

WILLINGNESS TO PAY FOR SCHOOL FEEDING AMONG CAREGIVERS OF SCHOOL CHILDREN IN URBAN-RURAL COMMUNITY OF SOUTH-EAST NIGERIA

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ABSTRACT

Background: School feeding programs have been implemented in Nigeria to improve education outcomes and reduce hunger among school children. However, sustaining these programs remains a challenge. In Southeast Nigeria, urban-rural disparities in socioeconomic status, food security, and access to education exist, affecting caregivers' ability and willingness to pay for school feeding programs. Understanding the willingness to pay among caregivers in this region is crucial for designing sustainable school feeding programs. School feeding programme is a targeted social safety nets that provides both educational and health benefits to the most vulnerable children, thereby increasing enrolment rates, reducing absenteeism, and improving food security at the household level. It enhances the diet and increases the energy and kilocalories available to a child. It targets micronutrient deficiencies, which are widespread among school-age children in developing countries and which increase susceptibility to infection, leading to absenteeism and impairing learning capacity and cognition. Willingness to pay for school feeding is a potentiator to reversing the negative consequences of increasing susceptibility to infection, absenteeism, impaired learning and malnutrition

Methodology: This study was a comparative, cross-sectional descriptive study carried out in the selected communities in Enugu State, South East Nigeria., involving households four (two urban and two rural) communities. The sample size was 422 where participant were selected using multistage sampling technique The questionnaire was adapted from National Health Demographic Health Survey, pre-tested semi-structured interviewer administered in English language. Data were collated, assembled and analysed using International Business Machine (IBM), Statistical Package for Social Science (SPSS) version 23. Descriptive statistics as percentages and frequency were presented in tables. The mean and standard deviation of parameters in each community were obtained and statistical tests of association between the dependent and independent variables were also carried out and the level of statistical significance was set at $P \leq 0.05$. The research protocol was reviewed and approval for the project was sought from the Ethics Review Committee of Nnamdi Azikiwe University Teaching Hospital. Consents were gotten from traditional rulers/village heads before the commencement of the study. All subjects had the right to withdraw from the study anytime they wish without explanation. Confidentiality was maintained throughout the study.

Results: Most of the respondents were female 262 (62.4%) and 158 (37.6%) were males with majority of the respondents having formal education 401 (95.48%) and 194 (46.19%) completed tertiary education. Majority of the respondents were household representatives 254 (60.5%). On Marital status of respondents 371 (88.3) were married, followed by 34(8.1%) respondents that were single parents. 159 of the 420 (37.9%) respondents were government employee, 113 (37%) respondents were self-employed and 70 (16.7%) of the respondents were unemployed. 136 (65.07%) respondents in urban areas were willing to pay for the school feeding program. 15 (7.17%) respondents in urban areas were willing to pay N9, 000 while in the rural were 1 (0.47%) respondent. For N6,000 were 17 (8.13%) respondents in urban and 2 (0.94%) in rural. The association between position in household and WTP was not statistically significant in the urban area $X^2 = 2.54$, $p = 0.07$ while it was statistically significant in the rural area $X^2 = 26.26$, $p = 0.00$. The association between gender and WTP was statistically significant in the rural area with majority as females. Also in rural areas the association between Age and WTP and Level of Education and WTP were all statistically significant. The association between marital status and WTP was statistically significant in the urban area $X^2 = 6.35$, $p = 0.01$. The association between WTP N9, 000 was statistically significant with level of education in the urban areas $X^2 = 26.0$, $p = 0.00$ and major source of income $X^2 = 8.79$, $p = 0.00$ while in the rural areas WTP N9,000 was statistically significant with marital status. The association between WTP N6,000 was statistically significant with major source of income and Marital status in urban areas. The association between WTP N3,000 was statistically significant with level of education, major source of income and marital status in the urban areas The relationship between willingness to pay for school feeding and socioeconomic status was statistically significant across all the socioeconomic groups with $X^2 = 16.93$, $p = 0.00$. The mean amount the respondents were willing to pay yearly for school feeding were N2, 053:35 in urban areas and N671:33 in rural areas. There is a positive correlation between willingness to pay for school feeding and household heads, gender, age and major source of income

while there is negative correlation with number of children in primary school, had formal education and highest level of education. The association between willingness to pay and gender was statistically significant at 0.046, with age at 0.027 and with highest level of education at 0.000..

Conclusion: The willingness to pay for school feeding among caregivers of school children in urban-rural communities in Southeast Nigeria is a critical aspect of ensuring the sustainability of school feeding programs. The study's findings suggest that caregivers in these communities place a high value on education and recognize the importance of nutrition in supporting their children's learning outcomes. While there are variations in willingness to pay between urban and rural areas, the overall sentiment indicates that caregivers are willing to contribute financially to school feeding programs. This willingness is likely driven by the perceived benefits of improved nutrition and education outcomes. However, the study also highlights the need for policymakers and program implementers to consider the socioeconomic dynamics of urban-rural communities in Southeast Nigeria. Strategies to increase willingness to pay, such as flexible payment plans and community engagement, may be necessary to ensure the long-term sustainability of school feeding programs. Ultimately, understanding the willingness to pay for school feeding among caregivers can inform the design of effective and sustainable school feeding programs that support the education and nutrition needs of school children in the region.

Keywords: Willingness to pay, school feeding, school-age children, Caregivers.

INTRODUCTION: The willingness to pay for school feeding among caregivers of school children in urban-rural communities in Southeast Nigeria is a critical aspect of ensuring the sustainability of school feeding programs. The study's findings suggest that caregivers in these communities place a high value on education and recognize the importance of nutrition in supporting their children's learning outcomes. While there are variations in willingness to pay between urban and rural areas, the overall sentiment indicates that caregivers are willing to contribute financially to school feeding programs (Akombi BJ, 2017). This willingness is likely driven by the perceived benefits of improved nutrition and education outcomes. School feeding / nutrition programme is a consequential part of a school health service. School feeding is an established development aid intervention with multiple objectives including education, nutrition, and health. It alleviate short-term hunger and cognitive abilities of school children (Park K. Park's textbook of preventive and social medicine 2018). School feeding is a tool which effectively enables hundreds of poor children worldwide to attend school in developed and developing countries alike. One of the advantages of school feeding is that, in addition to enabling education, it has positive direct and indirect benefits relating to a number of other development goals namely

for gender equity, poverty and hunger reduction, partnerships and cooperation, HIV/AIDS care and prevention, and improvements in health and other social indicators. Even in the most-developed nations, there are hungry children who can be helped by school meals (Agho KE, 2017). Millions of school children have benefited from school feeding in excellent programs which have been sustained over several decades in some developed countries like Finland, Japan and the United States. School feeding is a popular intervention that has been used to support the education, health and nutrition of school children. Although the benefits of school feeding are well documented, the evidence on the costs of such programs is remarkably thin, thus the outcome of this study will be beneficial to the policy makers most especially the government; ministry of education as well as nongovernmental organizations and public health practitioners in their planning, implementation and evaluation of school health programmes.

Malnutrition and inability to pay for school meals has continued to be a public health problem in developing countries where the poor socio economic condition has continued to work in synergy with malnutrition (Bain LE, Awah PK, *et al*, 2013) In 2016, an estimated 155 million children under the age of 5 years were suffering from stunting, while 41 million were overweight or obese. Malnutrition, in all its forms, includes under-nutrition (wasting, stunting, underweight). Women, infants, and children are at particular risk of malnutrition. Combating malnutrition in all its forms is one of the greatest global health challenges (Ogbebo W, 2016). Under-nutrition can see children dangerously thin for their height (wasting), or their growth permanently impeded (stunting). Inadequate intake of key nutrients may weaken immune systems, impair brain development, and worsen the risk of conditions such as anaemia and blindness. According to estimates, 52 million children under 5 years of age are wasted, 17 million are severely wasted 155 million are stunted, and 41 million are overweight or obese.

The introduction of school feeding programme and the importance attached to the programme increased researcher interest to compare the willingness to pay for school meal between urban and rural educational zones in Enugu State. The findings of this study will also determine the value parents or care givers attach in supporting their communities for school feeding in monetary terms between rural and urban dwellers and across socio economic groups in Enugu State, thereby creating an atmosphere for sustainability of the school feeding programme within the state (Anderson P, Moreen JD, *et al*, 2016).

With recent trend on the advantages of school feeding towards the improvement of nutrition and learning, with better health conditions among school children in relation with Universal Basic Education, this study will also help determine the willingness to pay and factors that encourage school feeding between urban and rural dwellers in Enugu State. Designed school feeding programmes have been shown to increase access to education and learning and improve children's health and nutrition, especially when integrated into comprehensive school health and nutrition programme. Regrettably, School feeding programme has not been fully embraced within some schools in Nigeria and Africa in general. Considering the unstable economy and the poverty level in some countries in sub Saharan Africa, most of these schools receive children from disadvantaged households, who have no guarantee of daily meals, let alone the nutritious capacity of the food due to their poor socio economic background

From the available literatures, since the launch of school feeding in Nigeria, there have been studies on the type of food served to pupils as school meal, the serving size and proximate composition, but studies are yet to be carried out on the willingness to pay for school feeding. Thus, the importance of carrying out this study cannot be overemphasized.

Since school feeding was launched in 2005 and re-launched in 2016 in Enugu State, no previous works have been carried out to determine the willingness to pay for school feeding programme among urban and rural dwellers in Enugu state. Also there are fewer studies on how keen, are people to pay for school feeding across socioeconomic groups, therefore there is need for this study.

The study therefore seeks to fill the gap by assessing how much caregivers in the Enugu State are willing to pay for school feeding programme currently implemented in Public Primary schools in Nigeria. It will also determine the influence of health education on school feeding, on the willingness to pay.

METHODOLOGY

Study Area

This study was carried out in the selected households within communities in Enugu State, South East Nigeria. Enugu State has a population 3,257,298 people with children under 14 years making up to 41 percent of the entire population according to national census of 2006. It is bounded by Abia State on the south, Ebonyi State by the east, Anambra State at the west, then Kogi and Benue

States on the north with a total land area of 7,161 sq. km. It is made up of 17 Local Government Areas (LGAs) divided into three (3) senatorial districts. Of the 17 LGAs, three (Enugu North, Enugu South and Nsukka) are urban LGAs while the remaining 14 are rural. Most of the urban dwellers are civil servants, traders, transporters or artisans while rural dwellers are largely subsistence farmers and petty traders. The people are mostly Igbo and are predominantly Christians. The language commonly spoken is Igbo, followed by English. People from other tribes especially the Hausas and Yorubas are also found in the State.

Enugu state has one thousand two hundred and twenty three (1223) public primary schools scattered throughout Enugu State with enrolment of 177,185 pupils in public primary schools. Each LGA has a given number of Government owned and private schools also widely distributed in the various towns under it. Enugu State launched school feeding in 2005 and re-launched in 2016.

Study Design: The study was a comparative, cross-sectional descriptive study

Study Population: The study population consists of households that have primary school children in the selected four (two urban and two rural) communities in Enugu State.

Inclusion criteria: Respondent must be a caregiver of school age child, residing in the selected community and a child (6-11 years) in primary school

Exclusion criterion: Parents or guardians who declined consent

Sample Size Determination

The sample size using the formula for calculating sample size for infinite population (population > greater than 10,000). The prevalence of practice of the subject was assumed to be 50% (0.5)

$$n = z^2pq/d^2.$$

Where:

n = Sample size,

z = Standard normal deviate set at 95% \approx (1.96)

p = Prevalence of practice of the subject assumed to 50% (0.5),

q = Complementary probability of p (1-P)

d = Error margin at 5% (0.05).

$$n = \frac{(1.96)^2 \times 0.5 \times (1-0.5)}{(0.05)^2}$$

$$n = \underline{3.8416 \times 0.5 \times 0.5}$$

$$n = \frac{0.0025}{0.9604} \times 384.16 \approx 384$$

An attrition rate of 10% (38.4) was added. The minimum sample size was 422

Sampling Technique:

Multistage sampling technique was employed in the study

Stage 1: Selection of Local Government Areas: Enugu States has 17 Local Government Areas (LGAs), 3 Urban LGAs and 14 Rural LGAs. Two LGAs comprising of one urban Enugu South and one rural Nkanu West were randomly selected from the 17 LGAs in the state.

Stage 2: Selection of communities: Two communities were selected from each of the LGAs by balloting. The two selected communities from Enugu South LGA were Amechi and Ugwuaji while Akpugo and Ozalla communities were selected from Nkanu West LGA.

Stage 3: Selection of households: The households were selected by modified cluster random sampling. In each of the selected communities, a central location (eg the major market or meeting area) was the starting point for sampling. The direction that was taken in selecting the first household to be visited was determined by spinning a bottle on an even ground and where the bottle pointed when it stopped was the direction taken. In the direction of point of the bottle, consecutive houses were selected until the required 106 households per community were completed, (urban and rural) of the selected community using the NPC house listing.

Pretesting

The study instrument was pretested in 40 households, 10 households each from urban and rural communities outside the selected Local Government Areas. Pretesting enables the validity of the data collection tools and the amount of time needed to administer the questionnaire. Reaction of respondents to the questions were observed to determine their understanding and acceptability to the questions asked and their willingness to participate in the study.

Data Collection

The questionnaire was adapted semi-structured interviewer administered in English language. The questionnaire was divided into sub-sections. The collection of data was preceded by courtesy visits to the traditional rulers of the selected communities where the purpose and details of the study were fully explained. Two research assistants who are degree holders were recruited for the study.

They were trained in a private school in Enugu for two days on the administration and filling of the questionnaire by the principal investigator. They took part in the pretesting in order to assess the success of the training.

Data Analysis

Data were collated, assembled and analysed using International Business Machine (IBM), Statistical Package for Social Science (SPSS) version 23. Descriptive statistics as percentages and frequency were presented in tables. The mean and standard deviation of parameters in each community were obtained and statistical tests of association between the dependent and independent variables were also carried out and the level of statistical significance was set at $P \leq 0.05$. An asset-based socio-economic status (SES) index developed using principal components analysis-P.C.A. were used to examine whether there were systematic SES differences in the variables. The SES groups were quantified according to the average number of respondents for this study. This was because of the need to grade levels of financial capacity among the caregivers. The variables included in the index were household availability of electricity, fridge, TV, motor car, bicycle and motorcycle

Ethical Considerations

The research protocol was reviewed and approval for the project was sought from the Ethics Review Committee of Nnamdi Azikiwe University Teaching Hospital. Consents were gotten from traditional rulers/ village heads before the commencement of the study. All subjects had the right to withdraw from the study anytime they wish without explanation. Confidentiality was maintained throughout the study.

Limitations

Considering the unstable nature of economy market which leads to unstable price of goods and services, there was price variation among respondents.

RESULTS

TABLE 1: SOCIODEMOGRAPHICS

Variables	Frequency(N=420)	Percentage
SEX		
Male	158	37.6
Female	262	62.4
MARITAL STATUS		
Married	371	88.3
Single	34	8.1
Divorced	7	1.7
Widowed	8	1.9
EDUCATIONAL STATUS		
Formal Education	401	95.48
No Formal Education	19	4.52
POSITION IN HOUSEHOLD		
Household Head	166	39.5
Household Representation	254	60.5
HIGHEST LEVEL OF EDUCATION		
Primary	43	10.72
Secondary	164	40.90
Tertiary	194	48.37
MAJOR SOURCE OF INCOME AGE		
Government Employed	160	37.9
Privately Employed	38	9.1
Self Employed	113	27.0
Retired	23	5.7
Student	14	3.3
Unemployed	70	16.7
Others	1	0.2
No Response	1	0.2

Table 1, most of the respondents were female 262 (62.4%) and 158 (37.6%) were males with majority of the respondents having formal education 401 (95.48%) and 194 (46.19%) completed tertiary education. Majority of the respondents were household representatives 254 (60.5%) as

against household heads 166(39.5%). On Marital status of respondents 371 (88.3) were married, followed by 34 (8.1%) respondents that were single parents. 159 of the 420 (37.9%) respondents were government employee, 113 (37%) respondents were self-employed and 70 (16.7%) of the respondents were unemployed.

TABLE 2: SOCIODEMOGRAPHICS BETWEEN URBAN AND RURAL

Variables	URBAN		RURAL	
	Frequency (N=209)	Percentage	Frequency (N=211)	Percentage
MARITAL STATUS				
Married	178	88.3	193	91.5
Single	22	8.1	12	5.7
Divorced	6	1.7	1	0.5
Widowed	3	1.9	5	2.4
EDUCATIONAL STATUS				
Formal Education	200	95.7	201	95.3
No Formal Education	9	4.3	10	4.7
POSITION IN HOUSEHOLD				
Household Head	113	54.1	53	25.1
Household Representation	96	45.9	158	74.9
HIGHEST LEVEL OF EDUCATION				
Primary	17	8.1	26	12.3
Secondary	119	56.9	45	21.3
Tertiary	64	30.6	130	61.6
MAJOR SOURCE OF INCOME				
Government Employed	43	20.6	117	55.5
Privately Employed	19	9.1	19	9.0
Self Employed	67	32.1	46	21.8
Retired	2	1.0	21	10.0
Student	13	6.2	1	0.5

Unemployed	64	30.6	6	2.8
Others	0	0	1	0.5
No Response	1	0.5	0	0
Total	209	100.0	211	100

Table 2, 184 (88.3%) of caregivers in urban areas and 193 (91.5%) in rural areas were married. 200(95.7%) respondents in urban and 201 (95.3%) respondents in rural areas had formal education. The household heads were 113 (54.1%) and 53 (25.1%) in urban and rural areas respectively while the household representatives were 96(45.9%) and 158 (74.9%) in urban and rural areas respectively. In Urban area, the level of education with the highest frequency is Secondary 119 (56.9%), followed by Tertiary 64 (30.6%), then Primary 17 (8.1%) while in rural, we have Tertiary as the highest 130 (61.6%), followed by Secondary 45 (21.3) and Primary 26 (12.3%). The major source of income in the Urban areas was through self-employment 67 (32.1%) followed by unemployed 64 (30.67%) while in the Rural we have Government employee 117 (55.8%) as the highest followed by self-employed 46 (21.8%).

TABLE 3: WILLINGNESS TO PAY BEFORE AND AFTER HEALTH EDUCATION URBAN (N=209)

Variable	Before HE		After HE	
	Frequency	Percent	Frequency	Percent
Are you willing to pay for school feeding				
Yes	136	65.07	136	65.07
No	73	34.93	73	34.93
Likely reasons for not willing to pay (n=73)				
Lack of money	25	34.25	25	34.25
Lack of interest	14	19.18	14	19.18
Lack of trust and confidence	13	17.81	13	17.81
Confusion and fear	5	6.85	5	6.85

In Table 3, 136 (65.07%) respondents in urban areas were willing to pay for the school feeding program with the likely reason why they may not be willing to pay is due to lack of money 25 (11.96%) before and after health education.

TABLE 4: WILLINGNESS TO PAY BEFORE AND AFTER HEALTH EDUCATION

RURAL (N=211)

Variable	Before		After	
	Frequency	Percent	Frequency	Percent
Are you willing to pay for school feeding				
Yes	111	52.60	111	52.60
No	100	47.40	100	47.40
Likely reasons for not willing to pay (n=100)				
Lack of money	51	51.00	51	51.00
Lack of interest	19	19.00	19	19.00
Lack of trust and confidence	28	28.00	28	28.00
Confusion and fear	1	1.00	1	1.00

In Table 4, 111(52.60%) respondents in rural areas are willing to pay for the school feeding program with the likely reason why they may not be willing to pay is due to lack of money 51 (24.17%) before and after health education.

TABLE 5: BIDDING GAME FOR YEARLY ACADEMIC PROGRAMME BETWEEN URBAN AND RURAL

Amount	URBAN		RURAL	
	Frequency	Percent	Frequency	Percent
N9000	15	7.17	1	0.47
N6000	17	8.13	2	0.94
N3000	37	17.70	13	6.16

In Table 5, 15(7.17%) respondents in urban areas were willing to pay N9, 000 while in the rural we have 1(0.47%) respondent. For N6, 000 we have 17 (8.13%) respondents in urban and 2(0.94%) in rural. For N3, 000 we have 37 (17.70%) respondents in urban while 13(6.16%) respondents in rural.

TABLE 6: RELTIONSHIP BETWEEN WILLINGNESS TO PAY YEARLY FOR SCHOOL FEEDING AND SOCIODEMOGRAPHICS

Variables	WTP	Urban			WTP	Rural		
		WTP N9000	WTP N6000	WTP N3000		WTP N9000	WTP N6000	WTP N3000
Position in household								
Household head	79	8	7	18	44	0	1	3
Rep of household	57	7	10	19	67	1	1	10
Chi ² (p-value)	2.54(0.07)	2.92(0.23)	5.15(0.08)	3.31(0.19)	26.26(0.00)	0.32(0.85)	1.99(0.37)	1.87(0.39)
Gender								
Male	77	6	8	16	41	0	0	2
Female	59	9	9	21	70	1	2	11
Chi ² (p-value)	2.48(0.08)	2.23(0.33)	0.56(0.76)	3.10(0.21)	26.83(0.00)	0.25(0.88)	1.86(0.39)	.72(0.68)
Age category								
20-30	66	4	10	20	14	0	0	3
31-40	36	5	4	11	37	0	1	3
41-50	20	5	3	5	38	0	0	5
51-60	3	1	0	0	12	1	1	2
61+	0	0	0	0	9	0	0	0
Chi ² (p-value)	1.28(0.73)	11.39(0.08)	5.52(0.48)	5.68(0.46)	11.89(0.02)	9.33(0.16)	7.40(0.29)	4.46(0.62)
Educational status								
Yes	132	13	16	33	101	1	2	12
No	4	2	1	2	10	0	0	1
Chi ² (p-value)	0.83(0.29)	4.21(0.12)	1.10(0.58)	5.56(0.06)	3.29(0.06)	0.10(0.95)	1.10(0.58)	.67(.71)
Level of education								
Primary	11	0	1	3	23	0	0	0
Secondary	86	3	8	15	37	0	0	1
Tertiary	34	10	5	14	43	1	2	12
Chi ² (p-value)	7.09(0.07)	26.0(0.00)	9.81(0.13)	15.58(0.01)	52.13(0.00)	0.29(1.0)	0.94(0.99)	1.93(0.93)
Major source of income								
Government employee	25	6	3	7	38	1	1	12
Privately employed	8	0	2	4	16	0	1	0
Self employed	48	8	8	14	42	0	0	1
Retired	1	1	0	0	9	0	0	0
Student	7	0	3	6	1	0	0	0
Unemployed	46	0	1	5	5	0	0	0
Chi ² (p-value)	8.79(0.12)	34.97(0.00)	17.77(0.02)	26.98(0.00)	59.34(0.00)	0.59(1.00)	17.17(.07)	4.56(0.92)
Married								
Yes	122	12	11	23	103	0	1	11
No	14	3	6	14	8	1	1	2
Chi ² (p-value)	6.35(0.01)	0.62(0.73)	8.66(0.01)	25.04(0.00)	0.92(0.24)	9.27(0.01)	3.17(0.21)	1.25(0.54)

Table 6 shows the relationship between willingness to pay to school feeding and socio demographic variables in both urban and rural areas. The association between position in household and WTP was not statistically significant in the urban area $X^2 = 2.54$, $p = 0.07$ while it was statistically significant in the rural area $X^2 = 26.26$, $p = 0.00$. The association between gender and WTP was statistically significant in the rural area with majority as females. Also in rural areas the association between Age and WTP and Level of Education and WTP were all statistically significant. The association between marital status and WTP was statistically significant in the urban area $X^2 = 6.35$, $p = 0.01$. The association between WTP N9,000 was statistically significant with level of education in the urban areas $X^2 = 26.0$, $p = 0.00$ and major source of income $X^2 = 8.79$, $p = 0.00$ while in the rural areas WTP N9,000 was statistically significant with marital status. The

association between WTP N6,000 was statistically significant with major source of income and Marital status in urban areas while it is not statistically significant with any variable in the rural areas. The association between WTP N3,000 was statistically significant with level of education, major source of income and marital status in the urban areas while it was not statistically significant with any variable in the rural areas.

TABLE 7: RELATIONSHIP BETWEEN WILLINGNESS TO PAY FOR SCHOOL FEEDING AND SOCIOECONOMIC STATUS

VARIABLES	N
Are you willing to pay for school feeding	
Q1 (Most poor)	52
Q2 (Very poor)	48
Q3 (Poorer)	51
Q4 (Poor)	47
Q5 (Least poor)	28
Chi ² (p-value)	16.93 (0.00)
Willingness to pay N9000	
Q1(Most poor)	2
Q2 (Very poor)	3
Q3 (Poorer)	1
Q4 (Poor)	2
Q5(Least poor)	2
Chi ² (p-value)	3.90(0.87)
Willingness to pay N6000	
Q1(Most poor)	5
Q2 (Very poor)	3
Q3(Poorer)	2
Q4(Poor)	5
Q5 (Least poor)	2
Chi ² (p-value)	8.33 (0.40)

Willingness to pay N3000

Q1(Most poor)	3
Q2 (Very poor)	2
Q3(Poorer)	2
Q4(Poor)	3
Q5(Least poor)	3
Chi ² (p-value)	6.90(0.55)

In Table 7, the relationship between willingness to pay for school feeding and socioeconomic status was statistically significant across all the socioeconomic groups with $X^2 = 16.93$, $p=0.00$.

TABLE 8: AMOUNT WILLING TO PAY YEARLY FOR SCHOOL FEEDING AMONG URBAN AND RURAL CAREGIVERS

	N	Minimum	Maximum	Mean	Std. Deviation
URBAN	164	50.00	27000.00	2053.3537	3322.95018
RURAL	79	.00	3000.00	671.3291	968.70443

In Table 8, the mean amount the respondents were willing to pay yearly for school feeding were N2,053:35 in urban areas and N671:33 in rural areas.

TABLE 9: PROBIT LOGISTICS REGRESSION ANALYSIS OF WILLINGNESS TO PAY AGAINST SOCIODEMOGRAPHIC CHARACTERISTICS.

Willingness to pay	Coef.	Std. Err	Z	P> [z]	[95% Conf. Interval]
Children in primary school	-.4349221	.8559503	-0.51	0.611	-2.112554 1.24271

Number of people in a household	.0140215	.0348273	0.40	0.687	-.0542389	.0822818
Gender	.3451799	.1729713	2.00	0.046	.0061625	.6841973
Educational status	-.8010326	.7077488	-1.13	0.258	-2.188195	.5861296
Age	.0196756	.0088703	2.22	0.027	.0022901	.0370612
Highest Level of Education	-.6330231	.1272158	-4.98	0.000	-.8823615	-.3836847
Major source of income	.0631491	.0490181	1.29	0.198	-.0329246	.1592228
_constant	1.261847	1.221122	1.03	0.301	-1.131509	3.655203

Table 9 shows that there is a positive correlation between willingness to pay for school feeding and household heads, gender, age and major source of income while there is negative correlation with number of children in primary school, had formal education and highest level of education.

The association between willingness to pay and gender was statistically significant at 0.046, with age at 0.027 and with highest level of education at 0.000. Therefore willingness to pay depend on, or have effect on gender, age and highest level of education.

DISCUSSION

The willingness to pay for school feeding among urban and rural caregivers of school age children in Enugu State were x-rayed in this study. This study shows that most of the care givers had formal education 401 (95.48%). This is consistent with the study in Owerri, Nigeria where mothers had formal tertiary education (64.7%) The observation is in contrast with findings from similar previous study on school feeding conducted in Southern Ethiopia and Kenya which reported that the majority of the respondents’ mothers did not attend formal education and have lower levels of household income. A higher female respondents 262(62.4%) was observed with greater majority of respondents married in the study 371(88.3%). This observation is in keeping with findings from

previous studies in Southern Ethiopia and Owerri, Nigeria. The study observed that most of the respondents both in urban and rural areas are employed by the government 160 (37.9%). This however was in contract to a similar previous study conducted in Southern Ethiopia where most of the respondents' parents were farmers. The household weekly food expenditure was different between the urban #19,641.73 ± #38,956.83 and rural dwellers #12,311.79 ± #15,514.65. Those in urban areas spend more than their counterparts in rural areas. This findings are in agreement with previous studies conducted in Ethiopia where a greater proportion of poverty was detected in rural areas. More than half of the respondents 323(76.9%) from both urban and rural areas agreed that school feeding programme will improve class attendance and thereby reduce absenteeism. This finding also collaborate with study in Ethiopia where absenteeism among beneficiary children (49.7%) is lesser when compared to the non-beneficiary children (91.6%) and also the study in Lagos, Nigeria. The care givers in both urban and rural areas also agreed that the school feeding programme will likely to improve children nutritional status.

Falade OS et al in their survey realized that, the daily food intake by the school children revealed that many children eat twenty naira (N20:00) worth of rice as breakfast, soak Garri (a cassava product) and groundnut cake (kulikuli) as lunch and now take Eba (another product of cassava meal) or Amala (Yam flour meal) with okra soup as dinner. Therefore, making the school meal seems to be the best and the most nutritious food for the child throughout the day. Can this be the reason why respondents in the urban 168(80.38%) and rural 96(45.50%) areas before health education, indicated that the children having balanced diets at school as a likely factor that will make it easier for them to enrol their children into school feeding. Suggestions were made in the study based on other studies, on increasing the quantity of food given to the pupils in order to meet at least 50% of the protein and vitamin requirement per day.

This study reveals that the mean amount the caregivers were willing to pay yearly for school feeding. In the urban areas we have N2, 053.35 while in the rural areas we have N671.32. This findings were quite discouraging and might not be consistent with the finding from the study done by Falade OS et al in 2012, where the cost of the school meal was (N30:00) per child per day approximately N1,500-N1,800 per term. Considering the current economic situation in the country and inflation rate, one will be expecting something reasonable higher from the caregivers because there is a very big gap in the cost of school meal in the year 2012 and year 2018.

From the observation above, the big question now becomes, Can it be because people are not willing to pay or due to inability to pay?. This study showed that majority of the respondents in both urban 136(65.07%) and rural 111(52.60%) areas indicated they were willing to pay. Also the relationship between willingness to pay for school feeding and socioeconomic status was statistically significant across all the socioeconomic status groups with $X^2 = 16.93$, $p=0.00$. But WTP pay N9,000 , N6,000 and N3,000 yearly for school feeding was not statistically significant across the socioeconomic groups. Can it be that they are not ready to part with a meager sum of N3,000 on school feeding for a yearly academic programme?

Also in the study, when the respondents who indicated that they were not willing to pay 73(34.93) in urban and 100(47.40%) were probed further on the likely reasons for not willing to pay, those in the urban areas indicated lack of money 25(34.25%), followed by lack of interest 14(19.18%) and lack of trust and confidence 13(17.81) while in the rural areas lack of money 51(51.00%), followed by lack of trust and confidence 28(28.00) and lack of interest 19(19%). Evidence from the study has shown that inability to pay due lack of money is a major reason for not willing to pay but then, why do a greater majority who are willing to pay not ready to part with a reasonable amount to support the programme?, Could it be because they felt it is solely the responsibility of the Government or a form of self-entitlement?. There is a need for further studies on this. Though this finding was equally in keeping with a previous study where insufficient funding (62.2%) was a challenge posed by school feeding, but it was also found that insufficient classrooms and furniture to cope with increase in enrolment (60.86%), heavy workload for teachers (60.86%) and lack of effective monitoring and evaluation system (60.86%) also posed major challenges. Although another interesting finding of this study was on how the caregivers would like the fee for the school feeding to be like, majority of the respondents in the urban areas want full payment by government 129(61.72%), followed by equally shared between parents and government 36(17.22%) before health education, 116 (55.50%) and 38(18.18%) respondents respectively after health education. This study like previous studies revealed that association between willingness to pay and level of education in the rural areas was statistically significant $X^2= 52.13$, $p=0.00$ but not statistically significant in urban areas $X^2= 7.09$, $p=0.07$. It shows that the level of education play a great role in determining willingness to pay. This finding is consistent with studies which have found a strong relationship between education and poverty, particularly inequality. The poor are

heavily deprived and so are their children. Also several factors with significant impact on many dimensions of poverty on school attendance and education quality, particularly early childhood malnutrition, deprivation based on gender and income inequality tend to be responsible.

CONCLUSION

The study on the willingness to pay for school feeding among caregivers of school children in urban-rural communities in Southeast Nigeria reveals significant insights. The findings suggest that caregivers in both urban and rural areas are willing to pay minimally for school feeding programs, albeit with varying levels of willingness. Urban-rural disparities: Caregivers in urban areas demonstrated a higher willingness to pay compared to their rural counterparts. Socioeconomic factors: Household income, education level, and occupation of caregivers significantly influenced willingness to pay. Perceived benefits: Caregivers who recognized the benefits of school feeding programs, such as improved health and academic performance, were more willing to pay.

RECOMMENDATIONS

1. Governments and stakeholders should consider implementing targeted interventions to increase awareness and education on the benefits of school feeding programs, particularly in rural areas
2. Exploring cost-sharing models between governments, caregivers, and private sector stakeholders could help sustain school feeding programs
3. There is a need to reach out to the people for whom a program is being designed for, find out what they expect from the programme, how best it can be carried out to achieve success at the planning stage before roll-out.
4. The dietary concerns should be addressed by ensuring that well-trained dieticians are involved in selecting and cooking the meals.

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CONFLICT OF INTEREST Authors declared no conflict of interest

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