INTESTINAL PARASITES AMONG UNITY PRIMARY SCHOOL PUPILS, IN ORAIFITE, EKWUSIGO L.G.A. ANAMBRA STATE, SOUTHEASTERN NIGERIA.

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ABSTRACT

A study was conducted to determine the prevalence of intestinal parasites among pupils in Unity primary school in Oraifite, Ekwusigo Local Government Area, Anambra State, Southeastern Nigeria. Of the 462 surveyed pupils, 47.6% had parasitic infection. Seven intestinal parasites were isolated; *Ascaris lumbricoides* (12.8%), Hookworm (7.6%), *Strongyloides stercoralis* (4.8%), *Trichuris trichiura* (1.9%), *Entamoeba histolytica* (11.0%), *Entamoeba coli* (6.7%), *Giardia lamblia* (2.8%). Prevalence rate was higher among ($p > 0.5$) males than females though not statistically significance. Pupils in the age-group 10-14 years had the highest prevalence value (61.4%) while those in age-group 5-9 years had the lowest prevalence value (24.1%). Infection was higher among those whose parents were farmers and traders than those of civil servants. Prevalence was also higher among nursery school pupils. Health education, sanitation and mass chemotherapy should be encouraged in order to control intestinal parasitic disease in the school.

CHAPTER ONE

1.0. INTRODUCTION

Intestinal parasites are parasites that populate the gastro-intestinal tract. They are larger than bacteria and viruses but some of them are so small that one cannot see them without a microscope. Intestinal parasitic infections have been described as constituting the greatest single worldwide cause of illness and disease. Numerous studies have shown that the incidence of intestinal parasites may approach 99% in developing countries (Ambrose, 2001).

Intestinal parasitic infections are among the most prevalent of human parasitic infections worldwide (Jeliffe, 1966; Toriole, 1990; WHO, 1966). They had been long recognized as an important health problem especially among Nigerian children (Kow and Balasurbrama, 1986; Janes, 1974; Oduntan, 1974; Ajayi and Akinyinka, 1999; Olusi *et al.*, 1975; Salimon 1980). Several epidemiological studies had indicated a high prevalence of intestinal parasitic infections among Nigeria children (Salimon and Akinyemi, 1988; WHO, 1978, 1987; Graitcher, 1988).

The involvement of protozoan agents in humans can be traced back to the 19th century and these protozoa group constitute the highest group of parasites known to be associated with diarrheal condition.

Originally, the Coccidia parasites are known to be pathogenic mainly to some species among lower animals, insects, birds and non-human primates (Beneson, 1995; Marshall *et al.,* 1997; Fryauff *et al.,* 1999). Today, a newer Coccidian, *C. cayetanensis* has now been added to the list of protozoan agents that can induce diarrhea. Prior to 1979, when the first human case of cyclosporiasis was reported (Ashford, 1979), only four genera of the coccidian were known to infect humans and these are *Cryptosporidium*, *Isospora*, *Toxoplasma* and *Sarcocystis* (Clarke and McIntyre, 1996). In the developed countries like the United State of America (USA) and the United Kingdom (UK), where a lot of documentation exists, there is a fair idea of the profile of parasitic pathogens. In USA, it is now a common practice for stool samples submitted to the laboratory, to be first screened for the presence commonest pathogenic parasites and when these are absent, the screening for newer agents like *C. cayetanensis* is done (Garcia-Lopez *et al.*, 2000).

Soil-transmitted helminthes (STH) or Geohelminthes are one of the most important groups of infectious agents and are causing world's major human health problems until now. Four species of helminthes, namely, Hookworms (*Ancylostoma duodenale* and *Necator americanus*), *Ascaris lumbricoides*, and *Trichuris trichiura* are primary

agents of STH, and estimated infected populations are 1.3 billion, 1.5 billion, and 1.0 billion people, respectively (Crompton, 1999). Geohelminthes are more important among children and in poor or malnourished populations in morbidity and mortality. It was speculated that 15% of host population harbored 70% of STH worm burdens (Bundy and de Silva, 1998). Inadequate hygiene, poor health care systems and facilities, social indifference, social instability, civil wars, and natural disasters make situations worse. Geohelminthes and poverty are intimately linked in a vicious cycle in most developing countries. The DALY (Disability-Adjusted Life Years) score of STH is around 4.65 million over the world (Horton, 2003). However, priority of STH control is often neglected even in wormy countries.

Four major groups of intestinal parasite exist; they include single celled parasites (Protozoa), flukes (Trematoda), tapeworms (Cestoda) and roundworms (Nematoda). Each of these groups of parasites can infect the digestive tract, and sometimes two or more can cause infections at the same time. Parasites get into the intestine through the mouth from uncooked, improperly cooked, unwashed food, contaminated water and hands or by skin contact with larvae infested soil. Infection with intestinal parasite could also be through oral sex.

When the infective stages of the parasites are swallowed, they move into the intestine where they can develop and cause disease (Endris, 2001).

Infection with parasitic helminthes is often recognized as one of the important public health problems in tropical inhabitants. Here, there exist over 2,000 million helminthic infections, with about 15 million Nigerians suffering from ascariasis alone, while there are several thousands with strongyloidiasis, trichuriasis, enterobiasis, hookworm, tapeworm infections among others (Edungbola and Obi, 1992). This indicates that the prevalence of and morbidity from intestinal helminthiasis are enormous. Many parasitic infections, especially those with helminthic origins are asymptomatic, could only produce mild or, in a typical case, confusing symptoms (Anosike *et al.,* 2006). Thus they are often neglected until bizarre, serious or chronic clinical pictures are present. In most rural communities, low standard of sanitation and poor socio-economic conditions are obvious predisposing factors to high prevalence of human intestinal helminthiasis (Gundiri and Akogun, 2000). Although several reports exist in Nigeria on the mortality and morbidity of most intestinal helminth parasites (Ogbe and Odudu, 1990; Dada *et al.*, 1993), the much needed baseline data on the level of endemicity of human intestinal helminthiasis especially on the rural sectors are not easily recorded and do not exist (Ukoli, 1990).

Considering the impact of parasitic infection among children; coupled with the fact that there is no information on gastro-intestinal studies in Oraifite Community, from which the present study is conceived. This study aims at the identification of various intestinal parasites, which infect primary school children, to determine the overall prevalence of infection and the pattern of infestation in relation to age, sex, occupation of parents, and class- of the pupils, and reports the results of the investigation on intestinal parasites in school pupils in Unity Primary School, Oraifite, Anambra State, Southeastern Nigeria.

GET THE COMPLETE PROJECT CHAPTERS 1 TO 5