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TITLE

IDENTIFICATION OF RISK FACTORS ASSOCIATED WITH THE PREVALENCE OF SCHISTOSOMIASIS IN A HIGHLY ENDEMIC COMMUNITY IN NORTHEAST BRAZIL

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ABSTRACT

Schistosomiasis has a complex epidemiological profile, with transmission influenced by multiple factors, including sanitary, environmental, political, economic, social, cultural, biological, lifestyle, and social organization elements. It remains a significant public health concern in Northeast Brazil, particularly in the State of Sergipe, where prevalence is high in several areas. This study aimed to describe the epidemiological aspects of schistosomiasis mansoni, along with household characteristics and water contact patterns in the human population. Secondary data from parasitological and epidemiological surveys conducted in Colônia Miranda, São Cristóvão, Sergipe, were analyzed. The study took place in 2023, focusing on a community of 622 residents, with 583 completing a socio-environmental questionnaire. Among these, 370 individuals provided stool samples for the Kato-Katz (KK) method, used to diagnose the disease. Sociodemographic data were compiled in an Excel spreadsheet for analysis alongside the results from the KK parasitological method. For schistosomiasis diagnosis, two stool samples were collected over two consecutive days, and two slides were prepared for each sample. The findings indicate that Colônia Miranda is a highly endemic area, with a prevalence of 25.7 cases per 100 inhabitants. The distribution of parasite loads was as follows: 85.3% had a low parasite load (81/95), 12.6% had a moderate load (12/95), and 2.1% had a high load (2/95). The prevalence was 47.36% among men and 52.64% among women. A significant portion of the population (44.21%) had not completed primary education, 23.16% had a family income between one and three minimum wages, and around 45.26% reported receiving federal government assistance. Regarding sanitary conditions, only 33 participants (34.74%) had sanitation connected to a sewage network, while 59 participants (62.11%) used other methods for waste disposal, such as directly discarding waste into the street, using sealed septic tanks, or disposing of waste in a canal. A total of 23 individuals reported previous diagnoses of schistosomiasis and treatment at some point in their lives. The inadequate water supply and sewage treatment, the low socioeconomic status of the families studied, and the widespread presence of *S. mansoni* intermediate hosts in the village streets strongly indicate that this population is at high risk of contracting the disease. These risk factors pose significant challenges, leading to severe health impacts for the most vulnerable segments of the population. More effective interventions from government agencies and the Schistosomiasis Control Program are urgently needed to address these challenges.

KEYWORDS

Schistosomiasis; Epidemiology; Risk Factors; Schistosoma mansoni

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