

Anaemia and its correlates among tea estate workers in Homadola Estate, Udugama

Gamage A¹, Abraham D¹, Abeywickrama C¹, Amali H¹, Amarasiri C¹,
Amarasuriya R¹, Atthanayake K¹, Bandara M¹, Chandilini L¹, Chinthaka P¹, Chinthaka K¹,
Damayanthi P¹, de Silva PV²

¹*Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.*

²*Department of Community Medicine, Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka.*

Introduction

Anaemia is a global public health problem. It is an indicator of poor nutrition and sanitation with major consequences for social and economic development of a population. Further, the prevalence of anemia is higher in the estate sector than in urban or rural sector. We conducted the present study with an objective to assess the magnitude of anaemia and its correlates among permanent workers of a tea estate.

Methods

A cross sectional study was carried out among the workers of Homadola Estate, Udugama in July 2014. A total of 283 tea estate workers, above 16 years of age, who had worked there for more than six months were included in the survey. Diagnosed patients with anemia who were currently on treatment, diagnosed patients with bleeding disorders and pregnant women were excluded. Two milliliters of venous blood was obtained for biochemical analysis of haemoglobin level using Drabkin's reagent. Males and females who had haemoglobin levels below 12.5 g/dl and 11.5 g/dl respectively were considered anaemic. Other relevant data were collected using an interviewer administered questionnaire.

Results

The sample consisted of 63.9% males and most of them were between ages 51-55yrs. Majority had not attended school at all and only 13% had studied beyond GCE Ordinary Level. Majority were Tamils (65.6%). Out of the study sample (n=283), 27.3% were anaemic. Six percent of males and 39% of females contributed to the anaemic subjects and the prevalence of anemia differs with gender ($Z=4.8572$). Ninety-two percent of anaemics had educated up to O/L and 96% of them were labourers. Though there was a significance in the level of education with development of anemia ($\chi^2=3.8744$), there was no significant association in the prevalence of anemia in categories with different education levels ($\chi^2=4.841$). There was no significant association with frequency of animal origin food consumption and the development of anaemia. Only 29.81% of people who washed hands prior to the meals developed anaemia whereas 70.1% people who didn't, developed anaemia. There is a significant association between washing hands prior to the meals and development of anemia ($\chi^2=5.8809$). The women who had menstrual bleeding for a higher number of days were anaemic than those who had it lesser number of days.

Conclusions

A high prevalence of anemia was found in the estate population studied. Factors significantly associated with anaemia are gender, ethnicity, type of occupation and washing hands. The overall findings of this study demonstrate that the anemia is a major public health problem in this estate population studied.