Teachers' Perceived Influence of Sanitation Manual Utilization on Promotion of Wellness among Secondary School Inhabitants in Ilorin Metropolis

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ABSTRACT

An essential subcomponent of the school health program is environmental sanitation. The study examined the teachers' perceived influence of sanitation manual utilisation on the promotion of wellness among secondary school inhabitants in Ilorin Metropolis. The study specifically looks into whether the availability of basic facilities and equipment, the proper use of school sanitation manuals, and adherence to different strategies for implementing school sanitation affect the health promotion of students in Junior Secondary Schools in Ilorin Metropolis. Descriptive survey research design was adopted for the study. The population for this study comprises 4,484 junior secondary school teachers in Ilorin Metropolis, Kwara State. A multi-stage sampling procedure was used to select 360 samples for this study. The researcher-developed questionnaire and checklist were used. The reliability of the instrument was established through the split-half method, and a coefficient of 0.85 was obtained using Spearman-Brown correlation statistics analysis. Descriptive statistics of frequency and percentage were used for answering the research questions, while inferential chi-square statistics were employed to test the hypotheses at the 0.05 alpha level of significance. The findings were that teachers perceived the availability of school sanitation facilities and equipment, effective utilisation of the equipment and facilities, and the implementation of various strategies for sanitation as influencing the promotion of wellness among junior secondary school students in Ilorin Metropolis. The study recommends that government or school proprietors should ensure effective provision of facilities such as water supply, toilets, and accessories.

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1.0 Introduction

The role of education in the development of school-age children is unarguably essential. It plays a vital role in nurturing and guiding the school-age children in the society. In Nigeria, just like every other sovereign nation, the importance of education cannot be overemphasised in the task of nation building. Several institutions with direct mandates or collaborative efforts were created to ensure the smooth running of educational programs in the country. Designated members of the society are equally identified as persons who are saddled with the responsibility of implementing, managing, or administering the government's blueprints on various educational programs. Tablely, the Ministry of Education and other collaborating ministries and agencies, the school heads or administrators, the school's members of staff, the host community, and parents or guardians who have their children or wards enrolled in a school are stakeholders and collaborators in ensuring a conducive learning environment (National School Health Policy, 2006).

The School Health Programme (SHP) is a program initiated and directed towards meeting the health needs of students and other inhabitants of the school as well as laying a good foundation for their future with the support of the home, community, and government (Moronkola, 2012). Conversely, the National School Health Policy (2006) defines a school health program as a series of harmonised projects/activities in the school environment for the promotion of the health and development of the school community. The school health program aims at achieving a sustained and rapid improvement of the health of schoolchildren. This is to ensure that children and adolescents of the basic schools are as healthy as possible so that they can be in the right position to receive qualitative instruction aimed at ensuring their maximum physical and intellectual potentials.

The scope of the schoolhool health programaries according to the activitiesties involvedd and the prevailingling health issues within the school environment. Akani, Nkanginieme, and Oruamabo (2001) identified three scopes of SHP, while Baba *et al.* (2010) identified seven in their study. The National School Health Policy (2006) identified five scopes of SHP. They include School Health Services (SHS), Healthful School Environment (HSE), School Feeding Services (SFS), Skilled Based Health Education (SBHE), and School, Home and Community Relationships (SHCR). Similarly, the study of Dania and Adebayo (2019) also recognised five main scopes of the School Health Programme as in the National School Health Policy document (NSHP, 2006).

An essential subcomponent of the school health program is environmental sanitation. It is the practice of effecting healthful and hygienic conditions in the environment to promote public health and welfare, improve quality of life, and ensure a sustainable environment. According to Ibanga (2015), environmental sanitation components include solid waste management, medical waste management, excreta and sewage management, food sanitation, sanitary inspection of premises, market and abattoir sanitation, adequate potable water supply, school sanitation, pest and vector control, management of urban drainage, control of reared and stray animals, disposal of the dead animals, weed and vegetation control, hygiene education, and promotion. Many studies have negative remarks on the level of environmental sanitation in schools, especially public schools, with little or no significant impact towards promoting environmental best practices (Joseph et al., 2012; Nwanko et al., 2016). In fact, the ineffective utilisation of the sanitation manual has continued to subject learners and their respective societies to avoidable dangers. This is because the situation of some countries, especially in the developing world, has raised alarming concerns, and the international community has, over the years, responded appropriately with several declarations. For example, in 1977, the United Nations declared 1980-1990s the "International Drinking Water and Sanitation Decade" (Aremu, 2012).

Studies revealed that in spite of all these efforts, only a few learning environments have employed strict application of school sanitation manuals in the conduct of their sanitation exercises. A healthy environment through sanitation and hygiene practices ensures good health and wellness as

worthwhile activities and assets for conducive teaching and learning (Nwankwo *et al.,* 2016). Thus, availability and free access to sanitation facilities such as toilets, washing hand basins, safe school fields/playgrounds, and clean water, among others, are crucial. Unfortunately, the prevalence of sanitation and hygiene-related diseases in many countries, especially the developing countries of the world like Nigeria, is causing many people, children in particular, to fall ill or even die (Kuranga *et al.,* 2021). For example, the policy guideline on school sanitation (2005) declared that many schools in Nigeria are without access to potable water, adequate sanitation, safe recreational facilities, and school meal services.

Similarly, the UNICEF study found that large numbers of both urban and rural schools still lack access to adequate sanitary facilities like latrines and handwashing facilities (Weidner, 2009). The condition of environmental sanitation in schools where students learn is poor in the developing world, as they are characterised by inadequate toilet facilities. In addition, studies have shown that lack of adequate sanitation facilities in schools leads to high rates of absenteeism, poor academic performance, and reduced retention rates, especially amongst girls (Analia *et al.,* 2017). It is therefore the opinion of the researcher that, when students are adequately taught the basics, principles, importance, and practices of environmental sanitation in school, it will help to diffuse and impact knowledge to people outside the school, especially their immediate family.

School sanitation comprises those activities carried out in schools to protect the pupils and staff from the adverse effects of insanitary and unsafe school environments. The school sanitation manual is a guide for the sequential arrangement and assessment of certain activities geared towards ensuring healthful living and wellness of students in and around the school. It is a program independent of other academic activities, where teachers or members of staff and students are formally appointed to constitute a committee with the primary objective of compliance with global standards and Nigeria's policy guidelines on sanitation (2005). On the international scene, it is broadly addressed as the School Hygiene and Sanitation Manual (UNICEF, 1998; republished online, 2006).

Nigeria's policy guideline on school sanitation (2005) says school sanitation comprises activities carried out in schools to protect the pupils and staff from the adverse effects of insanitary and unsafe school environments. The document encourages compliance with stipulated standards on school sanitation through the routine and regular assessment of the school sanitary facilities, school meals, food vendors, and other environmental conditions within and around schools. In addition to the core objectives of the program, the document spelt out areas of inspection also tagged as elements of school sanitation," which include school site, school size, play and/or recreational grounds, buildings and designs, class/hall capacities, sanitary facilities, water supply, refuse or waste management, food sanitation, nutrition, hygiene, and other items.

The procedure for such routine inspection is usually in two phases: external and internal inspection. Whether external or internal inspection, the Environmental Health Officer under whose jurisdiction the school is located has the mandate to inspect the foregoing areas of inspection on the school and its environment using a specially designed score sheet on areas of fault and recommendation (Mohammed, 2011). Primarily, the school sanitation committee also has the mandate to ensure all facilities within and outside the school environment are good and healthy for inspection using a replica of score sheets to remark on the performance of students during such an exercise and promote the culture of a healthy lifestyle. Unfortunately, studies on the impact and effective utilisation of sanitation manuals were scored low or non-existent at all. The joint survey report of the National Bureau of Statistics, UNICEF, and the World Bank tagged "NORM SURVEY" (2019) on the availability of facilities that enhance wellness and well-being rated North-Central Nigeria low in terms of access to basic sanitation services, with Kwara State having the highest rate of open defecation across boards. In addition, the study of Arẹmu (2012) reveals that schools have an inadequate quantity of sanitation facilities, quality, or usage; 23% have a lower

number of facilities compared to pupil population, and 12.5% have no sanitation facility at all. The quality of facilities in 24.5% of the schools is tolerable, while the facilities in 57.5% of the schools are in deplorable condition. The researcher stated further that 26.5% of the schools effectively use the toilets and urinals, 22.5% seldom use them, while 38.5% do not use them at all because they are objectionable or risky.

In another study by Egbinola and Amanambu (2015), the results revealed that 24% of schools used W/C while 76% of schools used pit toilets, of which 88% of the toilets were ordinary pit toilets and 12% were VIP. The number of toilets within the schools ranged between 0 and 14, revealing a 185:1:1 student-to-toilet ratio within the study area, but ranged widely from 83:1 to 510:1 between schools. The study, however, revealed the absence of wash hand basins in 77% of the schools and no soap in 88% of the schools as well as wash hand basins. The researchers then suggested that investing in clean water sanitation and hygiene education in these public schools should be made a priority for governments in developing countries, Nigeria included, as well as the School Sanitation and Hygiene Education (SSHE) program across their formal and informal schools. Similarly, the study of Wada *et al.* (2020) revealed that not all the schools surveyed met the school sanitation standard of one toilet to 30 boys/girls set by the Federal Government of Nigeria. The study therefore recommends that sustainable sanitation interventions and maintenance schemes are required to safeguard the health of the students and the community at large.

In addition, research carried out by Kuranga *et al.* (2021) on the availability and utilisation of sanitation and hygiene facilities in public primary schools in the Ilorin metropolis revealed that sanitation and hygiene facilities are inadequate; the available ones were not being utilised in the public primary schools surveyed in the Ilorin metropolis. The school sanitation policy guideline (2005) identified strategies for effective implementation of school sanitation across institutions of learning. The entire prescription represents a major guide for communication, inspection, control, and evaluation of effective utilisation of school sanitation. Therefore, the appropriate means or measure that will suggest the appropriateness or the failure of any school sanitation exercise is the proper use of the School Sanitation Manual. The School Sanitation Manual can guide, analyse, rate, and score the level of implementation of sanitation in any school.

The researchers observed widespread inadequacies of school sanitation and hygiene essential facilities and equipment across public schools within Ilorin metropolis, Kwara State. Essential features like good toilets, playgrounds, well-ventilated classrooms and other buildings, and the provision of pipe-borne water are either non-present, inadequate, or poorly managed. Similarly, equipment like washing hand basins was not provided in many public schools; disposable and non-disposable toiletry items are either not provided or extremely few, to other poor hygienic practices such as poor wastewater management and other wastes, food sanitation, among others, across the length and breadth of public schools in Ilorin Metropolis. Pre-field visits to public schools revealed that the majority are not aware of the existence of the School Sanitation Manual Guide, while others who claimed knowledge of the document seldom use it as a guide for their periodic sanitation exercises.

It is noteworthy the significant non-compliance of many public schools with the strategies of promoting efficient school sanitation as provided in Nigeria's policy guideline on school sanitation (2005), thereby leaving most health facilities in a deplorable state and hazardous to the inhabitants. This is in line with many studies reviewed, which remarked on the poor maintenance of many public school facilities and equipment to be extremely worrisome. Based on the observations above, the researcher embarked on the study titled Teachers' Perceived Influence of Sanitation Manual Utilisation on Promotion of Wellness among Secondary School Inhabitants in Ilorin Metropolis.

1.1 Research Questions

The following questions were raised to guide the study:

i. What are the available school sanitation facilities in junior secondary schools in Ilorin Metropolis?

ii. What is the available school sanitation equipment in Junior Secondary Schools in Ilorin Metropolis?
iii. How How do you perceive the influence of effective utilisation of sanitation manuals on the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis?
iv. How do teachers perceive the influence of strategies for implementing the school sanitation manual on the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis?

1.2 Research Hypotheses

The following research hypotheses were formulated to guide the study:

i. Teachers will not significantly perceive effective utilisation of the school sanitation manual as influencing the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis.
ii. Teachers perceive strategies of implementing a school sanitation manual as influencing the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis.

2.0 Materials and Methods

2.1 Research Design

A descriptive research design of survey type was adopted for the study. This type of research is concerned with the collection and analysis of data for the purpose of describing, evaluating, or comparing current events or prevailing practices, events, or occurrences the way they appeared (Amali, 2016). The researchers therefore adopted the research type because it has the advantage of covering a wide scope through a great deal of information obtainable from a large population.

2.2 Population, Sample and Sampling Procedure

The population for the study consists of all the teaching staff in all publicly owned basic junior secondary schools in the three (3) local governments that make up Ilorin metropolis, Kwara State. There are one hundred and twenty-three (123) government-owned Basic Junior Secondary Schools in Ilorin Metropolis, Kwara State (*Source: Kwara State Universal Basic Education Board, Ilorin Annual School Census, 2023);* Ilorin West with forty-nine (49) junior secondary schools, Ilorin East with forty-one (41), and Ilorin South with thirty-three (33) junior secondary schools with a population of 4,484 teachers in the Local Government Areas. According to Krejcie and Morgan (1970), a sample size of about three hundred and fifty-four (354) gives a sufficient sample size to draw participants on the assumption of a population size of up to 4500. However, the sample size selected for this study was three hundred and sixty (360) respondents, to the nearest 10th.

A multi-stage sampling procedure was employed to select the sample size for the study. In stage one, the study adopted a stratified sampling technique for selecting the three existing local government areas of Ilorin Metropolis. The three local governments are Ilorin West, Ilorin East, and Ilorin South Local Government Areas of Kwara State. In stage two, a proportionate sampling technique was adopted for the study by selecting 49% of junior secondary schools in each local government area for even and equal representation of the study areas. In stage three, a simple random sampling technique was used to select schools that represent the 49% in each local government area. Twenty-four (24) public junior secondary schools from Ilorin West, 20 from Ilorin East, and 16 from Ilorin South. 60 public junior secondary schools were randomly selected all together. In stage four, a random sampling technique was equally adopted to select six (6) teachers in each junior secondary school selected, making the total of three hundred and sixty (360) sampled respondents.

Table 1
Population Distribution of Teachers within Ilorin Metropolis, Kwara State

S/N	LGEA	No. of Schools	No. of Teachers	Proportionate Sampling in %	49% of Schools Randomly Selected
1	ILORIN EAST	41	1,033	49%	20
2	ILORIN SOUTH	33	1,366	49%	16
3	ILORIN WEST	49	2,085	49%	24
	GRAND TOTAL	123	4,484		60

2.3 Instrumentation

The instruments adopted for the study were the checklist and questionnaire. A checklist of the essential facilities and equipment for school sanitation, as recommended in the policy guideline on school sanitation (2005), was used to find out what sanitation and hygiene facilities were available. A researcher-made questionnaire was also used to find out how well the facilities, equipment, and manuals were being used. An observational checklist of 12 items was developed to ascertain the availability of sanitation and hygiene facilities, equipment, and manuals in schools. The questionnaire contained 12 items/questions/statements on the effective utilisation of sanitation and hygiene facilities and manuals based on the relevant strategies for effective implementation of school sanitation to elicit perceived influence of effective utilisation of school sanitation manuals on promotion of wellness among school inhabitants on a four-point point-Likert type scale. The instruments for this study were validated by experts for both face and content validity. Reliability of the instruments was determined by using the split-half method. The collected data were correlated using the Spearman-Brown correlation method, for which a 0.85 correlation coefficient was obtained and considered reliable for the study.

2.4 Data Collection and Statistical Analysis

The instruments were administered with the researchers. The researchers kept confidential all the information supplied by the research participants while also ensuring the privacy of the participant. The researchers ensured, where possible, that completed copies of the questionnaire are collected back immediately to avoid loss. However, out of the 360 questionnaires administered, only 303 were adequately filled and returned (84.2%). The collected data were analysed using frequency and percentages to answer the research questions raised for the study. Inferential statistics of Chi-square ($\chi 2$) were used to test all postulated null hypotheses. The decision criteria for retaining and rejecting hypotheses are set at the 0.05 level of significance.

3.0 Results

3.1 Answers to Research Questions

Research Question 1: What are the available school sanitation facilities in Junior Secondary Schools in Ilorin Metropolis?

Table 2

Frequency and Percentage on Availability of School Sanitation Facilities (N=60)

S/N	Availability Of Facilities Of School Sanitation	Available
1	Availability of Playground/Field in the school premises	42(70.0%)
2	Availability of sufficient buildings and classrooms.	39(65.0%)
3	Availability of separate sanitary Toilets for male and female inhabitants.	21(35.0%)
4	Availability of water supply	45(75.0%)
5	Availability of good refuses disposal/waste management.	33(55.0%)
6	Availability of Food Hygiene and Sanitation education	39(65.0%)

Table 2 above answered research question 1, which seeks to identify the available school sanitation facilities in Junior Secondary Schools in Ilorin Metropolis. The availability of playgrounds or fields within school premises shows that 42 (70%) of respondents indicate that playgrounds are available, while 18 (30%) indicate not available. The availability of sufficient buildings and classrooms is relatively high, with 39 (65%) of respondents confirming their availability. The provision of separate sanitary toilets for male and female students appears to be inadequate, with only 21 (35%) of respondents indicating their availability. Water supply in schools seems relatively well-provided, with 45 (75%) of respondents indicating its availability. Refuse disposal and waste management facilities are available according to 33 (55%) of respondents, but 27 (45%) still find these facilities not available. Food hygiene and sanitation education is another area with mixed results, with 39 (65%) of respondents confirming its availability.

Research Question 2: What are the available school sanitation equipment in Junior Secondary Schools in Ilorin Metropolis?

Table 3
Frequency and Percentage on Availability of School Sanitation Equipment (N=60)

S/N	AVAILABILITY OF SCHOOL SANITATION EQUIPMENT	Available
1	Availability of tools such as hoe, cutlass and shovel	57(95.0%)
2	Availability of buckets and washing hand basins	42(70.0%)
3	Availability of brooms, scrubs, brush and dust pans	42(70.0%)
4	Availability of glove for cleaning and treatments	21(35.0%)
5	Availability of Mop, dusters and hand cleaning towels	27(45.0%)
6	Availability of Nigeria's policy guideline on school sanitation in the school to guide students and staff during sanitation exercises.	9(15.0%)

Table 3 above answered research question 2, which aims to identify the availability of school sanitation equipment in Junior Secondary Schools in Ilorin Metropolis. The availability of basic cleaning tools such as hoes, cutlasses, and shovels is notably high. A significant number of 57 respondents (95%) indicate that these tools are available. Buckets and washing hand basins are moderately available, with 42 (70%) of respondents confirming their presence. Similarly, brooms, scrubs, brushes, and dustpans are reported to be available by 42 (70%) of respondents. The availability of gloves for cleaning and treatments is significantly lower, with only 21 (35%) of respondents indicating their presence. According to 27 (45%) of respondents, mops, dusters, and hand cleaning towels are available. Nigeria's policy guideline on school sanitation is largely unavailable. Only 9 (15%) of respondents indicate that these guidelines are available. Overall, the basic tools like hoes, cutlasses, and shovels are widely available (95%); other essential items such as gloves, mops, dusters, and formal policy guidelines are significantly lacking. The average total availability of equipment stands at 55%, with 45% of the equipment being rated as not available.

Research Question 3: How do teachers perceive the influence of effective utilization of sanitation manual on the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis?

Table 4
Frequency and Percentage on Teachers' Perceived Influence of Effective Utilization of Sanitation Manual on the Promotion of Wellness among Junior Secondary School Inhabitants in Ilorin Metropolis (N=303)

S/N	Effective Utilization Of School Sanitation Manual On Promotion Of Wellness	Strongly Disagree	Disagree	Negative Response	Agree	Strongly Agree	Positive Response
1	School Sanitation Manual guides or directs school inhabitants on areas of attention during sanitation exercise.	6 (2.0%)	12 (4.0%)	18	144 (47.5%)	141 (46.5%)	285
2	School Sanitation Manual provides the standard for assessment by Environmental Health Officers and school sanitation committee.	3 (1.0%)	31 (10.2%)	34	163 (53.8%)	106 (35.0%)	269
3	School Sanitation Manual promotes health and hygiene awareness of all school inhabitants.	9 (3.0%)	31 (10.2%)	40	104 (34.3%)	159 (52.5%)	263
4	School Sanitation Manual encourages active participation of all inhabitants of school during sanitation exercise.	6 (2.0%)	33 (10.9%)	39	138 (45.5%)	126 (41.6%)	264
5	Effective utilization of school sanitation Manual during sanitation exercises promotes wellness among school inhabitants.	0 (0.0%)	39 (12.9%)	39	165 (54.5%)	99 (32.7%)	264
6	Effective utilization of school sanitation Manual has positive impact on the attitude of students to their respective communities	10 (3.30%)	30 (9.9%)	40	141 (46.5%)	122 (40.3%)	263
	Average Total			**35 (11.5%)**			**268 (88.4%)**

Table 4 above answers research question 3, which explores teachers' perceptions of the influence of effectively utilizing sanitation manuals on promoting wellness among junior secondary school inhabitants in Ilorin Metropolis. The data reveals that teachers hold a highly positive perception of the influence of effectively utilising the school sanitation manual on promoting wellness among Junior Secondary School inhabitants in Ilorin Metropolis. An average total of 268 (88.4%) of responses indicated positive perceptions, with only 35 (11.6%) indicating negative perceptions.

Research Question 4: How do teachers perceive the influence of strategies for implementing school sanitation manual on the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis?

Table 5
Frequency and Percentage on Teachers' Perceived Influence of Strategies for Implementing School Sanitation Manual on the Promotion of Wellness among Junior Secondary School Inhabitants in Ilorin Metropolis (N=303)

S/N	Strategies for Implementation of School Sanitation on Promotion of Wellness	Strongly Disagree	Disagree	Negative Response	Agree	Strongly Agree	Positive Response
1	Routine sanitary inspection and advocacy promotes wellness among school inhabitants.	0 (0.0%)	21 (6.9%)	21	141 (46.5%)	141 (46.5%)	282
2	Review of school curriculum to include sanitation and hygiene education promotes wellness among school inhabitants.	6 (2.0%)	33 (10.9%)	39	163 (53.8%)	101 (33.3%)	264
3	Orientation of all school inhabitants (Teachers & Students) on the significance of effective school sanitation and hygiene education and establishment of school environmental sanitation committee promotes wellness among school inhabitants.	13 (4.3%)	31 (10.2%)	44	163 (53.8%)	96 (31.7%)	259
4	Educating school food vendors on good hygiene behaviour promotes wellness among school inhabitants.	9 (3.0%)	33 (10.9%)	42	137 (45.2%)	124 (40.9%)	261
5	Organizing competition and reward the best classes with best sanitation practice in schools promotes wellness among school inhabitants.	12 (4.0%)	25 (8.3%)	37	145 (47.9%)	121 (39.9%)	266
6	Establishment of Environmental sanitation clubs in schools promotes wellness of school inhabitants.	9 (3.0%)	30 (10.0%)	39	150 (50.0%)	111 (37.0%)	261
	Average Total			**37 (12.23%)**			**266 (87.77%)**

Table 5 above answered research question 4, which explores teachers' perceptions of the influence of strategies for implementing the school sanitation manual on promoting wellness among Junior Secondary School inhabitants in Ilorin Metropolis. Teachers in Junior Secondary Schools in Ilorin Metropolis perceive the strategies for implementing the school sanitation manual as highly effective in promoting wellness. An average of 266 (87.77%) of responses indicate positive perceptions, while 37 (12.23%) indicate negative or neutral perceptions.

3.2 Hypotheses Testing

Table 6
Chi Square (x^2) Analysis on the Hypotheses Postulated

Variable	N	df	Cal. x^2value	Crit. x^2value	P-value	Remark
Utilisation of School Sanitation Manual	303	15	221.19	25.00	0.000	H_{01} Rejected
Strategies of implementing School Sanitation manual	303	15	315.18	25.00	0.000	H_{02} Rejected

Table 6 shows the calculated chi-square value of 221.19, which is greater than the critical chi-square value of 25.00 with a degree of freedom of 15 at a 0.05 alpha level of significance. Since the calculated x^2 *value is* greater than the critical value, the null hypothesis, which stated that teachers will not significantly perceive effective utilisation of the school sanitation manual as influencing the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis, was therefore rejected. This implies that teachers significantly perceived effective utilisation of the school sanitation manual as influencing the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis.

It was also revealed that the calculated chi-square value of 315.18, which is greater than the critical chi-square value of 25.00 with a degree of freedom of 15 at a 0.05 alpha level of significance. Since the calculated x^2 *value is* greater than the critical value, the null hypothesis, which stated that teachers will not significantly perceive strategies of implementing a school sanitation manual as influencing the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis, was equally rejected. This implies that teachers significantly perceived strategies of implementing a school sanitation manual as influencing the promotion of wellness among Junior Secondary School inhabitants in Ilorin Metropolis.

4.0 Discussion

This study investigated teachers' perceived influence of the availability and effective utilisation of sanitation manuals on the promotion of wellness among school inhabitants in Ilorin metropolis, Kwara State. It was revealed that the availability of school sanitation facilities in junior secondary school in Ilorin Metropolis is above average. This study disagrees with the submission of Arẹmu (2012), which reveals that schools have an inadequate quantity of sanitation facilities, quality, or usage; 23% have a smaller number of facilities compared to pupil population, and 12.5% have no sanitation facility at all. It also disagrees with the study of Weidner (2009) that large numbers of both urban and rural schools still lack access to adequate sanitary facilities like latrines and handwashing facilities. The study, however, agrees with the study of Hassan *et al.* (2020), which submits that environmental sanitation facilities are available in both public and private schools selected in the study area but differ in terms of quantity and quality. The study, however, submitted that the quality of the facilities in public schools is in a poor state compared to that of the private school due to the maintenance behaviour that differs between both categories as a result of the ownership type. The outcome of the study is also in line with the study of Wada *et al.* (2020), which says the presence of improved sanitation facilities in all the schools is a notable progress.

The result of the study also revealed that the availability of school sanitation equipment in junior secondary school in Ilorin Metropolis is significant. The study therefore disagrees with the submission of Akanmu *et al.* (2019), which submits that less than three-quarters (60.8%) of respondents in public schools have wash-hand basins and soap for sanitation in their schools, while more than one-third (46.3%) do not have. In summary, the outcome is not in line with Akanmu *et al.*'s analysis that the proportion of respondents without wash-hand basins and soap in schools is still large.

The result also shows that it was revealed that teachers perceived effective utilisation of the school sanitation manual to significantly influence the promotion of wellness among junior secondary school inhabitants in Ilorin Metropolis. This study is in line with the submission of Akanmu *et al.* (2019), which submits that the rating of utilisation of sanitation facilities in public secondary schools is higher than in their sister private schools. The study stated further that the rate of utilisation of the waste bin is 4.64 and the toilet is 4.23, with those that are ranked first and second being the closest to MVI, while the wash-hand basin, which is 3.95, is ranked third in utilisation level. The index value of fumigation is 3.72, which depicts its rare utilisation in schools. Also, private secondary schools' respondents have a mean index value of 3.995 estimates. From this analysis, the toilet is

4.65 and the waste bin is 4.55 as the most widely utilised sanitation facilities by respondents, while fumigation is 3.5 and the wash-hand basin is 3.3, denoting their low ranking. This outcome, however, disagrees with the submissions of Nwanko *et al.* (2016) with findings on the extent of sanitation and hygiene practices carried out in private and public primary schools in the Onitsha area of Anambra State. Their findings revealed that there are poor sanitation and hygiene practices among private and public primary schools in the Onitsha area of Anambra State.

The finding demonstrates that teachers perceived that compliance with various strategies of implementing school sanitation significantly influenced the promotion of wellness among junior secondary school inhabitants in Ilorin Metropolis. The responses of the study population (the teachers) agree with the various strategies of implementing school sanitation as enumerated by the National Environmental Sanitation Policy (2005). It also agrees with the submission of Nwanko *et al.* (2016), which says a healthy environment through sanitation and hygiene practices ensures good health and wellness as worthwhile activities and assets for a conducive teaching and learning process.

5.0 Conclusion

Based on the findings of this study, the following conclusions were reached:

1. Environmental sanitation facilities are available in both public schools selected in the study area but differ in terms of quantity and quality. Hence, the quality of the facilities in public schools is in a poor state as against the national policy document on school environmental sanitation and due to the maintenance behaviour that exists among schools.
2. Findings from the study revealed that there was no School Sanitation Manual found or being put to use across all selected study areas.
3. Most of the selected study areas lacked an efficient waste disposal and management system to improve environmental sanitation and hygiene practices in the schools.
4. Other essential equipment for treatment and cleaning was equally found to be inadequate.

6.0 Recommendations

Based on the conclusions drawn from this study, the following recommendations were made:

1. Improvement and Increase in Sanitation Facilities: The government or school proprietors need to improve the provision of quality sanitation facilities such as water supply, toilets, and accessories. The water supply situation in the public schools selected needs to be adequately improved; thus, there should be a standard that should be followed as regards the provision of facilities in schools so as to make school students have access to the same type of facility.
2. Adequate Toilet Facilities should be provided across schools. This will also make sanitation practice effective in schools. This will help in preventing students from contracting diseases that might be caused by unsanitary behaviour. Where there are shortages, additional toilets should be constructed so as to make the number of toilets adequate for the total number of students in the schools. It was observed that the number of toilets available to the students is not enough for the total population.'
3. The school sanitation manual should be made available to all schools, and compliance with its use should be enforced across schools. Failure to comply should attract a fine; this will also help to curb the unwilling attitude of students to perform sanitation activities as expected.
4. Health Educating Parents on Sanitation and Health Issues: The school authority should organise a lecture in the form of a seminar for the parents so as to extend the effective

sanitation practices to the homes of each student and to transfer the culture of wellness and good health practice. This could take a few minutes of the Parent-Teachers Association (PTA) meetings that come up periodically within the school's program.

5. Maintenance Culture of Facilities: A maintenance strategy should be developed periodically so as to make the facilities maintain their initial condition as at the time of installation.

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9.0 Declaration of Conflicting Interests

The authors declare no conflict of interest.

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