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COMPARATIVE STUDY TO ASSESS THE KNOWLEDGE OF MOTHERS REGARDING PREVENTION OF IORN DEFICIENCY ANEMIA OF UNDER FIVE CHILDREN SELECTED OF URBAN AND RURAL AREAS OF WARDHA

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ABSTRACT

Background: Iorn deficiency anemia is the most common hematologic disorder of infancy & childhood . It is caused by lack of sufficient iron for the synthesis of heamoglobin. The most frequent cause of anemia in children is iron deficiency. It causes microcytic hypochromic anemia .The factors responsible for this condition are , inadequate iron storage during intrauterine period , prematurity , twin baby , maternal anemia & inadequate iorn intake in diet due to prolonged breastfeeding or feeding with cow's milk, delayed weaning, ignorance about child care, poverty etc. The disease conditions which can result iron deficiency anemia include diarrheal diseases , infections , malabsorption syndrome , hookworm infestations & chronic illnesses. **Objectives:** 1.To assess the knowledge of urban mothers regarding the prevention of Iron Deficiency Anemia in under five children. 2. To assess the knowledge of rural mothers regarding the prevention of Iron Deficiency Anemia in under five children. 3. To correlate the knowledge regarding prevention of Iron Deficiency Anemia in under five children among urban and rural mothers. **Materials and Methods: -** Tool used for the study is structured knowledge questionnaire**. Design**: Comparative Descriptive Design . **Sample size:** 100 subjects. **Sample:** Mothers of under five children. **Setting:** Urban & Rural areas at wardha. **Sampling technique:**Non probability convenience sampling. **Results:** The study shows that 36% of women from rural area and 4% from urban area had poor level of knowledge score, 62% from rural area and 36% from urban area had averge, 2% from rural area and 54% from urban area had good and 6% from urban area had excellent level of knowledge score. Mean knowledge score of the women from rural area was 7.120±2.41 and for urban area it was 13.56±3.47. The overall comparison of knowledge score of womens from rural and urban area which reveals that womens from urban area had highest knowledge score of 13.56 with SD of ±3.47 when compared with womens from rural area knowledge score value which was 7.12 with SD of ±2.41. In rural areas occupational status was found to be associated with knowledge of mothers of under five children. None of the other variables were found significantly related with knowledge of mothers of under five children. **Conclusion-** Iron deficiency anaemia is the most common problem among under five age children The main aim of the study was assess the knowledge of mothers regarding prevention of iorn deficiency anemia of under five children , Where there are vulnerable groups and underprevillaged populations and needs intervention through educational programme or handouts.

KEYWORDS : knowledge, prevention of Iron deficiency anemia, diarrheal diseases , infections , malabsorption syndrome , hookworm infestations.

INTRODUCTION:-

The minerals present at levels less than 0.05% in the human body are defined as micro- mineral. Iron is also known as micro-mineral. Iron was recognized as constituent of the body by Lernery in 1713. In 1800, Lecanu identified iron in the metalloproteinase hemoglobin. It is now known that virtually all the iron in the body exists in combination with protein molecules .Overall, the body contains 2.5g to 4.5 gm.[1]

Nutritional Anemia, according to World Health Organization (W.H.O), is a state in which the hemoglobin concentration in the blood lowers than required levels. Consider normal for the age, gender, physiological state and attitude, as a consequence of shortage of essential nutrients, independent of the cause of this deficiency. Nutritional anemia includes a lack nutrients such as iron, folic acid, vitamin B1, copper,(with erythropoietin function) vitamin C and E(related to hemorrhagic states)and vitamin A (related to cellular differentiation of red blood cells and mobilization of the iron of the reticuloendothelial system[2]

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RESULTS:-

Table 1: Percentage wise distribution of mothers according to their demographic characteristics

n=100

Demographic Variables	Rural Area	Urban Area
Age in years		
25-30 yrs	21(42%)	11(22%)
31-35 yrs	18(36%)	15(30%)
36-40 yrs	11(22%)	12(24%)
>40 yrs	0(0%)	12(24%)
Educational qualification of mother		
Primary	25(50%)	3(6%)
Higher Secondary	18(36%)	10(20%)
Graduate	5(10%)	23(46%)
Post Graduate	2(4%)	14(28%)
Illiterate	0(0%)	0(0%)
Type of family		
Nuclear	14(28%)	42(84%)
Joint	36(72%)	8(16%)
Extended	0(0%)	0(0%)
Family income per month in rupees		
5000-10000 Rs	11(22%)	0(0%)
10000-15000 Rs	26(52%)	5(10%)
15000-20000 Rs	13(26%)	32(64%)
20000 Rs & Above	0(0%)	13(26%)
Occupational status of mother		
Housewife	37(74%)	15(30%)
Govt Employee	13(26%)	9(18%)
Private Employee	0(0%)	26(52%)
Other	0(0%)	0(0%)
Sex of the child		
Male	39(78%)	28(56%)
Female	1122%)	22(44%)

The above table 1 depicts frequency and percentage wise distribution of urban and rural women according to their age, educational status, type of family, family income, occupational status and sex of the child respectively.

Distribution of urban and rural women according to their age in years reveals that 42% of twomen in rural area and 22% in urban area were belonging to the age group of 25-30 years, 36% in rural area and 30% in urban area were belonging to the age group of 31-35

years, each 22% of the women in rural area and 24% in urban area were belonging to the age group of 36-40 years and 24% in urban area more than 40 years of age.

According to educational status of mother reveals that 50% of women in rural area and 6% in urban were educated upto primary standard, 36% in rural area and 20% in urban area were educated upto higher secondary, 10% in rural area and 46% in urban area were graduates, 4% in rural area and 28% in urban area were postgraduates.

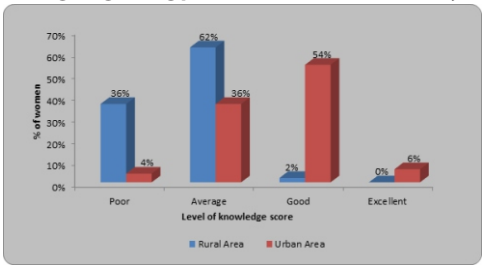
Distribution of urban and rural women according to their type of family reveals that 28% of them from rural area and 84% from urban area were belonging to nuclear families, 72% from rural area and 16% from urban area were belonging to joint families.

According to their family income per month shows that 422% of the women from rural area had income 5000-10000 Rs, 52% from rural area and 10% from urban area had income between 10000-15000 Rs, 26% from rural area and 64% from urban area had income between 15000-20000 Rs and 26% of them women from urban area had income 20000 Rs & Above.

Distribution of urban and rural women according to their occupational status shows that 74% of them women from rural area and 30% from urban area were housewife, 26% from rural area and 18% from urban area were government employees and 52% from urban area were private employees respectively.

According to sex of the child shows that 78% of the women from rural area and 56% of them women from urban area had male child.

Graph 1: Distribution of rural and urban mothers with regards to knowledge regarding prevention of iron deficiency anemia



The above Graph shows the frequency and percentage wise distribution of rural and urban women according to level of knowledge regarding prevention of iron deficiency anemia. 36% of women from rural area and 4% from urban area had poor level of knowledge score, 62% from rural area and 36% from urban area had averge, 2% from rural area and 54% from urban area had good and 6% from urban area had excellent level of knowledge score. Mean knowledge score of the women from rural area was 7.120±2.41 and for urban area it was 13.56±3.47.

Comparison of knowledge of mothers regarding prevention of iron deficiency anemia of under five children from selected rural and urban area

The overall comparison of knowledge score of womens from rural and urban area which reveals that womens from urban area had highest knowledge score of 13.56 with SD of ±3.47 when compared with womens from rural area knowledge score value which was 7.12 with SD of ±2.41.

The statistical Student's unpaired t test implies that the difference in the knowledge score of womens from rural and urban area was found to be 10.76 statistically significant at 0.05% level. Hence it is statistically interpreted that comparison of knowledge score of the women from rural and urban area was effective.

DISCUSSION-

Present study conducted in rural & urban area of Wardha and subject was selected through non-probability convenient sampling technique. The tool for data collection was structural knowledge questionnaire.

A comparative study was conducted (2007) by Israel Ministry of Health, to examine mother's knowledge and adherence with recommendations regarding iron supplementation and assess their association with the prevalence of anemia in infants. The sample consists of 101 children and mothers of children born between November 2000 and February 2001 and living in a small Jewish town in southern Israel. Hemoglobin was tested at 9–12 months of age and chi-square test was used to analyze categorical variables and *t*-test for continuous variables. Of the 101 children in the study, 47% had serum hemoglobin under 11 g/dl. Of the mothers, 62% were partially or completely non-compliant with iron supplementation; 34% had low level of knowledge regarding anemia. The study concluded that, the presence of Iron Deficiency Anemia in children in southern Israel is inversely affected by the level of maternal knowledge of anemia and adherence to iron supplementation. Low level of knowledge is also directly related to low adherence.[3]

NURSING IMPLICATIONS

Nursing Practices:

Learning is an active goal directed process transforming knowledge skills and values into new behavior. Nurses can assess the knowledge of mothers attending various pediatric clinics and in community regarding Iron deficiency anemia. Thus various educational programmes can be conducted for the mothers based on the needs which will help in improving the mothers knowledge regarding Iron deficiency anemia.

Nursing administration

Nurse as an administrator plays role in educating the professionals and policy making such as mass health education measures in the community. Being a administrator one can arrange in service education and special training program regarding Iron deficiency anemia for staff and students in collaboration of both pediatric and community departments for upgrade knowledge of benefits of Iron deficiency anemia.

Nursing education

The findings of a study can serves as guidelines for the nurse educators for planning and conducting educational program for students nurses regarding nutritional assessment . The nursing curriculum should include activities like preparation of booklets, handouts, pamphlets, menu planning cards, diet plans which can be given to health workers to circulate in community .

RECOMMENDATIONS

On the basis of the findings of the study, it is recommended that the following studies can be conducted-

- A study may be conducted to evaluate the effectiveness of instructional module of the similar problem.
- A study may be conducted to evaluate the effectiveness of planned teaching of the similar problem.
- A study may be conducted large group.

CONCLUSION- Iron deficiency anaemia is the most common problem among under five age children The main aim of the study was assess the knowledge of mothers regarding prevention of iorn deficiency anemia of under five children , Where there are vulnerable groups and underprevillaged populations and needs intervention through educational programme or handouts.

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