

ABSTRACT

THE RELATIONSHIP BETWEEN SOIL TRANSMITTED HELMINTHS (STH) INFECTION AND NUTRITIONAL STATUS AND ACADEMIC PERFORMANCE AMONG PRIMARY SCHOOL-AGED CHILDREN IN ORPHANAGES IN BANDAR LAMPUNG CITY

By

ALOYSIUS KRISHARTADI DAMAR BAWONO

Background: Soil-transmitted helminth (STH) infections pose issues related to nutritional status and academic achievement. This study aims to determine the prevalence of STH infections, nutritional status, and academic achievement, and the relationship between them in elementary school-aged children in orphanages in Bandar Lampung City.

Methods: This study model is an observational and analytical study with a cross-sectional approach. The study was conducted in orphanages in 8 sub-districts of Bandar Lampung City with a total of 45 subjects. The independent variable was STH infection, the dependent variable was nutritional status and academic achievement, and the confounding variable was nutritional status. STH infection examination was carried out through a stool microscopic examination. Nutritional status was measured by determining the BMI/Age z-score using the WHO AnthroPlus, academic achievement was measured by the average school report card grade. Bivariate analysis was performed using the Fisher Exact Test.

Results: No STH infections were found. The majority of children's nutritional status was good (71.11%), underweight (17.78%), overweight (8.89%), and obese (2.22%). Subjects academic achievement was good (62.22%) and poor (37.78%). The statistical test for the relationship between nutritional status and academic achievement yielded a p-value of 0.132.

Conclusions: No STH infections were found that descriptively influenced by host and environmental factors. The majority of nutritional status and academic achievement were linear with the theory and negative results for infection. The relationship between nutritional status and academic achievement was not significant. The relationship between STH infections and nutritional status and academic achievement could not be analyzed.

Keywords: academic achievement, nutritional status, primary school-aged children soil transmitted helminths

ABSTRAK

HUBUNGAN INFEKSI *SOIL TRANSMITTED HELMINTHS* (STH) DENGAN STATUS GIZI DAN PRESTASI AKADEMIK ANAK USIA SEKOLAH DASAR PADA PANTI ASUHAN DI KOTA BANDAR LAMPUNG

Oleh

ALOYSIUS KRISHARTADI DAMAR BAWONO

Latar Belakang: Infeksi *soil transmitted helminths* (STH) sebagai masalah kesehatan global menimbulkan permasalahan yang berkaitan dengan status gizi dan prestasi akademik. Penelitian ini bertujuan untuk mengetahui prevalensi infeksi STH, status gizi dan prestasi akademik, serta hubungan infeksi STH dengan status gizi dan prestasi akademik pada anak usia sekolah dasar pada panti asuhan di Kota Bandar Lampung.

Metode: Model penelitian ini adalah *observational* dan *analytical study* dengan pendekatan *cross-sectional*. Penelitian dilaksanakan pada panti asuhan di 8 kecamatan Kota Bandar Lampung dengan total 45 subjek. Variabel bebas adalah infeksi STH, variabel terikat status gizi dan prestasi akademik, serta variabel perancu status gizi terhadap prestasi akademik. Pemeriksaan infeksi STH dilakukan melalui uji mikroskopis feses. Pengukuran status gizi dilakukan melalui penentuan *z-score* IMT/U pada aplikasi WHO AnthroPlus. Prestasi akademik diukur melalui rata-rata nilai rapor sekolah. Analisis bivariat dilakukan dengan uji statistik *Fisher Exact Test*.

Hasil: Tidak ditemukan infeksi STH pada 45 subjek. Mayoritas status gizi anak adalah baik (71,11%), kurang (17,78%), lebih (8,89%), dan obesitas (2,22%). Prestasi akademik subjek baik (62,22%) dan buruk (37,78%). Uji statistik *Fisher Exact Test* untuk hubungan status gizi dan prestasi akademik menghasilkan *p-value* 0,132.

Kesimpulan: Tidak ditemukan infeksi STH pada subjek anak usia sekolah dasar pada panti asuhan di Kota Bandar Lampung yang secara deskriptif dipengaruhi oleh faktor hospes serta lingkungan. Mayoritas status gizi dan prestasi akademik baik linier dengan teori dan hasil negatif infeksi. Hubungan status gizi dan prestasi akademik tidak signifikan. Hubungan infeksi STH dengan status gizi dan prestasi akademik tidak dapat dianalisis secara bivariat ataupun multivariat.

Kata Kunci: anak usia sekolah dasar, prestasi akademik, *soil transmitted helminths*, status gizi