



EFFECTIVENESS OF INFORMATION BOOKLET ON KNOWLEDGE REGARDING ANAEMIA AMONG ADOLESCENTS: A SCHOOL-BASED STUDY

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ABSTRACT **Background of the Study:** Adolescence is a period of transition from childhood to adulthood. There exists a general feeling in the society that adolescent years are normally free from major health problems. These teen years are a period of intense growth, because of this rapid growth, adolescents are especially vulnerable to many health-related problems. Proper nutrition, including adequate iron intake, plays an important part of teenager's growth and development. **Aim:** To find the effectiveness of information booklet on knowledge regarding anaemia among adolescents. **Method:** An evaluative approach with quasi-experimental design was used for the study. The sample consisted of 60 participants (30 each in experimental and control group) studying in selected high school selected using purposive sampling technique. **Results:** The pre-test knowledge score revealed that 53.33% of adolescents in experimental group and 86.66% of adolescents in control group had poor knowledge scores whereas 46.7% and 13.3 % in experimental and control group had average knowledge respectively. The post-test knowledge score revealed that in experimental group 56.66% had average knowledge and 43.33% had good knowledge whereas in control group 66.67% had poor knowledge and 33.33% had average knowledge. Findings also showed that the mean percentage of post-test knowledge score of experimental group (67.96%) was higher than the post-test knowledge scores (28.53%) of control group. This shows that there was significant difference between the post-test knowledge scores of adolescents in experimental and control group indicating that information booklet was effective in increasing the knowledge of adolescents in experimental group. **Conclusion:** The overall findings of the study revealed that there was a significant increase in the knowledge of adolescents in the experimental group. Hence, it can be inferred that information booklet was effective in improving the knowledge on anaemia among adolescents in the experimental group.

KEYWORDS : Effectiveness, Information Booklet, Anaemia, Knowledge, Adolescents

INTRODUCTION

Adolescence is a period of complete growth and development, and they require more energy during this period, which helps them to do more complex activities. Proper nutritious food and lifestyle can help even in their cognitive development. In spite of impressive gains in the field of health and nutrition, significant proportion of young people in developing countries suffer from nutritional anaemia. The risk of Iron Deficiency anaemia among adolescents appears to be more due to growth spurt.

Frequent dieting or restricted eating, skipping meals, eating styles are some risk factors for anaemia in adolescents. Despite increased iron needs, many adolescents, especially females, do not get enough iron from their diets. About 75% teenage girls, do not meet their dietary requirements for iron, compared to only 17% of teenage boys. The focus should be directed towards improving the knowledge of adolescents by providing necessary information and health education regarding anaemia, its complications and prevention. Health care professionals have a key role to support people to make and maintain healthy lifestyle changes and more importance should be given on adolescent's health.

Effectiveness of Information Booklet on Knowledge Regarding Anaemia Among Adolescents: A School-Based Study

Objectives of the Study

- To determine the level of knowledge regarding anaemia among adolescents in experimental and control group.
- To find the effectiveness of information booklet in terms of gain in knowledge score in experimental group.
- To compare the knowledge scores of adolescents on anaemia in experimental and control group.

Operational Definition

- Effectiveness:** In this study effectiveness refers to the extent to which the information booklet on anaemia has achieved the desired effect as evident from gain in knowledge scores in the experimental group.
- Knowledge:** In this study knowledge refers to the information adolescents have regarding anaemia measured in terms of knowledge scores.
- Information Booklet:** In this study it refers to an educational/ instructional material prepared by the investigator to give information on meaning, risk factors, causes, signs and symptoms, diagnosis, treatment, complication and prevention of iron deficiency anaemia in order to improve knowledge of the adolescents.
- Anaemia:** Anaemia means it is the reduction in number of red

blood cells or hemoglobin below values according to age. In this study it refers to the lack of sufficient circulating hemoglobin to deliver oxygen to tissues resulting due to inadequate intake of iron rich food.

- Adolescents:** In this study it refers to both the girls and boys studying in 8th and 9th standard in a selected rural high school of Mangalore.

METHODS AND MATERIALS

Research Approach and Design: An evaluative research approach with quasi experimental (experimental and control group) design was used for the study.

Setting of the Study: The study was conducted in a selected rural high school of Mangalore

Sample and Sample Size: Study was conducted among 60 adolescents (30 each in experimental and control group) studying in 8th and 9th standard in a selected rural high school of Mangalore who met the inclusion criteria.

Sampling Technique: Purposive sampling technique

Data Collection

Permissions were obtained from respective authorities; the study participants were explained regarding the purpose of the study and written consent was obtained and were assured of confidentiality. Pretest was conducted by administering the structured knowledge questionnaire prepared by the investigator from both the groups. Information booklet was administered to the adolescents in the experimental group after the pre-test and on the seventh day post-test was conducted using the same structured knowledge questionnaire from adolescents in both experimental and control group. The tool and the information booklet prepared was translated into Kannada language and the content validity was established. The collected data was analyzed using descriptive and inferential statistics.

Inclusion Criteria

Adolescents who were:

- studying in 8th and 9th standard in a selected rural high school of Mangalore.
- willing to participate in the study.

Exclusion Criteria

Adolescents who were not available at the time of data collection.

Data Collection Instrument: Structured Knowledge Questionnaire on anaemia

RESULTS

Section I: Baseline Characteristics

The baseline characteristics of adolescents showed that almost equal percentage of adolescents in experimental (49.8) and control (53.3)

group were in the age group of 13 years. The gender wise distribution showed that 60% adolescents in the experimental group were females while 53.33% were males in the control group. Similar percentages (83.33) of adolescents in both the groups consumed non-vegetarian diet. The major source of information in the experimental group was mass media (53.33%) and in the control group was teachers (53.33%). It was also found that highest percentage (63.33) of fathers and mothers in control group and mothers in experimental group had primary education. It was also observed that highest percentage (63.33) of mothers in both groups were private employees. Majority (83.33%) of the fathers in the control group were also private employees.

Section II: Level of Knowledge on Anaemia Among Adolescents in Experimental and Control Group.

Table 1: Frequency and Percentage Distribution of Adolescents According to Pre-test Knowledge Scores on Anaemia

Level of knowledge	Knowledge score	Experimental group		Control group	
		f	%	f	%
Poor	0 - 10	16	53.33	26	86.66
Average	11 - 21	14	46.7	4	13.33
Good	22 - 32	0	0	0	0

Maximum Score=32

The data presented in the table 1 reveals that 53.33% of adolescents in experimental group and 86.66% of adolescents in control group had poor knowledge scores whereas none had good knowledge in both the groups.

Table 2: Frequency and Percentage Distribution of Adolescents According to Post- test Knowledge Scores. n = 30+30

Level of knowledge	Knowledge score	Experimental group		Control group	
		f	%	f	%
Poor	0 - 10	0	0	20	66.67
Average	11 - 21	17	56.67	10	33.33
Good	22 - 32	13	43.33	0	0

Maximum score = 32

It is evident from table 2 that in the post-test experimental group 56.67% had average knowledge and 43.33% had good knowledge whereas in control group 66.67% had poor knowledge and none had good knowledge.

Section III: Effectiveness of Information Booklet on Anaemia in Experimental Group

Table 3: Range, Mean, Median, Standard Deviation and 't' value of Knowledge Scores of Adolescents on Anaemia in Experimental Group

Knowledge	Range	Mean	Median	SD	't' value
Pre-test	7 - 18	10.26	10	1.91	14.67*
Post-test	13 - 26	20.6	21	3.06	

$t_{29} = 2.045, p = 0.05$ *significant

Data in table 3 reveals that the mean post-test knowledge score (20.6) was higher than the mean pre-test knowledge score (10.26). The computed 't' value ($t_{29} = 14.67$) was higher than the table value ($t_{29} = 2.045$) at 0.05 level of significance. The findings suggested that there was significant increase in the knowledge score of experimental group after introducing information booklet.

Section IV: Comparison of Knowledge Scores of Adolescents on Anaemia in Control and Experimental Group After Administering Information Booklet.

Table 4: Mean, Mean Difference, Standard Deviation and 't' value of Knowledge Scores of Adolescents After Administration of Information Booklet. n=30+30

Groups	Mean	Median	SD	Mean Difference	't' value
Experimental group	20.6	21	3.06	9.17	20.76*
Control group	9.3	9	2.58		

$t_{58} = 2.00, p = 0.05$ *significant

Data in Table 4 shows that the calculated 't' value (20.76) was higher than the table value ($t_{58} = 2.00$) at 0.05 level of significance. This shows that there was significant difference between the post-test knowledge scores of adolescents in experimental and control group indicating that

information booklet was effective in increasing the knowledge of adolescents in experimental group.

CONCLUSION

- Majority of adolescents in experimental group had average knowledge and none had good knowledge in the pre-test
- The mean post-test knowledge score was higher than that of the pre- test knowledge score in experimental group.
- There was a significant difference between the mean post test knowledge scores of experimental and control group
- Information booklet is an effective method for improving knowledge

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