

ABSTRACT

THE ASSOCIATION BETWEEN INTESTINAL PROTOZOAN INFECTIONS AND NUTRITIONAL STATUS AND ACADEMIC ACHIEVEMENT AMONG PRIMARY SCHOOL-AGED CHILDREN IN ORPHANAGES IN BANDAR LAMPUNG CITY

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Background: Intestinal protozoan infections remain a public health problem among primary school-aged children, particularly those living in orphanages, as they may affect nutritional status and academic achievement. Environmental conditions, sanitation, and daily living practices can increase the risk of intestinal parasitic infections. This study aimed to determine the association between intestinal protozoan infections, nutritional status, and academic achievement among primary school-aged children living in orphanages in Bandar Lampung City.

Methods: This study employed an analytic observational design with a cross-sectional approach. The study subjects consisted of 38 primary school-aged children residing in orphanages in Bandar Lampung City. Nutritional status was assessed using anthropometric measurements, while academic achievement was evaluated based on school report card grades. Stool sample examinations were conducted at the Microbiology and Parasitology Laboratory, Faculty of Medicine, University of Lampung, using Lugol's iodine and Ziehl-Neelsen staining methods. Data analysis in this study employed an independent *t*-test.

Results: The prevalence of intestinal protozoan infections among children living in orphanages was 7.8%, with *Blastocystis* sp. identified as the detected species. Bivariate analysis revealed a statistically significant association between intestinal protozoan infections and academic achievement ($p=0.024$). However, no statistically significant association was found between intestinal protozoan infections and nutritional status ($p=0.870$).

Conclusion: The prevalence of intestinal protozoan infections among primary school-aged children in orphanages in Bandar Lampung City was relatively low. Intestinal protozoan infections were associated with academic achievement but were not associated with nutritional status.

Keywords: academic achievement, *Blastocystis* sp., intestinal protozoan infection, nutritional status, orphanage.

ABSTRAK

HUBUNGAN INFEKSI PROTOZOA USUS DENGAN STATUS GIZI DAN PRESTASI AKADEMIK PADA ANAK USIA SEKOLAH DASAR DI PANTI ASUHAN KOTA BANDAR LAMPUNG

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Latar Belakang: Infeksi protozoa usus masih menjadi masalah kesehatan pada anak usia sekolah dasar, terutama pada kelompok yang tinggal di panti asuhan, karena berpotensi memengaruhi status gizi dan prestasi akademik. Kondisi lingkungan, sanitasi, serta pola hidup sehari-hari dapat meningkatkan risiko terjadinya infeksi parasit usus. Penelitian ini bertujuan untuk mengetahui hubungan infeksi protozoa usus dengan status gizi dan prestasi akademik pada anak usia sekolah dasar yang tinggal di panti asuhan di Kota Bandar Lampung.

Metode: Penelitian ini merupakan penelitian observasional analitik dengan desain potong lintang (*cross-sectional*). Subjek penelitian berjumlah 38 anak usia sekolah dasar yang tinggal di panti asuhan di Kota Bandar Lampung. Status gizi ditentukan berdasarkan pengukuran antropometri, sedangkan prestasi akademik dinilai menggunakan nilai rapor. Pemeriksaan sampel feses dilakukan di Laboratorium Mikrobiologi dan Parasitologi Fakultas Kedokteran Universitas Lampung menggunakan metode Lugol dan *Ziehl-Neelsen*. Analisis data pada penelitian ini menggunakan *independent t-test*.

Hasil: Prevalensi infeksi protozoa usus pada anak panti asuhan sebesar 7,8%, dengan spesies yang ditemukan adalah *Blastocystis* sp.. Analisis bivariat menunjukkan terdapat hubungan bermakna antara infeksi protozoa usus dengan prestasi akademik anak ($p=0.024$). Namun, tidak ditemukan hubungan bermakna antara infeksi protozoa usus dengan status gizi anak ($p=0.870$).

Kesimpulan: Prevalensi infeksi protozoa usus pada anak usia sekolah dasar di panti asuhan Kota Bandar Lampung tergolong rendah. Infeksi protozoa usus berhubungan dengan prestasi akademik, tetapi tidak berhubungan dengan status gizi.

Kata Kunci: *Blastocystis* sp., infeksi protozoa usus, panti asuhan, prestasi akademik, status gizi.