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Comparative study on geo-helminthic infections in children at four schools in Matara district and with emphasis relationship on socioeconomic status and hygienic condition.

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Soil- transmitted nematode (STN) infections are a major health problem found among children and adult of low socio economic status in developing countries. The identification of the factors that affect the prevalence of soil transmitted helminthes infections should help to maximize the effectiveness of programmes for the control of these diseases. High prevalence of helminthiasis had been reported in the Sri Lanka in the past. No heavy infections on soil transmitted nematodes have been recorded at present. According to past records geo helminthes infestations been recorded in slum communities in sub-urban areas in Matara district too. Present study is also on attempt to determine the prevalence of soil-transmitted nematode infections in students who came from low socio-economic groups in Matara district. Aims of this investigation are to compare the soil transmitted nematode infection among four schools where two schools are being situated in rural areas and two in suburban areas, in addition, the relationship between the prevalence of soil transmitted helminthes infection and age, socioeconomic status, availability of sanitary facilities, hygienic conditions were studied in students in both urban schools and rural schools in Matara district. Students were selected under 5 age groups. Apart from these age groups, disable students at Thudawa Maha Vidyalaya were studied as a separate group. Stool samples were collected from each child and information about the socioeconomic status, hygienic conditions and sanitary facilities were collected by a questionnaire given to them. The age of the students at that time of examination ranged from 6 - 14 years. A total 281 stool samples were examined and 28 students were infected (10%). The infection was low prevalence of Ascaris lumbricoides, Trichuris trichura, Necator americanus and Enterobius were 1.07%, 2.14%, 6.05% and 2.14 respectively. The Prevalence of Ascaris and Trichuris infections was higher in urban schools than the rural schools. But the prevalence of hook worm infection was similar in the two areas. According to our findings, there were no differences in the prevalence of soil transmitted nematodes (STN) infection among schools (p = 0.695). And also there were no significant differences within age groups in four schools (p = 0.141).

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Finally there was weak relationship between the soil transmitted helminthes infection and the parameters studied in the four schools. It means there was no significant correlation between the STN infections and all parameters studied (p > 0.05). But there was significant correlation between infection and age and house in Duddly Senanayaka School ($r = 0.25^*$, $r = 332^{**}$, P < 0.05). Although the prevalence of these diseases is not high, this study reveals that soil-transmitted infections are important community healthy problem. A more meaningful programme of environmental sanitation along with health education and short term mass deworming treatment are possible strategies to control this problem.