

## A study on occurrence of anemia in primigravida women attending antenatal ward of BPKIHS

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### Abstract

**Background:** Anemia is identified as a very common nutritional problem in developing countries. Prevalence of micro nutrient malnutrition in respect of iron, iodine and vitamin A is more wide spread than protein energy malnutrition. Pregnancy is a serious burden to the women with the disease for the anemia and places them at increased risk of mortality. **Objective:** To determine the Hb% level of Primigravida women. To classify status of anemia on the basis of level of Hb%. To find out the association between Hb level and selected background factors. To find out the association between the Hb% level and week of gestation and nutritional pattern. **Method:** A descriptive and exploring Study design was carried out on 300 primigravid women admitted in BPKIHS, Dharan antenatal ward and every alternate admitted case was selected for the study. The instrument was structured questionnaires with close ended, observation check list and observational sheet. Descriptive statistics and inferential statistics were used for data analysis. **Result:** Overall occurrence of anemia was found to be 42% among the study population. Mild anemia and moderate anemia were found to be 17% and 25% respectively. Greater proportions of 13-19 yr. women were found to be anemic compares to those  $\geq 20$  years of age. Greater proportions of anemic women were from the non-sedentary groups than the sedentary. Both mild and moderate anemia were more among Primigravid women with  $>40$  gestational week. **Conclusion:** Understanding the extent and severity of anemia among pregnant women is essential to the development and implementation of effective anemia control for the normal delivery and healthy baby in Nepal.

**Key words:** Anemia, Iodine deficiency, primigravida women.

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## Introduction

Iron deficiency anemia is the most common nutritional deficiency worldwide affecting approximately 1.3 billion people. Anemia is identified as a very common nutritional problem in developing countries. Prevalence of micro nutrient malnutrition in respect of iron, iodine and vitamin A is more widespread than protein energy malnutrition. Pregnancy is a serious burden to the women with the disease for the anemia and places them at increased risk of mortality. Moderate to severe anemia during pregnancy increases the risk of low birth weight.

## Methods

This is a descriptive research study and the research approach was Survey Method. The study was done in a tertiary level of care BPKIHS Dharan. All primigravida women of > 28 weeks of gestation admitted in antenatal ward were included in the study. Samples of the study were primigravida women admitted in BPKIHS, Dharan antenatal ward. The size of the sample was 300.

The instrument was structured questionnaires with close ended, observation check list and observational sheet. The collected data were tabulated, organized, analyzed and interpreted using descriptive and inferential statistics.

## Results

**Table 1: Distribution of occupation by different grade of anaemia (N=300)**

S.N.	Grade of anaemia (gm %)	Sedentary	Non-sedentary
1	No anemia (>10.9)	65 (21%)	108 (36%)
2	Mild anaemia (10-10.9)	32 (10.7%)	56 (18.7%)
3	Moderate anaemia (7-9.9)	16 (5.3%)	20 (6.7%)
4	Severe anaemia (<7gm )	1 (0.3%)	2 (0.7%)
	Total	114 (38%)	186 (62%)

**Table 2: Occurrence of anaemia in relation to income (N=300)**

S.N.	Grade of anaemia (gm %)	1000-3000	> 3000
1	No anemia (>10.9)	83(27.66%)	90(30%)
2	Mild anaemia (10-10.9)	55(18.33%)	33(11%)
3	Moderate anaemia (7-9.9)	22(7.33%)	14(4.66%)
4	Severe anaemia (<7gm )	3(1%)	0(0%)
	Total	163(54.33%)	137(45.66%)

**Table 3: Comparison of anemia by dietary pattern (N=300)**

S.N.	Grade of anaemia (gm %)	Vegetarian	Non-vegetarian
1	No anemia (>10.9)	38 (12.7%)	135 (45%)
2	Mild anaemia (10-10.9)	18 (6%)	70 (23.3%)
3	Moderate anaemia (7-9.9)	5 (1.7%)	31 (10.3%)
4	Severe anaemia (<7gm )	0 (0%)	3 (1%)
	<b>Total</b>	<b>61 (20.3%)</b>	<b>239 (79.7%)</b>

**Table 4: Distribution of size of family by grade of anaemia (N=300)**

SN	Grade of anaemia (gm %)	1-3	4-6	> 7
1	No anemia (>10.9)	18(6%)	70(23.3%)	85(28.3%)
2	Mild anaemia (10-10.9)	10(3.3%)	42(14%)	36(12%)
3	Moderate anaemia (7-9.9)	2(0.7%)	18(6%)	16(5.3%)
4	Severe anaemia (<7gm )	0(0%)	2(0.7%)	1(0.3%)
	Total	30(10%)	132(44%)	138(46%)

**Table 5: Occurrence of anemia in relation to gestational weeks (N=300)**

SN	Grade of anaemia (gm %)	28-36 weeks	36-40 weeks	> 40 weeks
1	No anemia (>10.9)	19 (6.3%)	107 (35.7%)	47 (15.7%)
2	Mild anaemia (10-10.9)	7 (2.3%)	46 (15.3 %)	35 (11.7%)
3	Moderate anaemia (7-9.9)	3 (1%)	25 (8.3%)	36 (12%)
4	Severe anaemia (<7gm )	1 (0.3%)	1 (0.3%)	3 (1%)
	Total	30 (10%)	179 (59.7%)	91 (30.3%)

### Conclusion

Understanding the extent and severity of anemia among pregnant women is essential to the development and implementation of effective anemia control for the normal delivery and healthy baby in Nepal.

### Reference

1. WHO, the World Health Report 2015, 75.
2. Heera Tuladhar. Anaemia in adolescent pregnancy. Nepal Medical College Journal, 2000;2: 19-21.
3. Michael L. Dreytun, Jay Bahadur Shrestha, Subarna Khatri, et al. The prevalence of anaemia among pregnant and lactating women and among their infants in Sarlahi District, 1997; 35: 234-240.

4. D. T. Howe Guernsey, The influence of maternal haemoglobin and ferritin on mid pregnancy placental volume. *British journal of Obstetrics and Gynaecology*. 1995: 213-219.
5. ICN, Information on anaemia prepared by member countries of South East Asia region (Bangladesh, Bhutan, India, Indonesia, Myanmar, Thailand). 1992: 81-82.
6. Seshdri, A. data base on Iron Deficiency Anaemia (IDA) in India: Prevalence, aetiology, consequences and strategies for control. 1996. Ministry of Human Resource Development, New Delhi.
7. ICMR, Task force study. Evaluation of National Nutritional Anaemia Prophylaxis Programme. Indian Council of Medical Research, New Delhi, 1989: 101-103.
8. Agrawal DK, Agrawal KN and Tripathi AM. Nutritional status in rural pregnant women of Bihar and Uttar Pradesh. *Indian J. Paediatrics*, 24:119-125.
9. Premak, Neeta Kumar's and Ramalakshmi BA. Anaemia and adverse obstetric outcome *Nutr. Rep.* 23:637-637-643.
10. Rahmanifar A and Bond JT. Haematological status of urban pregnant women from different socio – economic populations in central Iran *Nutrition Research*, 1989; 9:1313-1330.
11. Geisser C. Calloway DH and Mayers. Lactation and pregnancy in Iran: diet and Nutritional Status, 1987.
12. WHO. Control of Iron deficiency anaemia in South East Asia report of an inter – country workshop. World Health Organization Regional Office for South East Asia, New Delhi, 1996 – b.
13. Chhetri M Weise L Joshi, N Shrestha S and Tiwari K. Anaemia in pregnant women in Nepal: Strategies improve compliance with iron supplementation. Ministry of Health, Nepal and WHO, 1994.
14. Karim SA, Khursheed M, Rizvi JH Jafaray SN and Siddiqui RI. Anaemia in pregnancy: A study of pregnant women in Karachi. *Tropical Doctor*, 1990, 20:184-185.
15. Mudalige R. and Nestel P. Combating iron-deficiency: Prevalence of anaemia in Srilanka. *Ceylong J. Med. Sci*, 1996; 39:9-16.