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**Anaemia among schoolchildren from southern Kerala, India: A cross-sectional study**

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**Abstract**

**Background:**Iron deficiency anaemia remains a major nutritional problem among adolescents in India. The weekly iron and folic acid supplementation programme was launched in Kerala in 2013-14. We aimed to estimate the prevalence of anaemia among schoolchildren in Kollam district, Kerala and determine the associated factors.

**Methods:**The haemoglobin level of 1600 boys and 1600 girls belonging to class V to IX in 32 randomly selected schools in Kollam district was measured using HemoCue 301 photometers by trained nurses. They also recorded details about the intake of food as well as iron tablets by the students. The anaemia status was evaluated as per the WHO guidelines. Univariate analysis for factors associated with anaemia was done and selected variables were entered into a logistic regression model.

**Results:**The prevalence of anaemia among the students was estimated to be 31.4% (95% CI 29.76-33.04). About 1% had severe, 11.9% had moderate and 18.5% had mild anaemia. Among them 35.3%, 22.3% and 45.3% reported that they were not in the habit of consuming meat, green leafy vegetables and citrus fruits, respectively, at least once a week. Anaemia among schoolgoing children was associated with irregular consumption of weekly iron folic acid supplementation tablets (adjusted OR 1.39, 95% CI 1.08-1.82) and regular intake of tea/coffee along with major meals (adjusted OR 1.41, 95% CI 1.21-1.66).

**Conclusion:**Anaemia among schoolgoing adolescents in Kollam district is a public health problem and is more among those who consumed less quantities of weekly iron and folic acid supplementation tablets and those who regularly consumed tea/coffee along with major meals. It may be helpful to introduce a comprehensive school health anaemia prevention package with effective behaviour change communication for dietary modification as well as strategies to improve the coverage of the iron and folic acid supplementation programme along with its monitoring and evaluation.

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