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Health education for children to combat amebiasis: an extension experience report

EXPERIENCE REPORT

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DECLARATION OF THE EXISTENCE OR NOT OF CONFLICT OF INTEREST: THERE IS NO CONFLICT OF INTEREST.

Educação sanitária para crianças no combate à amebíase: um relato de experiência extensionista

ABSTRACT

INTRODUCTION: Amoebiasis is an oro-fecal transmissible parasitosis which the occurrence is conditioned to precarious sanitary conditions. One manner of reducing the contamination is the adoption of educational measures, mainly for vulnerable populations. Its incidence and mortality are connected to the lack of knowledge about the theme and to access to sanitary education that must be used as preventive tools. **OBJECTIVES:** To evaluate the knowledge about amoebiasis between kids from 9 to 14 years old at Non-Governmental Organization (NGO) and instruct them about the topic. **METHODS:** The work was reasoned on the promotion of educational activities with the target audience, based on the literature found on the databases MedLine, LILACS e SciELO and in pedagogical resources suitable to the participants' age. **RESULTS:** The activities realized provided more knowledge to the participants. As confirmed in the post-test, there was improvement on the comprehension of the audience about the biology, transmission, conduction, and prevention of protozoosis. **CONCLUSION:** Sanitary education and larger diffusion of knowledge about amoebiasis showed themselves necessary for the reduction of its

contagion. Therefore, it is made explicit the importance of educational measures at the prevention of highly transmissible and easy prevention pathologies, as evidenced in the partnership with the NGO.

Keywords: Sanitary Education; Amoebiasis; Protozooses Prevention.

RESUMO

INTRODUÇÃO: Amebíase é uma parasitose de transmissão oro-fecal cuja ocorrência está condicionada a condições sanitárias. Uma medida para reduzir sua contaminação é a adoção de medidas educativas, principalmente para as populações mais vulneráveis. A incidência e mortalidade desta estão ligadas à falta de conhecimento a respeito do tema e acesso à educação sanitária, que devem ser utilizados como ferramentas preventivas. **OBJETIVOS**: Avaliar o conhecimento sobre a amebíase entre crianças de 9 a 14 anos em uma Organização Não Governamental (ONG) instruí-los quanto ao tema. **MÉTODOS**:O trabalho fundamentou-se na realização de atividades educativas com o público alvo, baseadas em achados da literatura nas bases de dados MedLine, LILACS e SciELO e em recursos didáticos adequados à idade dos participantes. **RESULTADOS**: As atividades realizadas proporcionaram maior conhecimento aos participantes. Conforme foi confirmado no pós-teste houve aumento na compreensão do público alvo acerca da biologia, transmissão, conduta e prevenção de protozooses. CONCLUSÃO: A educação sanitária e maior difusão de conhecimento sobre a amebíase mostram-se necessárias para redução do seu contágio. Assim, explicita-se a importância de medidas educacionais na prevenção de patologias de alta transmissibilidade e fácil profilaxia, como evidenciado na ação em parceria com a ONG.

Descritores: Educação Sanitária; Amebíase; Prevenção de Protozooses.

INTRODUCTION

Amebiasis is a human infection of the small intestine caused by *Entamoeba histolytica,* which is an extracellular parasite[1]. It is one of the most primitive forms of protozoan, being extremely fragile, pleomorphic, and sensitive to temperature changes[2]. This protozoosis can lead to death and its occurrence is mainly conditioned by poor sanitary conditions, precarious housing, and poor hygiene habits, as it is an oro-fecal transmitted disease[3]. Despite this, in 90% of cases, the parasite causes asymptomatic infection, while in 10% of individuals, *E. histolytica* invades the intestinal mucosal barrier and activates an intense pro-inflammatory reaction.[4].

Treatment of this infection is generally carried out with the drug metronidazole and new medications have been developed, such as auranofin[5]. According to estimates by the World Health Organization (WHO), around 45 million individuals are affected by the disease, which 100,000 die annually, making it the second leading cause of deaths due to infection caused by protozoa/parasites[6]. In Brazil, only in the years 2012 to 2016 there were 14,268 cases of hospitalization due to amoebiasis, with those affected mostly being children and adolescents, which is a very relevant number[7,8]. Furthermore, another important

factor is the great underreporting of cases, since, as it is more common in peripheral regions, in individuals who have less access to healthcare, the disease is often not even diagnosed. This higher incidence in peripheral locations is related to the lack of access to information and lack of knowledge about the forms of transmission of the most varied diseases[9]. Therefore, one way to reduce contamination and consequences caused by this parasite is to adopt educational measures, mainly for the most vulnerable populations[10]. This is because health education contributes to prevention, enabling better control of the disease and reducing the incidence of complications[11]. In this perspective, it is possible to state that the incidence of this protozoosis and mortality from it, are directly linked to knowledge on the subject and to access to health education, which, therefore, must be used as tools to combat this parasitic disease. These resources should be used mainly in places with a high incidence and prevalence of these diseases, such as the metropolitan region of Belo Horizonte, which has 15% prevalence of intestinal infections caused by parasites, with 4.2% specifically related to the amoebiasis. In this way, the objective of the present work was to evaluate the general knowledge about amoebiasis among children and adolescents aged 9 to 14 years in a non-profit institution called *Instituto Herdar*, located in the city of Belo Horizonte.

EXPERIENCE REPORT

Study of a descriptive nature, of an academic experience report type, on Health Education, specifically on the Amebiasis parasitosis. The extension action took place at the NGO Instituto Herdar, located in the city of Belo Horizonte, with children and adolescents, between 9 and 14 years old, in the context of the Discipline of Formative Practice in the Community III during the 1st semester of 2022.

The theme of the action was decided based on research carried out in the MedLine, LILACS and SciELO databases, which indicated the epidemiological relevance of the disease, mainly in the peripheral regions of large cities12, where the institution is located, associated with the demand for local coordination. The intervention was planned based on the application of a pre-test, with 15 questions, in order to measure general knowledge related to parasites, basic sanitation and personal hygiene, as well as habits related to amoebiasis prophylaxis. The definition of the main points to be worked on was done through analysis of the pre-test and discussion with the Institution's management. It was decided to adopt recreational pedagogical strategies that promoted lighter and more effective learning in the age group being worked on13,14. Classes and recreational activities were held fortnightly, with the aim of actively transmitting knowledge and providing instruction on health education, such as: Simulation of washing hands with paint, so that neglected areas were marked, to understand the need for care and attention in this process15; Carrying out true or false scavenger hunts in groups16, with questions related to the class. At the end of the action, a post-test was applied, with the same content as the pre-test and activities, to quantitatively measure the effectiveness of the intervention.

In this context, the results of the pre- and post-test were analyzed to obtain a quantitative conclusion

about the effectiveness of the activities carried out in promoting knowledge about amoebiasis. Initially, it is worth highlighting that the results obtained in the first questionnaire revealed strong misinformation about the topic discussed, evidenced, for example, by the finding that half of the participants reported not knowing what a protozoan is. The post-test, applied after the promotion of classes and activities, obtained a significantly greater number of assertive responses, suggesting that knowledge about various aspects of amoebiasis were effectively acquired after the work performed.

DISCUSSION / THEORETICAL REFLECTIONS

Amebiasis is the second most common parasite in developing countries. Variations in the population profile, sanitary conditions and socioeconomic profile of the analyzed location may cause different prevalence data, which range between 3.8% and 46.3% in the regions of the country[17]. These rates reinforce the epidemiological importance of amoebiasis in Brazilian scenario. It is noteworthy that the fecal-oral contamination of this parasitic disease, a consequence of low sanitary conditions and precarious hygiene habits, is favored by the lack of information on the transmission and prophylaxis of the disease[18]. The existence of this gap is of great interference in schools and in locations with low socioeconomic status[19].The school environment involves the sharing of spaces, such as toilets, in addition to the need for students to take care of individual hygiene while they are away from home. Significant relevance is attributed to this fact, as children are more susceptible to intestinal infectious diseases due to unsatisfactory hygiene habits[20]. Furthermore, precarious housing, characterized by divided accommodation, as in schools, and inadequate basic sanitation, facilitate the transmission of pathogens through contaminated water, food and fomites or body parts taken into the mouth.

FIGURE 1. IMAGES FROM FIELD WORK
SOURCE: PERSONAL FILE

About it, the need for health education work by educators stands out to promote greater clarification on intestinal parasites, especially in locations with the presence of the aggravating factors[21]. Therefore, it is worth highlighting the importance of the action proposed by the extension project, when addressing aspects of amoebiasis at Instituto Herdar for students with social contexts marked by the reality of the periphery. The results obtained from the analysis of the applied questionnaires confirm the evolution of students' information on aspects of parasites, such as personal hygiene habits, the characteristics of the pathogen and prophylactic measures. In the first questionnaire, it was noted that students were relatively unaware of transmission and prophylaxis, considering that more than half of the participants did not know what contamination by a parasite is like, they also reported not knowing which diseases are caused by these microorganisms and the majority responded that they did not know how prevention is carried out. The results of the post-test indicated an increase in the number of correct answers regarding general knowledge of oro-fecal transmitted protozoa.

In this way, the intervention performed by the group in relation to health education is validated, since the positive impact goes beyond the school environment, having an effect throughout the local context, mainly in homes, due to the incentive to disseminate information. Moreover, it is worth highlighting that, along to the benefit for the involved public and the community in which they are inserted, the work brought a unique experience to the academics responsible. From it, it was possible to visualize and meet another reality in the socioeconomic sphere, which proved to be essential for a greater understanding of the individual and the determining factors of their health that transcend the pathophysiological. From this, the students had the opportunity to develop skills such as empathy, listening and acceptance, which are essential for them to become humanized doctors in the future. According to literature data, it was concluded that health education and greater dissemination of knowledge about parasitic diseases, mainly oro-fecal transmission Amebiasis, are necessary to reduce contagion with these protozoa.

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