groups Of Two Investigators Each. Questionnaire Was Used To Take Information By Interviewing The Mothers And Anthropometry Of Children Taken. Iap Classification Suggest 52% Of Children Were Normal, 32% Having Grade I Malnutrition, 8% Having Grade Ii Malnutrition And 6% Having Grade Iii Malnutrition. Out Of 32 In Grade I And 8 In Grade Ii No Body Was Edematous, Out Of 6 In Grade Iii, Only 1 Was Edematous And 2 In Grade Iv Only 1 Having Edema.

**KEYWORDS :** Breastfeeding , Malnutrition , Health , Feeding And Nutritional Practices Etc

### INTRODUCTION

ACCORDING TO WHO, BREASTFEEDING IS CONSIDERED AS AN IMPORTANT METHOD FOR IMPROVING INFANT AND CHILD SURVIVAL. IT MAY ENHANCE CHILD SURVIVAL UP TO 5 YEARS OF AGE EVEN IN MALNOURISHED CHILDREN. IT IS FOUND THAT MALNUTRITION IN THE FORM OF UNDERNUTRITION IS THE UNDERLYING CAUSE OF A SUBSTANTIAL PROPORTION OF ALL CHILD DEATHS PARTICULARLY IN DEVELOPING COUNTRIES LIKE INDIA WHICH HAS STRONG ASSOCIATION WITH IMPROPER NUTRITIONAL PRACTICES AMONG SCHOOL CHILDREN.

POOR SOCIOECONOMIC CONDITION ALONG WITH LOW LITERACY RATE IN RURAL AREA RESULTS IN LOW NUTRITIONAL STATUS IN SCHOOL GOING CHILDRENS AND ARE AS CONSIDERED AS MAJOR CONTRIBUTORY FACTOR FOR MALNUTRITION. THE PRESENT STUDY HAS BEEN CARRIED OUT TO EXPLORE THE NUTRITIONAL STATUS OF CHILDREN OF AGE GROUP 1 YEAR TO 5 YEARS ALONG WITH SOME SOCIOECONOMIC AND DEMOGRAPHIC FACTORS TO ASSESS THE ASSOCIATION AND EFFECT OF NUTRITIONAL PRACTICES WITH UNDERNOURISHED CHILDREN AMONG THE RURAL AREA OF SELOO, WARDHA DISTRICT OF MAHARASHTRA.

### AIM AND OBJECTIVES

#### AIM:

ASSESSMENT OF NUTRITIONAL PRACTICES IN CHILDREN OF AGE GROUP 1 YEAR 5 YEARS IN RURAL AREA OF SELOO

#### OBJECTIVES

TO ASSESS NUTRITIONAL STATUS OF CHILDREN BELOW 5 YEARS AGE GROUP.

### MATERIALS AND METHODS

#### STUDY SETTING:

CROSS-SECTIONAL STUDY WAS CONDUCTED IN SELOO (RURAL AREA) IN WARDHA DISTRICT.

STUDY PARTICIPANTS: MOTHERS HAVING CHILDREN IN AGE GROUPS OF 1 YEAR TO 5 YEARS OF AGE RESIDING AT AREAS AS STATED ABOVE.

#### SAMPLE SIZE SELECTION :

SAMPLE SIZE STUDIED WAS 100 SUBJECTS FOR RURAL AREA.

STUDY DESIGN: FROM THE LIST OF RURAL AREA OF SELOO, WE HAVE SELECTED 3 AREAS BY LOTTERY METHOD (SIMPLE RANDOM SAMPLING METHOD).

DURATION OF STUDY: 19/04/2019 TO 17/07/2019 (3 MONTHS).

STUDY VARIABLES: AGE, OCCUPATION, EDUCATION, SES, AND AGE OF BABY, AND ANTHROPOMETRY ETC.

DATA COLLECTION (METHODOLOGY): WE MADE TWO GROUPS OF TWO INVESTIGATORS EACH. QUESTIONNAIRE WAS USED TO COLLECT INFORMATION BY INTERVIEWING THE MOTHERS IN REGIONAL LANGUAGES AND ANTHROPOMETRIC MEASUREMENTS OF CHILD WERE TAKEN.

#### STATISTICAL ANALYSIS :

ANALYSIS WAS DONE BY USING BAR DIAGRAM, PIE DIAGRAM AND CHISQUARE TEST.

**OBSERVATIONS AND RESULTS**  
**TABLE 1: DISTRIBUTION OF CHILDREN ACCORDING TO THEIR AGE , CAPITA INCOME(RS) OF THEIR FAMILIES PER MONTH AND PARENTAL LITERACY**

AGE GROUP(MONTH)	NO. OF CHILDREN	PERCENTAGE(%)
12-24	12	12.00
24-36	18	18.00
36-48	22	22.00
48-60	48	48.00
PER CAPITA INCOME(RS)	NO. OF CHILDREN	PERCENTAGE(%)
0-500	6	6.00
501-1000	23	23.00
1001-2000	22	22.00
2001-3000	33	33.00
>3000	16	16.00
PARENTAL LITERACY	NO. OF CHILDREN	PERCENTAGE(%)
FATHER		
LITERATE	40	40.00
ILLITERATE	60	60.00
MOTHER		
LITERATE	29	29.00
ILLITERATE	71	71.00

AGE WISE DISTRIBUTION OF PATIENTS SHOWS THAT MAXIMUM 48% OF CHILDREN WERE IN THE AGE GROUP OF 27-36 MTHS, 22% WERE IN THE AGE GROUP OF 20-26 MONTHS, 18% WERE IN THE AGE GROUP OF 13-19 MONTHS AND REMAINING 12% WERE IN THE AGE GROUP OF 6-12 MONTHS

PER CAPITA INCOME OF FAMILIES OF CHILDREN SHOWN THAT MAXIMUM CHILDREN HAVE THEIR FAMILIES PER CAPITA INCOME IN THE RANGE OF 2001-3000 RS(33% PER MONTHS, 23% HAD 501-1000 RS, 22% HAD 1001-2000 RS AND 16% HAD > 3000 RS PER MONTH.

DISTRIBUTION OF CHILDREN ACCORDING TO THEIR PARENTAL LITERACY REVEALS THAT ONLY 40% OF THE FATHERS OF CHILDREN WERE LITERATE AS COMPARED TO 60% ILLITERATE WHEREAS ONLY 29% OF MOTHERS OF CHILDREN WERE LITERATE AND 71% MOTHERS WERE ILLITERATE.

**TABLE NO. 2 DISTRIBUTION OF CHILDREN ACCORDING TO PERIOD OF BREAST FEEDING ALONG WITH DIET**

PERIOD OF BREAST FED ALONG WITH OTHER FOODS	NO. OF CHILDREN	PERCENTAGE(%)
>6 MONTHS	46	46.00
9 MONTHS TO 1 YR	24	24.00
1-2 YRS	30	30.00
> 2 YRS	0	0.00
SUPPLEMENTARY FEEDING NOT YET STARTED	10	100.00
TOTAL	100	100.00
DIET	NO. OF CHILDREN	PERCENTAGE(%)
DAL	27	27.00
EGGS	13	13.00
MEAT	9	9.00
KHICHADI	20	20.00
MILK	32	32.00
TOTAL	100	100.00

37% OF CHILDREN WERE GIVEN BREAST FEEDING ALONG WITH OTHER FOODS FOR THE PERIOD OF MORE THAN 6 MONTHS, 22% WERE GIVEN FOR THE PERIOD OF MORE THAN 9 MONTHS TO 1 YEAR, 31% WERE GIVEN FOR THE PERIOD OF 102 YEARS AND 10% WERE NOT YET STARTED SUPPLEMENTARY FEEDING.

**TABLE NO.3 DISTRIBUTION OF CHILDREN ACCORDING TO NUTRITIONAL STATUS AS PER IAP CLASSIFICATION.**

GRADE	EDEMA PRESENT	EDEMA ABSENT	NO. OF CHILDREN
NORMAL (>80%)	-	52	52(52.00%)
GRADE I (71-80%)	0	32	32(32.00%)
GRADE II (61-70%)	0	8	8(8.00%)
GRADE III (51-60%)	1	5	6(6.00%)
GRADE IV (<=50%)	1	1	2(2.00%)
TOTAL	2	98	100(%)

ACCORDING TO IAP CLASSIFICATION 52% OF CHILDREN WERE NORMAL, 32% WERE HAVING GRADE I MALNUTRITION, 8% WERE HAVING GRADE II MALNUTRITION AND 6% WERE HAVING GRADE III MALNUTRITION. OUT OF 32 IN GRADE I AND 8 IN GRADE II NO BODY WAS HAVING EDEMA, OUT OF 6 IN GRADE III, ONLY 1 WAS HAVING EDEMA AND 2 IN GRADE IV ONLY 1 WAS HAVING EDEMA.

**DISCUSSION**

PROTEIN ENERGY MALNUTRITION (PEM) IS THE MAJOR HEALTH AND NUTRITIONAL PROBLEM IN DEVELOPING COUNTRIES LIKE INDIA. IT IS USUALLY SEEN IN AGE GROUP INCLUDING INFANTS AND CHILDREN IN THE FIRST 5 YEARS OF LIFE. IT NOT ONLY LEADS TO CHILDHOOD MORBIDITY AND MORTALITY, BUT ALSO CAN LEAD TO PERMANENT IMPAIRMENT OF PHYSICAL AND MENTAL WELLBEING. UNDER-WEIGHT FOR AGE ACTS AS A RINGING ALARM FOR PEM , WHICH CAN BE MONITORED BY MAINTAINING GROWTH CHARTS. THE GROWTH CHARTS SUGGESTED BY THE INDIAN GOVERNMENT SHOWS 3 DEGREES OF MALNUTRITION(Z SCORE). UNDER-5 AGE CHILDREN, ESPECIALLY INFANTS, ARE AT MAJOR THREAT FOR MALNUTRITION IN INDIA. IT REQUIRES MULTIPLE APPROACHES LIKE GROWTH MONITORING, NUTRITIONAL SUPPLEMENTATION, NUTRITIONAL REHABILITATION AND LAST, BUT NOT THE LEAST, NUTRITION EDUCATION TO COMBAT THIS PROBLEM.

THE STUDY WAS CARRIED OUT IN A SELOO, RURAL AREA, WARDHA. LITERACY LEVEL OF MOTHERS WAS LOW (19%). THE PERCENTAGE OF INSTITUTIONAL DELIVERIES IN THE CURRENT STUDY (87%) IS SIMILAR TO THAT REPORTED BY NATIONAL FAMILY HEALTH SURVEY - II (NFHS-II) FOR DELHI.

AGE WISE DISTRIBUTION OF PATIENTS SHOWS THAT MAXIMUM 48% OF CHILDREN WERE IN THE AGE GROUP OF 48-60 MONTHS, 22% WERE IN THE AGE GROUP OF 36-48 MONTHS, 18% WERE IN THE AGE GROUP OF 24-36 MONTHS AND REMAINING 12% WERE IN THE AGE GROUP OF 12-24 MONTHS.

PER CAPITA INCOME OF FAMILIES OF CHILDREN SHOWN THAT MAXIMUM CHILDREN HAVE THEIR FAMILIES PER CAPITA INCOME IN THE RANGE OF 2001-3000 RS(33% PER MONTHS, 23% HAD 501-1000 RS, 22% HAD 1001-2000 RS AND 16% HAD > 3000 RS PER MONTH.

32% OF CHILDREN WERE MILK, 27% WERE GIVEN DAL , 20% WERE GIVE KHICHADI , 13% WERE GIVEN EGGS AND ONLY 9% WERE GIVEN MEAT.

46% OF CHILDREN WERE GIVEN BREAST FEEDING ALONG WITH OTHER FOODS FOR THE PERIOD OF MORE THAN 6 MONTHS, 24% WERE GIVEN FOR THE PERIOD OF MORE THAN 9 MONTHS TO 1 YEAR, 30% WERE GIVEN FOR THE PERIOD OF 1-2 YEARS.

ACCORDING TO IAP CLASSIFICATION 52% OF CHILDREN WERE NORMAL, 32% WERE HAVING GRADE I MALNUTRITION, 8% WERE HAVING GRADE II MALNUTRITION AND 6% WERE HAVING GRADE III MALNUTRITION. 2% WERE HAVING GRADE IV.

**CONCLUSIONS AND RECOMMENDATIONS**

THERE ARE MANY UNDESIRABLE CULTURAL PRACTICES

SUCH AS GIVING PRELACTEAL FEEDS, REJECTION OF COLOSTRUMS AND LATE INITIATION OF THE BREAST FEEDING ARE STILL PREVALENT AMONGST MOTHERS, MORE SO ILLITERATE AND THESE SHALL BE DISCOURAGED BY PROPER EDUCATION. STUDY CLEARLY HIGHLIGHTS NEED OF NUTRITION, EDUCATION TO MOTHERS FOR PROMOTION OF BREAST FEEDING AND BALANCED DIET, APPROPRIATE WEANING EDUCATION FOR HYGIENE MAINTENANCE IN FEEDING CHILD. THIS STUDY REINFORCE THE IMPORTANCE OF HEALTH EDUCATION MORE IN RURAL AREAS. THERE IS NEED TO CREATE AWARENESS AMONG SOCIO-ECONOMICALLY DISADVANTAGED MOTHERS, ABOUT APPROPRIATE BALANCED DIET.

LACK OF INFORMATION AND KNOWLEDGE, CULTURAL PRACTICE, ELDER'S FALSE GUIDANCE TO MOTHERS, OTHER MEDICAL ILLNESSES, FINANCIAL INABILITIES AND MANY MORE SUCH FACTORS HAVE SHOWN THEIR MORE IMPACT ON MALPRACTICES REGARDING BREAST FEEDING AND NUTRITIONAL TABOOS IN RURAL AREAS. SO IT REINFORCE THE PLANNING AND STRATEGIES FOR BUILDING UP HEALTH EDUCATION MORE TOWARDS SLUM AREAS.

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#### REFERENCES

1. CHAKRABARTY, GHOSH, BHARATI 234 PROCEEDING OF NATIONAL SYMPOSIUM ON TRIBAL HEALTH.
2. KUMAR D, GOEL N, MITTAL PC, MISRA P. 2006. INFLUENCE OF INFANT- FEEDING PRACTICES ON NUTRITIONAL STATUS OF UNDERFIVE CHILDREN. INDIAN J. PEDIATR. VOL. 73. PP.417-421.
3. PATNAIK T. 1990. SHABAR. IN: RM SENAPATI (ED.): TRIBES OF ORISSA. HARIJAN AND TRIBAL WELFARE PUBLISHED: ORISSA.
4. RAMACHANDRAN P. 2004. BREAST FEEDING PRACTICES IN SOUTH ASIA. INDIAN J. MED. RES. VOL.119. PP.13-15.
5. TANEJA PV, SAXENA M. 1998. NUTRITIONAL ANTHROPOMETRY OF BHIL WOMEN IN JHABUA DISTRICT OF MADHYA PRADESH. IND. J. NUTR. DIETET. VOL. 35. PP.98-102.
6. VIMALA V, RATNAPRABHA C. 1987. INFANT FEEDING PRACTICES AMONG TRIBAL COMMUNITIES OF ANDHRA PRADESH. INDIAN PEDIATR. VOL. 24. PP.907-910.
7. WORLD HEALTH ORGANIZATION. 2006. WHO CHILD GROWTH STANDARDS. METHODS AND DEVELOPMENT. GENEVA: WHO.
8. BHALLA, A.K.: THE RELEVANCE OF SELECTED ANTHROPOMETRIC TECHNIQUES IN CLINICAL PEDIATRICS. HUMAN GROWTH AND
9. WHO RECOMMENDATION. (1983)
10. NUTRITIONAL STATUS: ANTHROPOMETRIC PERSPECTIVE OF PRE-SCHOOL CHILDREN 103 DEVELOPMENT: ISSUES AND APPLICATIONS, 16-35 (2002).
11. BRIEND A ET AL. 1988. NUTRITIONAL STATE AND CHILD SURVIVAL IN RURAL BANGLADESH. B.M.J. VOL. 296. PP.879-882.
12. CHIRMULAY D, NISAL R 1993. NUTRITIONAL STATUS OF TRIBAL UNDERFIVE CHILDREN IN AHMADNAGAR DISTRICT, MAHARASHTRA IN RELATION TO WEANING/ FEEDING PRACTICES. INDIAN PEDIATR. VOL.30. PP. 215-222.
13. HASAN J, KHAN Z, SINHA SN. 1991. SOCIO- CULTURAL FACTORS INFLUENCING NUTRITIONAL STATUS OF INFANTS - A LONGITUDINAL STUDY. INDIAN J. MATERN. CHILD HEALTH. VOL. 2. PP.84- 86.
14. KUMAR D, GOEL N, MITTAL PC, MISRA P. 2006. INFLUENCE OF INFANT- FEEDING PRACTICES ON NUTRITIONAL STATUS OF UNDERFIVE CHILDREN. INDIAN J. PEDIATR. VOL. 73. PP.417-421.
15. PANPANICH R, VITSUPAKORN K, CHAREONPORN S. 2000. NUTRITIONAL PROBLEMS IN CHILDREN AGED 1- 24 MONTHS: COMPARISON OF HILL- TRIBE AND THAI CHILDREN. J. MED. ASSOC. THAI. VOL. 83. PP.1375-1379.
16. ROY NK. 2000. USE OF MID UPPER ARM CIRCUMFERENCE FOR EVALUATION OF NUTRITIONAL STATUS OF CHILDREN AND FOR IDENTIFICATION OF HIGH-RISK GROUPS FOR MALNUTRITION IN RURAL BANGLADESH. J. HEALTH POPUL. NUTR. VOL. 18. PP.171-180
17. TANEJA PV, SAXENA M. 1998. NUTRITIONAL ANTHROPOMETRY OF BHIL WOMEN IN JHABUA DISTRICT OF MADHYA PRADESH. IND. J. NUTR.

DIETET. VOL. 35. PP.98-102.

18. TEWARI P, SHEKHAWAT N, CHOUDHARY S. 2005. USE OF NUTRITIONAL ANTHROPOMETRY AND CLINICAL EXAMINATION IN THE ASSESSMENT OF NUTRITIONAL STATUS OF CHILDREN. MAN IN INDIA. VOL. 85. PP.49-60.
19. ALDERMAN, H., HODDINOTT, J. AND KINSEY, B.: LONG TERM CONSEQUENCES OF EARLY CHILDREN MALNUTRITION. PAPER PRESENTED AT IST INTERNATIONAL CONFERENCE ON ECONOMICS AND HUMAN BIOLOGY. TUBINGEN, JULY 11-14, 2002(2002).