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A Descriptive Study To Assess The Risk Factors Of Anaemia Among The Young Girls In The Selected Colleges At Natham, Dindigul District

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INTRODUCTION

The burden of anemia is one of the major public health issues in the world. But the magnitude of problems is not equal in every country or for every group. In developing countries problem is enormous, specifically among women and young children whereas the developed countries are also affected but in lesser magnitude, approximately 6% as compared to 27% of adolescent girls in developing countries. Among the developing countries prevalence of anemia in South Asia is the highest in the world and India has a prevalence of high iron deficiency anemia. It was estimated that about 50 to 70 percent of reproductive women are anemic in India.

Anemia is adversely affecting women of reproductive age and child health which in turn results in increased morbidity and maternal death, and also hamper social-economic growth. The most common cause of anemia in the general population is iron deficiency. An estimate by the World Health Organization (WHO) that around to over half a billion women or 29.9% of reproductive women aged 15–49 years were suffering from anemia in 2019 and most of them suffer due to iron deficiency. Reproductive and adolescent women are more prone to anemia due to insufficient dietary intake and iron loss during menstruation and pregnancy.[1]

Globally, it is estimated that 40% of all children aged 6–59 months, 37% of pregnant women and 30% of women 15–49 years of age are affected by anaemia[2]

ABSTRACT

A Descriptive study was conducted to assess the risk factors of anaemia among the young girls in the selected colleges at Natham Dindigul District Tamilnadu. 200 adolescent girls who were studying in selected colleges were recruited by convenience sampling method. Risk factors of anemia assessed by using structured checklist devised by the investigator. Analysis revealed that 1% of young girls were having no-risk of anaemia, 72% of the young girls were having mild risk of developing anaemia, 27% were having moderate risk of anaemia and no one was having severe risk for anaemia. Also the demographic variables such as Age (in years), Birth Order, Total Number of family members, Educational status of the mother, Mothers occupation and Dietary Pattern were having significant association with the risk factors of anaemia.

STATEMENT OF THE STUDY

A descriptive study to assess the risk factors for anaemia among the young girls in the selected colleges at Natham Dindigul District Tamilnadu.

OBJECTIVES

- To assess the risk factors for anaemia among the young girls.
- To associate the level of risk factors with the selected demographic variables.

OPERATIONAL DEFINITION

Risk factors

The factors which may increase the chances of causing and developing anaemia such as dietary, menstrual, hygienic, helminthic and family characters.

Anaemia

Anaemia is a condition in which the number of red blood cells or the haemoglobin concentration within them is lower than normal. College girls those who are having the hemoglobin level below 10gms/dl considered as anaemic.

Young girls

The girls studying in various under graduate courses at arts, science and nursing college.

METHODOLOGY

RESEARCH APPROACH	Quantitative approach
RESEARCH DESIGN	Descriptive Study Design used for this study.
SETTING OF THE STUDY	Selected colleges at Dindigul District
TARGET POPULATION	All the young girls studying in various under graduate courses at arts, science and nursing college.
ACCESSIBLE POPULATION	The young girls studying in various under graduate courses at arts, science and nursing college at Dindigul district.
SAMPLE	All the young girls studying undergraduate courses who have fulfilled the inclusion criteria.
SAMPLING TECHNIQUE	Non probability convenience sampling technique used for this study
SAMPLE SIZE	200
SAMPLING CRITERIA INCLUSION CRITERIA ❖ All the young girls studying various under graduate courses at selected arts, science and nursing college. ❖ Only the girls included in this study ❖ All the girls those who were present at the time of data collection	EXCLUSION CRITERIA ❖ Those who are not willing were excluded from the study. ❖ Boys were excluded from the study
DEVELOPMENT & DESCRIPTION OF THE TOOL PART I: Demographic Variables such as Age (in years), Type of family, Religion, Number of Siblings, Birth Order, Total Number of family members, Family	SCORING 1 mark was given for the response "Yes" and 0 mark was was given for the response "No" 0 No risk 1 to 35 % Poor Risk 36 to 70% Moderately Risk

monthly income, Educational status of the mother, Mothers occupation and Dietary Pattern. PART II: Structured check list used to measure the risk factors devised by the investigator	71 to 100 % High Risk

DATA COLLECTION PROCEDURE

Formal permission obtained from all the Head of the institutions. Written consent obtained from the study participants and ensured privacy and confidentiality. Data collected by using structured check list devised by the investigator. Descriptive and inferential statistics were used to analyze the data. Collected data used only for the study purpose.

PLAN FOR DATA ANALYSIS

Descriptive Statistics such as frequency, percentage, mean used.

Inferential statistics such as Chi square test used to check the association

RESULT & DISCUSSION

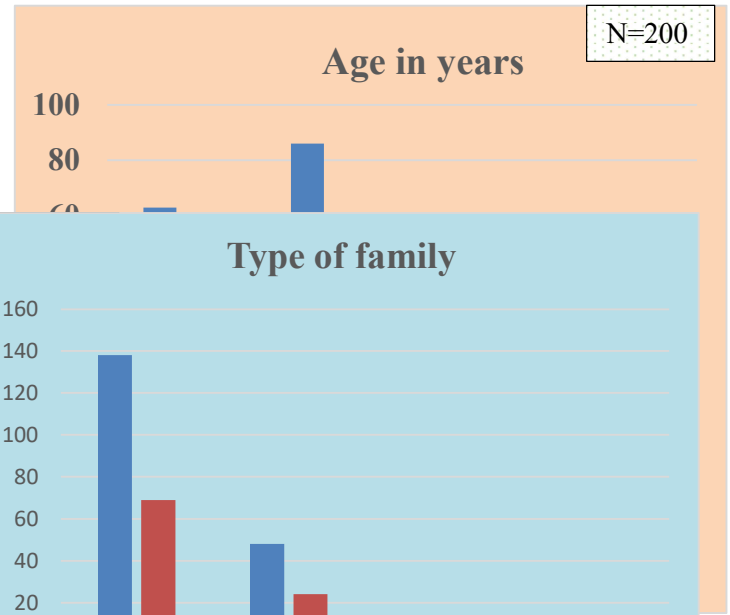
TABLE I: DISTRIBUTION OF DEMOGRAPHIC VARIABLES

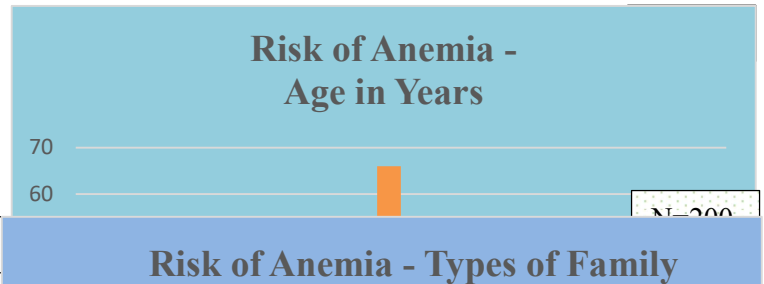
N=200

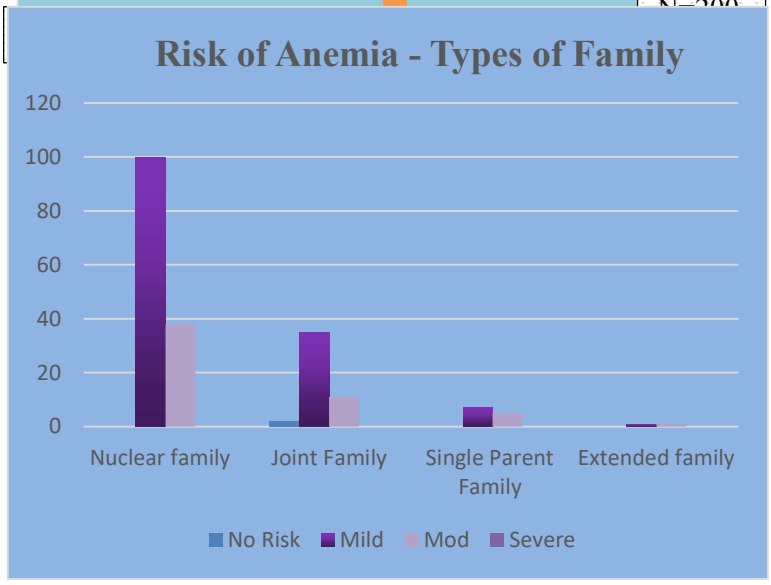
S.No	Demographic Variable		Frequency	Percentage %
1	Age in years	17-18	63	31.5
		19-20	86	43
		21-22	46	23
		23 and above	5	2.5
2	Type of family	Nuclear family	138	69
		Joint Family	48	24
		Single Parent Family	12	6
		Extended family	2	1
3	Religion	Hindu	64	32
		Muslim	83	41.5
		Christian	52	26
		Others	1	0.5
4	Number of Siblings	1	79	39.5
		2	93	46.5
		3	10	5
		3 and above	6	3
		Single	12	6
5	Birth Order	First	58	29
		Second	122	61
		Third	11	5.5
		Fourth	7	3.5
		After 4	2	1

6	Total Number of Family Members	2-4	114	57
		5-7	71	35.5
		8-10	10	5
		>10	5	2.5
7	Monthly Income of the family	<10000	39	19.5
		10000-25000	120	60
		26000-40000	30	15
		>40000	11	5.5
8	Educational Status of Mother	Primary Education	30	15
		Secondary Education	73	36.5
		Higher Secondary Education	54	27
		Graduate and above	39	19.5
		No formal Education	4	2
9	Mother's Occupation	Own Business	10	5
		Private Job	34	17
		Government Job	17	8.5
		Labor	16	8
		House Wife	123	61.5
10	Dietary Pattern	Vegetarian	12	6
		Non-Vegetarian	188	94

GRAPH 1 TO 20: RISK FACTORS AS PER THE DEMOGRAPHIC VARIABLES







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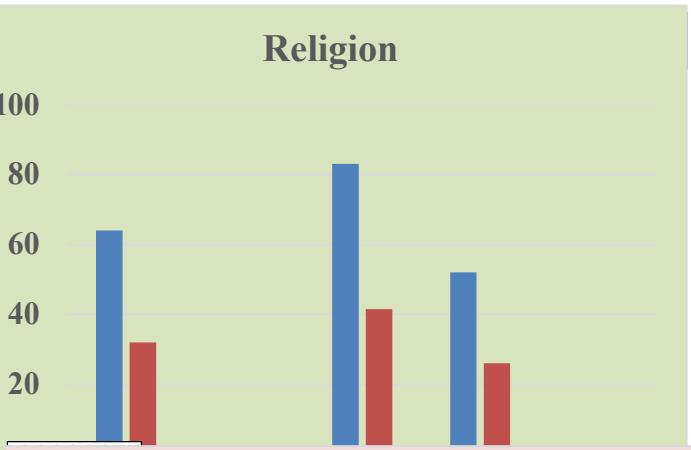

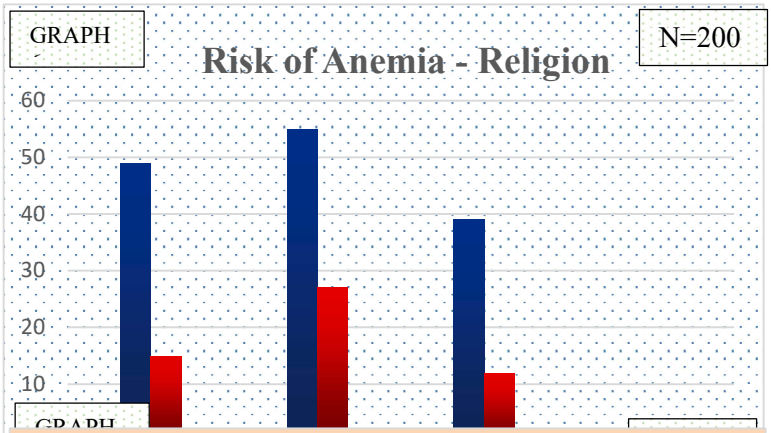

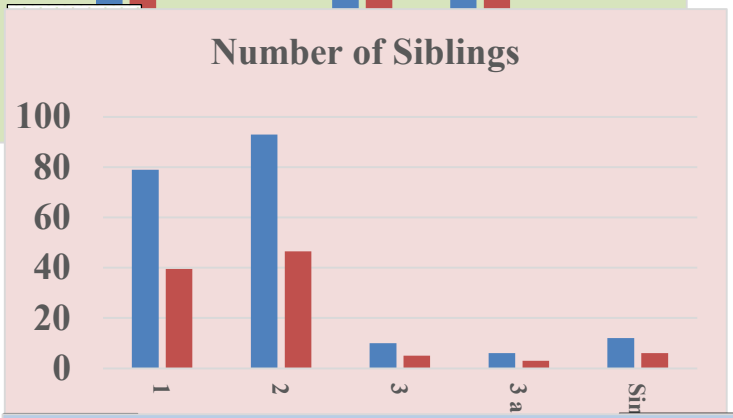

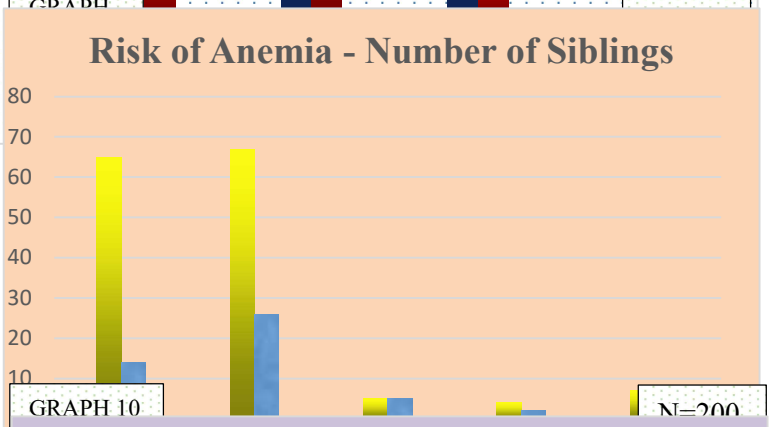

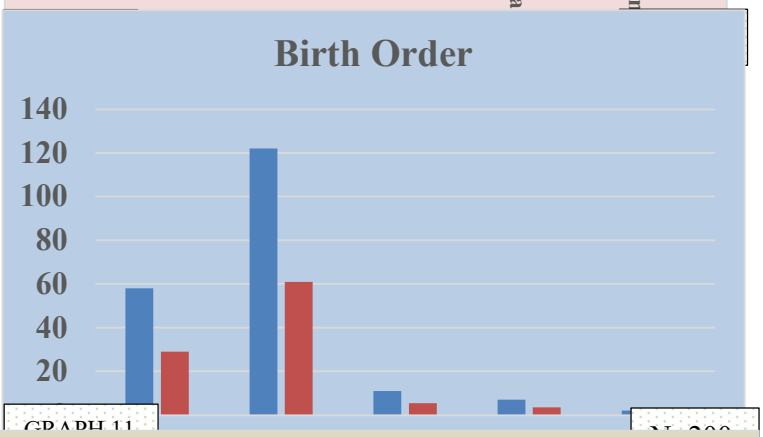

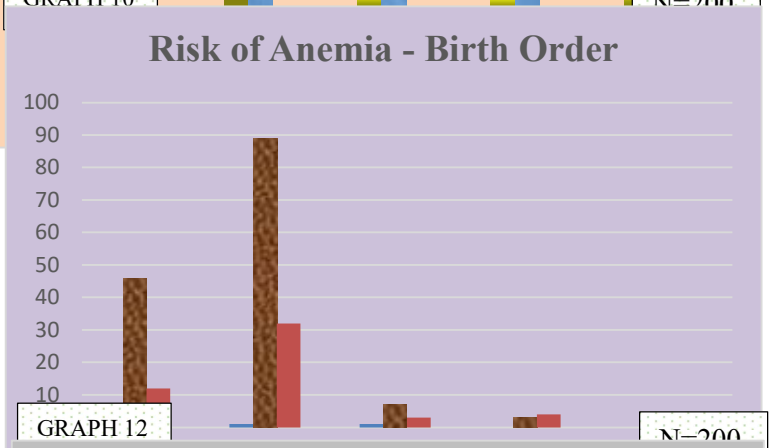

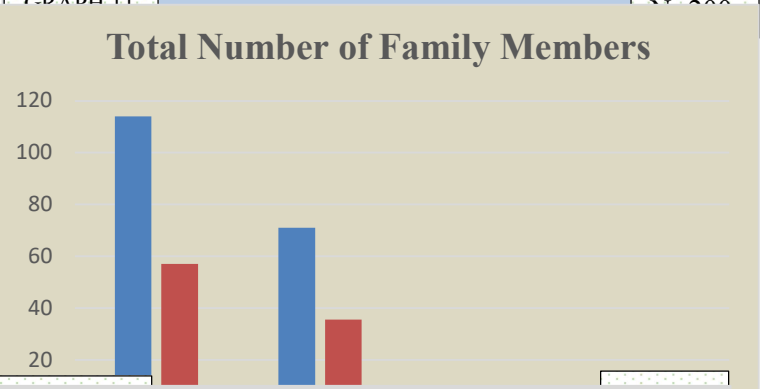

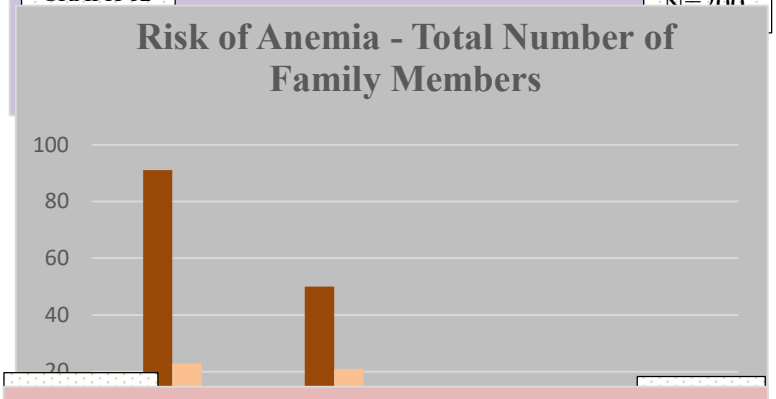

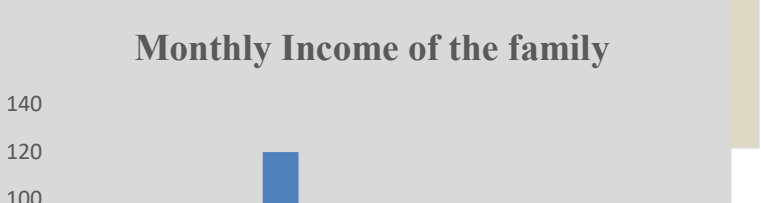

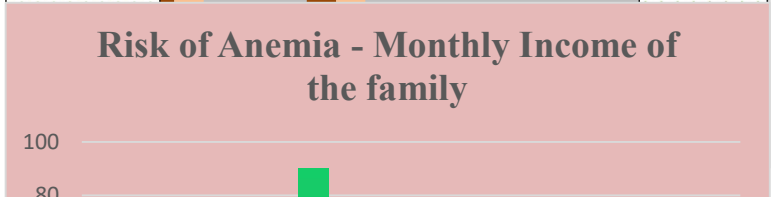

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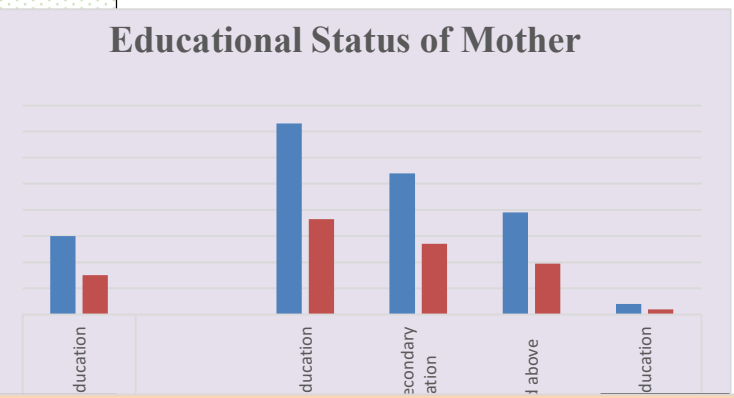
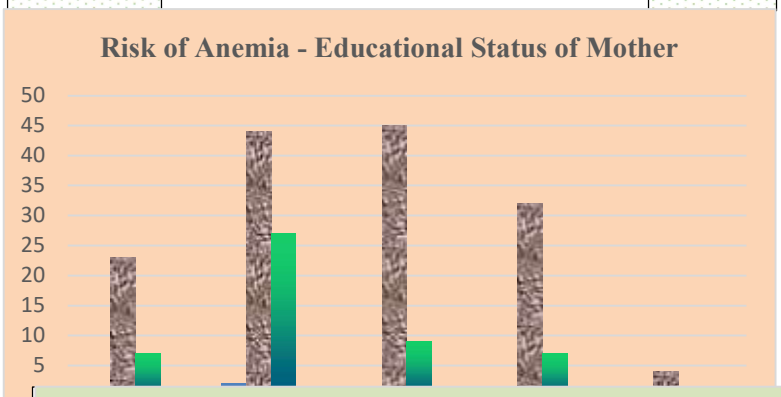
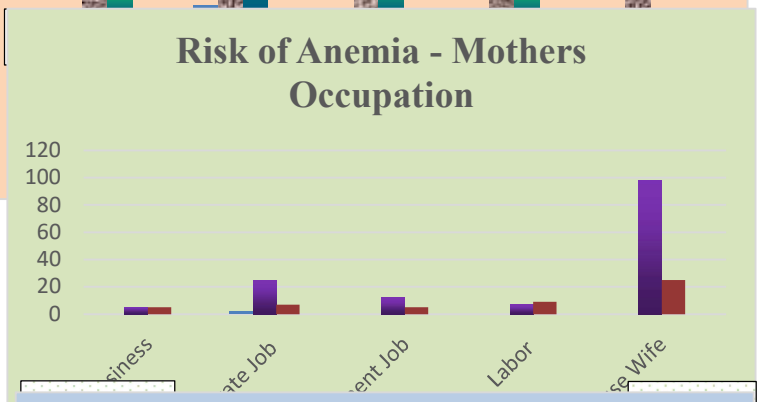
RAPH 15



GRAPH 16

N=200





GRAPH 19

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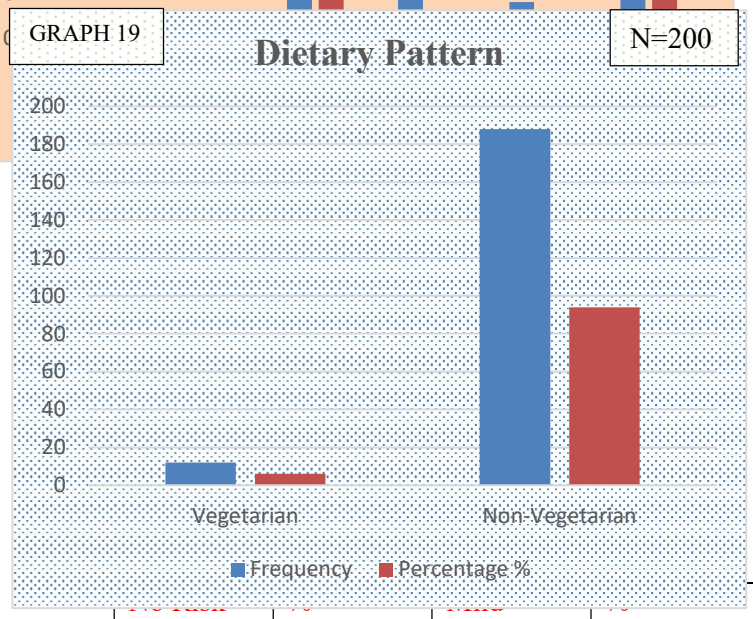

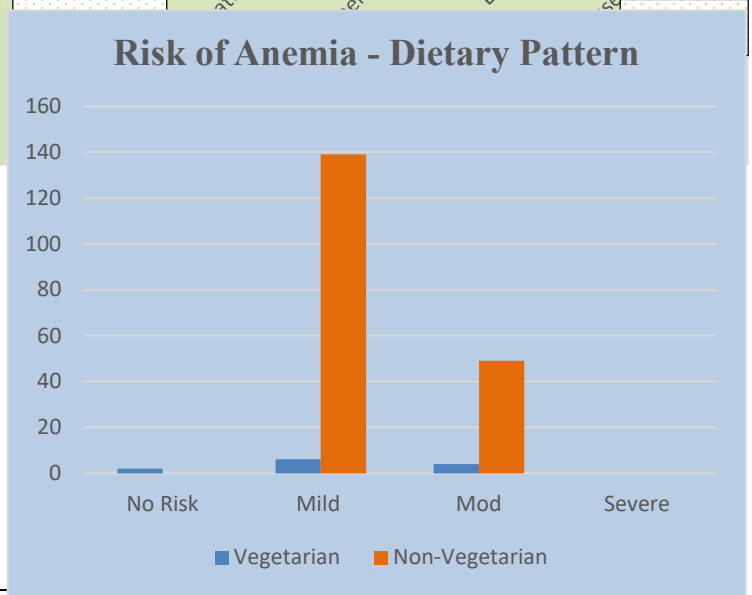

				Moderate	%	Severe	%
2	1	144	72	54	27	0	0

GRAPH 21

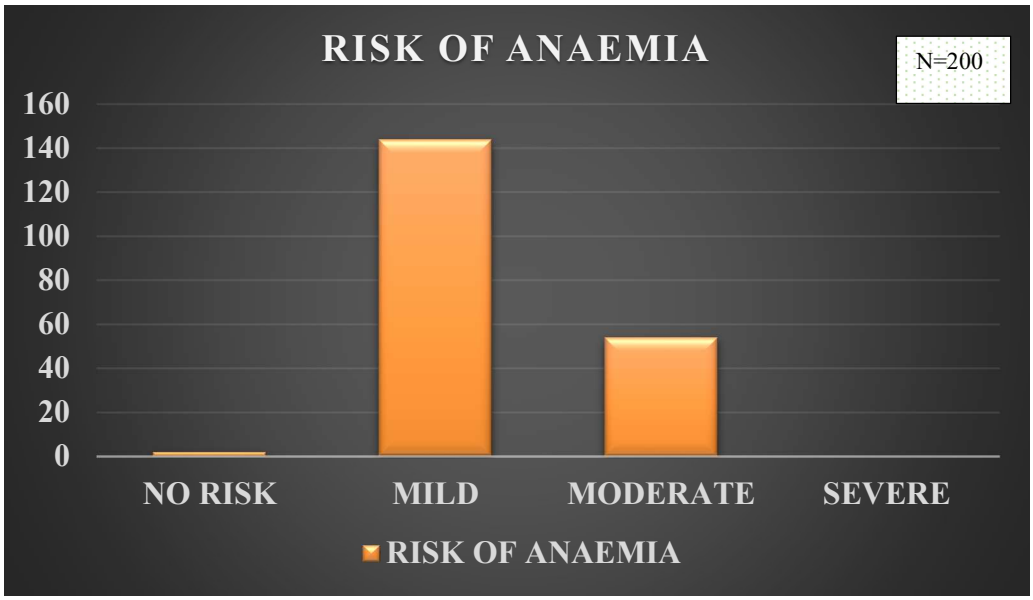

TABLE III: DISTRIBUTION & ASSOCIATION OF RISK FACTORS

N=200

S. No	Demographic Variable		Frequency	No Risk	Mild	Mod	Severe	Chi- square
1	Age in years	17-18	63	0	42	21	0	23.27* Significant at 0.05 level
		19-20	86	0	66	20	0	
		21-22	46	1	35	10	0	
		23 and above	5	1	2	2	0	
2	Type of family	Nuclear family	138	0	100	38	0	8.24 Not Significant at 0.05 level
		Joint Family	48	2	35	11	0	
		Single Parent Family	12	0	7	5	0	
		Extended family	2	0	1	1	0	
3	Religion	Hindu	64	0	49	15	0	7.03 Not significant at 0.05 level
		Muslim	83	1	55	27	0	
		Christian	52	1	39	12	0	
		Others	1	0	0	1	0	
4	Number of Siblings	1	79	0	65	14	0	6.34 Not significant at 0.05 level
		2	93	0	67	26	0	
		3	10	0	5	5	0	
		3 and above	6	0	4	2	0	
		Single	12	0	7	5	0	
5	). Birth Order	First	58	0	46	12	0	13.5* Significant at 0.05 level
		Second	122	1	89	32	0	
		Third	11	1	7	3	0	

		Fourth	7	0	3	4	0	
		After 4	2	0	2	0	0	
6	. Total Number of Family Members	2-4	114	0	91	23	0	23.29* Significant at 0.05 level
		5-7	71	0	50	21	0	
		8-10	10	1	5	4	0	
		>10	5	0	3	2	0	
7	2. Monthly Income of the family	<10000	39	0	25	14	0	3.72 Not significant at 0.05 level
		10000-25000	120	2	90	28	0	
		26000-40000	30	0	23	7	0	
		>40000	11	0	8	3	0	
8	3. Educational Status of Mother	Primary Education	30	0	23	7	0	12.46* Significant at 0.05 level
		Secondary Education	73	2	44	27	0	
		Higher Secondary Education	54	0	45	9	0	
		Graduate and above	39	0	32	7	0	
		No formal Education	4	0	4	0	0	
9	4. Mother's Occupation	Own Business	10	0	5	5	0	23.06* Significant at 0.05 level
		Private Job	34	2	25	7	0	
		Government Job	17	0	12	5	0	
		Labor	16	0	7	9	0	
		House Wife	123	0	98	25	0	
10	Dietary Pattern	Vegetarian	12	2	6	4	0	32.3* Significant at 0.05 level
		Non-Vegetarian	188	0	139	49	0	

The demographic variables such as Age (in years), Birth Order, Total number of family members, Educational status of the mother, Mothers occupation and Dietary pattern are having significant association with the risk factors of anaemia at 0.05 level. The remaining demographic variables such as Type of family, Religion, Number of Siblings, Family monthly income were not having significant association with the risk factors of anaemia

This study findings were consistent with the systematic review study conducted by Wiafe MA et al, showed that vegetarian dietary practices increased the odds of anaemia among adolescents and vegetarian adolescents had a 4.4% greater chance of being anaemic than their counterparts who did not practice vegetarianism[9].

Michael Akenteng Wiafe et al conducted systematic review and investigated the association between religion and anaemia. However, the results of the study showed no significant effects of religion on anaemia among adolescents. low educational status of guardians, particularly mothers, has been linked to a high risk of anaemia in adolescents in diverse settings and studies Higher maternal education and employment status reduce the odds of iron deficiency anaemia in children[10]

Also Two studies assessed the relationship between family size with anaemia & indicated that large family size increased the odds of anaemia and showed significant association[10]

LIMITATION OF THE STUDY

Only assessed the risk factors. Not assessed the Hemoglobin level and also practices were not studied in this study.

ETHICAL CONSIDERATION

All the ethical principles followed in this study. No ethical conflict.

CONFLICT OF INTEREST

There was no conflict of interest in this study

CONCLUSION

Anemia among adolescents and adults is a universal nutritional problem. Adolescents, being more receptive to new ideas and health based interventions, are best targets to address this issue of anemia. To reduce anemia among pregnant women, attention has presently shifted globally towards reducing prevalence of anemia amongst adolescent females rather than providing iron supplements to pregnant women. This ensures better iron stores at time of conception in females. Moreover, outreach to adolescents through school based programs is much easier. Interventions to prevent and/or correct anemia in adolescents, if based on thorough assessment of risk factors leading to development of anemia amongst adolescents, shall prove more beneficial and costeffective

Anemia in young women has a major impact on their health, including resulting in irregular menstruation, and if left unchecked, it will result in the reproductive health of young women who are future mothers-to-be. This is a real action to prevent and treat anemia in young women[11]

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