COMPARISON STUDY OF INTESTINAL PARASITE INFECTION AND RISK FACTORS AMONG PRIMARY SCHOOL FIRST AND SECOND GRADERS IN MOJO AND SIMOLAWANG VILLAGE, SURABAYA

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ABSTRACT

BACKGROUND: Intestinal parasite infection is still indispensable in Indonesia. Although children below 12 years of age and in school are potential nation’s resources, they can be deterred by intestinal infections, incited by risk factors. Studies about their prevalence and risk factors are still lacking, hence this study’s aim to determine and compare them between Mojo and Simolawang village in Surabaya, East Java.

METHOD: A cross sectional study was conducted in Mojo and Simolawang village. A hundred and six stools specimens and questionnaires about family statuses, demography, clean and healthy living behaviors, and clean water usage were collected by informed consent, 53 from each village. Intestinal parasites in the stools were observed by direct smear under light microscope. The data were analyzed by chi-square test from SPSS program.

RESULTS: Forty four of samples (44/106, 41.5%) were positive of intestinal parasite infection. Most infections were caused by Blastocystis spp. (37/44, 84.1%). Sex was associated with infection in Simolawang (p=0.021) but not in Mojo (p=0.941). Simolawang had lower number in personal toilet for household (p<0.0001). Parents’ knowledge about diarrhea was associated with infection (p=0.034). Simolawang and Mojo had different number of children who wash hands after playing (p=0.010), types of snacks bought in school (p=0.044), and distribution of water types that were used in household (p<0.0001).

CONCLUSION: Risk factors associated with intestinal parasite infection in Simolawang were male gender, toilet status, parents’ knowledge about diarrhea, types of snacks bought in school, and household water types. Risk factors in Mojo were parents’ knowledge about diarrhea and behavior of washing hands after playing.

Keywords: clean and healthy living behavior, intestinal parasite infection, Mojo, risk factors, Simolawang, stool