

Effectiveness of Amla Juice Onhemoglobin Among Anaemic Girls In Selected Schools In Kanpur

Dr. Akansha Massey

Govt College of Nursing, GSVM Medical College ,Kanpur, Uttar Pradesh.

I. INTRODUCTION

Iron deficiency Anemia is the most common nutritional problem in the world today, affecting both developed and developing societies. Adolescent girls are especially vulnerable to iron deficiency anaemia due to their increased need for dietary iron for haemoglobin and myoglobin synthesis during this rapid period of growth, when blood volume and muscle mass expand. Adolescent girls require more iron depending on their developmental stage.

Anaemia is defined as a low red cell count and a haemoglobin or haematocrit level that is lower than normal. In India, the prevalence of anaemia is reported to be 50% in urban areas and 60% in rural areas. The solution for combating anaemia is both cheap and effective: provide an iron-rich diet and increase iron absorption through the inclusion of ascorbic acid in the diet.

Amla juice boosts the immune system and has been shown to be an effective treatment for anaemia, particularly in children and adolescents where other blood-forming remedies have failed. As a result, the researcher was eager to conduct a preliminary study to determine the efficacy of amla juice in treating anaemia, which could lead to less difficulty and a higher success rate. There are 13 intervention programmes aimed at increasing haemoglobin levels in adolescent girls through prophylaxis, dietary changes, and helminth control. Increasing rural girls' educational attainment would also ensure safe motherhood.

Amla juice boosts the immune system and has been shown to be an effective treatment for anaemia, particularly in children and adolescents where other blood-forming remedies have failed. As a result, the researcher was eager to conduct a preliminary study to determine the efficacy of amla juice in treating anaemia, which could lead to less difficulty and a higher success rate.

A lack of iron Adolescent anaemia is the most common micronutrient deficiency. Iron deficiency and anaemia have been linked to impaired cognitive functioning, lower academic achievement, and, in general, lower physical work capacity. Adolescents are at risk of developing iron deficiency anaemia due to their increased iron requirements for growth. Infectious diseases such as malaria, schistosomiasis,

and hookworm affect both girls and boys, contributing to anaemia by interfering with iron absorption or increasing iron loss. During her community postings, the investigator noticed that the majority of the adolescent girls were anaemic and malnourished. The researcher believed that changing current dietary habits in a vulnerable group of young people would result in dietary changes that would ultimately improve iron status. As a result, the investigator decided to conduct a study to assess the effectiveness of Amla juice with elemental iron on anaemia in adolescent girls. The investigator chose Amla to provide vitamin C (ascorbic acid) because it is locally available and less expensive than other sources, and it has a vitamin C value (600 in 100gm of Amla) and ferrous sulphate with 20mg of elemental iron for iron supplementation.

During the literature review, the investigator came across numerous studies on synthetic ascorbic acid and iron absorption. There have only been a few studies on natural ascorbic acid iron absorption. This enabled the researcher to investigate the effect of Amla juice on iron absorption.

II. METHODOLOGY

A one-group pre-test and post-test design was used to investigate the effectiveness of amla juice with elemental iron on improving haemoglobin levels in adolescent girls with anaemia in Kanpur.

The samples were chosen using a non-probability convergent sampling technique with a sample size of 100. A structured self-administered questionnaire as well as an observation check list were used to assess the symptoms of anaemia, and haemoglobin was estimated using the cell count method. The data collection instrument is divided into three sections: demographic variables, a clinical examination check list, and SHALI'S METHOD WITH HEMOGLOBINOMETER. The quantitative approach was used for this study's methodology. Preliminary experimental design—one group Pre-test and Post-test This study included adolescent girls from Kanpur. The sample size was set at 100. The samples were collected using convenience sampling. A structured questionnaire was used to collect demographic data, an observation checklist was used to assess anaemia symptoms, and the Shari's Method with Hemoglobinometer was used to estimate haemoglobin levels.

III. RESULTS

The majority of the adolescent girls were 14 years old. The vast majority of them were Hindus. Their family income ranged between Rs. 10,000 and Rs. 35,000, and many of them came from nuclear families. The majority of the girls' mothers and fathers were uneducated, and they all ate non-vegetarian diets.

Before the Amla juice intervention, the majority of them had moderate anaemia, 40% had mild anaemia, and no adolescent girls had severe anaemia.

Following an amla juice and elemental iron intervention, 38% of adolescent girls were converted from moderate to mild anaemia.

Amla juice supplemented with elemental iron was very effective in increasing haemoglobin levels. When comparing pre-test and post-test symptoms of anaemia in adolescent girls, the Amla juice with elemental iron intervention was found to be very effective in reducing the symptoms.

The pre-intervention mean value was 19.11, which increased to 11.46 after Amla juice with elemental iron intervention, with a mean deviation of 1.84. The 't' value was 17.9, which was greater than the table value of 0.001. There is a significant difference in haemoglobin levels after amla juice intervention.

Low-cost Amla interventions are widely available in the community and easy to prepare.

IV. CONCLUSION

A nurse will play an important role in disease prevention and health promotion among adolescents. Even though nurses often work to improve and protect health, find and treat problems early, and take care of teens with long-term conditions, their main goal is to teach.

The study results showed that amla juice with elemental iron intervention increased haemoglobin levels and reduced anaemia symptoms in adolescent girls with iron deficiency anaemia. Subjects who received Amla juice with elemental iron had significantly higher haemoglobin levels.

There was a link between post-test haemoglobin level and the mother's educational status, junk food preference, habit of drinking tea or coffee with food, personal hygiene

maintenance, habit of hand washing after using the toilet, and history of parasitic infection treatment.

REFERENCES

- [1] Shah BK, Gupta P. Weekly vs daily iron and folic acid supplementation in adolescent Nepalese girls. Arch Paediatr Adolesc Med. 2002;156:131–5.
- [2] Kaur S, Deshmukh PR, Garg BS. Epidemiological correlates of nutritional anaemia in adolescent girls of rural Wardha. Indian J Community Med. 2006;31:255–8.
- [3] Chatterjee R. Nutritional needs of adolescents. Paediatrics Today. 2008;3:110–4.]
- [4] Kurtz KM, Johnson WC. Washington, DC: International Centre for Research on Women; 1994. The Nutrition and Lives of Adolescents in Developing Countries. The Nutrition of Adolescent Girls Reach Program. [[Google Scholar](#)]
- [5] Programming for adolescent health and development: WHO Tech. Rep. Sr. no. 886. 1996:2. .
- [6] Kishore J. National Health Programs of India. 6th ed. New Delhi: Century Publications; 2006. pp. 82–4. .
- [7] Lal S, Pankaj A, editors. Textbook of Community Medicine (Preventive and Social Medicine) 1st ed. New Delhi: CBS Publishers and Distributors; 2007. pp. 166–8.