PREVALENCE OF UROGENITAL SCHISTOSOMIASIS AMONG SCHOOL AGE CHILDREN IN RIVERINE AREA OF ANAMBRA WEST LGA, ANAMBRA STATE, NIGERIA.

. abstract:

Aims: the aim was to determine prevalence of urogenital schistosomiasis among school age children in Igbedor, Igbokenyi and Nzam: Riverine communities of Anambra State, Nigeria.

Study design: This is a cross-sectional, prospective, school based study in which three communities situated along Omambala River were selected after which a public primary school in each of the selected communities were selected for the study. A simple open-ended questionnaire that elicited information on age,literacy and occupation were administered to all respondent volunteers.

Place and Duration of Study: This study was conducted in three public primary schools within three rural communities in Anambra West Local Government Area of Anambra State, Nigeria between April to December, 2023. The laboratory investigations and analysis were done in the Parasitology and Entomology Laboratory, Department of Parasitology and Entomology, Nnamdi Azikiwe University, Awka, between April and June 2023.

Methodology: A total of 320 urine samples were collected from primary school children in three randomly selected primary schools from Igbedor, Igbokenyi and Nzam. Urine samples collected were examined for visible haematuria (macrohaematuria), tested for microhaematuria using reagent strips and examined for *S. haematobium* ova using microscopy. Structured pretested questionnaires were administered to parent/guardians to determine their level of knowledge, attitudes and management practices of urogenital schistosomiasis in the study area. The data generated from questionnaires and laboratory analysis was collated, analyzed and presented using using SPSS version 22.0

Results: Out of 320 school children examined microscopically, 45(14.1%) were found positive with *S. haematobium* egg, 2(0.9%) were positive for macrohaematuria and 13(6.1%) were positive for microhaematuria. The overall prevalence was higher in females 24(14.1%) than males 21(14.0%) though the difference was not statistically significant ($p>0.05$). school children between 9-12 years old had the highest prevalence of the infection 8(6.9%) followed by those in age group 13-15 years old (5.1%). Children between 4-8 years old had no infection 0(0.0%). When prevalence was assessed using microscopy, pupils whose parents were farmers had the highest prevalence of the infection 37(16.8%), followed by those whose parents were fishermen 8(9.7%). Pupils whose parents had no form of formal education had significantly highest prevalence 41 (23.0%). With regard to source of water for the household those who source their water from the stream statistically had the highest prevalence of urogenital schistosomiasis 44(16.5%). Similarly, those who defecate in the bush had the highest prevalence of the infection 44(15.0%). Most inhabitants were not aware of the infection. There was a high level of ignorance on the causation,

signs and symptoms of urogenital schistosomiasis. 57.5% do not consider it a serious disease while 76.7% would do nothing when they are infected with the disease.
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Conclusion
The study demonstrated a low prevalence of urogenital schistosomiasis in the study area, Anambra West Local Government Area, Anambra state Nigeria.

Keywords: Igbedor, Igbokenyi, Nzam, Urogenital Schistosomiasis, Anambra West.

INTRODUCTION

The history of urogenital schistosomiasis dates back to ancient times when the disease was first described in ancient Chinese medical texts and also in the medical papyri, an ancient Eygyptian medical book, where haematuria was discussed several times, indicating that it was a prevalent complaint of ancient Egyptian patients

Schistosomiasis is a chronic and enervating illness caused by digenetic trematode flatworms (flukes) of the genus Schistosoma [26]. It remains one of the most prevalent Neglected Tropical Diseases (NTDs), which constitutes a major public health problem in 78 developing countries in both tropical and subtropical regions [25].It is one of the prevalent human parasitic diseases in the world, second only to malaria in terms of socio-economic and public health importance[2]. More than 229 million people within these regions required preventive treatment in 2018, which should be repeated over a number of years, to reduce and prevent morbidity in communities with moderate-to-high transmission [25]. Ninety percent (90%) of these infections occur in sub-Saharan Africa but a total of 25,215 deaths occurred globally in 2018 for all types of schistosomiasis among 13,188 males and 12,027 females [25]. Out of this number, Africa recorded a total of 21,150 deaths comprised of 10,963 males and 10,187 females [25].

Although, urogenital schistosomiasis is endemic in Nigeria, it is usually a neglected common parasitic disease among children[10] [3] [8]. Its treatment only targets school children (6-15 years) and/ or adults (over 15 years old) in high risk occupational groups (example fishermen), researchers, adventurers and holiday makers neglecting the preschool aged children (children below 6 years)[5]; [9]; [13].

Early signs of morbidity common to *S. haematobium* infection and which manifest in school age children are anaemia, impaired growth, and cell development, poor cognition and substandard school performance [12]; [18]. People affected with S. haematobium may develop cough, fever, skin inflammation and tenderness of the liver because the spinned egg attach to the host tissues and cause tissue degeneration. Calcified eggs embedded in the bladder walls increase the chances of blockage of the blood vessels.

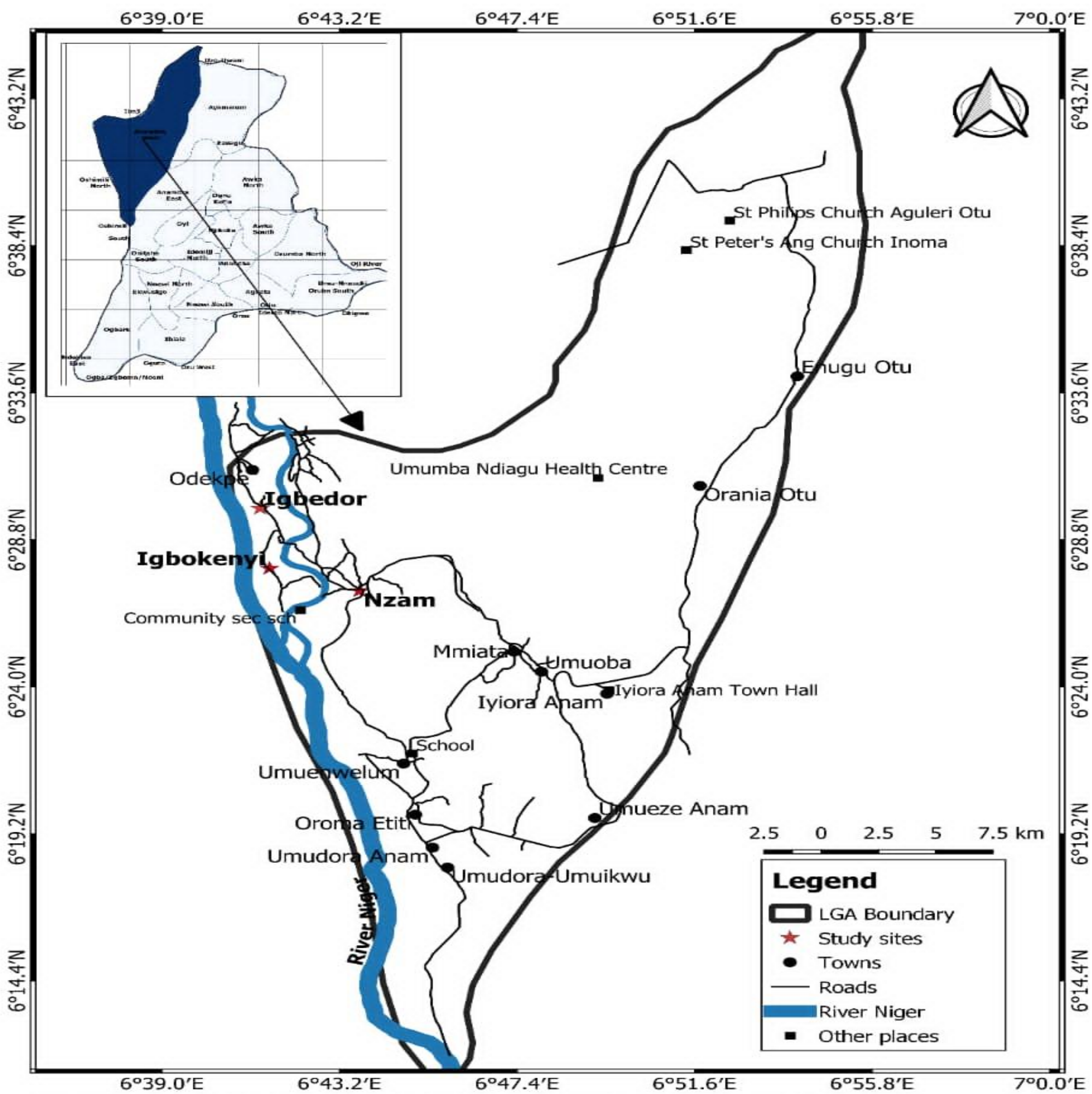
Even with growing awareness of the problem associated with urogenital schistosomiasis in school aged children there is still paucity of documented information on the current prevalence of urogenital schistosomiasis in Igbedor, Igbokenyi and Nzam, riverine communities of Anambra state.

This study was therefore undertaken to determine the prevalence of the disease in school aged children. The information so obtained may complement the existing baseline information on the epidemiology of this infection in the country.

MATERIALS AND METHODS

STUDY AREA:

This study was conducted from April to December 2023, in three rural communities namely Igbedor, Igbokenyi and Nzam in Anambra West Local Government Area of Anambra State. Anambra West lies geographically between longitude 6º 47' E to 7º 0.0' East and latitude 6º 33'N and 6º 38'N with an aerial extent of about 85 square kilometers (Map data, 2023). It falls between the tropical rainforest belts of Nigeria in Anambra State. It has two main seasons every year: a rainy season beginning around April and ending in October and a dry season from November to March with. Anambra West LGA is made up of ten major communities (Fig 1). They have common boundaries with Ikaa (in Kogi State) in the west, Ebu (Delta state) in the east and Auchi (Edo state) in the South. The Igala speaking communities are collectively called Olumbanasa namely: Igbedor, Igbokenyi, Allah N"onugwa, ukwalla, owelle and Odemogwu and are all surrounded by River Niger tributaries.The major economic activity of the people is agricultural farming like fishing and rice farming which keep them in constant contact with surface water with very few engaged in white collar jobs. The major sources of water supply for the people were rivers, dams, streams, stagnant ponds, few shallow dug wells which are found in few rich families and boreholes provided by government in some areas. These ponds, streams, quarry pit water, dams and rivers harbor most of the snail intermediate host from where the infective stage of the parasite emerges ready for transmission. Omambala River that runs along these three communities is believed to have healing and medicinal powers [11].



Source: GIS Lab, Dept of Geography & Meteorology, Nnamdi Azikiwe University, Awka.

Fig. 1. Map showing study location

Study Population e

The study population consists of pupils within the age range of 4-15 years both gender in primary schools selected for study which constitute the study population from where the respective sample sizes were derived and volunteers subsequently enrolled for the study. A total of 1603 registered pupils enrolled for the study. Of this, 580 pupils were from Central School Igbedor, 533 from Community Primary School, Igbokenyi while 490 were enrolled from Central School, Nzam. Participants who were males and those on their menstrual period were excluded from the study.

Sample size determination

The sample size of this research was calculated using Taro Yamane (Yamane, 1973) formula with 95% confidence level; n = $\frac{N}{1+N(e^2)}$.

Using the formula n = $\frac{N}{1+N(e^2)}$

Where

n = sample size

N = total population

e = error term at 95% confidence interval

$$\frac{1603}{(1+1601\times0.05^2)}$$

$$\frac{1603}{1+(1603\times0.0025)}$$

$$\frac{1603}{1+4.0025}$$

$$\frac{1603}{5.0075} = 320.12$$

Urine sample collection

A labelled, sterile wide-mouthed, screw-capped plastic container was provided for each pupil to collect his/her mid-day, midstream urine sample between 10.00hrs and 2.00pm to suit the diurnal rhythm corresponding to the peak output of Schistosoma eggs as described by [27]. The name, age, location and gender of each pupil and patient were recorded as unique identifier after urine samples have been collected and coded on the container. 0.1 ml Sodium-Hypochlorite solution was added to each of the urine samples to preserve the original morphology of the parasite eggs and were transferred to the Department of Parasitology and Entomology for parasitological analysis within four (4) hours of collection

Determination of Haematuria

Urine samples were examined for haematuria using dipstick (Medi-Test Combi 9, Macherey-Nagel GmbH & Co. KG) by submerging the strip into the urine samples and reading the result by comparing the strip with the colour codes on the container as described by [7].

Urine Microscopy

Microscopic examination of the collected urine samples was done to detect the presence of *Schistosoma* eggs after observing them for macrohaematuria. The laboratory analysis was done using the Sedimentation method as described by [7]. Ten (10) ml of each urine sample was collected and centrifuged for 10 min at 2000 rpm. The supernatant was decanted, and using a clean pasture pipette, a drop of the sediments was placed on a clean grease-free microscope slide, covered with coverslip and examined using the ×10 and ×40 objective lenses respectively for the characteristic *Schistosoma haematobium* ova with terminal spines.

Structured Questionnaire

A total of three hundred and twenty pre-tested questionnaires were administered among the respondents studied. The questionnaire consisted of open –ended questions of discriminatory statements on demographic, socio-economic, educational status, level of knowledge on causes, signs and symptoms, preventive measures and management practices of the community in relation to urogenital schistosomiasis in Anambra West LGA. The structured questionnaires were given to the respondents to fill and administered in their mother tongue (Igbo Language) for respondents who do not understand some of the questions in English language. Finally accuracy and completeness of all the questionnaires were checked at the end of each data collection day. Three hundred and twenty questionnaires were given out and all (100.0%) were retrieved from the participants

Data analysis

The data generated from questionnaires and laboratory analysis was collated, analyzed and presented using descriptive statistics. The relationship between each variable and *Schistosoma haematobium* prevalence was analysed using Chi square. Test of statistical significance set at P value of 0.05 (95%) confidence interval.

Ethical approval

The ethical approval for this research was obtained from the Health Research Ethics Committee of Anambra State, Ministry of Health, Awka .(MH/AWK/M/321/428).

Informed consent

An advocacy visit was paid to the NTD Officer in the State through whom Ministry of Education was informed. The selected schools were also notified through their head teachers and parents were adequately informed and consent received before selecting their schools. Written informed consents were obtained from each of the participants after a detailed explanations about the objectives, procedures, importance and potential risks of the study. They were also informed in their local language that participation will be voluntary, and that withdrawal from the study does not involve any penalty.

RESULTS

Prevalence of urogenital schistosomiasis in relation to the study area.

Of the three hundred and 320 urine samples examined for urogenital schstosomiasis by microscopy, 45 were infected given an overall prevalence of 14.1%. The rapid assessment methods using macrohaematuria (visible haematuria) and microhaematuria (invisible haematuria) gave a prevalence of 0.9% and 6.1% respectively (Table 1).

In relation to the sex of the children studied, the three diagnostic methods used (microscopy, macrohaematuria and reagent strip) used showed that prevalence of *S. haematobium* infection was lower in males (14.0%, 1.33% and 5.3%) respectively than in females where a prevalence of 14.1%, 0.0% and 2.9% were recorded for microscopy, macrohaematuria and microhaematuria respectively. However, the difference in the prevalence in relation to sex in the three diagnostic methods was not statistically significant (P>0.05) (P-value=0.179)

In relation to age of the pupils, the highest prevalence of the infection was recorded among children in the age bracket 9-12 years old as shown by the three diagnostic methods: microscopy (6.9%), macrohaematuria (1.7%) and microhaematuria (6.9%) . This was followed by those in the age group 13-15 years' old microscopy (5.1%), macrohaematuria (0.0%) and microhaematuria (6.4%).The prevalence in relation to age was not statistically significant (p>0.05) (p-value=0.37)

The prevalence of *S. haematobium* by school showed that pupils from Central Primary School Igbedor recorded the highest prevalence using the three diagnostic methods: microscopy (18.3%), macohaematuria (0.0%) and microhaematuria (4.9%) While Community Primary school Igbokenyi recorded: microscopy (15.0%), macohaematuria (1.5%) and microhaematuria (6.9%). The observed difference was not statistically significant (p>0.05)(p-value=0.52).

Table 1: Prevalence of *S. haematobium* infection in relation to risk factors

Variable	No. Examined	No. positive (%) Microscopy (%)	Macrohaematuria (%)	Microhaematuria (%)
Total	320	45 (14.1)	2 (0.9)	13 (6.1)
Gender				
Male	150	21 (14.0)	2 (1.33)	8 (5.3)
Female	170	24 (14.1)	0 (0.0)	5 (2.9)
Age (years)				
4-8	127	0 (0.0)	0 (0.0)	0 (0.0)
9-12	116	8 (6.9)	2 (1.7)	8 (6.9)
13-15	77	4 (5.1)	0 (0.0)	5 (6.4)
School				
C.S Igbedor	120	22 (18.3)	0 (0.0)	4 (4.9)
C.P Igboken	100	15 (15.0)	2 (1.5)	9 (6.9)
C.S Nzam	100	8(8.0)	0 (0.0)	0 (0.0)

Table 2: Prevalence of *S. haematobium* infection in relation to risk factors

Those whose parents were farmers had the highest prevalence of *S. haematobium* infection using the three diagnostic method: microscopy (16.8%), macrohaematuria (0.0%) and microhaematuria (1.3%) Those whose parents were fishermen had the second highest prevalence of *S. haematobium* infection: microscopy (9.7%) macrohaematuria (2.4%), microhaematuria (10.9) (Table 2).

In relation to parents' level of educational attainment, the highest prevalence of infection was recorded among those whose parents had no form of formal education: microscopy (23.0%), macrohaematuria (0.6%) microhaematuria (5.1%), followed by those whose parents had First School Leaving Certificate: microscopy (8.6%), macrohameturia (2.8%) and microhaematuria (8.6%). Statistical analysis revealed that there was no significant difference in the prevalence of *S. haematobium* infection in relation to literacy level (p>0.05) (p-value=0.87).

On the source of drinking water, the highest prevalence of *S. haematobium* infection was recorded among those who source their drinking water from river/stream: microscopy (16.5%) macrohaematuria (0.7%) and microhaematuria (4.5%) this was followed by those whose source of drinking water was rain: microscopy (3.0%) macrohaematuria (0.0%) and microhaematuria (3.0%). No infection was recorded among those who source their drinking water from packaged water. Statistical analysis showed that there was no significant difference in the prevalence of *S. haematobium* infection in relation to source of drinking water (p>0.05) (p-value=0.81).

Those who defecate in the bush recorded the highest prevalence of infection: microscopy (15.0%), macrohaematuria (1.1%) and mirohaematuria (6.5%). This was followed by those who defecate in the pit latrine: microscopy (3.8%), macrohaematuria (0.0%) and microhaematuria (3.8%). No case of infection was recorded among those whose toilet facility was water closet. Statistical analysis showed no significant difference in the prevalence of *S. haematobium* infection in relation to type of toilet facility (p>0.05) (p-value=0.51).

Table 2: Prevalence of *S. haematobium* infection in relation to risk factors

		Number positive (%)		
Risk factors	**No. Examined**	**Microscopy (%)**	**Macrohaematuria (%)**	**Microhaematuria (%)**
Parents' occupation				
Farmers	**220**	**37(16.8)**	**0 (0.0)**	**3 (1.3)**
Traders	**10**	**0 (0.0)**	**0 (0.0)**	**0 (0.0)**
Fishermen	**82**	**8 (9.7)**	**2 (2.4)**	**9 (10.9)**
Civil servants	**8**	**0 (0.0)**	**0 (0.0)**	**0 (0.0)**
Total	**320**	**45(14.1)**	**2 (0.6)**	**13 (4.1)**
Parents' level of education				
Non formal	**178**	**41 (23.0)**	**1 (0.6)**	**9 (5.1)**
FSLC/Primary	**35**	**3 (8.6)**	**1 (2.8)**	**3 (8.6)**
SSCE/Secondary	**83**	**1 (1.3)**	**0 (0.0)**	**1 (1.3)**
Tertiary	**24**	**0 (0.0)**	**0 (0.0)**	**0 (0.0)**
Total	**320**	**45(14.1)**	**2 (0.6)**	**13 (4.1)**
Source of drinking water				
River/stream	**266**	**44 (16.5)**	**2 (0.7)**	**12 (4.5)**
Rain	**33**	**1 (3.0)**	**0 (0.0)**	**1 (3.0)**
Packaged (sachet)	**21**	**0 (0.0)**	**0 (0.0)**	**0 (0.0)**
Total	**320**	**45 (14.1)**	**2 (0.9)**	**13 (6.1)**
Toilet facility				
Bush	**292**	**44 (15.0)**	**2 (1.1)**	**12 (6.5)**
pit	**26**	**1 (3.8)**	**0 (0.0)**	**1 (3.8)**
Water closet	**2**	**0 (0.0)**	**0 (0.0)**	**0 (0.0)**
Total	**320**	**45 (14.1)**	**2 (0.9)**	**13(4.1)**

Knowledge, attitudes and management practices of urogenital schistosomiasis among the riverine communities

The level of knowledge attitude and management practices of the community members in relation to urogenital schistosomiasis is summarized Table 3. The various names for the infection include 'oya mmamili' 'oria obara'. On the awareness of the infection, 5.6% affirmed that they were aware of it. The source of information includes health centre (9.3%), mass media (7.8%), and school (4.6%).

Generally, there was a high level of ignorance on the correct cause of urogenital schistosomiasis.seven point eight percent (7.8%) associated it with drinking untreated water. Other responses were: witchcraft (47.8%), eating contaminated food (4.6%), and dirty hands (3.8%) while 32.8% stated that they do not know.

Similarly, the respondents' perception on the signs and symptoms of urogenital schistosomiasis was poor. Only 10.0% and 9.4% of the respondents correctly associated the infection with bloody urine and painful/burning urination respectively. Other responses were as follows: regular fever (2.8%), body ache (1.6%), abdominal pain (6.3%), vomiting (3.1%), 45.3% stated that they do not know.

The preventive measures for the control of urogenital schistosomiasis were as shown in Table 3. seventeen point five percent (15.4%) correctly stated that it is by avoiding washing clothes and other materials in the river. Similarly, 6.9% correctly stated that it is by avoiding swimming in the river. However,43.7% affirmed that they do not know.

On the attitude of the respondents towards urogenital schistosomiasis, 57.5% of the respondents stated that it is not a serious disease, 17.5% stated that it is just like any other disease. Only 5.6% stated that it is a very serious disease, however, 19.4% affirmed that they do not know.

On management/treatment practices, 11.9% would go to patent medicine store to buy drug, 3.1% would treat with herbs, and 4.7% would resort to prayer house/healing home. Only 3.75% would go to hospital while 76.6% stated that they would do nothing

Table3: Knowledge, attitude and management practices of respondents toward *S. haematobium* infection.

Variable	Frequency	% prevalence
Do you know what schistosomiasis is?		
Yes	18	5.6
No	302	0.9
Source of information		
Health centre	30	9.3
Mass media	25	7.8
School	15	4.6
Do not remember	250	78.1
Cause /transmission of urogenital schistosomiasis		
Eating snail	0	0.0
Contact with infected water	0	0.0
Witchcraft attack	153	47.8
Playing with soil	10	3.1
Dirty hand	12	3.8
Eating contaminated food	15	4.6
Drinking untreated water	25	7.8
Don’t know	105	32.8
Signs and symptoms of urogenital schistosomiasis		
Body ache	5	1.6
Bloody stool	10	3.1
Regular fever	9	2.8
Itching of the body	15	4.7
Abdominal pain	20	6.3
Bloody urine	32	10.0
Swollen stomach	15	4.6
Vomiting	10	3.1
Feeling of fatigue	11	3.4
Diarrhea	6	1.9
Burning/painful urination	30	9.4
Loss of appetite	5	1.6
Anaemia	7	2.2
Don’t know	145	45.3
Attitude to the infection		
Very serious infection	18	5.6
Just like other infections	56	17.5
Not serious infection	184	57.5
Don’t know	62	19.4
Preventive measures		

Wearing of foot wears	14	4.4
Avoid swimming in the river	22	6.9
Sleeping under net	31	9.7
Avoid washing clothes and other materials in the river	56	17.5
Avoid fishing in the river	57	17.8
Don’t know	140	43.7
Management/treating option		
Hospital	12	3.75
Patent medicine store	38	11.9
Treatment with herbs	10	3.1
Prayer/healing home	15	4.7
Nothing	245	76.6

DISCUSSION

Schistosoma haematobium Prevalence

This present study showed that urogenital schistosomiasis is present among school children in Igbedor, Igbokenyi and Nzam communities, Anambra West Local Area, Anambra State, Nigeria. The prevalence of infection with *Schistosoma haematobium* in the three schools did not happen by chance, the same causative agent is involved. Any pupil with *Schistosoma haematobium* infection in any of the three schools is a potential carrier that can equally transmit it anytime anywhere, all things being equal. However, the occurrence of *S. haematobium* in all the schools in in the three communities with overall prevalence of 45(14.1%) showed that this area is endemic for the disease. The result suggests that the study area falls within the WHO classification as low prevalence area. As WHO classifies prevalence less than 20% as low prevalence area, prevalence more than 20% but less than 60% as moderate prevalence area while prevalence higher than 50% is classified as high prevalence area (WHO, 2006). The outcome of this study correlates with the low endemic status obtained respectively for primary school children in Agulu (4.28%) (O
biekwe 2010), among primary school pupils in Maiduguri (14.5%) (Musa *et al*, 2010), ten different primary schools in Maiduguri Metropolitan Council (14.5%) [14], in Orumba North and South Local Government Area (15.7%) [21]. The findings of this survey equally contrasts with the high prevalence rates of 48% and 58.3% in Umuowele village in Agulu [20] and 40.7% in Kebbi State [4].

The low prevalence of urogenital Schistosomiasis recorded among school aged children in these communities could be attributed to the quarterly Mass Drug Administration of Praziquantel (MDA) campaign, by the State Government (with support from the Carter Foundation, USAID, WHO); this is done once in every three years for areas with prevalence less than 20%. This is in line with World Health Assembly drafted resolution that endorsed chemotherapy as the main strategy for control of Schistosomiasis [23].
Furthermore, the use of Praziquantel (PZQ) as the drug of choice as recommended by physicians or through self-medication by parents/guardians may have also contributed to the low prevalence. It could also be attributed to the period of the study which commenced on April, 2023 to December, 2023, which is the peak of rainfall (June/July) which reduces activities in the water bodies as people have their tanks and drums filled with rain water and thereby less frequenting of the streams/ponds [6].
Prevalence by gender was not statistically significant in the study. This may be an indication that both male and female pupils are equally exposed to infection through water contacts. In this study, females were equally exposed and susceptible as they were also engaged in other surface water contact activities such as washing and fetching of water. This was similarly reported by [15]; [22].
The peak infection was recorded in the age group 9-12 and this is in agreement with Nwosu *et al*. (2004). However, a feature of this infection is that children of the age group 9-12 years old are always the group at risk.

In relation to school, The higher prevalence in Central Primary school Igbedor compared to the other two schools could be attributed to the closeness of the school to the water body. It was observed that some pupils go down straight to the river after school to swim before going home. This was similar to the findings of [22] who reported that lack of basic amenities, low literacy, inadequate disposal of human waste and high water contact activities may have been responsible for high endemicity of urogenital schistosomiasis.

Those who urinate/ defecate in the bush had the highest rate of the infection. Some individuals would prefer to urinate and defecate in the bush and farm land areas. When it rains, water run-offs would help to transfer the eggs in the stool/urine to suitable environments where they can attach to the intermediate host [23]. When this happens, some of the pools of water and the surrounding vegetation may become sources of infection to the unsuspecting users. This goes to buttress the fact that parasitic disease transmission depends upon poor environmental conditions including indiscriminate deposition of urine/faeces and personal hygiene [23].
Infection rate was higher (16.5%) among pupils who use stream as their source of drinking water and water for domestic uses. Regular visits to the stream gave room for frequent water contact and contact with the breeding site of the snail intermediate host where infection would usually occur. Proximity to the water bodies and snail breeding sites is a key determinant in the infection with schistosomiasis is most prevalent in rural areas where ponds, streams, ditches and lakes form major sources of water for domestic use [23].

Results from the knowledge, attitude and management practices in the study areas showed poor knowledge about urogenital schistosomiasis. Their low knowledge on transmission urogenital schistosomiasis reflects high level of illiteracy among community members. Zero cases of the infection among those with tertiary education is also a strong indication that illiteracy is a positive factor in the transmission of parasitic diseases.
On the ability to recognize signs and symptoms, only 10.0 and 9.4% associated it with burning sensation while urinating and bloody urine respectively. This again reflects high level of illiteracy in the area. Majority of the respondents believe urogenital schistosomiasis is not a serious disease and therefore cannot kill. This explains why only 3.75% visit hospital as the last resort. [1] similarly reported this in their study.
On the management and treatment options for urogenital schistosomiasis in the study communities, it was observed that it is a common practice for the respondents to patronize patent medicine store keepers while 76.6% would do nothing. This clearly showed that they do not regard it as a serious infection.

Conclusion

This study showed over all prevalence of 45 (14.1%) which is a low prevalence, this might be as a result of control measures taken against the disease through various government and NGOs intervention programmes The low prevalence might also be linked to the new government programme of WASH in every school in the Local Government Area in partnership with State Ministry of Environment as at the time of this study to reduce disease burden among children.
Massive education to prevent people from getting infected is advocated. It would therefore be apt to include Igbedor. Igbokenyi and Nzam in the schistosomiasis control programme to prevent further spread.
The study has also provided base line information for evidence-based planning and implementation of urogenital schistosomiasis control activities in the state by governments, their agencies and individuals.

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