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Article

A Study to Assess the Effectiveness of Structured Teaching Programme on Knowledge Regarding Iron Deficiency Anemia and its Prevention among the Primi Antenatal Mothers at Shridevi Institute of Medical Sciences, Tumkur, Karnataka, India

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Abstract

Background: Iron deficiency is the most common nutritional disorder in the world today, affecting approximately 25% of the world's population. Where there are three basic mechanisms for developing anemia, mainly (i) blood loss (hemorrhage); (ii) decreased production of red cells; and (iii) increased destruction of red cells. Anemia during pregnancy has been shown to be associated with a two-fold risk for preterm delivery and a three-fold risk for low birth-weight[4] as well as maternal mortality.

Materials and Methods: True experimental one group pre-test and posttest design was adopted to select the samples. 50 samples were selected by using non-probability convenient sampling. An evaluative research approach was used to assess the knowledge on iron deficiency anemia. The collected data was analyzed and interpreted based on descriptive and inferential statistics.

Result: The result showed that antenatal mothers who are attending antenatal clinic in Shridevi hospitals are not having adequate knowledge on iron deficiency anemia.

Keywords: Anemia, Primi antenatal mothers, Structured teaching programme

Introduction

Iron deficiency is the most common nutritional disorder in the world today. Iron deficiency continues to be the leading single nutritional deficiency in the world, despite considerable efforts over the past 3 decades to decrease its prevalence. Anemia may be diagnosed with confidence when the hemoglobin concentration is lower than the level considered normal for the persons age/sex group. When the anemia due to iron deficiency, increases the person's intake of absorbable iron will raise the hemoglobin concentration. Assessing frequency of iron deficiency anemia in a population means of hemoglobin. Measurement thus tends to understand the prevalence. The distribution of normal hemoglobin values is generally similar to the over, making allowance for factors such as age, sex, and attitude Iron and Folic acid deficiency is a major cause of maternal deaths in India and it is preventable. The growth of the fetus and placenta and the larger of circulating blood in an expectant mother leads to an increase in the need for nutrients, especially Iron and Folic acid. The daily requirements for Iron as well as Folate are 6 times greater for a woman in the last trimester of pregnancy than for a non-pregnant woman.

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Objectives of the Study

Following are the objectives of the study:

1. To assess the pretest knowledge of primi antenatal mothers on Iron deficiency anemia and its prevention.
2. To assess the posttest knowledge of primi antenatal mothers on Iron deficiency anemia and its prevention.
3. To evaluate the effectiveness of planned teaching programme on knowledge regarding iron deficiency anemia and its prevention among primi antenatal mothers by comparing pretest and posttest.
4. To find out the association between pretest knowledge score of primi antenatal mothers with certain selected demographic variables.

Hypothesis

H1: There is significant difference between the pre-test knowledge scores and posttest knowledge scores regarding Iron deficiency anemia and its prevention among primi antenatal mothers.

H2: There is significant association between pre-test knowledge scores regarding Iron deficiency anemia and its prevention among primi antenatal mothers and the selected demographic variables.

Materials and Methods

True experimental one group pre-test and posttest design was adopted to select the samples. 50 samples were selected by using non-probability convenient sampling. An evaluative research approach was used to assess the knowledge on iron deficiency anemia.

The collected data was analyzed and interpreted based on descriptive and inferential statistics.

The antenatal mothers who are able to read and speak Kannada or English and willing to participate were included in the study. The structured questionnaire developed by the researcher contains two parts:

Part I: Demographic Characteristics

The first part of the tool consists of 10 items for obtaining information about the selected background factor such as age, religion, type of family, educational status of pregnant mothers, income, working status, gestational age groups, personal habits, place of residence, previous information about iron deficiency anemia its prevention.

Part II: Knowledge Questionnaire

Knowledge questionnaire is to assess the knowledge of primi antenatal mothers regarding Iron deficiency anemia and its prevention. It consists of 30 items of multiple choice questions. Total score is 30.

The level of knowledge has been classified based on the acquired score as:

- Inadequate < 50%
- Average >50-75%
- Adequate > 75%

The reliability of the tool is established by split-half method Spearman Brown Prophecy formula was used to assess the significance. The reliability of co efficient was 0.90 Hence the tool found to be valid, reliable and feasible. Written concept and ethical clearance have been taken.

Results

Frequency and Percentage Distribution of the Socio-Demographic Variables

This section deals with the data pertaining to the base line Performa of primi antenatal mothers. The data is analyzed by descriptive statistics and presented in terms of frequency and percentage

Table 1.Frequency and percentage distribution of respondents according to age and religion

S. No.	Variable	Frequency (f)	Percentage (%)
1.	**Age (in years)**		
	Below 20	9	18.0%
	21-25	27	54.0%
	26-30	10	20.0%
	Above 30	4	8.0%
2.	**Religion**		
	Hindu	35	70.0%
	Muslim	9	18.0%
	Christian	3	6.0%
	Others	3	6.0%
3.	**Educational status**		
	Illiterate	29	58.0%
	Primary	15	30.0%
	Secondary school	4	8.0%
	University or higher	2	4.0%
4.	**Income**		
	Less than Rs3000	10	20.0%
	Rs 3000-6000	26	52.0%
	Rs 6001-9000	10	20.0%
	More than Rs 9000	4	8.0%

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5.	**Occupation**		
	a) Working	25	50.0%
	b) House wife	25	50.0%
6.	**Gestational age groups**		
	a) First trimester	6	12.0%
	b) Second trimester	9	18.0%
	c)Third trimester	35	70.0%

Analysis of Pre-test and Posttest Knowledge on Iron Deficiency Anemia among Primi Antenatal Mothers

This section deals with the analysis and interpretation of the data to evaluate the planned teaching programme on knowledge regarding Iron deficiency anemia among primi antenatal mothers. The data regarding pre-test and posttest knowledge score has been summarized using frequency and percentage and presented in Table.

Table 2.Pre-test and posttest knowledge scores of respondents (n = 50)

Knowledge level	Pre-test		Posttest	
	Frequency (F)	Percentage (%)	Frequency (F)	Percentage (%)
Inadequate	42	84%	00	00%
Moderately adequate	08	16%	32	64%
Adequate	00	00%	18	36%

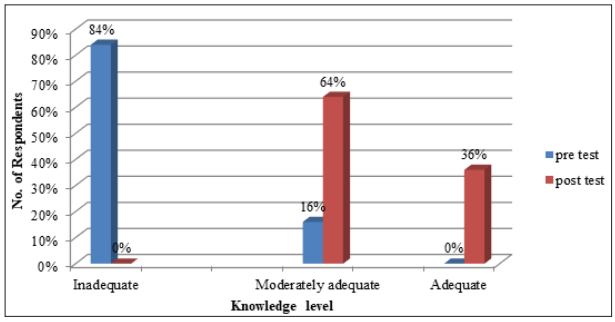

Figure 1.Percentage of pre-test and posttest knowledge level of respondents

Association of Pre-test Knowledge Score of Primi Antenatal Mothers with Selected Socio-Demographic Variables

This section deals with the findings of the association between pre-test knowledge score and selected socio-demographic variables. The mean of the pre-test knowledge score was calculated and found to be 8.800.

The number of respondents who were above and below the mean were identified and grouped according to their socio-demographic characteristics like Age, Religion, Type of family, Educational status of pregnant mothers, Income, Working Status, Gestational age groups, Bad Habits, place of residence, Previous information about Iron deficiency anemia its prevention. So H2 is accepted.

Conclusion

The following conclusions were drawn based on the data analysis:

- Majority of the respondents 27 (54%) were in the age group of 21-25 years, 10 (20%) respondents were between the age group of 26-30 years.
- Majority of the respondents 35 (70%) were Hindus and 9 (18%) were Muslim.
- Majority 29 (58%) of the respondents were illiterate, 15 (30%) respondents were primary school and remaining 2 (4%) respondents were higher secondary.
- Majority 29 (58%) of the respondents were of income between Rs 3000-6000.
- Working and house wife 25 (50%) respondents were equally distributed.
- Distributions of primi antenatal mothers according to their family type shows that nuclear and joint family 25 (50%) were equally distributed.
- Among the respondents' majority of them 26 (52%) were coming from rural area and remaining 24 (48%) were coming from urban area.
- Majority of respondents 40 (80%) were not having any bad habits, some of 10 (20%) respondents were comes under tobacco chewing.
- Majority of respondents 45 (90%) were not having previous information regarding Iron deficiency anemia and its prevention.
- The respondents' knowledge scores were high in the posttest (M=19.6200) than that in the pre-test (M=8.80). The obtained mean difference was 10.82. The obtained 't' value, t = - 45.04 (P=0.000) was highly significant. Therefore, the Null Hypothesis (H_{01}) was rejected at 0.05 level of significance.

The findings of the study revealed that there was no significant association between pre-test knowledge scores with the selected socio-demographic variables

Summary

The objectives of the study were attained through various statistical methods and interpretations. The sample characteristics were dealt with frequencies and percentages. Descriptive statistics was used to find out the mean, SD, Range, Inferential statistics was computed to find out the associations.

Conflict of Interest: None

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References

1. Sreelakshmi B. Nutritional Science. 3rd edition, pp.172-174.
2. World Health Organization, Geneva. Nutritional anemia: report of a WHO scientific group. Technical Report Series, no. 405. 2008.
3. Lozoff B, Corapci F, Burden MJ, et al. Pre-school age children with iron deficiency anemia show altered affect and behaviour. *Journal of Nutrition* 2007; 137: 683-9.
4. Lozoff B, Black M. *Impart of micronutrient deficiencies on behavior and development*. In: Pettifor J. Nutrition - Micronutrient deficiencies during the child life. Karger, Basel. 2009: 119-135.
5. World Health Organization. *Iron deficiency anemia - assessment, prevention and control*. A Guide for Programme Managers, Geneva. 2002: 1-248.
6. Stekel A. Prevention of iron deficiency. In: Stekel A, editor. *Iron nutrition in infancy and childhood*. Nestlé Nutrition Workshop, Raven Press, New York. 1984: 179-94.
7. Grantham-McGregor SM, Ani CC. Undernutrition and mental development. *Nestlé Nutrition workshop series. Clinical & Performance Programme* 2001; 5: 1-14.

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