PREVALENCE OF PARASITIC INFECTION AMONG SCHOOL CHILDREN IN BENI SUIEF Governorate

THESIS

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Basic Medical Science

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- **Extraintestinal helminthes.**
- **Protozoal infections.**
- **Factors affecting prevalence of parasites.**
- **Stool examination by different methods.**
- **Symptoms associated with each parasites.**

معدل انتشار الأمراض الطفيلية بين طلبة المدارس بمحافظة بني سويف

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Introduction

Parasitic infections are a major health problem. They are endemic in many tropic and subtropic areas particularly in underdeveloped countries where sanitary and ecological factors favour the spread of these infections **(Abdel Wahed, 1984).**

Intestinal parasitic infections are commonly transmitted through ingestion of contaminated food and water as a result of poor sanitation and hygiene. In some instances, transmission occurs through close contact between infected and uninfected individuals as infected food handlers and consumers, respectively **(WHO, 1987).**

It is estimated that approximately 3.5 billion people are affected and that 450 million are ill as a result of these infections, the majority being children. Common intestinal parasites such as *Blastocystis hominis* and *Giardia lamblia* are still health challenges of economically developed and developing countries **(Hill *et al*., 2007).**

There are many factors that determine the distribution, frequency, wormburden and disease severity in many of these parasitic infections as age, Poverty, illiteracy, poor hygiene, lack of access to potable water and hot and humid tropical climate **(Abdel Salam *et al.,* 1986).** The prevalence of intestinal parasites among school children in rural areas was significantly higher than in urban areas **(Hammouda *et al.,* 1986).**

Giardia lamblia was the most common intestinal parasite among children of all social classes. *Entamoeba histolytica* was found among children of middle class, while *Hymenolepis nana* was found among those of lower class **(Ahmed *et al.,* 1990).**

In developing countries, parasitic infections are more prevalent among farmers and labourers in rural areas due to the existence of many environmental factors and social conditions that favour these infections **(El-Shaffey, 1992).**

In children, parasitic infections lead to malnutrition, malabsorption syndrome, diarrhea, intestinal obstruction and mental and physical growth retardation **(Carbol Urbani, 2001).**

Aim of the work

The aim of the present study is to detect the prevalence of parasitic infections among school children in Beni Suief Governorate and to detect the effect of different factors as age, sex, socioeconomic levels and residence on the prevalence of parasites. Also to detect the most accurate method for detection of different parasites in addition to symptoms associated with each parasite.

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Review of literature

Parasitic infection is considered one of the most common tropical diseases in developing countries. The prevalence of parasitic infections in developing countries is high and ranges between (30%) and (60%) (Cox, 1982). Some parasites have world wide distribution, but the majority occurs in the tropics (Pawlowskizs, 1984).

Intestinal parasites are estimated to infect more than three billion people worldwide. Most intestinal parasites are heterogeneously distributed in host populations; according to a frequently quoted estimate, (10%) of hosts harbour (70%) of the intestinal helminthes (Anderson and May, 1985).

Some common protozoa, such as *G. lamblia, D. fragilis,* and *E. histolytica,* may be associated with sporadic outbreaks in industrialized countries, whereas helminthes have specific geographic distributions and may be rapidly extinguished with improvements in community sanitary conditions. For this reason, helminthic infections are likely to be found in more recent arrivals than in long-term immigrants (Salas *et al*., 1990).

The overall distribution of parasite prevalence is consistent with that found by most of studies undertaken in many countries, *E. histolytica* and *G. lamblia* being the most common protozoa, while *A. lumbricoides* is the most common helminth (Omar *et al*., 1991).

Although helminthic infection rate is generally higher than that of protozoa, it is worthy to note that although the differences are significant among HIV seronegative patients, they remain non