

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING IRON DEFICIENCY ANEMIA AMONG THE MOTHERS OF UNDER FIVE YEARS CHILDREN

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Abstract

Quasi experimental one group pre-test post-test design was adopted and the study was conducted among mothers of under five years children at selected hospital at Jaipur District. 30 mothers were selected by using purposive sampling method. Pre test level of knowledge of mothers of regarding anemia were assessed. Structured teaching programme was given for 45 minutes and 20 minutes was given for clarification of doubts regarding management of iron deficiency anemia. After 7 days post test was conducted. The same questionnaire was used to assess the post test knowledge of mothers of under five years children. The data gathered was analysed by descriptive and inferential statistical method and interpretations were made based on the objectives of the study. The major findings of the study was In pre test 21(70%) had inadequate knowledge and 9(30%) had moderate moderate knowledge. On the post test 24(80%) had adequate knowledge and 6 (20%) had moderate knowledge regarding iron deficiency anemia. In pre test mean score level of knowledge regarding iron deficiency anemia among mothers of under five years children were 8.3 with standard deviation 3.71 and the mean score was 16.8 with standard deviation 1.7 in post test. The mean difference was 8.5. The obtained paired 't' test value was 11.47 which is significant at $p < 0.05$ level. Hence the stated H1 hypothesis was accepted. It was inferred that structured teaching programme is highly effective to increase the level of knowledge regarding iron deficiency among mothers of preschool children. The study findings shows that there was Significant association between the level of knowledge with type of family and there is no significant association between the level of knowledge with age , religion, education, occupation, residence, family income, previous knowledge on anemia and source of information.

Keywords: Effectiveness, Iron Deficiency Anemia, Mothers Of Under Five Years Children.

INTRODUCTION

Iron deficiency anemia is one of the commonest forms of anemia and highly prevalent among the reproductive age group of women, as a result of excessive loss of iron or demand of iron associated with menstruation and child birth. It is a critical health concern as it affects growth, energy levels and also leads to various health problems. It is one of the main causes of morbidity and mortality in reproductive age and a key factor to low birth weight. Inadequate knowledge on anemia, poverty, inadequate diet, pregnancy, lactation, poor educational level and poor access to health services predispose women to get anemia.

The reason for the high morbidity and mortality rates among women can be that the manifestations of anemia among women in reproductive age may not be evidenced easily in the beginning as it is like an ice berg. But Paleness, fatigue and low blood pressure can be manifested later. In severe cases, there will be shortness of breath and chest pain, which is an evidence of inadequate perfusion and oxygenation of the major organs. These factors can worsen the health conditions of women and lead to various secondary health problems such as lung diseases, cardiovascular diseases and heart attack, ultimately to death. Severe anemia is closely related to the risk of high mortality among reproductive age group of women, and mild anemia carries health risks and reduces capacity to work.

Anemia results from defective red cell production or increased red cell destruction or blood loss. Iron is necessary for synthesis of hemoglobin. Iron deficiency is thought to be the most common

cause of anemia globally, but other nutritional deficiencies (including folate, vitamin B12 and vitamin A), acute and chronic inflammation, parasitic infections, and inherited or acquired disorders that affect Hb synthesis, red blood cell production or red blood cell survival can cause anemia.

STATEMENT PROBLEM

Effectiveness of Structured Teaching Programme On Knowledge Regarding Iron Deficiency Anemia Among The Mothers Of Under Five Years Children

AIM OF STUDY

To evaluate the effectiveness of Structured Teaching Programme on Knowledge Regarding Iron Deficiency Anemia among the Mothers of under Five Years Children

OBJECTIVES

1. To assess the pre test and post test level of Knowledge regarding Iron deficiency anemia among the mothers of under five years children.
2. To evaluate the effectiveness of structured teaching program on knowledge regarding Iron deficiency anemia among the mothers of under five years children.
3. To find out the association between the pretest level of knowledge regarding Iron deficiency anemia among the mothers of Under five years children with their selected demographic variables.

METHODOLOGY

Research Approach: In this study, quantitative research approach was adopted.

Research Design: In this study, Quasi experimental one group pre test post test design was adopted to determine structured teaching programme on knowledge regarding prevention of iron deficiency anemia among the mothers of under five years children in selected hospitals.

Research Setting: In this study will be conducted in selected hospital Jaipur.

Variables under study:

Dependent variable: Knowledge among mothers of under five years children regarding iron deficiency anemia.

Independent Variable :- Structured teaching programme on iron deficiency anemia.

Population: In the present study, population comprised of mothers of under five years children in selected hospitals.

Sample size and Sampling technique: The sample size for the study was 30 mothers of under five years children was selected and using purposive sampling technique.

Description of tool:

Section: A Demographic variables It consists of demographic variables such as age, religion, education, occupation, residence, type of family, family income, previous knowledge on anaemia, source of information on anaemia.

Section: B It consists of 30 iron deficiency anaemia related questions including causes, symptoms, diagnosis, treatment, management of anemia.

RELIABILITY: The reliability of the tool was established by using test retest method (Karl Pearson formula). Reliability of the tool was $r = 0.86$, so the tool was found to be reliable.

Ethical Consideration: Formal approval was obtained from ethical committee of the institution and permission was obtained from concerned authority of the hospital, Jaipur. Written informed consent was obtained from all the participants and anonymity was maintained.

RESULTS AND DISCUSSION:

Table:1 Frequency and percentage distribution of demographic variables among mothers of under five years children.

S. No	Demographic Variables	f	%
1.	Age		
	a. 21-25 years	6	20
	b. 26-30 years	5	16.67
	c. 31-35 years	17	56.67
2.	d. 36-40 years	2	6.67
	Religion		
	a. Hindu	22	73.33
	b. b.Christian	6	20
3.	c. Muslim	6	6.67
	d. d. Others	0	0
	Educational qualification		
	a. Illiterate	1	3.33
4.	b. School education	16	53.33
	c. Diploma/under graduate	9	30
	d. Post graduate	4	13.33
	Occupition		
5.	a. House wife	9	30
	b. Government employee	6	20
	c. Private employee	13	43.33
	d. coolie	2	6.67
6.	Residence		
	a. Rural	1	3.33
7.	b. urban	29	96.67
	Type of family		
8.	a. Nuclear	13	43.33
	b. joint	17	56.67
9.	Family Income		
	a. < Rs5000	4	13.33
	b. Rs 5001-Rs 10000	7	23.33
	c. Rs10001-Rs 15000	13	43.33
10.	d. >Rs 15001	6	20
	Previous knowledge on anemia		
11.	a. Yes	6	20
	b. No	24	80
12.	Source of information		
	a. Friends	2	6.67
	b. Family members	1	3.33
	c. Mass media	3	10
13.	d. Nil	24	80

Table: 2 Assess the pre test and post test level knowledge regarding iron deficiency anemia among mothers under five years' children.

S.NO	Level of Knowledge	Pre test		Post test	
		f	%	f	%
1.	Inadequate knowledge	21	70	0	0.00
2.	Moderate Knowledge	9	30	6	20
3.	Adequate knowledge	0	0.00	24	80

Table: 2 Shows that majority 21 (70%) had inadequate knowledge and 9(30%) had moderate knowledge in the pretest. On the post test 24 (80%) had adequate knowledge and 6 (20%) had moderate knowledge regarding iron deficiency anemia.

Table: 3 Assess the effectiveness of structured teaching programme on knowledge regarding iron deficiency anemia among mothers of under five years children.

N-30

S.no	Test	Mean	SD	Mean Difference	Paired t- Test	Significance at 0.05 level
1.	Pretest	8.3	3.71	8.5	11.47*	2.042
2.	Posttest	16.8	1.7			

Table: 3 Shows that the mean score level of knowledge regarding iron deficiency anemia among mothers of under five years children were 8.3 in pre test and 16.8 in post test and the standard deviation score is 3.71 in pre test and 1.7 in post test .The mean difference was 8.5.The obtained paired t test value was 11.47 which is significant at $p < 0.05$ level .Hence the stated H1 hypothesis was accepted. It was inferred that structured teaching programme is highly effective to increase the level of knowledge regarding iron deficiency among mothers of under five years children.

Table: 4 Association between pre test level knowledge regarding iron deficiency anemia among mothers of under five years children with their selected demographic variables.

S. No	Demographic Variables	Level of Knowledge		X ²	Table Value
		Inadequate	Moderate		
1.	Age			0.99#	3df 7.89
	a. 21-25 years	4	2		
	b. 26-30 years	3	2		
	c. 31-35 years	13	4		
	d. d. 36-40 years	1	1		
2.	Religion			0.92#	3df 7.89
	a. Hindu	15	7		
	b. b.Christian	4	2		
	c. Muslim	2	0		
	d. d. Others	0	0		
3.	Educational qualification			5.82#	3df 7.89
	a. Illiterate	1	0		
	b. School education	11	5		
	c. Diploma/under graduate	8	1		
	d. Post graduate	1	3		

4.	Occupation				
	a. House wife	7	2	5.24#	3df 7.89
	b. Government employee	2	4		
	c. Private employee	10	3		
d. coolie	2	0			
5.	Residence			0.44#	1df 3.84
	a. Rural	1	0		
	b. urban	20	9		
	Type of family			10.15*	1df 3.84
c. Nuclear	1	5			
6.	d. joint	20	4		
	Family Income			3.01#	3df 7.89
a. < Rs5000	1	1			
b. Rs 5001-Rs 10000	0	1			
c. Rs10001-Rs 15000	2	1			
7.	d. >Rs 15001	18	6		
	Previous knowledge on anemia			0.006#	1df 3.84
a. Yes	9	4			
8.	b. No	12	5		
	Source of information			3.02#	3df 7.89
a. Friends	2	2			
b. Family members	6	1			
c. Mass media	10	3			
9.	d. Nil	3	3		

#NS- Non significant

* S- Significant

Table: 4 Chi-square was calculated to find out the association between the level of knowledge on mothers of under five years children regarding anemia with their selected demographic variables. There was significant association between the levels of knowledge with type of family and there is no significant association between the level of knowledge with age, religion, education, occupation, residence, family income, previous knowledge on anemia and source of information.

Nursing Implications: The findings of this study can be utilized in all the domains of nursing i.e. nursing practice, nursing education, nursing research and nursing administration, the implications are:

Nursing Practice:

- Nurses have greater responsibility to protect the health of people prevent illness promote and maintain the health. Therefore community health nurse can focus on these aspect in the community.
- Screening camps can be arranged and early detection can be done through mass education system to treat and prevent anemia.
- Self-instructional modules regarding prevention of anemia can be distributed to the people in the community

Nursing Education:

- Nurses should be periodically trained to provide better health education with special emphasis on women with anemia and diet during programme through nursing students to develop skill in identifying risk groups and prevent the complication.
- As today's nursing students are tomorrow's staff nurses, educationists, administrators and supervisors nursing teachers should emphasize on health education and various methods of imparting education during student's training period.
- Nursing education should emphasize more on preparing prospective nurses to impart information and support government programme on prevention of anemia its causes, sign and symptoms, treatment and control.

Nursing Research

- The study also reveals that there is knowledge deficit regarding anemia and diet. It emphasizes a great need for further research on awareness regarding anemia and diet among women.
- The study will be a valuable reference material for further research.
- This study is a preliminary setup for exploring the concept of knowledge, attitude and practice in prevention of anemia.
- The result of the study can encourage women to adopt healthy life styles.
- Further studies can be regarding anemia in large scale.

Nursing administration

- The concept of extended and expanded role of nurse offers many opportunities for a nurse administrator to improve the quality of life of women.
- The nurse administrator should co-ordinate her work along with the preventive, creative and rehabilitative aspect of care.
- The nursing administrators at various levels of health care delivery system should focus their attention on make public to be conscious of anemia prevention.
- Nursing personnel should be prepared to take leadership role in educating other health personnel in the prevention of anemia.

CONCLUSION

The present study assessed the effectiveness of structured teaching programme on knowledge regarding iron deficiency anemia among the mothers of under five years children in M.G Hospital at Jaipur district . Based on statistical findings, it is evident that, in pre test 21(70%) had inadequate knowledge and 9(30%) had moderate knowledge. On the post test 24(80%) had adequate knowledge and 6(20%) had moderate knowledge. Therefore the investigator concluded that structured teaching programme had significantly increased the level of knowledge on anemia among mothers of under five years children.

REFERENCES

1. Raghuram V, Manjula anil, Jayaram. Prevalence of anemia amongst women in the productive age group in a rural area in south India. International journal of biological & medical research. [Online] [Cited 2012]; 3 (2); 1482-1484: Available from: URL: www.biomedscidirect.com.

2. Ansuman Panigrahi, Parsun Bikash Sahoo. Nutritional anemia and its epidemiological correlates among women of reproductive age in an urban slum of Bhubaneswar, Orissa. [Online] [cited 2012 Jan]; Available from: URL: <http://ijph.in/currentissue.asp>
3. Chouhan DS. Impact of Screen Time Used by Children and Its Mental Health Effects in the Digital Age: A Study. International Journal of Research in Social Sciences. 2019 Jun 5;9(6):2.
4. ME Bentley and PL Griffiths. The burden of anemia among women in India. European Journal of Clinical Nutrition. [Online] [cited 2003]; 5 (7); 52–60: Available from: URL: www.nature.com/ejcn.
5. Tahir Ansari, Laquat ali, Hariq Aziz, Jamal Ara, Nagina, Humera tahir. Nutritional iron deficiency in women of childbearing age- what to do. Journal of Ayub Medical College Abbottbad. [Online] [cited 2009]; 21 Available from: URL: <http://www.ayubued.edu.pak/JAMC/PAST/21-3>
6. P Malhotra, Savita Kumari, R Kumar and Varma S. Prevalence anemia in adult rural population of northern India. Journal of association of physicians of India. [Online] [cited 2004 Jan]; 5 (2); Available from: URL: <http://www.japi.org>
7. Chouhan DS. Cyberbullying: The Scale of the Problem in Adults & Children. International Journal of Research. 2019 Jun 5;8.
8. Pala and Dundar. Prevalence and risk factors of anemia among women of reproductive age in Bursa, Turkey. Indian journal of medicine, September, 2008. Vol, 128. Pp282-286
9. Shojaeizadeh. D Study on Knowledge, Attitude and Practice of Secondary School Girls in Qazvin on Iron Deficiency Anemia. Iranian Journal of Public Health. [Online] [cited 2001]; 30 (1-2); 53-56: Available from: URL: <http://journals.tums.ac.ir/>
10. F. Moradi, Mohammadi1 A. Kadivar1 and s. J. Masoumi. Knowledge and practice of pregnant women in Fars province about intake of iron supplements. Journal of Acta Medica Iranica. [Online] [cited 2007]; 45 (4): Available from: URL: <http://journals.tums.ac.ir/> 30. Lusine Mirzoyan. Iron-Deficiency Anemia.
11. Kaur, K. (2014). Anaemia a silent killer among women in India: Present scenario. European Journal of Zoological Research, 3(1), 32-36.
12. Park. K, Textbook of preventive and social medicine, 20th edition, M/S banarsidas banana publishers, Pp 559.
13. Kothari C R, Research Methodology Method and techniques. Second Edition, New age international P Ltd publishers, Delhi, Pp200.