

Maternal and Neonatal Hematological Parameters in Rural Punjabi Population as Influenced by Nutrition Counseling and Medical Supervision

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ABSTRACT Sixty young women from low and lower middle income groups were selected from 8 villages of Ludhiana district in I Trimester of pregnancy and divided equally into Experimental (E) and Control (C) groups. Iron (60 mg), folic acid (500 µg), calcium gluconate (500 mg), ascorbic acid (15 mg), vitamin B12 (1 µg) and vitamin D3 (100 I.U) were supplied to E group from 5th month till delivery along with regular medical supervision and nutrition counseling. Intake of all the nutrients were less than the Recommended Dietary Allowances in the E and C groups during I and III Trimesters. However, the requirement of iron, folic acid, vitamin B12, ascorbic acid were met in the E group due to supplementation. The Fe, Ca and Cu levels improved significantly ($P < 0.01$) during III Trimester in E group. The cord serum levels of Fe, Ca and Cu were also significantly ($P < 0.01$) higher in E group. The relationship between maternal and cord blood levels of Fe, Ca, Cu and Zn were significant ($P < 0.01$), the coefficients of correlation being 0.67, 0.92, 0.97 and 0.43 respectively ($P < 0.01$). Nutritional counseling significantly improved the haemopoetic indices of the pregnant women and their neonates.