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Prevalence and Determinants of Iron Deficiency Anaemia in Pregnant Xhosa Women

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Abstract : Objective: To determine the prevalence and determinants of iron-deficiency anaemia in pregnant Xhosa women practising geophagia. Methods: This cross-sectional study was conducted among pregnant Xhosa women from rural areas of Mthatha, South Africa, according to socio-demographic, geophagia, haematologic and iron metabolism profiles using univariate and multivariate analyses. Anaemia was defined by haemoglobin <11 g/dL and iron deficiency was defined by serum ferritin < 12 ug/L. Results: Out of 210 pregnant women (mean age =23±5.3 for geophagic and 25.6±5.3 for non-geophagic), 51.4% (n = 108) had iron deficiency anaemia (50.9% geophagic and 49.1% non-geophagic). After adjusting for confounders, only geophagia (OR=2.1 95% CI 1.1-4.2; P=0.029) and mean corpuscular haemoglobin concentration categories (< 30.5 g/dL with OR=16.6 95% CI 6.8-40.2; P < 0.0001; 30.5-31.5 g/dL with OR=2.9 95% CI 1.4-6.1; P=0.006; and ≥ 31.5 g/dL with OR=1) were identified as the most important significant and independent determinants of iron deficiency anaemia. Conclusion: The study results point to the potential harm geophagia can cause in pregnant women. The prevalence of iron deficiency anaemia is unacceptably high. Geophagic behaviour, low MCHC presented as particular risk factors of iron deficiency anaemia in this study. Education and counselling about appropriate diet during pregnancy and prevention of geophagic behaviour (and health consequences) are needed among pregnant Xhosa women.

Keywords : geophagia, pregnancy, iron deficiency anaemia, Xhosa
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