DETERMINANTS OF FAMILY SIZE AMONG MEN IN SLUMS OF IBADAN, NIGERIA

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ABSTRACT

Background: **Fertility, particularly as it pertains to the role of men as decision makers is important with respect to demographic transition theory. Studies have explored fertility preferences of men but very little has been done with regard to fertility preferences amongst men from the slums. The aim of this study was to investigate drivers of family sizes among the urban slum households in Ibadan of South-West Nigeria.**

Methods: **A cross-sectional survey design was conducted among 362 men in selected urban slum communities in Ibadan, Oyo State using multi-stage sampling. Data was collected using pre-tested, semi-structured, interviewer-administered questionnaires. Data were analysed using descriptive statistics, Chi square test and binary logistic regression with level of significance set at 5%.**

Results: **Age of respondents was 41.1 ± 7.56 years. Over a third have completed tertiary education (35.9%) and were civil servants (47.0%). Ethnicity, educational status, sex distribution of children and number of children were significantly associated with desire for more children ($p<0.05$). Marginally over half (54.4%) of respondents with 2 or less children wanted to continue child bearing compared to other respondents ($p<0.001$). Men with female only children were almost 3 times more likely to desire more children than men with male only children ($p<0.001$; OR= 2.798; 95% CI = 1.53 – 5.13). Igbos also were 52.8% less likely to desire more children compared to Yorubas ($p=0.047$; OR = 0.472; 95% CI = 0.225 - 0.991).**

Conclusion: **Programmes targeted at slum dwellers to improve their education on childbearing and family planning are required to assist the country progress through the stages of demographic transition.**

Keywords: Slum dwellers, Health disparities, Urban slum, Urban poor, Demographic transition

BACKGROUND

The demographic transition theory states that for societies to experience modernization, there must be progress from a pre-modern regime of high fertility and high mortality to a post-modern one in which fertility and mortality are both low.[1] It postulates a progression through 4 stages with the last stage comprised of low birth rates and low death rates. The three main components driving this transition "*fertility, mortality* and *migration*", have consequences on one another and on the overall size and/or structure of the population.[2] Bloom *et al* opined that the age structure, a key indicator of the stage of demographic transition possesses a critical influence on the economic performance of any nation.[3] In his stance, nations with a high proportion of children are likely to devote a high proportion of resources to their care that invariably influences the pace of economic growth and ultimately the health status of a society. Thus, policy makers try to ensure that countries attain quickly the optimum stage of low natality and low mortality, a stage believed to bring about modest amount of health and economic benefits to any society.

However, the situation in most developing countries especially in Africa is that most are fixed in the second stage of the transition (high birthrates and a drop in mortality) instead of progressing to the next stage of demographic transition.[4,5] The stagnancy of most African countries in the second stage of transition (i.e. high natality and a drop in mortality) has been perpetuated by the patriarchal dominance[6,7] rooted in most African cultures and their desire for male children.[8]

Evidence towards this is observed in the fact that although decline in fertility rates have been noticed in

some metropolitan areas and selected communities in the sub-continent, a drop in fertility is not yet witnessed in the many parts of sub-Saharan Africa.[9] While initial efforts revolved mainly around the woman and understanding her role in reproduction, researchers' interests in male issues has been recently aroused on how it influences the dynamics of fertility. For instance, it has been observed that couples may not have the same opinions about fertility and due to the cultural and socio-demographic characteristics peculiar to Africa, the decision of whether to bear more children or not in most instances lies with the man and not the woman.[10]

Research on the role of men in deciding the fertility rates of their partners, has shown that the desire for the male child proves to be one of the main factors behind the desire for continued childbirth among Nigerian women.[11,12] Even though, the importance of demographic transitions in societies, especially on the socio-economic status of the population has been documented in varying conditions, studies have not explored the influence of birth and fertility preferences among men from slums within the Nigerian context. This becomes vital, as research has shown that fertility rates differ in different segments of the society. For instance, studies in some African countries have demonstrated that a lack of education as well as poorer socioeconomic status are linked with increased fertility rates.[13,14] Furthermore, Stewart *et al.* observed that the populations in low and middle income countries (LMICs) are becoming rapidly urbanized, with the urbanization accompanied by increasing poverty levels among such migrants. The importance of examining this effect within the context of urban slums is of vital importance as the population of slums from increasing urbanization is on the increase daily.[15,16] "United Nations (UN) projections estimate that by 2030, Nigeria's urban population will reach 162 million whereas the rural population will be only about half the number of urban residents".[17] Urban slums, that arise in the process, account for 43.0% of the population in the developing world as compared to 32.0% of total world's population.[18] These slums in spite of their significant proportion are disadvantaged in terms of access to proper health care, good water supply, and proper sanitation.[19] This study thus sought to investigate drivers of family sizes among the urban poor households in slums of Ibadan capital in South-West Nigeria.

METHODS

A cross sectional study design was utilized to sample 362 residents from 5 urban areas in Ibadan, the capital of Oyo State, Nigeria. Nigeria is located in West Africa with an estimated population size of 170,000,000 (2.04% of the world population) and a total of 774 local government areas.[21] Oyo State is in the southwest geo-political zone of Nigeria and lies within longitude 3.933° East and latitude 7.85° north. It has a landmass of 28,246.264 km^2 and a population of about 6,182,172.[21] At present, the slums in Ibadan are situated in 5 local government areas namely, Ibadan North, Ibadan North-East, Ibadan North-West, Ibadan South-West, and Ibadan South East in Ibadan municipality where the study was conducted.[22] Within these area, the largest slums are located in Ibadan North-East, Ibadan South-East and Ibadan South-west Local government areas.[23] These local government areas are further sub-divided into wards. Wards housing major slums within Ibadan North-East Local government area include Beere, Olorunsogo, Oje, Oke-Irefin while wards within Ibadan South East Local government include Esu Awele, Eleta, Agbongbon, Bode and part of Oke Ado. The wards with slums within Ibadan Southwest include Oja Oba, Orita Merin, part of Idi-Arere.[21,23]

Study population comprised entirely of males between 18–60 years who met our inclusion criteria[24] while we excluded unmarried males, those below the age of 18years or above 60 years from participating in our study. Participants were included only if household head had lived in an identified slum for a minimum of 1 year to avoid mis-classification of visitors as residents of the slums. A selected community was identified and labelled as an "urban slum" if, '*it was situated in an urban colony that had not been authorized by the government and that lacked basic amenities such as durable housing sufficient living area for inhabitants, access to improved water and sanitation facilities*'.[25,26]

After a pre-test was conducted in a similar slum, it was found out that 63.6% of men desired for more children. Thus, a minimum sample size of 355 respondents was estimated using the Leslie Kish formula[27] for survey sampling assuming that the estimated proportion of men that desired more children is 63.6% at a degree of precision of 5%. A multistage sampling technique was used to recruit participants for the study.

Stage 1: Urban local government areas: A sampling frame of all 5 urban local government areas containing the urban slums was obtained State (i.e. Ibadan North, Ibadan Northeast, Ibadan Northwest, Ibadan Southeast and Ibadan Southwest).[17] One urban local government area was selected randomly by balloting.

Stage 2: Urban slum community: A complete list of all the communities (wards) within the selected urban local government area was obtained and an urban slum

community was selected randomly also using computer generated numbers.

Stage 3: Participants: All eligible men that met the inclusion criteria within the selected community were invited to participate in the study. All participants within the selected community who consented to participate in the study were recruited. Overall, 422 men met the inclusion criteria, however three hundred and sixty-two participants agreed to participate in the study (Response rate of 85.8%).

The questionnaire was divided into 3 sections: (1) socio-demographic characteristics and (2) respondents' offspring characteristics and natal history (3) desire for more children. The instrument was initially pre-tested in a slum similar in characteristics with the proposed study site and information obtained was used to adjust ambiguities.

Data were collected between March 2014 and September 2014 by trained research assistants with semi-structured interviewer administered questionn-

Table 1: Socio-demographic characteristics of respondents

	Frequency (N)	Percentage (%)
Age Group (N = 362)		
< 30yrs	19	5.2
30 – 39 years	146	40.3
40 – 49 years	157	43.4
≥ 50 years	40	11.0
Occupation (N = 362)		
Civil Servants	170	47.0
Traders	21	5.8
Artisans	49	13.5
Farmers	68	18.8
Others*	54	14.9
Ethnicity (N = 362)		
Yoruba	198	54.7
Hausa	86	23.8
Igbo	65	18.0
Others**	13	3.6
Religion (N = 362)		
Islam	112	30.9
Christianity	216	59.7
Traditional	34	9.4
Marital status (N = 362)		
Married	296	81.8
Separated	15	4.1
Divorced	13	3.6
Common Law Partner	38	10.5
Highest educational level (N = 362)		
No Formal Education	46	12.7
Primary Education	43	11.9
Sec Education	72	19.9
Tertiary Education	130	35.9
Post Graduate	62	17.1
Tech/Professional	9	2.5
Number of children (N = 362)		
≤2	125	34.5
3-4	142	39.2
≥ 5	95	26.2
Sex distribution of children (N = 362)		
Male only	111	30.7
Female only	218	60.2
Both	33	9.1

**Others: Bead makers, Students, Unemployed, Tilers*

***Others: Efik, Fulani, Ibibio, Igede, Ijaw, Itsekiri, Kanuri, Tiv*

aires, designed based on the study objectives. Interviewers collected information on various demographic characteristics of the study participants ranging from age to education, marital status, occupational status and ethnicity. Explanatory variables included the socio-demographic characteristics, number of children, and sex distribution of children while our primary outcome variable was 'desire to have more children' which was coded as 1= Desire more children and 2=Do not desire more children.

Data was entered into IBM SPSS software v. 22 (Chicago IL.) and checked for double entry by two independent entry clerks for quality control before analysis. Demographic characteristics were represented with descriptive statistics. Categorical data were presented as proportions while continuous variables were summarized using means and standard deviation (for uniformly distributed data) or as median and range (for data not normally distributed). T-test were used to compare means for continuous variables e.g. age, income, number of children within a household while Chi square test was used to test for associations with categorical variables with binary outcomes. Fisher's exact were used to test for associations with variables < 5 in any of its cells. Results were reported at level of statistical significance set at 5%. Binary logistic regression was later utilized to determine significant predictors of family size determination amongst urban slum dwellers.

RESULTS

Socio-demographic characteristics

The mean age of respondents was 41.11±7.56 years. The most common primary occupation of respondents was civil service (47.0%) with more than half (54.7%) of the respondents being of Yoruba descent. (Table 1). There were more Christians (59.7%) compared to other religions, Majority (81.8%) of the respondents were married while 130 (35.9%) had completed some form of tertiary education (Table 1)

The mean number of children each respondent had was 3.47 ± 1.43years (Range 2 - 7 children). More than one quarter (26.2%) of the respondents had 5 or more children while 34.5% of the respondents had only 2 children. Over half (60.2%) had only female children. Further analysis of the data showed that the respondents with no education had the highest average number of children (5.00 ± 1.40) followed by those who completed primary education (4.49 ± 1.72) (Table 2). In addition, respondents who had only males had an average of 2.73 ± 1.12 children compared to the 3.78 ± 1.51 children reported by those who had only females. (Table 2). In terms of ethnicity, the Hausas had the least average number of children (3.29 ± 1.21),

Table 2: Average number of children across socio-demographic characteristics

	Mean	S.D	Range
Ethnicity			
Yoruba	3.51	1.42	2<x<7
Hausa	3.29	1.21	2<x<6
Igbo	3.54	1.70	2<x<7
Others	3.62	1.56	2<x<5
Religion			
Islam	3.61	1.59	2<x<7
Christianity	3.31	1.21	2<x<6
Traditional	4.02	1.96	2<x<7
Educational level completed			
None	5.00	1.40	2<x<7
Primary	4.49	1.72	2<x<7
Secondary	3.87	1.06	2<x<5
Tertiary	2.51	0.84	2<x<5
Postgraduate	3.30	1.00	2<x<6
Technical/Professional	2.56	0.53	2<x<3
Sex distribution of children			
Males only	2.73	1.12	2<x<6
Females only	3.78	1.51	2<x<7
Mixed	3.91	0.77	3<x<6

Table 3: Association between socio-demographic characteristics and number of children

	Mean ± S.D	t	p-value	95% C.I Lower	Upper
Educational status					
Uneducated	5.00 ± 1.39	8.51	<0.001	1.35	2.16
Educated	3.24 ± 1.09				
Ethnicity					
Yoruba	3.51 ± 1.42	0.63	0.529	-0.20	0.39
Others	3.41 ± 1.45				
Gender distribution of current children					
Males only	2.73 ± 1.12	-7.61	<0.001	-1.34	-0.78
Others	3.79 ± 1.44				
Desire to continue childbirth					
Yes	3.66 ± 1.47	3.94	<0.001	0.29	0.88
No	3.07 ±1.28				

Table 4: Association between socio-demographic characteristics and desire to have more children

	Desire more children n (%)	Do not desire children n (%)	χ^2	p-value
Age group (N = 362)				
< 30yrs	12 (63.2)	7 (36.8)	2.02	0.568
30 – 39 years	103 (70.5)	43 (29.5)		
40 – 49 years	99 (63.1)	58 (36.9)		
≥ 50 years	27 (67.5)	13 (32.5)		
Ethnicity (N = 362)				
Yoruba	118 (59.6)	80 (40.4)	11.10	0.011‡*
Hausa	61 (70.9)	25 (29.1)		
Igbo	51 (78.5)	14 (21.5)		
Others	11 (84.6)	2 (15.4)		
Religion (N = 362)				
Islam	70 (62.5)	42 (37.5)	1.30	0.523
Christianity	147 (68.1)	69 (31.9)		
Traditional	24 (70.6)	10(29.4)		
Educational level completed (N = 362)				
None	34 (73.9)	12 (26.1)	23.69	<0.001‡*
Primary	26 (70.5)	17 (39.5)		
Secondary	57 (79.2)	15 (20.8)		
Tertiary	68 (52.3)	62 (47.7)		
Postgraduate	49 (79.0)	13 (21.0)		
Technical/Professional	7 (77.8)	2 (22.2)		
Sex category of children (N = 362)				
Males only	83 (74.8)	28 (25.2)	9.121	0.010*
Females only	132 (60.6)	86 (39.4)		
Mixed	26 (78.8)	7 (21.2)		
Number of children (N = 362)				
≤2	68 (54.4)	57 (45.6)	17.34	<0.001*
3-4	96 (67.6)	46 (32.4)		
≥5	77 (81.1)	18 (18.9)		

**Significant Associations*
‡Fishers' Exact

while the Yorubas had an average of 3.51 ± 1.42 (Table 2).

Independent sample t-test revealed that the mean number of children by the respondents with no form of education was 5.00 ± 1.39 while those that had completed any kind of education had an average of 3.24 ± 1.09 children; a statistically significant finding (t=8.51, p<0.001; 95% CI= 1.35-2.16) (Table 3). Respondents who wanted more children already had an average of 3.66 ± 1.47 children while respondents who did not had an average of 3.07 ± 1.28 children already (p<0.001) (Table 3).

Two-thirds (66.6%) of the respondents desired to have more children. Further analysis showed that respondents within the 30-39 years age group had the highest proportion (70.5%) of respondents desiring more children while those within 40-49 years age group had the highest proportion (36.9%) of respondents not wishing for more. Even though overall, Yoruba respondents seemed to carry the greatest proportion of participants that desired more children, further analysis revealed that within tribes, Igbos (78.5%) and other minor ethnicities (84.6%) desired more children most followed closely by the Hausas (70.9%) when compared with the Yorubas (59.6%) (p=0.011) (Table 4). A similarly statistically significant relationship was found between the educational status of respondents and their desire to have more children with 79.2% of respondents who finished only secondary school desiring more children (p<0.001) (Table 4). With regards to the number of children, it was observed that an increase of the number of children in a family was correspondingly followed by an increase in proportion of respondents desiring for more children.

Table 5: Logistic regression predicting desire for more children (increase family size).

	Independent Variables	**B**	**Sig.**	**Odds-Ratio (OR)**	**95% C.I**	
					Lower	**Upper**
Ethnicity						
	Yoruba (reference category)		.135			
	Hausa	-.449	.165	.638	.339	1.202
	Igbo	-.752	.047	.472	.225	.991
	Others	-.873	.288	.418	.084	2.088
Educational status						
	No formal Education - (reference category)		.028			
	Primary Education	.794	.110	2.213	.835	5.862
	Secondary Education	-.234	.616	.792	.318	1.973
	Tertiary Education	.531	.244	1.700	.696	4.154
	Post grad Education	-.644	.188	.525	.202	1.369
	Technical/Professional	-.106	.910	.900	.145	5.574
Category of child						
	Male only (reference category)		.004			
	Female only	1.029	.001	2.798	1.526	5.131
	Both	.780	.185	2.181	.688	6.914
Number of children						
	<2 (reference category)		.002			
	3-4	-.463	.157	.629	.332	1.194
	>5	-1.531	.000	.216	.092	.508
	Constant	-.777	.130	.460		

Dependent variable: Desire for more children

While only 54.4% of respondents with 2 or less children wanted to continue child bearing, 67.6% and 81.1% of the respondents with 3-4 children and those with 5 or more children respectively wanted to continue childbearing ($p<0.001$) (Table 4).

Only significant variables from the bivariate analysis were also included in the model for the logistic regression analysis. Some variables that were significant in the bivariate analysis were no longer fit into the logistic regression model. This included the educational status and the number of children. Apart from ethnicity and category of children, all other independent variables were not significant predictors of desire for large family sizes (Table 5).

Our strongest predictor of desire to continue childbearing was the sex category of children. Men with female only children were almost 3 times more likely than men with male only children to desire more children ($p<0.001$; OR= 2.79; 95% CI = 1.53 – 5.13). Igbos also were 52.8% less likely to desire more children compared with the Yorubas ($p=0.047$; OR = 0.472; 95% CI = 0.23 - 0.99).

DISCUSSION

The mean age of respondents observed in this study is similar to that reported in other studies in Nigeria.[28,29] This is likely so because this age bracket represents the peak of reproductive activities among the male folk. The educational level observed in this study is relatively high with a literacy rate of 87.3%. When compared to other studies in other regions of the country, this figure is high. The 2013 Nigerian Demographic Health Survey (NDHS) places the range of male literacy levels of other geo-political zones between 93.9% and 47.9% with only the South-South zone having a higher male literacy rate than the Southwest.[30] This supports the theory that the Southwestern Nigeria (predominantly occupied by Yorubas) is the most educated region in the country. Some previous scholars have attributed this high literacy rate especially among the urban poor to the governmental efforts at implementing the free universal basic education.[29,31] However, this may not be entirely accountable for the high literacy level observed in our study because as much as 54.0% of the respondents have completed tertiary education, a tier of education not supported by the government's free education scheme. Nevertheless, it is possible that the free universal basic education could have served to establish the importance and impetus for continued education to the slum dwellers and why most respondents in the slums attained up to tertiary education and more. This observation is also important in another respect. The high proportion of educated respondents among the urban poor could imply that the standard of living in the region has fallen so low that several educated people still have to live below the poverty line. This also negates the finding from previous studies[9,32] that associate poverty to a lack of education. The reason for this contradiction in findings may be linked to the unusually high unemployment rate (56%) in the country as compared with the other countries[33], resulting in a high number of educated but unemployed residents who live below the poverty line.

Intriguingly, the mean number of children reported in our study (3.47 ± 1.43) is quite lower than the national fertility rate of 5.6. An analysis of respondents by educational groups, showed a reduction in the average number of children as educational level completed increased. Respondents with no education had the highest average (5.00 ± 1.39) while those who had completed tertiary education had the least (2.51 ± 0.84), a finding that concurs with earlier studies linking educational status of either male or female to the number of children they have. For instance, Osili & Long found that female education was associated with lower fertility rates[34] while Bongaarts opined that men with higher education tend to have lower number of children.[35] This highlights the importance of education in predicting household size. With regard to the sex distribution of the children already had, there was a significantly higher average among respondents with only female children (3.78 ± 1.51) when compared with respondents with only males (2.73 ± 1.11). This could be linked to the desire for a male child as various studies have demonstrated that Nigeria is a patriarchal society where additional emphasis and relevance are attached to male children as corroborated in some Nigerian studies that arrived at similar findings. The patrilineal inheritance system that dominates the Nigerian society, equivocally engenders extra efforts/ desires for male children as daughters are not popularly believed to be capable of continuing the family name.[36] The studies from other patriarchal societies such as India[37] and in the Philippines[38] also reveal a significantly higher household size among families with mainly female children. There was a lack of association between ethnic group and number of children. However, national data (NDHS, 2013) suggests that the Yoruba's usually have lower fertility rates than the South-East and the Northern region.[30] The similar averages recorded in our study may be as a result of influence from cultural patterns existing in the region. This is succinctly argued and validated by experts in the field who argue that the social interaction of people usually define the behavior and actions that can also be applied to fertility.[39,40]

Inquiring about the desire to have more children has been identified as a means of determining the fertility intentions of respondents. The proportions of respondents willing to continue childbirth is similar to those found in other Nigerian studies that reported 67.7% and 58.6% desiring to continue childbirth respectively.[41,42] Analysis of this proportion showed that the Yorubas had the lowest proportion of respondents wishing to continue childbirth. Given the similar averages of children born across the ethnic groups, this finding supports the NDHS data claiming that apart from the South-South, the South-West has the least fertility rate in the country. The study also revealed a significant relationship between educational status and desire for more children. An interesting finding though is that a higher proportion of respondents who had already completed postgraduate studies desired more children than those who had not completed any form of education. This finding seems to negate findings from literature that less educated people tend to start childbirth early and have more children.[43] However, Osili & Long have opined that educational level of the man may not have as much impact on the household size as that of the female.[34] An average number of children born to respondents who had completed postgraduate education being 1.71 children less than that of those with no education further goes to emphasize the relevance of education on family sizes. It is also interesting to discover that respondents who completed tertiary education have the lowest proportion of respondents wishing to have more children despite the fact that they also represent the educational class with the lowest average of children especially when compared to those who had completed postgraduate education. Regassa found that in some cases, the number of children born to respondents with a higher level of education was higher than those with a lower educational level.[44] Thus, it would be advisable to understand specific patterns among separate populations to ascertain how educational status interacts with fertility intentions.

This study also found that the proportion of respondents desiring more children become higher as the number of children increased. This finding is similar to those of other African countries with high fertility rates. For instance, there is a reported 79% likelihood of a woman with parity of four to go on to deliver a fifth child in Ethiopia.[45] This may further demonstrate that the deep rooted belief in African culture of seeing children as assets for the future continues to hold sway. With regard to the desire to continue childbirth based on the sex distribution of children, results from this study found that a significantly higher proportion of respondents with only females desired to have more children than their counterparts with males only. Studies have shown that the desire for a male child has the potential of increasing household sizes. While Larsen and colleagues found that sex preference increased household size by 6% in Korea[46], Regassa found a 20% increase in number of children born among Ethiopians with preference for male child.[44] These findings continue to suggest that in highly patriarchal societies such as in Africa and South Asia, the desire for and birth of a male child are important indicators for determining household sizes.[12,47]

Some of the limitations exhibited by our study are worth mentioning. Causalities could not be ascertained since our study was a cross-sectional study. Secondly, our study findings can be only generalizable to slums in south western region and not to other slums across the country since the study was conducted only in one south western state of Nigeria. Also, the sample size was equally limited. Nevertheless, our findings portends and highlights important implications for a re-design of programs that focus on the slum dwellers and their preferences with regards to child-bearing and its effects on demographic transition in the country.

CONCLUSION

The implications of large family sizes in slums of Nigeria have far reaching implications on the demographic transition and the national indices. Our research examined the determinants of family size among men from slums in Ibadan. According to our study, family size is influenced by ethnicity, educational status and sex distribution. Yoruba ethnicity, higher educational status, families with female only children are factors associated with larger families in the slums. Targeted health promotion campaigns for men with female only children and the Yoruba slum dwellers are recommended to assist the country improve overall standards of living and with transiting through the stages of demographic transition. Considering the poor urban and regional set up of slums and relative inaccessibility with respect to road network and healthcare, programs that incorporate peculiar dynamics of slums into birth control programs are equally desired and advocated for.

DECLARATIONS

List of Abbreviations

SW Nigeria - South Western Nigeria
LMIC - Low and Middle Income Countries
UN - United Nations
OR - Odds Ratio
CI - Confidence Intervals
NDHS - Nigerian Demographic Health Survey

Ethics approval and consent to participate
Ethical approval to conduct the study was obtained from Department of Research Planning and Statistics, State Ministry of Health ethics review board. Proper community entry was later observed by obtaining approval from the appropriate community leaders. The study was thoroughly explained to participants. Verbal and written consents to participate were obtained before commencement of the study.

Consent for publication
Not Applicable

Competing interests
None declared

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Authors' contributions
TA conceptualized the study, drafted the study protocol. KO and AD both supervised the data collection. TA carried out the data analysis and wrote the initial draft manuscript. All authors read and approved the final manuscript. The findings of the study exclusively those of the authors and do not in any way represent the decision or standpoint of the funders of the study.

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