Influence of Housing Condition on the Health Status of Residents of Urban Core of Akure, Nigeria

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Abstract

Staying healthy is a function of many factors among which housing condition of man is prime. Both intrinsic and extrinsic attributes of housing can impact on human health. This paper examined the influence housing conditions have on the residents of core area of Akure a medium size city in South Western part of Nigeria. Multi stage sampling method was adopted to select 420 respondents out of which 408 respondents constituted valid response. Data collected were analysed descriptively using frequency tables and weighted mean average. Findings indicate that malaria fever is a major health challenge among the residents and the source of water for household use is mainly untreated well water. It was recommended among others that there should be a continuous public enlightenment among the people on the health implication of their living condition.

Keywords: Akure, Health, Health Status, Housing, Urban Core

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1. Introduction

The need to enhance the living condition of people in any society cannot be overemphasised. Where people live is at the very core of their daily lives (Pollack et al., 2008) and the residential space of a person's home plays a central role in shaping his health and well-being (Murphy, 2006). The health status of the people has serious consequences on the economy of the country where they reside, as a healthy workforce is a requirement for a vibrant economy. Unhealthy individual is not only unproductive but also cannot take care of himself and his dependents; he may eventually become an economic and security burden to the society. Researches such as Easterlow (2000), Ineichen (2003), Matte (2000), and Harka (2006) have shown that there is a link between the health status of people and their housing condition.

WHO (2005) assessed the health profile of Nigerians and reported there is evidence that the key health indicators have either stagnated or worsened. Many Nigerians suffer from one health situation or the other The National Strategic Health Development Plan (NSHDP) for the period 2010 to 2015 reported that the health status indicators for Nigeria are among the worst in the world and that health status of the population has declined, when compared with the indicators of a decade earlier NSHPD (2010). Tanaka et al. (1996), Lowry (1989), Malmström et al. (1999) and Bonnefoy (2007) in various studies highlighted the health implications of poor housing condition on the people. Lowry (1989) asserted that the influence of housing on human health is not in dispute. He identified shelter, warmth, sanitation, and privacy as the basic health requirements houses should provide. Badly designed or dangerously constructed houses can directly harm residents' health.

Having highlighted the importance of good health to national development, a question that readily comes to mind with respect to this study is: what impact does housing condition have on the health status of residents of core residential areas in Akure? In order to provide answers to this question, the next section (Section 2), reviews literature with a view to identifying various health challenges associated with housing situation, followed by a discussion on the methodology adopted for the study (Section 3). Section 4 deals with data analysis and discussion of results while Section 5 presents the conclusion and recommendation.

2. Literature review

The impact of housing situation does not only affect a person's state of bodily health, but also their feelings of wellbeing and general ability to cope with everyday life. The World Health Organisation defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948). The exact relationship between poor housing and health is complex and difficult to quantify. Research based on the various sources of housing and health data indicates that poor housing is associated with increased risk of cardiovascular diseases, respiratory diseases; depression and anxiety, rheumatoid arthritis, nausea and diarrhoea, infections, allergic symptoms, hypothermia, physical injury from accidents and food poisoning (Chartered Institute of Environmental Health 2008; UK House of Parliament, 2011).

Good physical and mental health depends on having homes that are safe and free from physical hazards. Krieger and Higgins (2002) and Shaw (2004) opined that adequate housing can protect individuals and families from harmful exposures, provide them with needed privacy, security, stability, control and capable of making significant contribution to health; contrariwise, when the condition of housing is poor and inadequate, it may result in infectious and chronic diseases, injuries and poor childhood development. British Medical Association (2003) observed that ill health may serve as disincentive while seeking regular employment and the purchase of life insurance; these are common prerequisites for obtaining a mortgage. Even if they are successful to obtain a mortgage, those with poor health may be limited in choice to the cheaper and less attractive part of the sector.

According to WHO (2009), people with poor health and negative wellbeing are more likely to live in poor housing and that improving housing conditions will improve health and save money. There are many diseases that have been linked with poor housing conditions. Deteriorating paint in old homes has been identified as the primary source of lead poisoning for children, who are exposed to paint chips and inhale lead-contaminated dust (Jacobs, 2002). Lead poisoning can cause permanent damage to brain and paralyse development of nervous system, thus, resulting in lower intelligence and reading disabilities (Center for Disease Control and Prevention, 2005).

It was reported by WHO in 2009 that those living in homes that are damp and mouldy are at increased risk of experiencing health problems such as respiratory infections, allergic rhinitis and asthma. Presence of mould in building can pose health risk to babies, young children, elderly people, those with skin diseases and the people undergoing chemotherapy. The most susceptible among these group are children (Spengler et al., 2004; Jaakkola et al., 2005). Tomlinson (2007) described the link between poor housing conditions, HIV and AIDS as multiple and complex. For example, high densities, overcrowding and housing conditions increase the risk of opportunistic infections. Inadequate water and sanitation increase the probability of being infected and pose challenges to provision of home based care. Cooper et al. (2008) established that overcrowding and some other aspects of a poor home environment contribute to mental stress and reduce people's sense of general wellbeing.

House design, poor state of maintenance and climatic condition of buildings environment can expose residents to excessive cold. Krieger and Higgins (2002) attributed cold indoor conditions with poorer health and increased risk of cardiovascular disease. Agbo et al. (2012) established that some health disorder such as typhoid and paratyphoid fever, diarrhoeas, dysenteries, cholera, hookworm, ascariasis, viral hepatitis, guinea worm diseases, schistosomiasis, genito-urinary tract infections and many other intestinal and parasitic infections can be contacted through poor toilet facilities which may be a breeding ground for harmful bacteria, viruses and parasites. A study by Asenso-Okyere (1994) of malaria in Kojo, Ashong, Barelcuma and Oyereko all from the Greater Accra Region of Ghana revealed amongst others that the factor that were perceived as causing malaria include mosquitoes, flies, dirty surroundings, unsafe water, bad air and poor hygiene. All these have link with poor housing condition.

Substandard housing conditions are associated with a wide range of health conditions such as asthma, lead poisoning respiratory infections, injuries, and mental health, Rat infestations is an indication of a

disadvantaged and unkempt environment and studies have shown an association with older housing in poor condition; homes in multiple occupation; ageing infrastructure; and poor environments in neighbourhoods of social and economic deprivation. Bamgboye (2006) in a study on rat infestation in student hostel of a University in Nigeria linked cause of rat infestation with the level of indoor hygiene, sanitation being practiced by the students and overcrowding.

3. The study area

Akure is one of the traditional Yoruba towns in Nigeria and has been in existence long before the advent of British colonial rule in Nigeria. Akure was an independent region, until 19th century when it was included in Benin Kingdom. Great Britain took over the control of the region in 1894. The current medium-sized urban centre became the provincial headquarter of Ondo province in 1939 and capital city of Ondo State and a Local Government headquarters in 1976. The city lies approximately on latitude 70°15' north of the Equator and longitude 50°15' east of the Greenwich Meridian.

The increased relative political influence of Akure as a state capital since 1976 has greatly promoted its rapid growth and increased socio-economic activities. The 1991 national population census, reported the population of Akure as 239,124 and its estimated population in 1996 was 269,207 (NPC, 1996). At present the city is estimated to have over 350,000 people. The city's morphology has changed over time to assume its present status with its attendant housing problems, as experienced in similar medium sized urban centres in Nigeria.

Akure is located approximately 700 kilometres South West of Abuja, the Federal Capital of Nigeria and about 350 kilometres to Lagos the former capital of Nigeria. It is currently experiencing a high pace of urbanisation compared to other emerging cities in Nigeria (Tofowomo, 2008). Omole (2010) however, noticed that some neighbourhoods of the city can best be described as slum characterised by congested district, deteriorating, unsanitary housing environments and noticeably poverty area. Olanrewaju (2004) had earlier recommended that urban renewal in form of rehabilitation and upgrading programme was needed to facelift the city and enhances its liveability.

4. Materials and methods

Survey research design which involves the administration of questionnaires to the target population was applied so as to extract necessary information for this study. Akure residential quarters according to Akinbamijo and Fasakin (2006) can be categorised into 'natural areas' distinguished by age of buildings, location attributes and their socio-economic characteristics. These natural areas are classified into the core, transition areas and the public housing districts. The core on which this work is based is made up of old structures most of which predate European colonization. The zone consists of 27 traditional quarters and wards as classified by Fasakin (1985). Adopting random sampling, 14 (51.85%) of these quarters were

selected for questionnaire administration. The selected quarters are Obanla, Igan, Odo Ijoka, Imuagun, Ijomu, Owode, Idi Aagba, Eru Oba, Isolo, Odo Ikoyi, Araromi, Erekefa, Orita Igun and Odopetu.

The study through multi-stage random sampling chooses thirty (30) respondents consisting mainly of household heads in each of the quarters totalling four hundred and twenty (420) respondents. These methods were chosen because random probability sampling leads to the most representative samples of the population and every member of the population has a chance of being interviewed. The household heads were asked to report on the housing and health status of their households through a structured questionnaire. It is evident from literature that some persons do not seek medical help in hospital and many medications contain at least one inactive ingredient, the consumption of which may be prohibited by certain religions or personal beliefs (Hoesli and Smith, 2011). Since response obtained from respondents who hold this belief may distort data on health related questions, questionnaire obtained from them were accounted invalid for the purpose of this study. Altogether only four hundred and eight (408) of all questionnaire retrieved were valid for data analysis.

5. Results and discussion

5.1. Demographic characteristics of respondents

Table 1 shows the summary of the background information about the respondents. It is observed from the table that 87.99% of the respondents had lived in the core of Akure for at least five (5) years. The age distribution indicates that only 2.94% of the respondents have their age below twenty (20) years; while majority (97.06%) are adults who are above twenty (20) years of age. It can therefore be inferred from this that the data provided by the respondents can be relied upon for the purpose of analysis. Data on household size indicates that 37.26% of respondents have between seven (7) and eight (8) persons constituting members of their households. This is followed by 27.45% having within five (5) and six (6) persons. More than half (50.49%) of respondents have their household monthly income equal or below N20,000 while only 0.71% earn above N100,000 monthly.

Table 1. Background information of respondents

Category	Classification	Frequency	Percentage
Age of Respondents	20 & Below Years	12	2.94
	20 - 29	69	16.91
	30 - 39	75	18.38
	40 – 49	127	31.13
	50 - 59	49	12.01
	60 & above	76	18.63

Category	Classification	Frequency	Percentage
	Total	**408**	**100.00**
Number of years already spent in the neighbourhood	2 & Below	31	7.60
	3-4	18	4.41
	5-6	79	19.36
	7-8	138	33.82
	9-10	95	23.29
	Above 10	47	11.52
	Total	**408**	**100.00**
Number of persons in household	2 & Below	22	5.39
	3-4	98	24.02
	5-6	112	27.45
	7-8	152	37.26
	9-10	14	3.43
	Above 10	10	2.45
	Total	**408**	**100**
Average Household income per month	₦20,000 & Below	206	50.49
	₦20,001 – ₦40,000	91	22.30
	₦40,001- ₦60,000	63	15.44
	₦60,001 – ₦80,000	24	5.88
	₦80,001– ₦100,000	19	4.66
	Above ₦100,000	5	1.23
	Total	**408**	**100**

Source: Field Survey, 2012

5.2. Housing condition at core residential quarters

Table 2 presents the characteristics of respondents' housing condition. The main type of residential properties found in the core residential areas of Akure is tenement buildings. According to Oni and Durodola (2010), low-income earners have peculiar taste for tenement properties because of its low rent, though many of such properties lack basic infrastructure. The tenement type of residential properties usually consists of unit rooms flanking both sides of a central passage that connects the rooms to shared unit kitchens and toilets at the rear. Sometimes the kitchen is attached to the structure while the conveniences (toilet and bathrooms) are in most cases detached from the main building. This design of type of property was said to have been imported from Brazil at the end of slave trade era. The property is also characterized by overcrowding; with several individual families occupying unit rooms or room-and-parlours. This type of accommodation is occupied by 86.77% of the respondents.

The common type of toilet facilities at the core is pit latrine. This accounts for 74.26% of the respondents. Also 1.23% defecates in nearby open space, refuse dump, and bush or nearby stream. The main source of water supply is surface hand dug well (75.00%); 10.05% depend on private or public borehole water. However, payments are most times collected by operators for maintenance of the borehole. It was noticeable that 2.94% of the respondents depend on stream water. Exposure to smoke is evident among the households. 58.58% of them depend on firewood and charcoal as energy for cooking. Only 38.23% use kerosene stove for cooking. Where kitchen facilities are non-existent, some cook in the corridor, passage or even within their bedrooms. This increases the health risk among the residents.

Table 2. Characteristics of Respondents Housing Condition

Category	Classification	Frequency	Percentage
Type of Residential Building Occupied	Tenement Building	354	86.77
	Block of Flat	42	10.29
	Bungalow	12	2.94
	Detached House	0	0
	Semi Detached House	0	0
	Total	**408**	**100**
Type of Toilet Facilities	Pit Latrine	303	74.26
	Ventilated Improved Pit	33	8.09
	Water Closet	67	16.42
	Others	5	1.23
	Total	**408**	**100**
Source of Water Supply	Well	306	75.00
	Borehole	41	10.05
	Stream	12	2.94
	Pipe borne water	49	12.01

Category	Classification	Frequency	Percentage
	Other Sources	0	0
	Total	**408**	**100**
Main Method of Cooking	Kerosene Stove	156	38.23
	Gas	13	3.19
	Fire Wood	133	32.60
	Charcoal	106	25.98
	Total	**408**	**100**

Source: Field Survey, 2012

5.3. Housing condition of respondents

Table 3 presents data on the condition of specific components of the respondents' accommodation. They were asked to rate such components from 'very good' to 'very poor'. Only 14.71%, 14.22%, 16.67% and 9.07% consider their roof condition, window, floor and wall structure respectively as very good. There is evident of leakages in roof, broken window and cracks in floor of many properties. Many properties are either not painted externally at all or wearing very old paint which leaves little or no evidence of previous paint. 45.10% of respondents claimed to be living in accommodation with evidence of damp. This as earlier established in literature can promote health hazards.

Table 3. State of housing components in Akure core area

Housing Condition	Very Good	good	Fairly Good	Poor	Very Poor
Roof	60	103	104	88	53
Window	58	115	176	44	15
Floor (Structure)	68	75	87	133	45
Wall (Structure)	37	53	56	143	119
Internal Paint	83	78	79	95	73
External Paint	17	25	68	146	152
Damp on the Floor	63	77	84	128	56
Drainage Condition	24	35	44	124	181

Source: Field Survey, 2012

5.4. Health condition of respondents

An enquiry into health condition of the respondents of the residents of Akure core residential quarters revealed that many health challenges relating to poor housing condition are evident amidst households but in varying magnitudes . From table 4, only 21.57% of respondents has no records of ailment in the last six (6) months. 27.45% had within one and two sick person. Altogether, 78.43% had at least one sick household's member in the last six months. None of the respondents claimed to have spent no money on either drugs or hospital bills in the last six months. 60.79% spent about N5000; 19.8% spent between N5, 001 and N10, 000; 15.93% spent N10, 001 and N15, 000.

Table 4. Health issues in households

Category	Classification	Frequency	Percentage
Number of sick persons in household in the last 6 (six) months	None	88	21.57
	1-2	112	27.45
	3-4	95	23.28
	5-6	51	12.50
	7-8	24	5.88
	9-10	37	9.07
	Above 10	1	0.25
	Total	**408**	**100**
Amount spent on households' health in terms of drug and hospital bills.	Nothing	0	0
	N5,000 & Below	248	60.79
	N5,001 – N10,000	81	19.85
	N10,001- N15,000	65	15.93
	N15,001 – N20,000	8	1.96
	N20,001– N25,000	4	0.98
	Above N25,000	2	0.49
	Total	**408**	**100**

Source: Field Survey, 2012

Table 5 presents the health related problems among the respondents' households and the frequency of such experiences. The most prevalent health challenge complained about is malaria fever with weighted mean of 3.68; followed by diarrhea with mean average of 3.27. The least health challenge is cholera which has mean average of 1.86. Only 24.02% of the respondents' households do not have history of respiratory disorder.

Table 5. Health problem experienced in households in order of occurrence

Diagnosed Sickness	Very often	Often	Sometimes	Rarely	Never	Weighted Mean
Respiratory disease	67(16.42)	29(7.11)	103(25.25)	111(27.20)	98(24.02)	2.65
Skin disease	83(20.34)	25(6.12)	223(54.65)	27(6.62)	50(12.25)	3.16
Malaria fever	129(31.62)	92(22.55)	123(30.14)	56(13.73)	8(1.96)	3.68
Typhoid fever	23(5.64)	21(5.15)	27(6.61)	251(61.52)	86(21.08)	2.13
Genitourinary tract infection	25(6.13)	56(13.72)	44(10.78)	193(47.30)	90(22.06)	2.35
Diarrhea	77(18.87)	114(27.94)	83(20.34)	109(26.72)	25(6.13)	3.27
Cholera	1(0.25)	3(0.73)	42(10.29)	198(48.53)	164(40.20)	1.72
Asthma	15(3.68)	13(3.19)	61(14.95)	128(31.37)	191(46.81)	1.86
Depression and anxiety	5(1.23)	72(17.64)	45(11.03)	165(40.44)	121(29.66)	2.20

Source: Field Survey, 2012

6. Conclusion and recommendation

Although many factors may be responsible for condition of health of people, housing is undoubtedly one of such. It is one of the fundamental human rights of every Nigerian citizen to have access to quality and affordable health care delivery which should be provided by the government of the day as part of its responsibilities to its people. One of the cheap means of achieving this is by encouraging a liveable environment which is conducive for living, working and recreational need of the people. The effort made so far by the Ondo state government in improving the health sector of the state has drawn the attention world over. Also the rehabilitation works commissioned in various parts of the state capital is commendable. However, there is still much to be achieved in the state which has once been described by World Bank and WHO as having the worst health condition in the South-West zone of Nigeria.

In light of the foregoing, it is recommended that there should be a continuous public enlightenment among the people on the health implication of their living condition. The state Environmental Health Department should be up and doing in enforcing sanitary standards. Poverty has been linked with poor state of health. The government should continue on programmes that enhance the economic status of households. This does not necessarily mean upward revision of salary of state employees but creating an enabling environment where even private businesses can thrive. An improvement in the economic condition of the people will impact positively on their housing condition.

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