



EFFECT OF MIRACLE LEAVES EXTRACT ON HEMOGLOBIN LEVEL AMONG ADOLESCENT GIRLS WITH ANEMIA IN YETTACODE HIGHER SECONDARY SCHOOL AT KANYAKUMARI DISTRICT

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Abstract: Adolescence represent a major potential human resource for the overall development of a nation, most of them are having poor access to proper health care, nutrition and education. Adolescence girls are at a high risk for Anaemia and malnutrition, Anaemia is a condition in which reduced haemoglobin levels leads to diminished oxygen carrying capacity that does not optimally meet the metabolic demands of the body. The miracle leaves extract contributes to improve haemoglobin in level in the blood, objective of the study was to assess the effect of miracle leaves extract on haemoglobin level among adolescent girls. The study design was quasi experimental and purposive sampling technique were adopted, 60 adolescent girls was participated. Haemoglobin level was checked with the help of digital Haemoglobino meter. Miracle leaves extract was administered to experimental group at morning (9 am) alter breakfast for 20 days 21st day post test was done. Study finding shows that significant deference between control and experimental group post test score. The study concluded that, miracle leaves extract was very effective alternative therapy in increasing haemoglobin level.

Keywords: *Miracle Leaves Extract, Hemoglobin, Anemia, Malnutrition.*

Introduction:

Adolescence begins with the onset of puberty. It is defined by the UNICEF as the sequence of events by which the individual is transformed into a young adult by a series of biological changes. According to WHO, adolescence is the period of life that extends from 10 years to 19 years. It is divided in three phases early, middle, and late adolescence.

Adolescence period is also a sensitive period particularly for girls. Most of them are having poor access to proper health care, nutrition and education. Adolescence is a time of intense physical growth. Girls typically start puberty around ager 10-12 yrs and achieve their full adult height by the age of 15.

Adolescent girls are at a high risk for anemia and malnutrition. Inadequate nutrition during adolescence can have serious consequence throughout the reproductive years of life. In India, girls get married and pregnant even before the growth period is over, thus doubling the risk for anemia.

Anemia is a condition in which reduced hemoglobin levels leads to diminished O₂ carrying capacity that does not optimally meet the metabolic demands of the body. The reasons for the high incidence of anemia among the adolescent girls are, increased iron need for hemoglobin formation and low intake of iron containing foods, Erratic eating habits, dislike for foods which are rich in iron, like green leafy vegetables.

The Miracle leaves extract contributes to improve hemoglobin level in the blood. Miracle leaves extract contains some of the benefits that is free radicals, fights inflammation, reduce some diabetes symptoms, protect the cardiovascular system support brain health, protect liver, enhances wound healing and improve hemoglobin level also. The cost is low when compared with other iron rich vegetables.

Objectives

The study had three objectives:

1. To assess the level of hemoglobin among adolescent girls with anemia before & after providing miracle leaf extract.
2. To determine the effect of Miracle leaves extract on anemia among adolescent girls in after intervention.
3. To find out the association between hemoglobin level among adolescent variables.

Hypotheses

H₁ - There is a significant improvement in hemoglobin level among adolescent girls consuming miracle leaves extract.

H₂ - There is a significant association between association between level of hemoglobin and selected demographic variables.

Assumptions

- Miracle leaves extract will improve hemoglobin level.
- Miracle leaves extract has a purifying action on the blood
- Miracle leaves extract will applying to open wounds & insect bite
- Miracle leaves extract will dissolving kidney stones
- Miracle leaves extract may reduce the respiratory tract infection

Conceptual Framework

The conceptual framework for this study was derived from modified J.W. Kenny's open system model (1990). Open system model serve as a model for reviewing people as interacting with the environment.

Table 1: Comparison of pre-test and post-test level of hemoglobin among adolescent girls in experimental and control group (N=60)

Sl. No	Group	Pre test		Post test		Mean Difference	't' value	df	Table value
		Mean	SD	Mean	SD				
1	Experimental Group	11.7	1.5	12	0.89	0.3	13	29	2.05
2	Control Group	10.7	0.9	10.3	0.7	0.4	1	29	2.05

Significance $p < 0.05$

The post-test mean hemoglobin score in the experimental group was 12 and SD was 0.89. In control group mean score was 10.3 and SD was 0.77. The mean difference was 1.7. The calculated value 6.12 was higher than the table value 2.0. Hence there was an improvement in level of hemoglobin after administration of Miracle leaves extract among adolescent girls.

Table 2: Effect of Miracle leaves extract on hemoglobin level (N=60)

Category	Experimental Group		Control Group		Mean Difference	't' value	df	Table value
	Mean	SD	Mean	SD				
Level of Hemoglobin	12	0.89	10.3	0.77	1.7	6.12	58	2

Significance $p < 0.05$

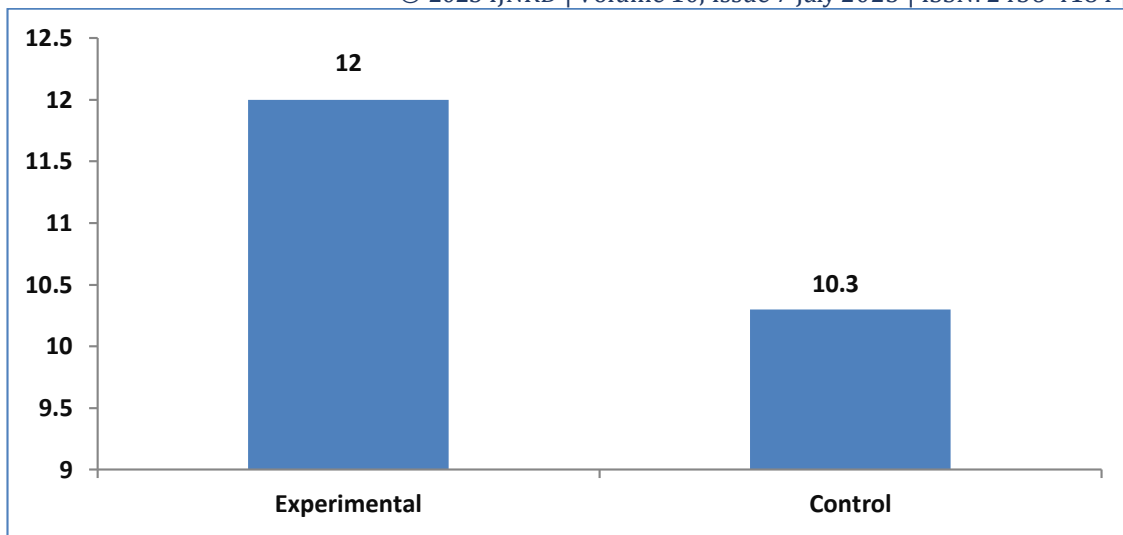


Fig.1: Comparison of the effect of Miracle Leaves Extract on Hemoglobin Level Among Adolescent Girls in experimental and control group

Implication

Nursing Practice: Miracle leaves extract is a safe and better modality which brings a higher level of satisfaction for adolescent girls.

Nursing Education: This study can motivate student nurse to explore new strategies for effective improvement of hemoglobin level in blood. 4- Nursing

Administration: The result of the study encourages the nurse administrator to conduct in-service education programs on various types of non-pharmacological treatment to increasing the hemoglobin level.

Nursing Research: The nurse Researcher can conduct other research studies based on the research evidence from this study.

Methods:

Research design used was quasi experimental design.

Data Collection Procedure

The data collection period was four weeks. The study was conducted in Yettacode higher secondary school. Before starting the study the investigator obtained permission from school authorities for conducting study. 60 adolescent girls screened with hemoglobin level with help of digital hemoglobinometer. 30 samples in experimental group and 30 sample in control group. Researcher conducted pretest in both experimental and control group by using the anemia assessment checklist and hemoglobin level was checked with help of digital hemoglobinometer. Then the investigator administered the Miracle leaves extract into the experimental group at mid morning (9am) after breakfast for 20 days. Then 21st day post test was conducted by using digital hemoglobinometer.

Sample size was 60 adolescent girls. (control group 30, experimental group 30)

- **Inclusion criteria:** Adolescent girls age between 13-15 years, and who are interested to participate in this study.
- **Exclusion criteria:** Adolescent girls who have the history of bleeding disorder like hemophilia or other major illness like leukemia and systemic disease, and who have psychologically depressed.

Purposive sampling technique were adopted.

The Instrument Consisted of Three Sections

1. **Section A:** Demographic variables- It consist of age, education, religion, food habits, age at menstrual cycle, education, occupation of parents, type of family, monthly income of parents, and source of information.
2. **Section B:** Anemia Assessment Check List to assess the severity of anemia among adolescent girls. It was prepared by researcher, coexisting of 15 clinical symptoms related to anemia. The features were given score of '4' marks for always, '3' marks for frequently, '2' marks for occasionally and '1' mark for rarely.

Score	Interpretation
46-60	Severe Anemia
31-45	Moderate Anemia
1-30	Mild Anemia

3. **Section C:** The researcher used a digital; hemoglobin meter to assess the level of hemoglobin and then categorized the subjects as healthy, mild, moderate and severe anemia. The level of anemia is classified as

- Above 12gm/dl - Healthy
- 10-11.9 gm/dl - Mild anemia
- 8-9.9gm/dl - Moderate anemia
- Below 8gm/dl - Severe anemia

Discussion

Comparison of pre-test and post-test level of hemoglobin in experimental group mean score was 11.7, SD was 1.51, mean difference was 0.3 and 't' value was 13 higher than the $p= 2.05$. In control group mean score was 10.7, SD was 10.3, mean difference was 0.4 and 't' value is $<$ the 't' value 2.05.

Recommendations

The study may be replicated with randomization in selection of a large samples. Studies can be to determine the other therapeutic benefits of Miracle leaves extract.

Conclusion

The study concluded that Miracle leaves extract was found to be an effective nursing intervention in increasing hemoglobin level. The findings of the study enlighten the fact that Miracle leaves extract can be used as a cost-effective nursing intervention in improving the hemoglobin level.

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