

Original article

Burden of anemia among the pregnant women in rural Area

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Abstract:

Background: Anemia is the most common nutritional deficiency disorder in the world. As per NFHS-3 (2005-6) survey in rural Maharashtra 56.4% pregnant women are anemic. This underlines the problem of anemia among pregnant women in rural area and need of research on this issue. Objective: study the prevalence of anemia among pregnant women of rural area.

Study design: Community based cross sectional study conducted in 16 villages under primary health centre, Valsang, Dist: Solapur (Western Maharashtra). Sample size: 827 pregnant women. Sample selection: Every pregnant woman registered under register-15 of sub-centre was included in the study. Hemoglobin estimation of every pregnant woman was done by Sahli's method during her first antenatal visit in 12-20 weeks of gestational age.

Results: Mean age of the pregnant women was 22.72 ± 3.25 years. The overall prevalence of anemia was 92.38%. Among the total 827 pregnant women 328 (39.66%) were mild anemic, 406 (49.09%) were moderate anemic and 30 (3.63%) were severe anemic. Conclusion: High anemia prevalence (92.38%) indicates that the anemia continues to be a major public health problem in rural area.

Key Words: anemia, pregnancy, rural area, prevalence

Background: Anemia is the most common nutritional deficiency disorder in the world. WHO has estimated that prevalence of anemia in developed and developing countries in pregnant women is 14 per cent in developed and 51 per cent in developing countries and 65-75 per cent in India. ¹ Anemia is one of the important factor which decides the outcome of pregnancy. Anemia among pregnant women includes increased risk of low birth-weight or prematurity, perinatal and neonatal mortality, increased risk of maternal morbidity and mortality. Even though National Nutritional Anemia Prophylaxis Program (NNAPP) started in 1970 with objective to reduce the anemia prevalence but no satisfactory achievement yet. As per NFHS-3 (2005-6) survey in rural Maharashtra 56.4% pregnant women are

anemic. ² This underlines the problem of anemia among pregnant women in rural area and need of research on this issue.

Method:

Study design: Community based cross sectional study. **Setting:** This study was conducted in 16 villages under primary health centre, Valsang, Dist: Solapur (Western Maharashtra). **Sample size:** all (827) pregnant women registered under register -15 of sub-centre and attending antenatal clinic either at village level or health facility level during 1 April 2010 to 31 March 2011 were included in the study. **Sample selection:** Every pregnant woman registered under register-15 of sub-centre was included in the study. Hemoglobin estimation of every pregnant woman was done by Sahli's method during her first antenatal visit in 12-20 weeks of gestational age. If the registered woman was not attended to antenatal clinic then on the next day she was visited by health worker and hemoglobin estimation was done through home visit. WHO criteria was used to classify the severity of anemia³ Results were analyzed and presented as percentages.

Results: Out of total 827 pregnant women, 266 (32.16%) were primigravida, 367 (44.38%) and 194 (23.46%) were of second gravida and third gravida & above respectively. Maximum 719 (86.94%) women were in the age group 20-29 years. Mean age of the pregnant women was 22.72 ± 3.25 years. The overall prevalence of anemia was 92.38%. Among the total 827 pregnant women 328 (39.66%) were mild anemic, 406 (49.09%) were moderate anemic and 30 (3.63%) were severe anemic.

Table- 1. Prevalence of Anemia among Pregnant Women

Severity of Anemia	Number	Percentage
Normal (> 11 g/dl)	63	7.62
Mild Anemia (10-10.9 g/dl)	328	39.66
Moderate Anemia (7-9.9 g/dl)	406	49.09
Severe Anemia (<7 g/dl)	30	3.63
Total	827	100.00

Discussion: The anemia prevalence in the present study was very high i.e. 92.38% as compared with the studies of Umesh Kapil et al⁴ (78.8%) in Delhi slum area and [Toteja GS](#) et al⁵ (84.9%) in 16 districts study of India were anemic. Priyali Pathak et al⁶ also found less percentage (85.4%) of anemia among pregnant women of Delhi slums. The prevalence of mild anemia in the study of Umesh Kapil et al⁴ and Priyali Pathak et al⁶ was 29.4% and 30.4% respectively which was lower than the present study (39.66%). But the prevalence of moderate anemia observed by Umesh Kapil et al⁴ (47.8%) and Priyali Pathak et al⁶ (53.2%) was similar to present study (49.09%). 3.63% pregnant women in present study were severe anemic similar finding was observed by Umesh Kapil et al⁴ (1.6) and Priyali Pathak et al⁶ (1.5%) but in the study of [Toteja GS](#) et al⁵ high (13.1%) percentage of severe anemia was found..

Conclusion: Very high prevalence of anemia (92.38%) indicates that the anemia continues to be a major public health problem in rural area.

Recommendation: Strategic efforts are needed to broaden the coverage of Iron and Folic acid distribution and its consumption.

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