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Enterobiasis Prevalence, Behaviors, and Reported Symptoms among School-aged Children in Selected Barangays in the City of Koronadal, South Cotabato

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Abstract

Enterobiasis, caused by *Enterobius vermicularis*, is a common parasitic infection affecting children worldwide. While it is prevalent, there is limited data on its incidence and risk factors in the City of Koronadal. The infection is often associated with poor hygiene and crowded living conditions, presenting a notable public health concern. This cross-sectional study established baseline data on enterobiasis in two barangays in the City of Koronadal. With parental consent, 304 children aged 6-9 years old were examined using the Perianal Cellulose Tape Swab, and a validated questionnaire was used to collect demographic profiles, risk behaviors, and reported symptoms. After data summary and analysis, the overall prevalence of enterobiasis in selected barangays of the City of Koronadal was 14.80% (45/304). The use of multivariate analysis revealed marginal associations between infection rates and variables such as age and household size (p-values = 0.053 and 0.054). Symptom analysis indicated that frequent anal itching (p-value = 0.000) and abdominal pain (p-value = 0.036) were strongly associated with the infection. In contrast, nail and finger-biting practices appeared as significant predictors, with both behaviors showing a strong correlation with infection risk (p-values = 0.024 and 0.036, respectively). At the same time, regular nail trimming was associated with a decreased risk of enterobiasis (p-value = 0.015). These findings underscore the critical role of personal hygiene in preventing enterobiasis and provide valuable insights for future research and public health interventions. Based on the study's findings, several recommendations are made for future research. First, future researchers may consider a 6 consecutive-day collection method, which is the standard for collecting specimens for *Enterobius vermicularis* using the Perianal Cellulose Tape Swab to ensure accurate confirmation of negative results. Widening the scope of locale within the entire City of Koronadal is also suggested to establish the prevalence and reliability of the results.