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PREVALENCE OF INDISCRIMINATE OPEN DEFECATION IN URBAN KANO, KANO STATE, NIGERIA

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ABSTRACT

Open defecation is the norms of global society with high magnitude in developing than developed countries because of poverty and illiteracy in the former. The study area characterized with high population, housing and traffic congestion. The research used primary data from questionnaire and observation and secondary data from ministry of environment. People defecate openly mostly in close by public places like Markets, motor parks and other commercial outlets. The research established the link between poverty and illiteracy with open defecation. Most of the people defecate openly are fully aware of its health and environmental consequences. It was found that the public toilets are not adequately available in some places within the study area. The research recommends that public toilet should be provided and public awareness should be embark at same time, legislation should be put in place to punish the culprit so as to achieve open defecation free (ODF) society.

Keywords: Open Defecation, Urban Centre, Kano State, Nigeria

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INTRODUCTION

Globally, there are approximately 2.6 to 3 billion people without proper sanitation, with the worst situation in Southern Asia and sub-Saharan Africa, where the demand for sanitation is rising due to the growing population especially in the urban areas (WHO, 2012; UNICEF, 2012). All over the world, poor environmental quality is increasingly recognized as a major threat to social and economic development and even to human survival. (Acheampong, 2010; UNICEF, 2007; UNICEF, 2006; WHO, 2005). The living environment is well polluted owing to social misdemeanor of indiscriminate littering, improper domestic wastewater discharge, open defecation and poor sewage disposal. These behaviours promote unsanitary living conditions, which result in the breeding of communicable diseases (Adimekwe, 2013; WHO & UNICEF 2008; IRC, 2006).

Open defection can be described as defection in open space like fields, bushes and water bodies. People defecate openly because they do not have toilet facilities or because of cultural and traditional practices. It is harmful to community health and well being, it can also undermine individual dignity and safety. Nigeria's effort towards sanitation accessibility improvement is rather low. Between 1990 and 2015, only about16 million Nigerians have access to improved sanitation facilities at growth of about 0.64 million per year, which is much lower than the population growth rate (Abdu, et.al, 2015). As such, an additional 70 million people without access to improved sanitation added during the period. Nigeria did not only fail to meet the MDG target on Sanitation, but also record a setback in access to improved sanitation. It shows a steady drop in access to sanitation, with a resultant increase in the practice of open defecation over the last 15 years (World Bank, 2016). It is clear that there is gradual decline in access to sanitation in rural and urban areas and stagnation in open defecation rate (Ordinioha & Owhondah, 2008).

Globally, there are about 2 billion people without access to basic sanitation facilities and services, with about 673 million people that practice open defecation (UNICEF/UNICEF, 2019; Bello, et.al, 2014). The number of people engage in open defecation is gradually reducing from 20% in 2000 to 12% in 2015. In 2016, it was estimated that about 892 million people do not have toilet facilities as such they defecate openly. It is common practice in rural areas with 9 out of every 10. In 2016, 76% about 678 million out of 892 million practicing open defecation worldwide are from seven countries (UNICEF/UNICEF, 2019).

More than 827,000 people die annually from low and middle-income countries due to poor water, sanitation and hygiene, which account for 60% of the total diarrheal death, open defecation perpetuates a vicious cycle of poverty and diseases. The countries with widespread of open defecation account for highest number of children deaths as well as high level of poverty, malnutrition, and wide disparities of wealth (UNICEF/UNICEF, 2019).

According to the latest published about 122 million people were practicing open defecation in West and Central African Republic in 2015. This number increased by 34 million since 2000 as the rate of progress in ending open defecation was insufficient to account for population growth.

In sub-Saharan Africa, Nigeria is bucking the trends and has seen large increases in open defecation between 2000 and 2012. In 2019, Nigeria ranked as number one as per as open defecation is concern globally, thereby overtaking India. It was estimated that about 50 millions Nigeria practice open defecation. Effort has been made over decades to significantly reduced the rate of open defecation in Nigeria but unfortunately, the level of the progress recorded is not appreciable because out 774 local government all over the federation only 14 are open defecation free (Paul, 2019).

An estimated 100 million people in Nigeria lack access to basic sanitation facilities and services and 63 million do not have to qualitative water. Indiscriminate open defecation is practice by a third of the rural population and 12% of the urban dwellers practice open defecation (WHO, 2016).

More than 65% of Nigerian population those live in the urban slums and rural areas are deprived of basic sanitation services and modern infrastructural facilities that are vital to the maintenance good health. Therefore, the deliberate and indiscriminate refusal of facilities essential to societies is an indication of violation; its supply is a major factor for consideration in the health of any community (Raimi, 2019).

All the Nigeria's regions practice Open defecation. Nigeria was reported to be the second globally in open defecation after it jump from third after India and china in 2015 (Abubakar, 2018) to second position in open defecation resulting to serious health implication (NewsBank Inc., 2018). After India, Nigeria is headquarters for open defecation with more than 47 million people practicing it all over the country (NewsBank Inc., 2018). The percentage of population engaged in open defecation across the six geo-political zones of Nigeria shows North-Central 53.9%, South-east 22.4%, North-east 21.8%, South-south 17.9%, South- west

28.0% and North-west 10.3% (NewsBank Inc., 2019), indicating that open defecation is practiced in all regions of Nigeria. According to Water, Sanitation and Hygiene (WASH) Normal Outcome Routine Mapping (NORM), as reported by NewsBank Inc. (2018), one in four Nigerians defecates in the open, while one in two persons in the North-Central defecates in the open; also, out of the 47 million practicing open defecation in Nigeria, 16 million are from the North- Central.
Local governments in Nigeria are the major providers of sanitation facilities and services, especially in markets, motor parks, and other public places but unfortunately, most of these are poorly maintained and cleaned. As such, people resorts to open defecation (OD). To addressing, the challenge of poor sanitation in public places it requires multi strategies and private sector involvement in the operation and maintenance of WASH facilities are needed (Abdulkadir et.al, 2019).
According to global ranking of open defecation Nigeria ranks as third country, because about fifty million of the population practicing it. The practice of open defecation is age-long tradition across diverse cultural group of the country. Both rural (32.4%) and urban (6.0%) dwellers practiced. Due to continuous proliferation of slums and ghettos on regular basis and residential house did not make provision for toilet facilities (WHO, 2012). The public conveniences facilities are not sufficiently available in urban Kano (Auwal, et.al, 2019).

Aim and Objectives

The study aimed at investigating prevalence of indiscriminate open defecation (OD) in urban Kano, Nigeria. The specific objectives of the research are to:

1. Identify the major sites of open defecation in urban Kano
2. Examine the economic status of the people practice open defecation in the study area
3. Investigate the reason people defecate openly
4. Proffer solution to ameliorate open defecation

METHODOLOGY

The study aimed at examining and investigating prevalence of indiscriminate open defecation in urban Kano. It consists of about six (6) local government areas (Dala, Gwale, Nasarawa, Fagge, Kano Municipal and Tarauni) with total population of about 4 million. The research utilized both primary and secondary data. The instruments used for collecting primary data include observation and questionnaire. The secondary sourced from Kano State Ministry of Environment and

other documentary sources. The sample size is 400 respondents. The research instruments were distributed using incidental sampling technique; proportionate sample was used in administrating the research instrument where 66 questionnaires were used in each of the selected points in the study areas.

Research design

The Research employed the use of primary methods of data collection i.e field observation and administration of questionnaire. During field observation major sites of open defecation (OD) in the study area has been identified in each local government area under the study. Thus, the research select four local governments, two local government within the city wall (Dala and Kano Municipal) and two outside the city wall (Tarauni and Fagge).

Data analysis

The collected data was analyzed using descriptive and inferential statistics. The socio-economic characteristic of the respondents were tabulated using descriptive statistics. The correlation test was used to determine the relationship between OD and economic status.

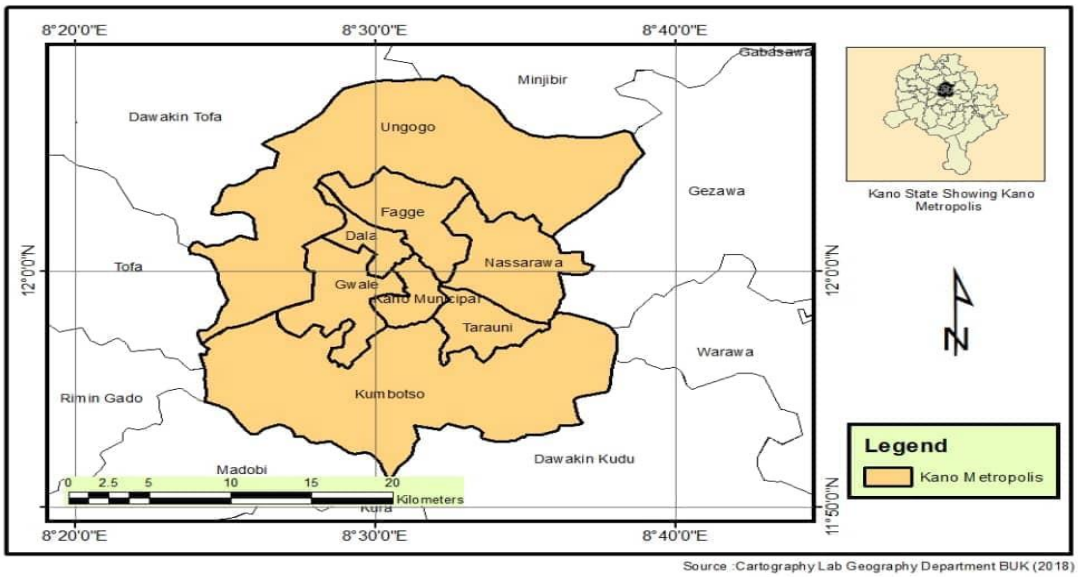

Fig. 1. Map of Urban Kano

Results and Discussion

Demographic Characteristics of the Respondents

The demographic characteristics of the respondents is presented in Table 1. Majority of the respondents were males (90%) were the remaining (10%) were

females. Majority of the respondent's age has (42.5%) of 31 to 45 range of years while others (27.55% and 17%) are within the range of 46-60 and 15-30 respectively and the remaining falls between the range of 61 to above (13%) . The results also shows that majority of the respondents were married (73%) while (17%) were single and the reamings are (7% and 3% respectively) which are Widow and divorce. This shows that most of the respondents were Married men and Women. The result also revealed that majority of the respondents are Muslim by religion with (96.5%) and the remaining (3.5%) were Christian in the study area. And the education level of the respondents indicates that majority of the respondents attends Secondary School (51%) second by primary school qualification owners (33) and the remaining attend Quranic schools and tertiary school with (13% and 3 respectively).

The results of table 1 also shows that the majority of the family size of the respondents ranges between 6-10 with (59.5%) and second by 0-5 having (37.5%) of the respondents in the study area and the remaining percentage goes to high family size owners respondents 11 to above with (3%) of the respondents, and the majority of the respondents occupation in the study area is business (42%) second by civil servant (26%) while farmers and craft men are having 21% and 11% respectively, and most of the respondents earn 61 thousand and above on monthly basis and the least are those earning 20 thousand and below per month

Table 1: Demographic Characteristics of the respondents

Variables	**Frequency**	**Percentage (%)**
Sex		
Male	326	90
Female	79	10
Total	**400**	**100**
Age		
15-30	94	17
31-45	145	42.5
46-60	93	27.5
61 to above	68	13
Total	**400**	**100**
Marital Status		
Married	246	73
Single	93	17

Widow	42	7
Divorce	19	3
Total	**400**	**100**
Religious		
Islam	374	96.5
Christianity	26	3.5
Others	0	0
Total	**400**	**100**
Education level		
Quranic School	96	13
Primary	117	33
Secondary	149	51
Tertiary	38	3
Total	**400**	**100**
Family size		
0-5	107	37.5
6-10	349	59.5
11 and above	44	3
Total	**400**	**100**
Occupation		
Civil servant	22	26
Business	173	42
Farmer	43	21
Crafts	102	11
Total	**400**	**100**
Monthly income		
1-20k	73	5
21-40k	117	22.5
41-60k	126	37
61k to above	84	35.5
Total	**400**	**100**

Source: Field Survey, 2021

Major Places Identified With Indiscriminate Open Defecation in Urban Kano

OPEN DEFECATION SITES OF FAGGE LOCAL GOVERNMENT AREA

YAN KURA FLY OVER GLDM RD

YAN KURA FLY OVER GLDM RD

FAGGE GOGAU

Source: Kano State Ministry of Environment, 2020

XZ

Source: Kano State Ministry of Environment, 2020

These locations and sites identified above are the major places where people defecate openly in the study are close to public places such as Markets, Schools, Hospitals and Motor parks.

Responses on Open defecation

Table 2 shows the response of open defecation by the respondents in the study area which reveals that most of the respondent did not defecate in the study area with (88.75%) and the remaining have either defecate once or frequent in the study area with (11.25%), it also reveals that majority of the respondents that defecate in the study area is due to the lack or inadequate toilets in the study area (70%) and some prefer to defecate outside than in the toilets (21.75%) and other 8.25%. Most of the respondents feel bad to defecate outside in the study area (94.5%) and only (5.5%) says that they don't feel anything on defecating outside

Table 2: Response on Open defecation

Doyou defecate openly	**Frequency**	**Percentage**
Yes	45	11.25
No	355	88.75
Why do you defecate openly		
Lack of toilets	280	70
Preferences to defecate outside	87	21.75
Others	33	8.25
Did you feel bad to defecate outside		
Yes	378	94.5
No	22	5.5
Total	**400**	**100**

Source: Field Survey, 2021

Public Toilet

Table 3 shows the respondent responses the availability of public toilet in the study area, which reveals that majority of the responses shows that there is no public toilet (58%) while (42%) shows that there are public toilets in the study area and the table also reveals the respondents views on disease contact on open defecation in the study area, which shows that (72%) of the respondents agreed that they can be infected with diseases through open defecation in the study area while only (28%) says they cannot be contamination of disease in the study area through open defecation.

The study also reveals that all the respondents have toilets in their houses (100%) while non of them indicates the absence of toilet in the study area and it also shows that most of the respondents use pit latrine as their toilet in their houses (62%) second the used of water system toilets (36.8%) in their house which reveals that there is high contact of disease in the respondents toilets in the study area and the remaining respondents used others toilet means in their houses (1.2%)

Table 3: Public Toilet

Is there any public toilet in your locality	**Frequency**	**Percentage**
Yes	168	42
No	232	58
Do you know that you can contact disease by defecating openly		
Yes	288	72
No	112	28
Do you have toilet in your house		
Yes	400	100
No	00	00
Which types of toilet do you have		
water system	147	36.8
Pit Latrine	248	62
Others	05	1.2
Total	**400**	**100**

Source: Field Survey, 2021

Cause of Open defecation

Table 4 shows the major causes of open defecation in the study area, which reveals that the inadequate of toilets facilities as the major cause with (49.5%). The toilets facilities are not not available in most of the public places. Then follow by poverty with (18.2%), there is widespread poverty in the study area many people's cannot afford to build toilet or pay for the commercial toilets to ease themselves as such they resort to defecate openly. Level of education and culture having (21.8% and 10.5%) respectively.

Table 4: Cause of Open defecation

Causes of Open defecation	Frequency	Percentage
Inadequate Toilet Facilities	198	49.5
Poverty	73	18.2
Level of education	87	21.8
Culture	42	10.5
Total	**400**	**100**

Source: Field Survey, 2021

Effects of Open defecation

Table 5 shows the respondents responses on the effects of open defecation in the study area, the results reveals that open defecation causes more effects on human health with (44.75%), and it's also affects people's personality in the study area (17.75%) while the religious and social effects account for 20.75% and 16.75% respectively which indicates that majority of the respondents agreed that it has more effects on health.

Table 5: Effects of Open defecation

Effect of open defecation	Frequency	Percentage
Social	67	16.75
Health	179	44.75
Religious	83	20.75
Personality	71	17.75
Total	**400**	**100**

Source: Field Survey, 2021

Solution to Open Defecation

Table 6 reveals the solutions of open defecation in the study area, which shows that provisions of public toilets in the community should be the best solution to the problem of pen defecation (36.75%) second by government should providelaws and order regulating the ban on open defecation (28.25%) and awareness and literacy having 18.75% and 16.75% respectively of the respondents responses in the study area.

Table 6: Solution to Open Defecation

Solution to open defecation	Frequency	Percentage
Government laws and order	113	28.25
Provision of public toilets	147	36.75
Awareness	73	18.25
Literacy	67	16.75
Total	**400**	**100**

Source: Field Survey, 2021

CONCLUSION

Open defecation is a serious sanitation issue most developing countries are battling with. Defecation is a natural urge and, subsequently, everyone will respond to it when the need arises. There are, however, clear differences of attitudes towards why people defecate. Even when poverty is being reduced and toilet facilities become available, cultural attitudes, social habits, and economic factors may impair people from use or avoidance of infrastructure considered safe and hygienic by environmental and health standards. Understanding the socio-cultural and economic factors underlying open defecation is therefore crucial for any policy aimed at eradicating the practice.

This study examined the socio-cultural factors determining open defecation in Kano metropolis, using a mixed method approach. Unlike earlier studies conducted on open defecation in Kano other parts of Nigeria, this study has provided a comprehensive quantitative examination of the factors determining open defecation in the study area.

This study has identified four important factors, which includes level of education, Poverty, culture, and ownership of a toilet facility as being positively significant in determining open defecation. However, underlying many of the significant factors is how households can finance construction of home toilet facilities. Also, according to the findings, education is a great redeemer: it is one of the ways through which the final solution to open defecation practices can be found, especially when it comes to improving understanding and implementation of municipal environmental sanitation and health bye-laws as well as abolishing negative traditional attitudinal prejudices. Finally, the research comes up with following recommendations:

i. There is need to rekindle public consciousness as regards to environmental health hazards posed by indiscriminate open defecation and people should protect their dignity via defecating in appropriate places.
ii. Strict law and legislation prohibiting indiscriminate open defecation on the environment should be put in place and government dealt with culprit
iii. Government, Community, Philanthropist and wealthy individual should construct public toilets especially around public places such like Markets, Motor park, schools in order to check the menace of indiscriminate open defecation
iv. Community Led Total Sanitation, CLTS, has been identified as effective in achieving behavioural change from OD, as agencies should involve to engaged more with state governments to take ownership of the campaign.

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