

The prevalence and risk factors of Iron deficiency anaemia among rural school children in Kudat, Sabah

ABSTRACT

Introduction: Iron deficiency anaemia (IDA) is the most common nutritional anaemia in the world that affects individuals in both developed and developing countries including Malaysia. The prevalence of IDA among schoolchildren is crucial to know as IDA may contribute to poor mental and school academic performance. Hence, the objective of the study was to diagnose the present prevalence of IDA and to analyse the association with probable risk factors.

Methods: This cross-sectional study was carried out from August 2017 to February 2018 among 261 school children, who aged between 8 to 10 years in Kudat, Sabah, were selected through simple random sampling. After getting informed consent from the parents or guardians of the participants self-administered validated questionnaire was used to gather information regarding socio-demographic data, knowledge, attitude and practice towards iron deficiency anaemia and Food Frequency Questionnaires. The blood sample was collected for confirmation of anaemia through serum haemoglobin (Hb) concentration and determination of iron status through serum ferritin, serum iron and serum TIBC and stool samples were collected for children identified with anaemia for soil-transmitted helminths analysis.

Results: Out of 82 anaemic students, 36 were suffering from iron deficiency anaemia. The BMI status, the presence of soil-transmitted helminths and level of knowledge regarding IDA had highly significant ($p < 0.001$) association with prevalence of IDA.

Conclusion: By improving the household economy, education, sanitation, and personal hygiene status and promoting consistent nutritional education among the population may help to reduce the prevalence of IDA.