

LETTER TO EDITOR

The Effect of Infection of Worms in Children and Adolescents

Adnan Nursalim^{1*}, Ita Nawang Sari¹, and Ika Aidinna¹

1. Department of Public Health Science, Faculty of Health Sciences, University of Muhammadiyah Prof. Dr. HAMKA, Jakarta, Indonesia

*Correspondence to Adnan Nursalim (adnann0126@gmail.com)

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Dear Editor,

In Indonesian, intestinal worms in the countryside and urban areas with a prevalence of all age of 40% - 60% and an elementary school student 60% - 80% ¹. The ministry of health republic of Indonesian in 10 provinces in Indonesia found the prevalence of intestinal worms in the southern coastal district of 2013 (85,8%) and 2005 (51,4%) is higher than other districts ². The infections have worms in primary school pupil the suit coastal district. Research with the design of the cross-sectional is using data from secondary survey result have worms in the stands as well based on the eggs of worms in the stool with the method of Katto-Katz³. The results showed the behavior of washing hands of the use of water and soap before eating has been shown to have meaning to the worms (OR= 2,35, 95% CI=1, 40-3,94% CI=1,46-4, 77) and the allowance in the school (OR= 1,96% CI=1,06-3,65%),

an elementary school student and the public are advised to wash hands before eating with water and soap. In addition to treatment should be conducted health education with the examination of periodic behavior and personal hygiene in school ⁴.

The infection a colon that is transmitted (Soil-Transmitted Helminthiasis) through the soil is a problem the world, especially in developing countries ⁵⁻⁷. It is estimated that 1 million of the world's population suffer from a parasitic infection of worms ¹. The prevalence in children age of elementary school in Indonesian between 60% - 80% most often used by *Ascaris Lumbricides* *Trichuris trichiura* and hookworm ⁸. Infection worms to affect the digestive absorption and metabolism of foods that can result in loss of protein, carbohydrates, fats, vitamins and blood in large quantities can also cause impaired immune response

to the plasma insulin-like a growth factor (IGF)-1, increasing levels of serum tumor necrosis the A (TNS) and lower concentrations of hemoglobin reratra ⁹. Beside, it can cause various symptoms of diseases such as anemia diarrhea, the syndrome dysentery, and iron deficiency anemia, and so the infection with a worm gut is a is a group of high risk for malnourished. This situation is in can cause a growth problem.

Indonesian is *Ascaris Lumbricoides*, *Trichuris Trichura*, *Necator americanus* dan *ansylostoma duodenale* ⁵, injection worm on a child can be found in single or a mixture ^{1,3,5}, and can cause malnutrition of anemia was best of health and lower appetite so that it can cause interference with the growth ^{1-4,6,7}, and can reduce cognitive ability ⁸.

The disease infected worms are one of the diseases that still prevalence in the community but received little attention. The disease is included in the group of Neglected Diseases does not cause an outbreak that arose spontaneously or cause many casualties but is a disease that gradually undermines human health leads to disability still, the intelligence of children and in the end can also cause death. One of the diseases of this group is a worm that can cause by infection with a group of Soil-Transmitted Helminth, the group of

worms of its life cycle on the ground. The parasitic which belongs to a Neglected Disease is a disease hidden or Silent disease, and less monitored by health workers ¹⁰⁻¹¹.

The worm that is caused by infection with the soil-transmitted helminth and is one of the diseases that still a health problem in Indonesian. Infectious intestinal worms can lead to declining state of health, nutrition, and the productivity of patient so that the economy much the losses, due to a loss of carbohydrates and protein and blood loss, which in turn can reduce the quality of human resources.

Conflict of Interest

The authors declared no potential conflict of interest exist.

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