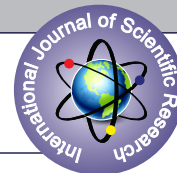


A QUASI EXPERIMENTAL STUDY TO EVALUATE THE EFFECTIVENESS OF AMLA JUICE WITH HONEY ON LEVEL OF HEMOGLOBIN AMONG B.SC NURSING STUDENTS WITH ANEMIA AT ABHILASHI COLLEGE OF NURSING DISTRICT MANDI (H.P).



Community Medicine

Kumari Nisha Professor Cum Vice Principal, Abhilashi College of Nursing, Tanda Mandi (H.P)

Aishwarya Post Basic. B.Sc. Nursing Students, Abhilashi College of Nursing, Tanda Mandi (H.P)

Kaushal Anu

Thakur Bhavna

ABSTRACT

Anemia is a global public health problem affecting both developing and developed countries with major consequences for human health as well as social and economic development. India is facing a grave public health problem, with the prevalence of anemia in India being greater than 40%. Amla juice is the best treatment to reduce anemia among students and to determine the effectiveness of amla juice on hemoglobin for the treatment of anemia among students. This study under taken to assess the effectiveness of amla juice with honey on hemoglobin level among B.Sc nursing students with anemia at Abhilashi college of nursing district Mandi H.P. Objective : The objective of this study is to determine the effectiveness of amla juice with honey on hemoglobin level among B.Sc nursing students. Methodology: The research design selected for the study was one group pre- test , post- test design. A purposive sampling technique was followed to obtain a sample of 80 B.Sc nursing students selected by inclusion criteria were included for the study. A Sahli's method and demographic data tool was used for the study. During the data collection pre- test hemoglobin level was estimated on the first day followed by amla juice with honey for 15 days. Finally post- test was estimated using the same Sahli's method. The data were analyzed using descriptive and inferential statistics. The study identified that the level of hemoglobin was increased after giving the amla juice with honey. It was found that there was a significant improvement in the level of hemoglobin after giving amla juice with honey. Result: The comparison of hemoglobin scores after the Amla Juice with Honey intervention between B.Sc. nursing students in the experimental and control groups. In the experimental group, the mean hemoglobin score was 10.22 ± 0.46 , while in the control group, the mean hemoglobin score was 9.87 ± 0.34 . The mean difference between the two groups was 0.10. An independent t-test was conducted to assess the statistical significance of this difference, and the results indicated a significant difference ($t_{78}=3.812$, $p=0.001$) at the 0.01 significance level. Conclusion: The conclusion of the study shows that amla juice found to be an effective alternative therapy in increasing hemoglobin level of anemic young adults.

KEYWORDS

Amla juice, Nursing students, Anemia.

INTRODUCTION

**“Anemia should be taken seriously
It is more than just tiredness
It affects the entire body,
especially in growing children”**

By Dr. Lloyd Van Winkle

World Health Organization (2010) grading system classified anemia is mild, moderate and severe. As per this report hemoglobin cut off values of anemia are the following grading. From 10 to 11.9 gm/dl comes under mild category and from 7 to 9.9 mg/dl will come under the category of moderate and below 7 gm/dl will be in severe range and less than 6.5 gm/dl is life threatening. Young adult period is very crucial since these are formative years in life of an individual when major physical, psychological and behavior changes take place along with the development future of the society depends on these young people as they form a great human resource for the society. Nutrition and health need of the young people are also more because of more requirement for growth spurt and increase in physical activity.²

(The WHO Global data based on Anemia for 1993-2020)

India has the largest population of young adult which includes early young girls in the World being home are 243 million individuals with the age group of 20-29 years which constitutes 20 percent of the world's 1-2 billion young adults. Abundant medical plant are presented in the Indian traditional system of medicine, mostly used one amongst them is Indian Amla which is known as Emblica Officinalis is an Indian herbal which is extensively used in ayurvedic system of medicine. Amla is the best gift from nature to mankind which contains abundant source of vitamin C. which helps in enhancing the absorption of iron. Iron help's to make hemoglobin the part of the red blood cells that carries oxygen.³

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Need Of The Study

There is limited evidence regarding the efficacy of iron containing ingredients in reducing Anemia but there are indications that, with reasonable compliance, iron containing ingredients could serve as a means of reducing anemia especially B.sc nursing students.

Anemia affects both adults and children of both sexes, although pregnant women and adolescent girls are most susceptible and most affected by this disease. The main cause is thought to be low dietary

content and bioavailability.⁶

Near the 21st century, researchers developed an interest in using iron ingredients a low cost, sustainable intervention to reduce Anemia by delivering bioavailable iron to food during preparation. The efficacy and acceptability depend on the quantity, age of the intended beneficiaries. Iron deficiency Anemia is a global public health problem which is associated with an increased risk of morbidity and mortality. There is an urgent need for innovative, low-cost interventions to treat and prevent Anemia in at risk population.

As investigator we believe that students should have knowledge regarding Anemia and its treatment and effects vitamin c with iron. Hence the researchers felt need to assess the effectiveness of vitamin c with iron for treatment of anemia B.sc nursing students .

METHODOLOGY

Introduction for any research work, the methodology of the investigation is of vital importance. Research methodology is a way to systematically solve research problem it includes the step, procedure, and strategies for gathering and analyzing the data in research investigation. This chapter designed to present a brief description of the methodology adopt for the study of “A quasi experimental study to evaluate the effectiveness of amla juice with honey on level of hemoglobin among B.sc nursing students with anemia in Abhilashi nursing college. The methodology of research indicates the general pattern of organizing the procedure together with gathering valid and reliable data for the problem under study. The content included in this chapter are research approach, description of setting, population, sample, procedure for data collection and a plan for data analysis.

Research Approach

Quantitative research approach is a formal, objective, systematic process used to describe and test the relationships examine cause and effect interaction among variables.

Research Design

The selection of the research design is the most important step as to provide framework for the study. Research design- Quasi Experimental Research Design.

Research Setting

The study was conducted at Abhilashi college of nursing Tanda District Mandi (H.P).

Variable**Independent Variable**

100ml Amla juice and 10 ml honey.

Dependent Variable

Level of Hemoglobin.

Population

Population is the entire aggregate of cases that meet the designated set of criteria.

Target Population

The target population for the study was Nursing students .

Accessible Population

Accessible population for the study was Bsc nursing students .

Sample and Sampling Technique

The choice of the sampling technique was purposive sampling. Present study comprised of Nursing students who were studying at Abhilashi college of nursing Mandi (H.P).

Sample Size

The sample size for the study comprised of 80 Nursing students to study the evaluate the effectiveness of amla juice with honey on level of hemoglobin among BSc nursing students with anemia selected area of Abhilashi college of nursing.

Sample Selection Criteria**Inclusion Criteria**

1. Students who are interested to participate in this study.

Exclusion Criteria

1. B.Sc nursing students who have history of bleeding disorder like hemophilia or other major illness like leukemia and renal failure.
2. B.Sc nursing students who are allergic to amla juice.

Data Collection Tool and Techniques

Data collection tools are the devices that researcher's uses to collect the data. The instrument facility is the observation and measurements have the variable of interest. The tool used in this study was:

1. Demographic profile.
2. Biophysiological tool

Section –A

Socio-demographic variables .

Section –B

The level of anemia is classified.

12 gm/dl - Healthy
10-11.9gm/dl - Mild anemia
7-9.9gm/dl - Moderate anemia
Below 7gm/dl - Severe anemia.

Findings

Age distribution among the participants reveals that the majority of students in both the experimental and control groups fall within the age range of 19-20 years, with 45.0% and 50.0% respectively. This indicates that the study primarily involves young adults in this age bracket. Meanwhile, a smaller percentage falls in the 17-18 and 21-22 age groups. Only a negligible percentage is older than 22 years, with 2.5% in both groups.

Regarding religion, a substantial proportion of the participants in both groups are Hindus (75.0% in the experimental group and 85.0% in the control group), reflecting the regional religious composition. A smaller percentage identifies as Muslim or belongs to other religions.

Family structure analysis indicates that the majority of students come from nuclear families, with 72.5% in the experimental group and 65.0% in the control group. Joint family structures are less common but still noteworthy, with 27.5% in the experimental group and 35.0% in the control group.

The participants' current residential status highlights that 50.0% of students in the experimental group and 62.5% in the control group reside in hostels, while the rest are day scholars. This information may be relevant for understanding the potential differences in lifestyle and support systems between these two groups.

Family income distribution showcases varying income levels, with the majority in the middle-income range of 10,000 to 20,000 Rs/month. Government jobs are a common occupation among family members,

with 35.0% in the experimental group and 47.5% in the control group, indicating potential financial stability among the participants' families.

Food habits among the students show that both groups predominantly have vegetarian diets, with 42.5% in the experimental group and 55.0% in the control group. Non-vegetarian and egg vegetarian diets are also prevalent but to a lesser extent.

The age at menarche reveals that a significant number of participants had their first menstruation between the ages of 13-14 years, with 52.5% in the experimental group and 70.0% in the control group. Dysmenorrhea, or menstrual pain, is reported by a significant portion of students in both groups, with 30.0% in the experimental group and 35.0% in the control group.

Knowledge about anemia is notable, with a higher percentage of participants in the control group (77.5%) having previous knowledge compared to the experimental group (47.5%). The primary source of knowledge about anemia varies between health professionals/social workers and books/newspapers, with 60.0% in each group citing the latter as their source.

CONCLUSION**Findings Related To Socio Demographic Profit.**

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Findings Related To Check The Level Of Hemoglobin By Hemoglobinometer (Sahli's Method)

This study both the experimental and control groups, with a total sample size of 80 participants. The results reveal that in the experimental group, 15.0% of students exhibited mild anemia, while a

substantial 85.0% showed moderate anemia. In contrast, the control group exhibited a higher prevalence of anemia, with 30.0% having mild anemia and 70.0% displaying moderate anemia.

Finding Related To Find Out The Association Between Level Of Hemoglobin Among Nursing Students With Anemia And Their Selected Socio Demographic Variables

The association between hemoglobin scores among nursing students and their selected socio-demographic variables in the experimental group. To identify statistical associations with demographic variables, ANOVA and independent t-tests were applied. The results indicate that religion ($F=3.451$, $p=0.042$) was found to be significant at the 0.05 level. However, other demographic variables, including age, type of family, current residence, family income, occupation of family member, food habits, age at menarche, duration of menstruation period, dysmenorrhea, previous knowledge regarding anemia, and source of knowledge, were found to be non-significant at the 0.05 level.

CONCLUSION

After evaluate the effectiveness of amla juice with honey on level of hemoglobin among B.Sc nursing students with anemia at Abhilashi college of nursing district. The study conclude that intake of amla juice with honey is effective method in the treatment of anemia. So it is important to intake amla juice with honey and eat green leafy vegetables and healthy diet for the treatment of anemia.

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