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QUALITY OF URBAN RESIDENTIAL-NEIGHBOURHOOD IN PORT HARCOURT CITY LOCAL GOVERNMENT AREA, RIVERS STATE

OKWAKPAM, IKECHI O. PhD
Department Of Geography and Environmental Studies
Faculty of Social Sciences
Ignatius Ajuru University of Education
Port Harcourt
E-mail: ikechiokwas@gmail.com

ABSTRACT*The study assesses the quality of urban residential-neighbourhood environment in Port Harcourt city local government area. The study design was a household-based cross-sectional survey. The data was collected through primary and secondary sources. Thirty percent (30%) of the twenty (25) contiguous neighbourhood of Port Harcourt city local government area were selected through simple random sampling method to represent the total population of the study area. The study made use of questionnaire designed to elicit information on the respondents' residential-neighbourhood attributes within the study area. A total of three hundred and fifty-questionnaires were purposively administered to household-heads in the sampled neighbourhood. Field observation was made on nature and condition of residential-neighbourhood" environment; a residential quality index (RQI) was constructed, based on scores on a number of residential-neighbourhood attributes or variables (objective indicators) and; a satisfaction index of 3 point scale (satisfied, acceptable and unsatisfied) was adopted to determine the level of satisfaction as perceived by the sample respondents (subjective indicators). it was found that the residential neighbourhood condition of the resident is poor, where indiscriminate refuse disposal, distance to the next neighbourhood and lack of suitable drainage constitute the major environmental challenge. The study recommends massive urban renewal scheme; approved method of storage, collection and disposal of solid waste to satisfy minimum health and good living standards.*

Key Words: Urban, residential, neighbourhood, environment, housing.

INTRODUCTION

In recent times, there has been a growing concern on the deteriorating state of the residential-nieghbourhood environment in most urban areas of the developing countries. While good residential-neighbourhood environment is crucial for effective performance of man, a considerable proportion of urban residents in developing countries live in sub-standard and poor deplorable unsanitary residential-neighbourhood environments Onibokun, (1985). Provision of appropriate residential-neighbourhood environment, particularly for the urban low-income group constitutes a major challenge to development in most African countries and developing nations' at large. Overall quality of the residential-neighbourhood environment falls short of the expected standard (Olayiwola, Adeleye, & Jiboye, 2006 & Jiboye, 2009).

The Perception of an environment in a residential-neighborhood affects the relation of individuals with the environment and the level of their satisfaction. The residential environment poses serious challenge to sustainable growth and development. Characteristics of a person, those of the environment itself, and those of the person–environment are important factors determining residential satisfaction (Moser, 2009).

The problem of differential residential-neigbourhood quality is compounded by the very rapid urban growth. Despite increasing emphasis on the need to improve residential environment, particularly within the urban areas of the less developed countries (LDCs), a high proportion of the urban population are deprived of access to good quality residential environment (Olayiwola, Adeleye & Ogunsakin, 2005). Going by a UN-Habitat estimate, more than one billion of the world's city residents live in low quality residential-neigbourhood, mostly in the sprawling slums and low-income settlements in developing countries (UN- Habitat, 2009). Urban residential-neigbourhood environment scenario has adverse implications on the general wellbeing of the people and portends severe danger to the socioeconomic and physical development of a city. The apparent variation creates consequences of adaptation and restructuring in residential quality.

Considering the gravity of the residential-neigbourhood environment problems as it effects on the wellbeing of the people, most people live in poor qualitative residential environment, directly or indirectly deface the environmental quality structure of urban areas and in an unsatisfactory condition. Therefore, the need for residential-neigbourhood improvements in the city is predicated on the appreciation of the essence of the residential environment within the context of human habitation. Consequently, the need for a decent residential environment requires urgent attention. It has become imperative that the environmental quality status of the urban environment is established, so as to ascertain the appropriate measures to take to step-up or up-hold the quality of that environment.

Statement of Problem

Over the years, there has been a worsening of urban environmental problems such as uncontrolled residential environment. Providing an effective residential environment policy framework constitutes one of the major instruments required for Sustainable urbanization. In recent decades, it has been observed that the phenomenal rise in population, spontaneous increases in size of cities have led to poor environmental quality in urban area especially in developing countries. Sustainable urbanization seeks to pursue development in harmony with the protection of environmental quality. Only a subset of all human activities takes place in the residential environment. This subset of activities may be different for different individuals and the sub-system of settings that makes up the residential environment may also vary.

This scenario has resulted to diverse residential problems like overcrowding, deplorable environment, poor living conditions, inadequate and poor infrastructure. The need to stimulate progressive residential environment through quality delivery thus constitutes a critical challenge to development. A growing number of urban residents suffer from poor state of urban environmental condition, this has triggered the desire to evaluate quality of residential-neigbourhood environment in Port Harcourt city local government area, both objectively and subjectively.

Research question

1. How is the residential-neigbourhood environmental condition of the study area?
2. How is the perceptual quality of the residential-neigbourhood environment of the study area?
3. What is the level of residents' satisfaction on residential-neigbourhood environment in the study area?
4. What are the variables that are most important in improving their residential-neigbourhood environment?

Conceptual Framework

Quality of residential environment

A normative definition of quality of residential-neighbourhood environment standards generally refers to the grade or level of acceptability of dwelling units and their associated and immediate residential environment, including the design and functionality of housing structures, building materials used, the amount of internal and external space pertaining to the dwelling, housing utilities, and basic service provision (Meng and Hall, 2006). Quality of residential-neighbourhood standards are often used as norms or measures that are applicable in legal cases where there is some question as to the acceptability of construction relative to prevailing laws or conventions that operate within the residential building industry.

The definition of quality of residential-neighbourhood environment embraces many factors which include the physical condition of the building and other facilities and services that make living in a particular area conducive. The quality of residential-neighbourhood environment within any neighborhood should be such that satisfies minimum health standards and good living standard, but should also be affordable to all categories of households (Okewole and Aribigbola, 2006). However, the quality of residential-neighbourhood is a rather more complex concept with broader social and economic meaning.

Environmental neighbourhood

Due to the complex nature of residential-neighbourhood environments, approaches to the study have been multi-dimensional (Ilesanmi, 2005). Therefore, residential-neighbourhood according to Ebong (1983) operates as a combination of many factors, forming a pattern that is extremely diversified. “Residential-neighbourhood” incorporates the house itself and the total surrounding environment with its analogy facilities and services. In order to achieve this aim, man developed various forms of dwelling houses and accommodation. These include state housing, modern government residential areas, the modern owner occupied houses, block of flats, single rooms and so on and extend to include environmental factors, which embrace the general land use and infrastructural services. According to Abrams (1964), “residential-neighbourhood is not only a shelter but also part of the fabric of the neighbourhood life and of the whole social milieu”. It touches upon many facets of economic activity and development. Thus residential-neighbourhood provides social contacts, good image, a sense of belonging and an indicator of social status. As a focus of economic activity as a symbol of achievement and social acceptance and as an element of urban growth and income distribution, residential-neighbourhood fulfills a social need. In other words, residential-neighbourhood has social and economic function it performs in the life of an owner.

METHODOLOGY

The study design was a household-based cross-sectional survey which required a snap shot at a situation. The data for this research was collected through primary and secondary sources. The primary source of data collection entailed field survey, direct observation, interviews and questionnaire administered to a probability sample of the

population. The secondary sources involved published and unpublished documents from the University Library, bulletins, journals, text books from previous studies. The target population composes of 962,606 household members residing in the neighbourhoods of the study area. The study adopted the multistage sampling technique. About thirty percent (30%) of the number of the neighbourhoods in the study area were selected through simple random sampling method summing up the number three hundred fifty (350) respondents. The study made use of questionnaire designed to elicit information on the respondents' residential-neighbourhood attributes within the study area. Chi-square test was applied for the hypotheses to test degree of relationships.

RESULT

A total copy of three hundred and fifty (350) questionnaires was administered to the sample respondents in the study area to form adequate representation of the population. Only 330 of the questionnaire were retrieved, fully completed for the analysis of the result. The target population composes of household members residing in the neighbourhoods of the study area.

Table: 1 Socio-economic characteristics of the respondents.

Classifications		Port Harcourt LGA	
		N=330	**Percentage**
Gender	Male	265	80.3
	Female	65	19.7
	18-30 years	54	16.4
	31-40 years	123	32.3
Age cohorts	41-50 years	107	32.4
	51years and above	46	13.9
	Single	51	15.4
	Married	188	57
Marital status	Divorced	41	12.4
	Widowed	27	8.7
	Separated	23	7
	Post Graduate	18	5.5
	First Degree/ Higher Diploma	97	29.4
Educational status	National Diploma	97	29.4
	Secondary	118	35.7
	1-2 persons	38	11.5
Household size	3-5 persons	189	57.3
	6 and above	103	31.2
	Civil service/Public servant	181	54.8
	Trading	56	17
Occupational status	Professional practice	55	16.7
	Skilled work(artisan)	22	6.7
	Farming (poultry)	16	4.8
	Low income N25,000 – N50,000	148	44.8
Monthly income level	Middle income N50,000 – N150,000	120	36.4
	High income N150,000 –and above	72	21.8

Source: Researcher's Field work, 2018.

(Salary grouping is called from the Federal Republic of Nigeria's Federal Civil Service Commissions).

The Table 1 shows that 265 of the respondents were Male representing 80.3 percent and Female 65 representing 19.7 percent while the majority of the respondents were married 188 representing 57 percent as against single 51, divorced 41, widowed 27, separated 23, representing 15.4, 12.4, 8.7, and 7 percent, respectively. The modal education attainment was high. Tertiary Completed (Post Graduate 5.5 percent, First degree and National diploma 29.4 and 29.4 percent, respectively). The modal household size was 3-5 persons representing 57.3 percent of the sample population. Occupational status of the respondents indicates that 181 of the respondents representing 54.8 percent were engaged in Civil Service/ Public Service job. Others were trading 17 percent, professional practice 16.7 percent skilled work (Artisan) 6.7 percent and Farming 4.8 percent. The income distributions of monthly household income were 44.8 percent for low income household, 36.4 percent for middle income household and 21.8 for household.

Analysis of research questions

Research question 1: How is the residential-neighbourhood environment condition?

Table: 2 Residential-neighbourhood environment conditions

Attributes	**Classifications**	**N=330**	**Percentage**
	Rooming house (court yard)	53	16.1
	Rooming house **(**wagon type**)**	154	46.7
	Single – family	97	29.4
House type	Blocks of flats (multi-family)	10	3.0
	Semi-detached	7	2.1
	Storied building	9	2.7
	Stream	0	0
	Borehole/ stand pipe	330	100
Sources of water	Rain	0	0
	Hand-dug well	0	0
	Water tanker	0	0
	Water closet	330	100
	Pie head	0	0
Type of toilet	Pit	0	0
	Bucket	0	0
	Bush	0	0
Distance of dwelling unit to soak away pit	Less than 6 meters	283	85.8
	6-10 meters	30	9.0
	11 meters and above	17	5.2
	Tipped into public open dump	0	0
	Tipped on street	293	88.8
Method of waste disposal	Tipped into the drainage	6	1.8
	Tipped into public waste bins	31	9.4
	Less than 2 meters	190	57.5
Distance to nearest dwelling unit	2-4 meters	93	28.2
	5 meters and above	57	17.3

Drainage condition	Good (not littered)	87	26.4
	Poor (littered and unkempt)	243	73.6
	Good (needs no repair)	93	28.2
House condition	Fairly good (needs minor repair)	191	57.8
	Bad (needs minor repair)	27	8.2
	Very bad (beyond repair)	19	5.8

Source: Researcher's Fieldwork, 2018.

The above, table 2 shows the distribution of residential neighbourhood attributes in the study area, obtained through standardized observations by trained interviewers. The table shows that the modal house type was the rooming, "wagon" or stretched-out type of house, accounting for 46.5 percent of all house types in the sample population. The modal walling was cement block. There was total dependency on boreholes for portable water supply, and 100 percent of use of water closet for human waste disposal; while majority of the respondents 88.8 percent reported that they tipped their wastes on the street and insignificant 1.8 percent of the respondents reported that they discharge their waste into the drainage. The distance to the next household residents that was less than 2 meters, 57.5 percent, 3-4 meters 28.2 percent and above 5 meters and above 17.3 percent. A little over 70 percent of the household rated their drainage system as poor, 73.6 percent. The residents were of the view that their house condition was good 28.2 percent, fairly good (needs minor repair) 57.8 percent and 14 percent as being bad.

Research question 2: What is the perceptual quality of the residential-neighbourhood environment of the study area?

Table: 3. Quality of the residential neighbourhood environment of the study area (Objective indicators)

Attributes	Standard conditions	Frequency	Percentage
House type	-Single family, detached -Blocks of flats (multi-family)	203	37.2
Walling material	-Blocks/burnt bricks	330	100
Source of water	-Internal plumbing/stand pipes	330	100
Toilet type	-Water closet	330	100
Distance of dwelling unit to soak away pit	20 -30ft (6 -10m)	30	9.0
Refuse disposal	-Tipped into public waste bin	31	9.4
Distance to nearest dwelling	-5 to 14	57	17.3
Drainage condition	-Good (not littered)	87	26.4
House condition	-Good (needs no repair)	93	28.2

Source: Researcher's Fieldwork, 2018.

Neighborhood attributes were characterized in the study area to form a neighborhood quality index (NQI). This was constructed based on scores of each sampled neighborhood on a number of neighborhood attributes or variables as shown in table 4.3.The table shows the variables employed for index construction and the desired condition for a neighborhood to be regarded as standard or of best quality. The table indicates the number of the variables that met the residential neighborhood conditions. Thus, if a neighborhood met the desired conditions on any variable, a score of one was assigned, otherwise the score was zero.

The residential neighborhood attribute indicate that only 37.2 percent of the sample house type were of standard or best quality. The walling material was generally of acceptable standard while the source of water was borehole.

Generally the respondents' main source of water was from the borehole. The toilet types is predominantly made of water closet. Less than 10 percent of the respondents tipped their household refuse into public waste bin. The distance to the dwelling was 17.3 percent at of the total percentage of the sample household. The drainage condition was below the standard of what might be regarded as good drainage accounting for 26.4percent and the housing condition is about 28.2 percent of the total household sampled in the study area.

Research question 3: What is the level of the resident satisfaction with the quality of the residential-neighbourhood environment?

Table: 4 level of satisfaction on residential neighbourhood environment in the study area

Variables	**Satisfaction level**	**Low income >50,000**		**Middle income 50,000 - 150,000**		**High income < 150,000**	
		Freq. (148)	**%**	**Freq. (120)**	**%**	**Freq. (72)**	**%**
	Satisfied	56	37.8	72	60.0	61	84.8
House type	Accepted	00	00	7	5.9	4	5.5
	Unsatisfied	92	62.2	41	34.1	7	1.7
	Satisfied	59	39.9	53	44.1	69	95.8
Walling material	Accepted	27	18.2	45	37.5	00	00
	Unsatisfied	62	41.9	22	18.3	3	4.2
	Satisfied	148	100	120	100	72	100
Source of water	Accepted	00	00	00	00	00	00
	Unsatisfied	00	00	00	00	00	00
Waste disposal	Satisfied	28	18.9	14	11.6	6	8.3
method	Accepted	20	13.5	00	00	00	00
	Unsatisfied	100	67.6	106	73.3	66	91.7
	Satisfied	48	32.4	47	39.2	6	8.3
Drainage condition	Accepted	25	16.9	10	8.3	00	00
	Unsatisfied	75	50.7	63	52.5	66	91.7
Distance of the	Satisfied	00	00	4	3.3	5	6.9
dwelling unit to	Accepted	14	9.5	00	00	64	88.9
soak away pit	Unsatisfied	134	90.5	116	96.7	3	4.2
	Satisfied	59	39.9	53	44.1	69	95.8
House condition	Accepted	27	18.2	45	37.5	00	00
	Unsatisfied	62	41.9	22	18.3	3	4.2

Source: Researcher's Fieldwork, 2018.

The Table 4 above determines the level of satisfaction on urban residential-neighbourhood environment as expressed by the respondents of the sample study area. The table shows that 37.8 percent and 62.2 percent of the respondents indicated that they were satisfied and unsatisfied respectively on the "House type" from the total number of low-income group in the study area. A total of 60.0 percent of the middle income group were satisfied on the "House type" while 34.1 percent were not satisfied. The high-income group has a significant positive affirmation that the "House type" is of satisfactory standard. Reason for this may be because; most of the houses are owner occupier and hence were built to suit their social status.

There is positive response on "Walling material". The modal walling material is 95.8 percent from the high-income cohort. Generally, the respondents (high-income, middle income and low-income groups, respectively) were satisfied with the source of water. Majority of the respondents were not satisfied (low-income 67.6 percent, middle income 73.3 percent and high-income91.7 percent, respectively) with the drainage condition. The modal "distance of the dwelling unit" to soak away pit was 96.7 percent (middle-income).
The "Housing condition" was reported to be in good condition and hence satisfied by the high income group 95.8 percent. This followed by the low income group 39.9 percent and 44.1 percent for middle income group.

Research question 4: What are the variables that are most important in improving the residential neighbourhood environment?

Table 5 Variables in improving the residential-neighbourhood in the study area

S/N	Variables	1st Mentions		2nd Mentions		3rd Mentions	
		N	%	N	%	N	%
1.	Efficient improvement in refuse disposal	93	56.7	7	4.3	31	19.0
2.	Good drainage system	3	1.8	43	26.5	0	0
3.	Provision of portable water	35	21.3	54	33.3	57	35.0
4.	Provision of standard housing	3	1.8	4	2.5	14	8.6
5.	Central sewage system	2	1.2	2	1.2	8	4.9
6	Great improvement in infrastructure	28	17.1	52	32.1	53	32.5
Total		**164**	**100**	**162**	**100**	**163**	**100**

Source: Researcher's Fieldwork, 2018.

Among the first mentioned items the modal (excluding other category) was "efficient improvement in refuse disposal" (56.7%). Second and third mentions, the modal items were "provision of portable water" (33.3%) and (35.0%), respectively.

DISCUSSION OF FINDINGS

From the result of the analysis, it was revealed that the residential neighbourhood condition of the resident is poor. This was derived from the result of the analysis in table 4.2. Predominantly, the household lived in a rooming house that most times does not meet the standard for a habitable dwelling. Majority of the respondents live in crowded household of more than 6 person in a household. Based on the findings, it is evident that the quality of the neighborhood environment calls immediate actions to avert environment health hazards. The crowded household impact negatively on the people as this may cause respiratory diseases. Among the variables considered for neighbourhood quality index, it is found that indiscriminate refuse disposal, distance to the next neighbourhood and lack of suitable drainage constitute the major environmental challenge. The neighbourhoods rely on borehole water. Although this met the standard of a good water source but it is misleading, because the distance to the majority of the soak away pit in most of the neighbourhoods do not meet the recommended standard of 20 -30ft (6 -10m) or more away from dwelling. The drainage condition is not good. Residents regularly dump their waste on the streets. This transport the waste into the gutter, and this clog the gutters and prevents the flow of water, causing the gutter to over flow. The stagnation of water in the gutter creates unsanitary conditions for residents of the neighbourhood and contribute to the degradation of the environment. The degradation can cause waterborne disease and residents susceptible to infections from mosquitoes and other insects.

According to Olorunfemi (2011) the residential neighbourhood exhibits many attributes that associated with residential neighbourhood decay which create environmental degradation. Findings with respect to satisfaction index, it was found that the respondents of high-income group are much satisfied with residential neighbourhood environment. On the other hand, low-income group of people were not satisfied due to various socio-economic conditions. Peoples level of income is associated with the quality of the environment. This confirms the work of Islam et al, (1997) that the impact of urbanization on the quality of residential-neighbourhood environment has unfortunately not been fully appreciated especially in the third World. A growing number of urban poor usually suffer from a high incidence of acute respiratory problems including tuberculosis, intestinal parasite and endemic diseases (diarrhea, dysentery, hepatitis and typhoid) linked to poor sanitation and contaminated drinking water.

CONCLUSION

Residential-neighborhood is part of fabric of urban life and a whole of environmental milieu. It touches upon many facets of environment and development. In assessing the quality of residential-neighborhood environment, the study has identified some criteria as relevant indicators for quality evaluation in the study area. Among such is housing type, drainage system, waste disposal, source of water as relevant quality determinants in residential-neighborhood.

Predominantly, the households lived in a rooming house that most times does not meet the standard for a habitable dwelling. This calls for immediate actions to avert environment health hazards.

Lack of suitable drainage constitutes the major environmental challenge. The majority of the soak away pit do not satisfy minimum health standard. The stagnation of water in the gutter creates unsanitary conditions for residents of the neighborhood and contributes to the degradation of the environment. The degradation can cause waterborne disease and residents susceptible to infections from mosquitoes and other insects.

RECOMMENDATION

1. Government should recognize the income implication of poor residential neighborhood environment and undertake massive urban renewal scheme that will benefit the people thereby reducing dwelling unit congestion, overcrowding and achieving good sanitation.
2. There should be an awareness focusing on education by helping the residents adapt to an urban life-style.
3. The quality of residential-neighborhood should satisfy minimum health and good living standards.
4. There should be an approved method of storage, collection and disposal of solid waste.
5. There should be portable water supply in the neighborhood.

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