

A Study to Evaluate the Effectiveness of Amla Juice with Honey on Levels of Hemoglobin among B.Sc. Nursing Students with Anemia at Selected Nursing Colleges in Dindugal

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ABSTRACT

Aim: to assess the effectiveness of amla juice with honey on hemoglobin levels among B.Sc nursing students with anemia at selected nursing colleges, Dindigul. Pre experimental research design with one group pretest and posttest design was used for this study. Samples were selected by using purposive sampling technique. The investigator assessed the pretest levels of hemoglobin by using Sahli's method. Then from next day, 100ml of amla juice with 10 ml of honey was administered to the same samples daily in the morning before breakfast under the supervision of the researcher for a period of 15 days. On 18th day, the investigator assessed the posttest levels of hemoglobin by using the Sahli's method. Finally, the statistical analysis the mean score of pretest 8.31 and posttest 9.52 and paired 't' test proved that the 25.910't' value (table value is 1.96) had a significant difference between the pretest and posttest levels of hemoglobin among B.Sc Nursing students with anemia at 0.05 level of significance. The study finding showed that the Amla juice with honey was effective for the B.Sc Nursing students with anemia.

Key Words: Amla Juice with Honey, Hemoglobin, Anemia.

INTRODUCTION

Anemia is one of the most common micronutrient deficiencies and a major global problem affecting 20 to 70 percent of population in various countries. Nutritional

anemia is an important public health problem affecting many people in India. The prevalence of anemia is high in all vulnerable groups and in almost all states in the country, irrespective of both rural and urban areas. The most prevalent nutritional and hematological disorders among adolescent girls are iron deficiency anemia caused by lack of sufficient iron for the synthesis of hemoglobin.

Eating a gooseberry (Amla) everyday also helps in improving in blood and curing anemia and it is a good source of vitamin C. also taking 3 spoons of gooseberry juice for 21 days will definitely cures anemia. Taking Amla and black till (black sesame seeds) in equal quantity with honey or ghee cures mental and physical weaknesses. Taking milk in morning after licking one teaspoon of ground Amla powder mixed with honey imparts freshness and strength to the body. Intellect gets sharpened if one takes the pulp of fresh Amla or Amla juice with honey or ghee every morning and evening. Taking Amla juice or powder with honey purifies blood.

An experimental study was conducted to assess the effectiveness of oral administration of emblica officinalis (linn) was found to be effective in protecting the girls against the anemia. Not only hemoglobin but also protects hematological and biochemical modulation in blood. The

30 girls were taking daily emblica officinalis duration of 8 weeks. A significant increase in the RBC, WBC, hemoglobin and hematocrit values were observed in the mothers treated with emblica officinalis extract as compared to the hematological values observed the girls in other group 21 members without treatment of emblica officinal's. The results show that the girls need nutritive supplementation which will increase the hematological values. Suggestions of this study are the supplementation of emblica officinal's can prevent the anemia in adolescents.

Amla is rich source of vitamin C. vitamin C deficiency can leads to anemia, or low red blood cell count. Vitamin C along with food rich in iron helps to create more acidic in the stomach, the acidic helps for the iron absorption so iron helps for making hemoglobin, it leads to healthy life that is free from anemia.

OBJECTIVES OF THE STUDY:

- ❖ To assess the pretest and posttest levels of hemoglobin among B.Sc Nursing students at selected nursing colleges in Dindugal.
- ❖ To evaluate the effectiveness of Amla juice with honey, on level of hemoglobin among B.Sc Nursing students at selected nursing colleges in Dindugal.
- ❖ To determine the association between the pretest levels of hemoglobin among B.Sc Nursing students with anemia and their selected demographic variables.

HYPOTHESIS:

H1 - There will be a significant difference between the pretest and posttest mean score of hemoglobin among B.Sc Nursing students who had taken amla juice with honey.

H2-There will be a significant association between the pretest levels of hemoglobin among B.Sc Nursing students with anemia and their selected demographic variables.

METHODOLOGY

The purpose of the study was to assess the effectiveness of amla juice with on levels of hemoglobin among Bsc. nursing students.

A pre experimental research design was carried out in this study. 40 samples were selected by using non probability purposive sampling technique. The pre and posttest levels of hemoglobin were assessed by using the Sahli's method.

RESULTS AND DISCUSSION

Assessment of pre and posttest levels of hemoglobin on the administration of amla juice with honey among B.Sc Nursing students.

Table 4.2.1: Frequency and percentage of hemoglobin level among B.Sc Nursing students before the administration of amla juice with honey. N = 40

CATEGORY	LEVEL OF HEMOGLOBIN	
	FREQUENCY (f)	PERCENTAGE (%)
Normal	0	0%
Mild	0	0%
Moderate	30	75%
Severe	10	25%

Table 4.2.1 shows that pretest levels of hemoglobin among 40 B.Sc Nursing students with anemia 0 (0%) had normal anemia, 0 (0%) had mild anemia, 30 (75%) had moderate level of hemoglobin, 10 (25%) had severe level of hemoglobin.

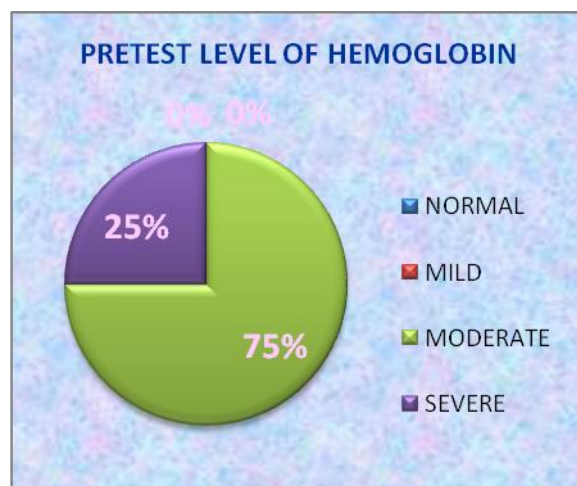


Figure: 4.2.1 percentage distribution of hemoglobin levels before the administration of Amla juice with honey among B.Sc nursing students with anemia.

Table 4.2.2: Frequency and percentage of hemoglobin level among B.Sc Nursing students after administration of amla juice with honey. N= 40

CATEGORY	LEVEL OF HEMOGLOBIN	
	FREQUENCY (f)	PERCENTAGE (%)
Normal	0	0%
Mild	3	7.5%
Moderate	37	92.5%
Severe	0	0%

Table 4.2.2 shows that posttest levels of hemoglobin among 40 B.Sc Nursing students with anemia 0 (0%) Normal level of hemoglobin, 3 (7.5%) had mild level of hemoglobin, 37 (92.5%) had moderate level of hemoglobin & 0 (0%) had severe level of hemoglobin.

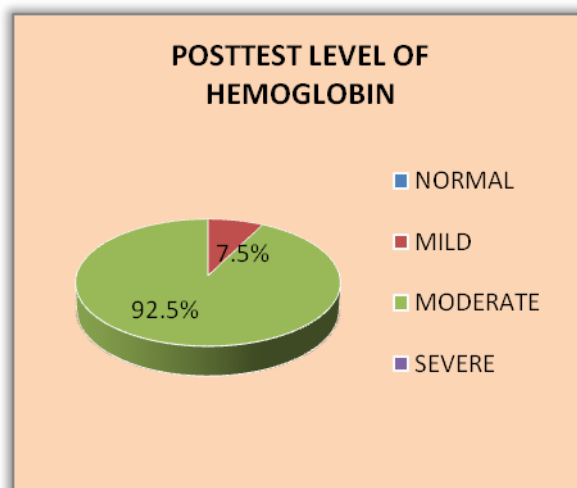


Figure: 4.2.2 percentage distribution of hemoglobin levels after the administration of Amla juice with honey among B.Sc nursing students with anemia.

Table.4.3: Comparison of mean, standard deviation and paired 't' test score of hemoglobin level in pretest and posttest. n = 40

S.No	Variables	Mean	SD	Paired 't' Test	Table Values
1.	Pretest	8.31	0.7415	25.910	1.96
2.	Posttest	9.52	0.7636		

Table 4.3 shows that mean score of pretest and posttest level of hemoglobin among B.Sc Nursing students are 8.31 (SD ± 0.7415) and 9.52 (SD ± 0.7636) respectively. Paired 't' value is 25.910 which was significant at 0.05 level.

Table 4.4.1 Association of the pretest level of hemoglobin with their selected demographic variables. NS= Not Significant, S= Significant, n=40

S. No	Demographic Variables	Level of Hemoglobin								Inter-ence	
		Mild		Moderate		Severe		Association			
		(f)	%	(f)	%	(f)	%	χ^2	Table value		
1.	Age	a) 18 Years	-	-	14	35	2	5	6.24	2.45	NS
		b) 19 Years	-	-	1	2.5	0	0			
		c) 20 Years	-	-	4	10	5	12.5			
		d) 21 Years	-	-	11	27.5	3	7.5			
2.	Monthly Income Of Parents	a) <10,000	-	-	24	60	8	20	3.42	2.45	NS
		b) 11,000 – 20,000	-	-	6	15	1	2.5			
		c) 21,000 – 40,000	-	-	0	0	1	2.5			
		d) 50,000 Above	-	-	0	0	0	0			
3.	Residential Area	a) Rural	-	-	21	52.5	7	17.5	0	5.99	S
		b) Urban	-	-	9	22.5	3	7.5			
4.	Dietary Pattern	a) Vegetarian	-	-	4	10	1	2.5	0.076	5.99	S
		b) Non-Vegetarian	-	-	26	65	9	22.5			
5.	Age At Menarche	a) 13years	-	-	10	25	3	7.5	3.11	2.45	NS
		b) 14 Years	-	-	7	7.5	5	12.5			
		c) 15 Years	-	-	11	27.5	2	5			
		d) 16 Years	-	-	2	5	0	0			
6.	Duration Of Menstruation	a) 3 Days	-	-	11	27.5	4	10	0.88	2.45	S
		b) 4 Days	-	-	3	7.5	2	5			
		c) 5 Days	-	-	12	30	3	7.5			
		d) 6Days Above	-	-	4	10	1	2.5			
7.	Previous Treatment For Anemia	a) Yes	-	-	3	7.5	2	5	0.68	5.99	S
		b) No	-	-	27	67.5	8	20			
8.	Length Of The Menstrual Cycle	a) <21 Days	-	-	2	5	1	2.5	1.67	9.49	S
		b) 21 – 28 Days	-	-	19	47.5	4	10			
		c) > 28 Days	-	-	9	22.5	5	12.5			

Chi-Square value was calculated to determine the association between the pretest level of hemoglobin among B.Sc Nursing students with anemia and their demographic variables such as age, income of parents, residential area, dietary pattern, age at menarche, previous treatment for anemia and length of menstrual cycle.

The above table depicts that there is significant association between the pretest level of hemoglobin among B.Sc Nursing students with anemia and their demographic variables.

DISCUSSION

The first objective was to assess the pretest and posttest levels of hemoglobin among B.Sc nursing students with anemia.

In the assessment of pretest levels of hemoglobin levels among B.Sc nursing students. It was found that among 40 B.Sc Nursing students with anemia 0(0%) had mild level hemoglobin, 30(75%) had moderate level of hemoglobin and 10 (25%) had severe level of hemoglobin.

In the assessment of posttest level of hemoglobin among B.Sc Nursing students. It was found that among 40 B.Sc Nursing students with anemia 0(0%) had normal level of hemoglobin, 3(7.5%) had mild level of hemoglobin, 37(92.5%) had moderate level of hemoglobin and 0 (0%) had severe levels of hemoglobin.

The second objective was to evaluate the effectiveness of amla juice with honey on level of hemoglobin among B.Sc nursing students with anemia.

In the current study the pretest mean value of level of hemoglobin was 8.31 with standard deviation 0.7415, and in the posttest mean value of level of hemoglobin was 9.52 with standard deviation 0.7636 and the 't' value was (calculated value) 25.910 with reference to the table value of 1.96. Observed value was higher than the table value which was significant at 0.05 levels. Since there was significant difference in pretest and posttest level of hemoglobin

among B. Sc Nursing students, it reveals the effectiveness of amla juice.

The third objective was to determine the association between the pretest levels of hemoglobin among B.Sc nursing with anemia with their selected demographic variables.

In this study the results indicates that there is significant association between the pretest levels of hemoglobin among B.Sc Nursing students with anemia with their demographic variables study showed a direct link between subjects Amla juice with honey consumption increases the level of hemoglobin in their blood.

CONCLUSION

The main objective of the study was to determine the effectiveness of Amla juice with honey on levels of hemoglobin among B.Sc Nursing students with anemia. The study findings revealed that there was a significant difference in the pretest and posttest levels of hemoglobin. So the investigator found out that the Amla juice with honey was effective in reducing anemia among B.Sc. Nursing students thereby increasing the health status of the students.

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