

Introduction:

Lowered haemoglobin level an indicator of anaemia is a major public health problem which affects both developed and underdeveloped countries with 1.62 billion (24.8%) people global of which 40% of the individuals coming from Africa and 305 million (25.4%) are children aged 5 to 14 years (WHO 2008). Soil transmitted helminths infestation due *Ascaris lumbricoides*, *Necator americanus* *Ancylostoma duodenale* and *Trichuris trichiura* which are of major concern to human affect more than 2 billion people worldwide and almost 100% of school going children are at risk with highest prevalence noted in areas with inadequate sanitation and unsafe water. This study was carried out on 297 children aged 5 to 14 years to determine the current prevalence of soil transmitted helminths and its association with anaemia in Kapchorwa district.

Objective:

We aimed to determine the relationship between soil - transmitted helminths infestation and anaemia among children aged 5 to 14 years attending outpatient department at Kapchorwa hospital Eastern Uganda.

Methodology:

This was a cross-sectional study. Blood samples were collected from children confirmed with STHs infestation as confirmed using formal ether concentration technique to estimate haemoglobin (Hb) levels using Cyanmethaemoglobin method from children age 4 to 14 years who had no signs and symptoms malnutrition, sickle cell anaemia and those who give assent or consent.

Results:

Out of 279 children who were enrolled into the study, participants had a mean age of 9.46 years. The prevalence of STHs among participants was 34.7 %. Hookworms were found among 21.0 % of the participants, *Ascaris* was found 11.1%, while *Trichuris* was found in 1.8% participants. The prevalence of anaemia among helminths infested children was 42.3 %. The study found a statistically significant association between hookworm and *Ascaris* infestation with anaemia ($p < 0.05$), 0.001 and 0.000 respectively. The risk factors associated with transmission of STH were source of water, wearing shoes and using pit latrine $P < 0.005$. Hookworm with source of was 0.003 and with pit latrine 0.002. While *Ascaris* with boil 0.004 and with pit latrine was 0.001.

Conclusion:

This study has found a high prevalence of STHs infestation and anaemia among children aged 5 to 14 years. The association of STHs infection showed a statistically significant association with anaemia in Eastern Uganda. To this, there is need to investigate for STHs amongst anaemic patients for proper routine cause management of anaemia. This study found a reduce risk in relation to using pit latrine,

wearing shoes and boilingwater.