



ANALYSING THE PATTERN AND URBAN PLANNING IMPLICATIONS OF SPRAWL ON QUALITY OF LIFE IN KADUNA METROPOLIS - NIGERIA

*¹Aliyu Hassan Ibrahim, ²Odunze, Wisdom Chibuzor, ³Farouk, Ndamadu Musa, ¹Liman Abubakar Adamu

¹Department of Environmental Science, College of Environmental Studies, Kaduna Polytechnic, Kaduna

²Department of Environmental Management Technology, Imo State Polytechnic, Umuagwo, Imo State – Nigeria,

³Department of Maths and Statistics, College of Science and Technology, Kaduna Polytechnic, Kaduna, Nigeria

*Corresponding authors' email: alivuibrahim@kadunapolytechnic.edu.ng

ABSTRACT

Various studies have highlighted different urban problems that have affected the quality of life of the urban dwellers in both developed and developing nations due to rapid socio - economic changes and increase in population. The aim of this study is to assess the perceived indicators of quality of life, so as to evolve strategy of upgrading the decayed urban communities. The multistage sampling method was adopted as a sampling technique. The following settlement were selected for the study, Down Quarters, Kurmin Gwari and Badarawa-Kwaru because of its slum like settlement. A total of 406 household's heads/members were served with questionnaires, while 380 were returned and properly filled. Twelve (12) key informants were also interviewed in all the selected communities. The results show that more than three quarter of respondents get their water from hand dug well (M= 4.2151), and a little less than one quarter admitted to get water from Pipe borne, boreholes (M= 1.4272) and other sources. The study concluded that due to high population concentration of people, government could not provide the necessary amenities and services required by the teeming population therefore, the available ones were over stretched and became dilapidated and decay set in. The study recommends that the government of Kaduna state should embark on urban renewal which will prevent decay, clear areas bad areas, upgrade building, facilities and expand metropolis roads.

Keywords: Environment; Communities; Management; Waste Disposal; Quality of Life

INTRODUCTION

The world's population is increasing by about 85 million every year. According to United Nations' projection, the world's population will grow from roughly 6 billion to more than 9 billion by 2050 (Abbott, 2012). These figures are closely related to the rapid growth of world's cities. The United Nations also expected that between 1991 and 2025 the number of people living in urban areas will nearly double from 2.8 to 5.3 billion and that 90% of the growth will be in the developing countries. The projected figures of 2020 in Nigeria indicate that 63% of the estimated population of 160 million will be found in the urban centres. This implies that more people will live in towns and cities than in rural areas. But the urban areas are face with diminishing infrastructure for providing the necessary urban services.

Population growth is especially very high in developing countries and Kaduna metropolis had her equal share of urban population growth. For instance, the National Population Commission census of 2006 recorded 1,558,563 as the population of Kaduna metropolis. Using the State's annual growth rate of 2.75%, that figure was projected to 2014 as 1,936,326 (NPC, 2006). This is caused either by migration of people from rural areas to the cities in search of better jobs and living conditions or due to natural population increase. With the high rate of many people moving to cities, the net result is widespread urban problems in the form of unemployment, inadequate housing, traffic congestion, overcrowding and poor sanitation. The social and economic forces can unfold into several types of manifestations such as

urban blight, crime, depopulation and unemployment. Blight is the physical deterioration of an urban area; is perhaps the most outwardly visible manifestation of urban decay (Ferris and Bramston, 1994; Gans, 2001). This term can also refer to just physical deterioration of structures regardless if the structure is actually abandoned. Due to the aforementioned urban problems, the concept of quality of life is becoming an increasingly important measure for assessing different aspects of life either at international, national or at individual level (Bowling, 1990; Farquhar, 1995; Brock *et al.* 2004; Adebomi, 2010).

Conceptual Hypothesis

The physical and social environmental determinants of quality of life of the people have significant relationship to urban decay.

The Study Area

Kaduna metropolis is located between latitude 10° 27' 15'' N to 10° 13' 5'' and longitude 7° 2' 48'' to 7° 29' 36'' E in the high plains of Hausa land, North West of Nigeria. It is the administrative capital of Kaduna State and commercial nerve of the state. The metropolis occupies an area of about 260 km², the distance between the eastern and western limits of the city is approximately 13.7 km (Ajibuah, 2008) According to the 2006 National Population Census, Kaduna Metropolis has a population of 1,558,563 inhabitants, figures 1 shows Kaduna Metropolis and the study areas respectively.

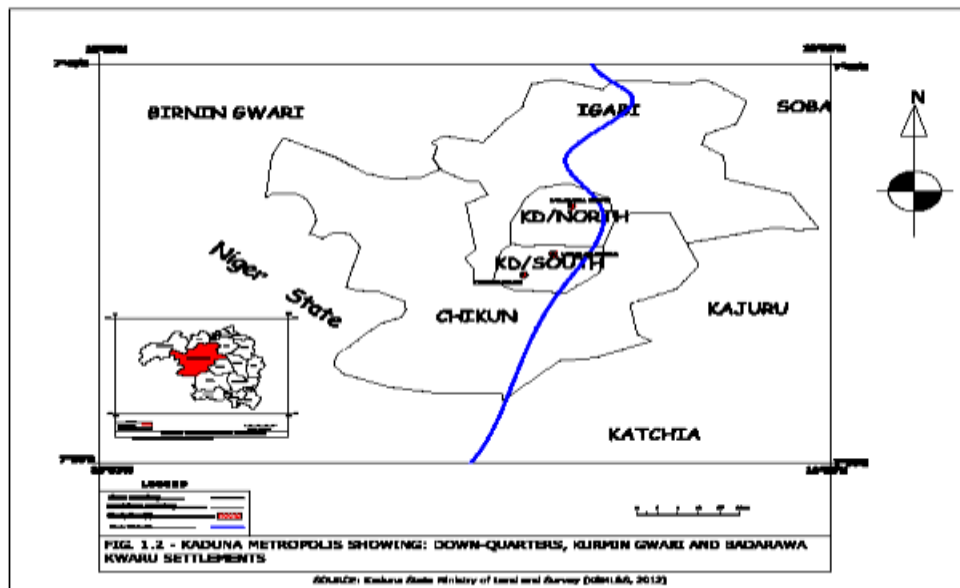


Figure 1: Map of Kaduna State Showing the Study Areas
Source: KADGIS 2021

Conceptual Framework

Although several varying definitions and models of Quality of Life (QOL) have been proposed, there is substantial overlap among researchers on the constituent domains of QOL. Empirical support has been provided for several domains including emotional well-being, health, intimacy, material well-being, productivity, safety, and community (Cummins, 1996; Farquhar, 1995; Felce and Perry, 1995; Swain, 2002). This support has facilitated a definition of QOL as being:

“both objective and subjective, each axis being the aggregate of 7 domains: material well-being, health, productivity, intimacy, safety, community and emotional well-being.

Objective dimensions comprise culturally relevant measures of objective well-being. Subjective dimensions comprise domain satisfaction weighted by their importance to the individual in terms of social and physical environmental determinants of QOL” (Cummins, 1997; Akinyemi, 2012).

The relationship between urban decay and the two determinants of quality of life (social and physical) can be conceptualized at a fairly general level in figure 2. As a two stage relationship a set of causal factors (independent variable) impact on an outcome (dependent variables) quality of life (Cummins, 1996; Farquhar, 1995; Felce & Perry, 1995; Aloba, 2002). The following are the variables:

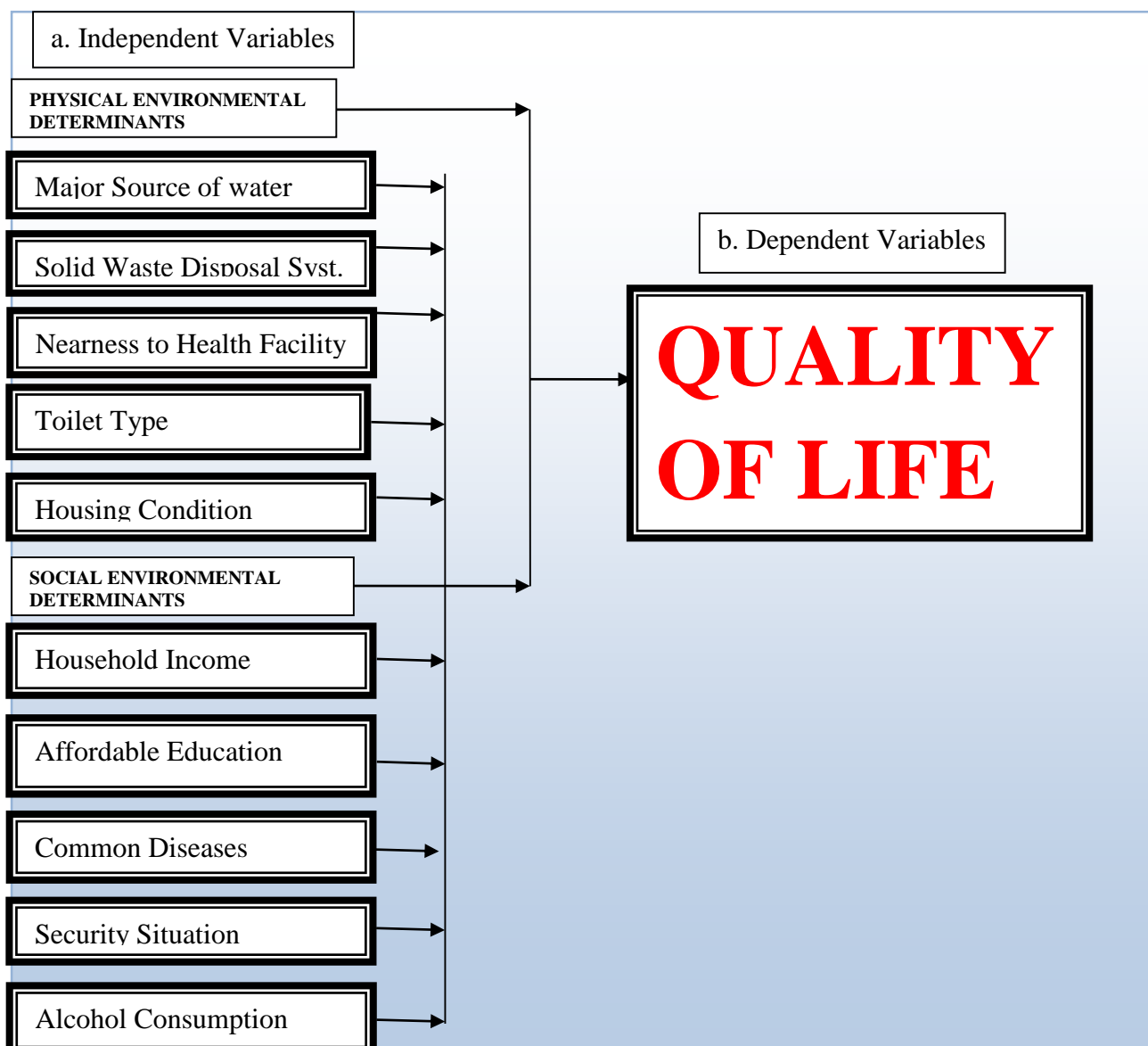


Figure 2: Quality of Life Assessment Model
Source: Farquhar, 1995

MATERIALS AND METHODS

The research design entails a cross sectional survey through collection and analyzing data of social and physical environmental determinants of quality of life (QOL) in Kaduna metropolis. The study analyzes housing condition, solid waste management, types of toilets, and sources of water of the people of Kaduna metropolis with the view of assessing how it affects quality of life (QOL) in the decayed urban settlements of Down-Quarters, Kurmin Gwari and Badarawa Kwaru.

Population and Sample Design

The multistage sampling method was adopted as a sampling technique. There was no ready record of the population figures of the sampled locations. Therefore, to get the official population of these areas namely, Down Quarters, Kurmin Gwari and Badarawa-Kwaru, the Ward head of Down

Quarters was contacted (Creswell *et. al.*, 2003) who instructed one of his officials to lead the team of five research assistants round his jurisdiction. A pre field visit was made to the ward head to arrange for the physical counting. This arrangement was replicated in Kurmin Gwari and Television and the whole exercise took two days. At the end of the exercise, Down Quarters had 2,022 houses, Kurmin Gwari 4,160 and Badarawa-kwaru 2,034 which gave a total population of 8,116 houses. This exercise was carried out in order to arrive at a scientifically and accepted sample size on which the questionnaire was administered. Based on the population of each area, 5% was purposefully used to draw the sample sizes which gave a total of 406 households (table 1) to be selected. The major streets were identified in each residential area and systematic sampling technique was used for selection of households. On each street an interval of five was used starting from the first house on both sides in that sequence.

Table 1: Number of Houses and Sample Sizes

Ward	No. of Houses	Size of sample (HHs)	No. of Questionnaire returned
Down -quarters	2,022	101	95
Kurmin Gwari	4,060	203	193
Badarawa Kwaru	2,034	102	92
Total	8,116	406	380

Source: Field Survey, 2021.

RESULTS AND DISCUSSION

This section focuses on the discussion of results of the field survey data following their presentation and analysis. The descriptive (such as mean, percentages, frequency and standard deviation) and inferential statistics (Chi-square) and tables are also employed for data analysis and presentation.

DETERMINANTS OF QUALITY OF LIFE

Major Sources of Water

Findings shows that more than three quarter of respondents get their water from hand dug well (M= 4.2151), and a little less than one quarter admitted to get water from Pipe borne, boreholes (M= 1.4272) and other sources. It can therefore be concluded that hand dug well is the main and reliable source of water supply in the study area. The availability of water is not an indication of clean water. At the time of this research, more than half of the respondents acknowledged that their water need is fairly been met and only a small number of respondents and others constituting a little less than one quarter respectively agreed that they are satisfying their water needs. This class could be seen to fall under the few households with private Boreholes or Pipe borne water.

Others disagree that their water needs was satisfactory. This result is in agreement with the study of Cummings, (1997).

At Kurmin Gwari and Down-quarters, even houses which have pipe and taps cannot get water every time, so most of the respondents fetch water from private or public wells (M= 4.2151). The people who feel their water need was fairly met because they have access to water throughout the year. If the water dries up during the dry season, they dredge the well bottom by themselves and water will be available. Those who agreed that the situation is often not satisfactory was because they get water only during the rainy season (M= 1.7785), which is often contaminated by surface run-off. A respondent expressed that:

"When the wells dry up in the dry season, no amount of digging will give them water. They have to wait for the next rainy season and therefore, they will have to walk long distances to get water, while those who can afford, buy water from private vendors. It costs around 100 Naira daily per household, but the price may increase with distance from source and amount spent depends on the family size."

Table 2: Respondents Major Source of Water (n=380)

Statement	Mean	SD	Percentage Distribution *					Remarks
			1	2	3	4	5	
Physical Determinants								
a. Borehole is mostly used	1.4272	.61548	26.8	52.1	9.9	8.5	2.8	Disagree
b. Pipe Borne water is running.	1.1875	.56432	56.9	34.2	0.0	7.9	1.0	Disagree
c. Well is the only water source.	4.2151	.93498	6.5	4.6	12.6	44.6	31.7	Agree
d. Others sources are also in use	1.7785	.60289	33.8	45.1	12.7	5.6	2.8	Disagree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.83)

Source: Researcher's Compilation, 2021

Waste Disposal Method

Method of waste disposal in the study area is very poor as the study revealed that about three quarter of the respondents dispose their waste in open space (M= 4.0095). While less than one quarter of the respondents acknowledged collection by government, a small number of respondents engage the services of organized collection by private stakeholder, and insignificant few dispose their waste into gutters. More than half of respondents assess their management of waste to be quite poor. This practice reveals the primitive and uncondusive state of the environment, and therefore could be linked to the prevalence of indiscriminate waste in Kaduna metropolis. Respondents confirmed that when rain is falling, children and women drop their waste into gutters (M= 1.8745), an act that could block the free flow of drainages and can result to flash flood within the city.

Table 3: Respondents Waste Disposal Method (n=380)

Statement	Mean	SD	Percentage Distribution *					Remark
			1	2	3	4	5	
Physical Environmental Determinants								
a. Government is responsible for waste collection.	2.0006	.6862	63.16	13.16	3.80	11.6	8.28	Disagree
b. Waste is collected by organized private stakeholders.	2.1688	.6455	38.0	43.61	0.00	12.0	6.39	Disagree
c. Waste are burnt through incineration.								
d. Waste are dumped in any open spaces around.	1.9340	.7569	7.60	69.96	0.00	11.2	11.2	Disagree
e. Waste are dumped in open drainages.	4.0095	1.0188	11.44	7.60	1.90	73.8	5.26	Agree
	1.8745	.6694	4.20	23.20	1.90	64.6	14.5	Agree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.786)

Source: Researcher's Computation, 2021

Farquhar, (1995) study revelation is similar to the result of this work, where the general condition in the study area is that, it is so crowded living little or no space for dumping refuse, so each household has different types of container where they collect their waste. Those who live near the Kaduna to Lagos railway line, drop their waste on any open space (M= 4.0095) when their container is full. This is the area that the government and contractors evacuate, but the faeces are still littered all round. Behind the residents of Kurmin Gwari and Down-quarters is a cemetery beside a stream. These have served as toileting ground and waste dump day and night. In short, the two settlements are circulated by a ring of waste.

Health Facilities

There are no standard hospitals with adequate health facilities in these communities. The so called General Hospitals available (M= 2.264) are poorly staffed. The residents rely more on privately owned Chemist (M= 4.004) which constitute slightly more than half of health centres nearest to the people. It is very difficult to walk over a hundred metres without seen a chemist, both on open streets and along narrow alleys. Therefore, access to health facilities is a function of the types of facility available in the area and the proximity of the facility influence patronage as shown in table 4.

Table 4: Respondents Nearness to Health Facilities (n=380)

Statement	Mean	SD	Percentage Distribution *					Remarks
			1	2	3	4	5	
Physical Environmental Determinants								
a. The General hospital is adequately equipped	2.264	.7554	22.7	45.8	1.90	11.4	18.2	Disagree
b. We only Patronize the Comprehensive Health Centres.	1.805	.7112	41.4	33.6	7.60	3.80	13.60	Disagree
c. There are adequate Primary Health Centres in our settlement.	1.452	.6844	65.5	26.2	1.90	0.00	6.40	Disagree
d. We rely on Private Chemist for medication.	4.004	.9755	0.00	18.36	0.00	40.72	50.92	Agree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.765)

Source: Researcher's Computation, 2021

Available and sufficient placement of infrastructure and essential amenities in settlements and communities are the major determinant of categorization of housing units or settlement to be either exclusive (low or medium density settlement) or urban sprawl. This result is in agreement with Aston-Jones *et al.*, (1998) findings.

Types of Toilet

About half and less than one quarter respondents use "pit latrine shared" (3.8454) and "not shared" (2.3489) with other household members. Less than one quarter respondents use "exclusive flush toilet" and "flush toilet shared", while almost half of one quarter respondents admitted "open defecation".

The study revealed that the use of "pit latrine shared" is dominant in the study area. However, the worst form is the "open defecation". Little less than half respondents described the condition of their toilet as "quite poor" been the pit latrine, and a few respondents far less than one quarter consider "open defecation" as their form of toileting habit, which is the "worst possible".

Open defecation and shared pit latrine (mean = 3.8622 and 3.8454) is the primitive method used for faecal disposal (table 5). The respondents in the study areas appeared to be economical with information about the condition of their toilets. Through observation, many houses have either a collapsed pit latrine that is not in use or none at all and

therefore embark on open defecation and urination. It was revealed that adult defecate openly especially at night, while children have no time restrain. The implication of open

defecation goes with the spread of all kinds of water and airborne diseases wherever that was been practised. This result is in agreement with the study of Cummings, (1997).

Table 5: Types of Toilets Used by Respondents (n=380)

Statement	Mean	SD	Percentage Distribution *					Remarks
			1	2	3	4	5	
Physical Environmental Determinants								
a. Our toilet type is exclusive and flushing type.	1.9654	.7224	42.7	25.8	11.3	9.2	11.0	Disagree
b. Our toilets are shared by households.	3.8456	.9633	12.15	3.8	5.25	43.6	35.2	Agree
c. The toilets are pit latrine but not shared.	2.3489	.7866	1.90	0.00	10.24	38.60	45.6	Disagree
d. Our toilets are pit latrine and shared by other household.	3.8454	.9945	0.00	14.56	3.80	31.02	50.62	Agree
e. We use open defecation by the households	3.8622	.9912	14,82	12.5	1.90	12.5	58.28	Agree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.72)

Source: Researcher's Computation, 2021

Housing Condition

The housing conditions based on physical observation and graded, revealed that more than three quarter of the housing stock need one form of repair or the other. Thus, the general condition is the presence of old, deteriorating and dilapidated

structures (M= 4.277), while an insignificant percentage, been one quarter revealed that the houses are in good conditions and need no repair (M= 1.167). Of course it's a common feature to find high quality houses sandwich by poor buildings.

Table 6: Housing Condition of Respondents (n=380)

Statement	Mean	SD	Percentage Distribution *					Remarks
			1	2	3	4	5	
Physical Determinants								
a. Our houses needs no maintenance.	1.167	.7266	22.7	45.8	12.5	5.0	14.0	Disagree
b. There are minor ceilings and roof repairs needed.	3.922	.9621	10.15	3.8	7.25	33.6	45.2	Agree
c. There are repairs on walls, doors and windows are major.	3.788	.9411	5.56	0.00	10.24	28.60	55.6	Agree
d. Our house has deteriorated and dilapidated.	4.277	1.022	0.00	14.56	3.80	40.72	40.92	Agree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.698)

Source: Researcher's Computation, 2021

Abandoned properties and overcrowding living are socially dangerous to a community because they attract and harbour criminals whereby perpetuating and contributing to increase in volume of crime. For instance, inside the closed down Textile premises (Nortex, Finetex, Supertex, Arewa and Kaduna Textiles, there are well over one hundred and twenty-eight) abandoned structures made up of mills and offices. This result is in agreement with the study of Cummings, (1997).

Estimated Monthly Income:

To get the estimated monthly income of respondents was difficult because meeting couples all together was difficult to achieve. Many respondents claimed they do not know the earnings of their spouses.

Table 7: Estimated Household Monthly Income (n=380)

Statement	Mean	SD	Percentage Distribution *					Remarks
			1	2	3	4	5	
Social Determinants								
N18,000 (Below)	4.83	1.12	2.8	8.5	9.9	52.1	26.8	Agree
N19,000 - N28,000	4.12	1.10	2.8	5.6	12.7	45.1	33.8	Agree
N29,000 - N38,000	4.01	1.07	1.4	8.5	11.3	47.9	31.0	Agree
N39,000 - N48,000	2.82	1.14	12.7	33.8	25.4	19.7	8.5	Disagree
N49,000 - N58,000	2.56	1.20	14.0	38.0	18.3	23.9	5.6	Disagree
Above N59,000	4.00	1.09	1.4	8.5	12.7	46.5	31.0	Agree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.692)

Source: Researcher's Computation, 2021

Many women are said to be full time housewives, as such, have an insignificant financial contribution to the family welfare. However, the income per head of household is very low. More than half of household heads have incomes (M= 4.83) of lesser than eighteen thousand (18,000) Naira, which is the minimum national wage. This is related to the education and occupation of the heads, who are mainly petty traders, artisans, casual labourers and unemployed. This result is also in agreement with the study of Aloba *et al.*, (2002).

Affordable Education Type

The affordable education to households in all the settlements (Down-quarters, Kurmin Gwari and Badarawa Kwaru) shows that 7 out of 10 household's shows that they can only afford primary school education for their children, while 2 out of 10 household's gives an indication that the affordable education for their household is the secondary school education. It is 1 out of 10 households that can be able to afford the higher institution as shown in table 8. This is also in agreement with the study of Aloba *et al.*, (2002).

Table 8: Affordable Education by Respondents (n=380)

Statement	Mean	SD	Percentage Distribution *					Remarks
			1	2	3	4	5	
Social Determinants								
a. Can you afford to sponsor your children to higher institution?	2.165	.6245	45.60	50.6	0.00	3.80	0.00	Disagree
b. Can you afford to sponsor your children to secondary school?	1.954	.7344	56.3	38.0	1.90	0.00	3.80	Disagree
c. Can you afford to sponsor your children to primary school?	3.933	.9432	11.4	0.00	5.70	45.6	37.3	Agree
d. Cannot afford to sponsor my children to school at all.	3.842	.9044	7.60	1.90	0.00	60.1	30.4	Agree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.712)

Source: Researcher's Computation, 2021

Common Diseases in the Study Area

The study revealed that the common disease in the study area is malaria as respondents agreed that almost all their family members at one time or the other had suffered from malaria (M= 2652), while the second common disease in the area is typhoid (M= 4.8660). An insignificant percent accounted that dysentery (M= 3.6255) is the third common disease in the

study area. Close to fifty percent respondents agreed that their health status is "good enough". This could be linked to their earning as they can't pay for medical services and the family lifestyle and environment. Above one quarter feels that since they are up and going, their health condition is okay, but far less than one quarter considered their condition as been "poor" as shown in table 9.

Table 9: Common Diseases in the Study Area (n=380)

Statement	Mean	SD	Percentage Distribution *					Remarks
			1	2	3	4	5	
Social Determinants								
a. We are mostly treated of Malaria.	4.2652	1.0422	7.60	0.0	10.79	38.0	43.61	Agree
b. Typhoid is the most common Disease in our Household.	3.8660	.96640	1.90	13.8	0.00	66.0	18.3	Agree
c. We are commonly treated of Dysentery in our Household	3.6255	.89455	0.00	22.8	11.44	19.0	46.76	Agree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.786)

Source: Researcher's Computation, 2021

Malaria has a lot of implications that affect peoples' quality of life. When people are down with malaria (M=4.2652), it has a lot of effect on their quality of health as well as life with Socio-economic and Physiological effects. Poor health cuts a man's ability to work as the body cannot function optimally and therefore will affect production in terms of labour due to absenteeism. Furthermore, the money meant for feeding is channel to all sorts of treatment which can affect children school fees especially in families with weak economic base. This result is in disagreement with the study of Cummings, (1997).

Security Situation

The community have their vigilante group (M= 3.922) made of youths drawn across the settlements which make it difficult for an unknown person to enter their community either by day or night. However, those who said they have experienced conflict had their experience elsewhere and have migrated to the study area. On the contrary, despite the absence of conflict in the study area, scores of respondents (table 10) said that they are "dissatisfied" and just a few respondents feel "very dissatisfied" with the security of the area.

Table 10: Security Situation in the Study Area (n=380)

Statement	Mean	SD	Percentage Distribution *					Remarks
			1	2	3	4	5	
Social Determinants								
a. Are you satisfied with the security provision in your neighbourhood.	3.664	.973	9.55	0.00	7.25	38.0	45.2	Agree
b. The security provisions are government organized.	2.055	.684	45.5	22.88	1.90	7.60	22.12	Disagree
c. The security are locals paid through household monthly contributions.	3.922	.994	1.84	14.56	0.00	76.0	7.60	Agree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.725)

Source: Researcher's Computation, 2021

One quarter are "satisfied", an outlying small number of respondents are "very satisfied" with the security situation (M= 3.664) in addition to an insignificant number who were indifferent to the situation as they are "neither satisfied nor dissatisfied". Those who said they are satisfied felt they have not witnessed a murder or victimization despite the fact that the area is crowded with a lot of youths roaming the streets. The large group felt the level of insecurity is very high as they blamed it on minor offences from street boys as they have lost some property or experienced burglary. This result is in agreement with the study of Cummings, (1996).

Habit - Alcohol Consumption

Individual attributes play a significant role in shaping or developing habits that could influence the person quality of

life positively or negatively. Thus the study attempted to assess people drinking behaviour. Very close to half of respondents accepted they take alcohol beverage while a little above half claimed they do take it regularly (M= 3.755). The study revealed that respondents take alcohol ranging from social drinking (M= 1.922), infrequent, frequent and constant heavy users.

The scenario here is that alcohol had taken more out of him unlike the study of Akinyemi *et al.*, 2012 who said "I have taken more out of alcohol, than alcohol has taken out of me". Graphically the respondent started drinking out of frustration (M= 4.002), joined a peer group, became an addict, experienced falling health and is struggling to get out of the habit.

Table 11: Alcohol Consumption in the Study Area (n=380)

Statement	Mean	SD	Percentage Distribution *					Remarks
			1	2	3	4	5	
Social Determinants								
a. Do residents drink alcohol regularly?	3.755	.824	11.4	1.90	1.90	78.94	5.86	Agree
b. Do residents drink alcohol only during social events?	1.922	.663	39.47	38.0	0.00	0.00	22.53	Disagree
c. Do residents drink alcohol uncontrollably	4.002	.942	0.00	7.69	3.80	38.0	50.51	Agree

* 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Reliability Coefficient (alpha Score = 0.68)

Source: Researcher's Computation, 2021

CORRELATION AND HYPOTHESIS TESTING OF QUALITY OF LIFE

The analysis in table 11 shows that there is a negative relationship (-0.58) between Major Source of Water Supply and Quality of Life (QOL) with p-value (.315) which is higher than 0.05. There is a positive relationship (0.615) between Solid Waste Disposal System and Quality of Life (QOL) with p-value (0.003) less than 0.05 and Nearness to Health Facility (0.817) and Quality of Life (QOL) with p-value (0.001) reveals another positive relationship. There is also a positive

relationship between Types of Toilets Used in the Study Area (0.592) and Quality of Life (QOL) with p-value (0.003) reveals another positive relationship. There is also a positive relationship between Housing Condition in the Study Area (0.814) and Quality of Life (QOL) with p-value (0.000) reveals another positive relationship. There is no significant relationship between most of the physical determinants of quality of life (QOL). Base on the analysis in table 12, we therefore reject H_{0b} , H_{0c} , H_{0d} , H_{0e} and accept H_{0a} .

Table 12: Correlation Analysis and Hypothesis Testing of QOL

Paired	Samples Correlations	N	Correlation	Sig.	Decision on H_0	Relationship is
PHYSICAL DETERMINANTS						
Pair 1	H_{0a} – Major Source of Water Supply and Quality of Life (QOL)	380	-0.58	.315	Accept	Not Significant
Pair 2	H_{0b} – Solid Waste disposal System and Quality of Life (QOL)	380	.615	.003	Reject	Significant
Pair 3	H_{0c} – Nearness to Health Facility and Quality of Life (QOL)	380	.817	.001	Reject	Significant
Pair 4	H_{0d} – Types of Toilets Used in the Study Area and Quality of Life (QOL)	380	.592	.003	Reject	Significant
Pair 5	H_{0e} – Housing Condition in the Study Area and Quality of Life (QOL)	380	.814	0.00	Reject	Significant
SOCIAL DETERMINANTS						
Pair 6	H_{0f} – Household Income and Quality of Life (QOL)	380	.764	0.00	Reject	Significant
Pair 7	H_{0g} – Affordable Education and Quality of Life (QOL)	380	.680	0.02	Reject	Significant
Pair 8	H_{0h} – Common Diseases in the Study Area and Quality of Life (QOL)	380	.725	0.01	Reject	Significant
Pair 9	H_{0i} – Security Situation in the Study Area and Quality of Life (QOL)	380	.844	0.00	Reject	Significant
Pair 10	H_{0j} – Alcohol Consumption in the Study Area and Quality of Life (QOL)	380	.727	0.01	Reject	Significant

Source: Researcher's Computation, 2021

Consequently, a number of variables (social determinants of quality of life) were cross tabulated and Pearson Moment Correlation was used to interpret the relationship. The analysis in table 12 shows that there is a positive relationship (0.764) between Household Income and Quality of Life (QOL) with p-value (.00) which is less than 0.05. There is another positive relationship (0.680) between Affordable Education and Quality of Life (QOL) with p-value (0.02) less than 0.05 and Common Diseases in the Study Area (0.725) and Quality of Life (QOL) with p-value (0.01) reveals another positive relationship. There is also a positive relationship between Security Situation in the Study Area (0.844) and Quality of Life (QOL) with p-value (0.00) reveals another

positive relationship. There is also a positive relationship between Alcohol Consumption in the Study Area (0.727) and Quality of Life (QOL) with p-value (0.01) reveals another positive relationship. There is no significant relationship between all the social determinants of quality of life (QOL). Base on the analysis, we therefore reject H_{0f} , H_{0g} , H_{0h} , H_{0i} and H_{0j} .

It should be noted that, physical determinants of quality of life (QOL) and social determinants of quality of life (QOL) have a significant relationship with urban decay in the study area. The misconception about the major source of water supply not

having significant relationship with quality of life might be connected to the belief that not only the urban sprawl struggles with water supply; it is applicable to almost every part of the metropolis. This results are in agreement with the study of Adebomi *et al.*, (2010).

CONCLUSION

QOL indicator systems have established themselves as useful and insightful ways of determining the status and position of selected populations. They provide another facet, a more humanized one, to assess the progress of the economy, education, health, and other commonly used categorizations of people within a specified geographical area—from the community level to much larger spheres such as regions and states, even nations.

The study has critically analyzed the features of urban decay and established that the study area is experiencing decay in physical and social amenities. Therefore, an area characterised by abandoned building, high rate of unemployment has one effect or the other on the quality of life of the people. The study also revealed that due to high population concentration of people, government could not provide the necessary amenities and services required by the teeming population therefore, the available ones were over stretched and became dilapidated and decay set in.

The study also revealed the presence of slum like areas that are experiencing decay, partly due to the fact that massive unemployment has pulled certain class of people to live in areas with the lowest housing rent characterized with poor amenities. People with poor economic base, faced with unemployment, overcrowding and living in unhygienic condition can easily be stressed up which can affect their quality of life in many ways.

RECOMMENDATIONS

Having arrived at the above conclusion, the following recommendations are hereby made as follows:-

- Government intervention in revitalising the collapsed textile industries through:
 - i. Provision of adequate security measures to curb crisis in order to create healthy business environment that will attract competition and investment.
 - ii. Improvement of stable power supply which will reduce cost of production.
 - iii. Ensuring of adequate supply of black oil at affordable price for the smooth running of the textile mills.
- The government should restructure the system of education to give functional technological and skill training that can make young Nigerians to be self-employed after graduation, rather than filling up on notice boards of ministries and companies looking for white collar jobs.
- There should be proper and extended public awareness and enlightenment programs on sanitation practices in dealing with human waste disposal. This can be done through leaflet, radio and television giggles.
- The government of Kaduna state should embark on urban renewal which will prevent decay, clear areas bad areas, upgrade building, facilities and expand metropolis roads. Renewing the structure and facilities will enable the city to cope more successfully with the problem confronting it.

REFERENCES

- Abbott, A. (2012) Stress and the city; Urban decay. <http://www.nature.com/news.stress-and-the-city.urban-decay-1.11556>. Retrieved 5/26/2015.
- Adebomi, O., Taiwo, A. and Olufemi, A. (2010) Personality Factors as Correlates of Perceived Quality of Life among Adolescents with Hearing Impairment in Selected Secondary Schools in Lagos State. *Journal of Education and Practice*, Vol. 4 No. 9. Pp 163, University of Ibadan Nigeria.
- Ajibuah, J. B. (2008) Ethno-Religious Conflicts and Residential Segregation in Kaduna Metropolis: Immediate Causes of Violent Conflicts. pp85-88. Unpublished PhD thesis Bayero University Kano, Negeria.
- Akinyemi, O. O., Owwoye, E. T., Popoola, O. A. and Ilesanmi, O. S. (2012). Quality of Life and Associated Factors among Adults in a Community in South West Nigeria. *Annals of Ibadan Postgraduate Medicine*, Vol. 10 No. 2 pp 34 and38 – 39.
- Aloba, O.; Fatoye, O.; Mapayi, B. and Akinsulore, S. (2002) A review of quality of Life studies in Nigeria Patients with Psychiatric disorder. *Department of Mental Health, College of Health Sciences, Obafemi Awolowo University Ile Ife, Nigeria*.
- Aston-Jones, Arnott, S. and Douglas, O. (1998). *Social Infrastructures and the urban environment. Housing. The Human Ecosystem of the Niger Delta: An Environmental Right Action (ERA) Kraft Books Ltd. Ibadan, Nigeria*.
- Bowling, A., Farquhar, M., & Browne, P. (1991). Life Satisfaction and associations with social network and social support variables in three samples of elderly people. *International Journal of Geriatric Psychiatry*, 6, 549-566.
- Brock, K.; Mc. Gee, R. and Gaventa, J. (EDS) (2004). *Perception of poverty in Kaduna and Benue. Unpacking policy Knowledge, Actors and Spaces in poverty Reduction in Uganda and Nigeria*. Fountain Publishers Ltd Kampala.
- Creswell, J.W.; Plano C., Vicki, L.; Gutman, Michelle L., and Hanson, William E. (2003). Advanced Mixed Methods Research Designs. In Abbas Tashakkori and Charles Teddlie (Eds.) *Handbook of Mixed Methods in Social and Behavioral Research*. (pp. 209-240). Thousand Oaks: Sage Publications.
- Cummins, R.A. (1996). The domains of Life Satisfaction: An attempt to order chaos. *Social Indicators Research*, 38, 303-328.
- Cummins, R.A. (1997). *The Comprehensive Quality of Life Scale manual* (5th ed.). Melbourne: Deakin University, Psychology Center.
- Farquhar, M. (1995). Elderly people's definition of QOL. *Social Science and Medicine*, 41, 1439-1446.
- Felce, D., and Perry, J (1995). QOL: Its definition and measurement. *Research in Developmental Disabilities*, 16, 51-74.
- KSML&S (2015). Kaduna State Ministry of Land and Survey, *Maps and GIS Department, Kaduna*.

NPC, (2006). Population and Housing Census, 2006. *National Population Commission*, Abuja, Nigeria.

Ferris, C., and Bramston, P. (1994). Quality of Life in the elderly: A contribution to its understanding. *Australian Journal of Ageing*, 13, 120-123

Gans, H. J. (2001). *The Uses of Poverty. The poor pay all:* In Henslin, J. M. (ED) *Eleven Edition. Down to Earth Sociology. Introductory Readings.* The Free Press London.

Swain, D. (2002). *Measuring progress: community indicators and the quality of life.* Jacksonville, FL: Jacksonville Community Council, Inc., pp. 9 and 15



©2022 This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International license viewed via <https://creativecommons.org/licenses/by/4.0/> which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is cited appropriately.