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RESEARCH ARTICLE

EFFECTIVENESS OF EDUCATIONAL INTERVENTION ON KNOWLEDGE REGARDING IRON DEFICIENCY ANEMIA AMONG ADOLESCENT GIRLS RESIDING IN URBAN SLUMS

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Abstract

Adolescence is defined by the World Health Organization as the period of time between the ages of 10 and 19. Five millionof these young people live in poor countries. Adolescence is a substantial stage of human development and maturation where there are unique changes and many adult bodies are high of the overall population, teenage girls make up 22% and figures indicate that by the time they enter menarche, approximately 25-50 percent of girls become anaemic.A quasi experimental one group pre-test, post-test research design was appliedto determine the effectiveness of educational intervention regarding iron deficiency anaemia among 50 adolescent girls by purposive sampling technique.The data was collected through structured knowledge questionnaire. An educational intervention was administered to the adolescent girls.Statistical analysis used: the paired t-test was used to assess the effectiveness of educational intervention regarding iron deficiency anaemia among adolescent girls.The researcher found that the calculated value was significantly higher than the tabulated value i.e. t- value i.e., 5.52 and calculated value i.e., 2.44 which showed the effectiveness of educational programme regarding iron deficiency anaemia. Hence, the intervention was effective in terms of knowledge.The study concluded that the educational intervention was effective in improving the level of knowledge regarding iron deficiency anaemia.

Introduction:-

Adolescents account for approximately 1.2 billion people worldwide, or roughly one fifth of the global population and their numbers are growing. Five million of these young people live in poor countries. The population of India has surpassed one billion people out of this 21% are adolescence**. [1]** Adolescence in a broader sense refers to the period of human development that spans childhood and maturity. This is a critical period since these are a person's formative years, when important physical, psychological, and behavioural changes occur. Adolescents dietary and health needs are considerably greater as a result of their growth spurt and increased physical activity. Adolescence signals the start of the menstrual cycle or reproduction in females between the ages of 10 and 19, adolescents gain 30% of their adult weight and more than 20% of their adult height, which is referred to as a growth spurt.[**2]** Anaemia is one of the big public health problems that constant worldwide. It also causes pathological condition in

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which the blood haemoglobin concentration decreases to an abnormally low level due to a deficiency in one or multiple nutrients. The main nutrients involved in the synthesis of haemoglobin are iron, folic acid and vit B12 but in public health terms iron deficiency is the most common nutritional disorder in the world nearly 2 billion people are affected with an adverse impact on health, education and productivity of entire nation. **[3**]

IDA (Iron Deficiency Anaemia) is a very prevalent condition. Anemia is more common in India than in many other countries throughout the world. In India, nutritional anaemia is a major public health issue caused mostly by iron deficiency. The prevalence of anaemia is much higher in rural areas. According to the NFHS-3 2 and the National Nutrition Monitoring Bureau Survey [NNMBS], the prevalence of anaemia among teenage girls (Hb 12 gm/dL) is frighteningly high**. [4]**

The prevention and control of anaemia in adolescent girls are very important to support the achievement of healthy and quality children and adolescents' girls. School-based programme of iron supplementation is effective in increasing the haemoglobin level and blood ferritin levels. To manage the progamme well, it needs family involvement in terms of supervision of compliance and side effects to achieve the regularity of consumption. To ensure the sustainability of the program, we need to strengthen the education and motivation among teachers and school children and develop an integrated and comprehensive system to control iron nutrition anaemia**. [5]**

Objectives:-

To determine the effect of educational intervention on iron deficiency anaemia among adolescents' girls residing in urban slums.

Subjects and Methods:-

Study design, setting and duration:

The research design selected for the study was quasi experimental one group pre-test post-test design; Setting of the study was Lallu mal urban slums of urban community health Centre silver jubilee, Lucknow.

Study population:

The need for defining a population for a research project arises for the requirements of specifying the group to which the results of study can be applied. Population in my study was adolescent girls of 10-19 years.

Sample size:

The estimated sample size was 90(calculated by power analysis).

Formula $\mathbf{n = z^2Pq/d^2}$

Where **n** is sample size.

Z is confidence interval: 95 %(z=1.96)

P is population proportion=25%

(In the base study, proportion of respondent showing in good knowledge regarding iron deficiency anemia is 25%where the sample size is 60).**6**

D is precision or error (10%i.e.0.01) to

*NOTE: DUE TO COVID 19 PANDEMIC ONLY 50 SAMPLES COULD HAVE BEEN SELECTED FOR THE STUDY.

Sampling technique:

Purposive sampling technique.

Inclusion criteria:

Adolescent aged between 10years to19years residing in Lallu mal (Urban slum) who were available &willing to participate in the study.

Exclusion criteria:

Adolescent girls who have already participated in same type of study.

Results:-

Paired t-test was used to assess the effectiveness of intervention among the population, the researcher calculated the t- value i.e., 5.52 and compared the tabulated value for this study i.e., 2.44 on the level of significance 0.05 and

found that the calculated value was significantly higher than the tabulated value. So, the researcher rejected the null hypothesis and accepted alternative hypothesis, which shows the effectiveness of educational programme regarding iron deficiency anemia. Hence, the intervention was effective in terms of knowledge

Discussion:-

The results showed that knowledge of the adolescent girls regarding causes, clinical features of iron deficiency anemia and investigation and prevention of iron deficiency anemia was 16.66%, 30% and 21% respectively which was significantly increased to 94.66%, 94% and 80% respectively after the intervention. Based on the findings of the study, it shows that the level of knowledge regarding iron deficiency anemia among adolescent girls was significantly higher after implementation of educational intervention. Hence it proved that the educational intervention by researcher was effective to increase the knowledge among adolescent girl regarding iron deficiency anemia. So, there was a need of providing proper information and education regarding iron deficiency anemia, its causes, sign and symptoms, diagnosis and prevention and treatment. So, health care provider should provide health education to improve their knowledge regarding iron deficiency anemia among adolescent girls.

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Reference:-

1. Goyal Akhilesh, Verma Niket, Mahesh Ashwin. Study of anemia among adolescent school girls and young adults. International Journal of Advances in Medicine. Int J Adv Med. 2018 Aug;5(4). Available from:http://www.ijmedicine.com.
2. Dev Ram Sunuwar, Devendra Raj Singh, Narendra Kumar Chaudhary, Pranil Man Singh Pradhan, Pushpa Rai, Kalpana Tiwari, Prevalence and factors associated with anemia among women of reproductive age in seven South and Southeast Asian countries: Evidence from nationally representative surveys,Published online 2020 Aug 13, Available fromhttps://europepmc.org/articles/pmc7425935/bin/pone.0236449.s004.docx.
3. N. M. Parwati, Pande Januraga, Suarjaya. The Effect of School-Based Program of Iron Supplementation in Preventing and Controlling Iron Deficiency Anemia Among Adolescent Girls: Literature Reviews Proceedings of the 4th International Symposium on Health Research (ISHR 2019), 22 February 2020, Available from https://www.atlantis-press.com/proceedings/ishr-19/125935050.
4. Dutta. Parul. A Text Book of Paediatric Nursing, ed 2nd. vol 1; Jaypee brothers' medical publishers, new delhi; 2009.338-338
5. M.-N. Khaskheli, S. Baloch, A. S. Baloch, S. Baloch, and F. K. Khaskheli, "Iron deficiency anaemia is still a major killer of pregnant women," Pakistan Journal of Medical Sciences, vol. 32, no. 3, pp. 630–634, 2016.
6. DeMaeyer EM, Dallman P, Gurney JM, et al Preventing and controlling iron deficiency anaemia through primary health care: a guide for health administrators and programme managers. Geneva: World Health Organization.