



Relationship between Housing Condition, Soldiers' Social Life and Morale in Coral Barracks, Nigeria

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Abstract: Despite the numerous empirical studies that have been conducted on housing conditions, there is still very little research work carried out on military barracks life, the impact of the condition of the barracks' accommodation on the soldiers' social life and morale. Thus, this paper presents a study on the relationship between housing conditions, soldiers' social life, and morale in Coral Barracks Nigeria and covers only the non-commissioned officers' quarters. A quantitative method using a questionnaire survey was used with a sample size of 260. The data were analysed using descriptive statistics as well as parametric measurements. A total number of 194 questionnaires retrieved from the respondents were used in the analyses. Building services attributes had a strong and significant positive correlation. Moreover, neighbourhood and soldiers' life correlate significantly, negative but weak, while physical housing attributes and neighbourhood attributes correlate significantly but negatively and weak with children's life. Neighbourhood attributes and soldiers' morale recorded a significant, negative but weak correlation. In light of these findings, this study recommends that a standard strategic plan for efficient barrack housing construction, management, and maintenance is designed.

Keywords: Housing condition, morale soldiers' social life, non-commissioned officers

1. Introduction

Housing, from a social point perspective, is not just a dwelling unit but a medium that provides health services, access to jobs, privacy, security, status neighbourhood, and social relations. It also offers status symbols, community facilities, and services, as well as access to jobs and control over the environment. In some countries such as Spain, housing is considered to be a basic need and therefore protected by constitutional institutions (Hulse et al., 2011). This constitutional requirement compels public authorities to provide housing to the populace. Public housing is the provision of low-cost housing by governments for civil occupancy geared towards the satisfaction of housing occupants (Ishiyaku, 2016). This definition is, however, narrowed to civil occupancy. Public housing is beyond just houses constructed or developed by the government for civilian use but encompasses the housing accommodation provided by the government for servicemen occupancy. This includes housing accommodation provided in military barracks, police barracks, and other paramilitary barracks. Public housing also refers to housing accommodations provided by

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government authorities at both central and local levels for people uses (Hutchinson, 2009). This definition considered all classes of people, civilian and non-civilian alike, who could benefit from housing accommodation provided by the government at all levels. Governments are compelled to provide housing accommodation to the people particularly in developing countries due to the increasing unabated urbanisation occasioned by enormous rural-urban migration in search of greener pasture. Similarly, the need for adequate, affordable, and qualitative housing has compelled public authorities to intervene in the provision of housing through various schemes with the anticipation of reaping the expected benefits, affordability, adequacy, and quality of housing (Adejumo, 2008). Such expected benefits of housing are inherent in the housing condition.

Military barrack could also be seen as a supervised living accommodation consisting of shared facilities and essential service amenities for the community of military personnel who use it. It is normally built and owned by military institutions, provided for inexpensive chargeable rooms, and administered to accommodate military men and women alike. Likewise, barracks are housing types specifically designed to accommodate both commissioned and non-commissioned officers, such as a 'live-in' residential college, boarding house, or other purpose-built development containing soldiers' units with other essential service facilities such as good water supply, electricity, study areas, communal lounge and kitchens amongst others. Similarly, a barrack accommodation can also be referred to as a building that contains a dwelling unit occupied by two or more soldiers. This form of housing can also be referred to as "other ranks" hall of residence or soldier accommodation or soldiers' barrack or 'boarding house' (Renaud, 2000).

The Nigerian military comprises an Army, Navy, and Air Force with the primary mandate to defend the state from external aggression and internal insurrection (Toppo, 2015). The Military Institutions, according to Nigerian Military Policy (FRN, 2013) are pivotal to national development based on their contributions through the provision of high-level manpower development. To concretise the foregoing, the military policy (FRN, 2013) has it that military institutions ought to achieve a high standard in providing housing units with essential quality services and resources to all military personnel. These essential services comprise water supply, electricity, health facilities, barrack maintenance level amongst others. In alignment with the aforementioned, the Nigerian Government provides accommodation units for the Nigerian Military at an affordable rate with perceived required facilities and services. These soldiers' accommodations (barracks) are core components of military institutions and traditionally, exclusively used for military habitation (Sagada, 2009).

Consequently, Coral Barracks is synonymous with other Nigerian military barracks in terms of housing conditions. It is against this backdrop that this study was proposed to examine the relationship of the housing condition of Coral Barracks to soldiers' social life and morale. Soldiers' population explosion, degradation, and intentional misuse of facilities have also caused changes to the quality of building conditions and essential services provided in soldiers' barracks, thus posing severe challenges to military institutions in Nigeria. Nonetheless, the present issues of inadequate, degraded housing units, building services, and similarly the general neighbourhood in soldiers' quarters had, for long, been complained about (Iheduru, 2015).

Lundquist & Xu (2014) reported that despite the numerous empirical studies that have been conducted on housing conditions, there is still very little research work carried out on military barracks life, the impact of the condition of the barracks' accommodation on the soldiers' social life and morale. This is because none of these studies has organised these variables into a conceptual framework to be able to study and analyse their causal relationship. Also, previous studies that have been conducted on residential satisfaction in Nigeria centred on measuring residents satisfaction in the informal settlement areas (Nwaka, 2005), privately owned medium and low-income estates (Ademiluyi & Raji, 2008), and public housing performance (Ishiyaku, 2016), with very few making reference to military housing.

Previous studies, as noted, focus more on other forms of housing neglecting the military housing condition and its influences. Empirical studies that evaluate the housing condition of Military barracks are relatively few (Chukwu, 2001; Amole, 2010). Similarly, most of the previous studies relate housing conditions to residential satisfaction which centred on measuring residents satisfaction in the informal settlement areas privately owned medium and low-income estates, and public housing performance (Ojo & Oloruntoba; 2012; Carlotta & Joyce, 2013; Danquah, Jeanette & Ankrah, 2014; Momtaz, Rafieian & Aghasafari, 2016; Byun & Mikyoung, 2016; Ishiyaku, 2016) with very few focusing on military barracks (Amole, 2010).

Although previous studies considered military barracks housing conditions (Chukwu, 2001), soldiers' social life (Marshall & Meiselman, 2006), and soldiers morale (Jones, 2012; Degriff, O'Neal, & Mancini, 2016; Delgado-Howard, 2018) the studies were mostly not empirical but conceptual paper. Thus, empirically evaluating the military housing condition reveals a more accurate picture of the military housing condition.

Similarly, the identified studies (Chukwu, 2001; Marshall & Meiselman, 2006; Jones, 2012; Degriff, O'Neal, & Mancini, 2016; Delgado-Howard, 2018) consider the military housing experiences individually and fragmentally without holistically and empirically integrating the relationship of the housing conditions, soldiers' social life and morale in Military Barracks, at least in Nigeria.

Even though several studies were carried out which indicated that the existing barrack houses and facilities are faced with problems such as dilapidation (Okoronkwo, 2003; Karimu, 2015), but little is known on their relationship with soldiers' social life and morale. Consequently, due to numerous complaints about housing condition, neighbourhood/environment, and service quality, there is the need to empirically examine the attributes and level of

housing conditions and their relationship with soldiers' social life and morale Coral Barracks, Nigeria. Hence, this study determined to overcome the aforementioned gap in the literature in order to achieve a better understanding of the relation of attributes and level of housing condition in Coral Barracks with soldiers' social life and morale.

2. Literature Review

Housing is defined as "the process of providing a large number of residential buildings permanently with adequate physical infrastructure and social amenities (services) in planned, decent, safe and sanitary neighbourhoods to meet the basic and special needs of the population" (Ogundahunsi & Adejuwon, 2014). One of the major issues of housing is its adequacy and condition. Breaking it down, the housing comprises more than four walls and a roof. The housing includes supporting infrastructure such as water, electricity, roads, shopping facilities, and a good enabling environment. Housing is, therefore, viewed not only as a matter of shelter (Four walls and a roof) together with its supporting infrastructure but more comprehensive as an evolutionary and participatory process that gives shape to human settlement (Nazire, 2017).

Baqutayanet al. (2015) viewed housing concept and housing conditions as a paramount human necessity which was explained in Maslow's hierarchy of needs and was categorised in the first level of need similar to that of food and drink. They further posited that housing is not only a physical shelter of four walls and a roof, but it has all to do with the quality and condition that was described and expanded in the second level of Maslow's hierarchy of need. At the second level of Maslow's hierarchy of needs, it emphasises the importance of adequate housing for security and positive development. The safety and wellbeing of housing dwellers are usually significantly impacted by housing itself. For instance, an unsafe environment increases the likelihood of injury and harm which could have negative consequences for the family as a whole. A major challenge and task to most countries, especially developing countries is the provision of not only adequate but quality housing for the population.

It is further suggested that the definition of housing condition need to comprise some factors that the house is to be good or bad. Physical condition is the most apparent one; when a house is infested, cold, damp, or even in a bad state of repairs is considered to be bad. The housing may also be deemed to be in bad condition if it cannot be able to accommodate the number of people inhabiting it. Equally important is the environment in which the housing is located. Access to amenities, level of community safety, cohesion in the area, the status of the people attached to housing as well as environmental pollution is very important neighbourhood features that must be considered (Baqutayan et.al 2015).

The impact of housing on the socio-economic development of the economy is well noted by various literature due to its multiplier effects on the economy (Wapwera, et al., 2011; Ezimou, et al., 2014; Anayochukwu, 2011; Ukpai, et al., 2013). This literature points to the fact that housing provides employment opportunities due to its labour-intensive nature, the market for raw materials, and contribution to the gross domestic product (GDP). Ire-Okoli (2012) in his argument of the contribution of housing to GDP noted that housing impact directly to the GDP by creating jobs thereby increasing the income and purchasing power of people. This stimulates the growth of subsidiary industries, releases funds for further development, and attracts investment into the economy thereby improving the GDP of the economy.

Other important measures in any housing analysis include housing size, quality, neighbourhood, household composition, and location. Indeed many more can be said on housing conditions, but the key issue is on the relationship between housing conditions and physical and mental health problems. Condition of housing at this point may refer to lack of safety, dirty conditions, and sharing of rooms or amenities. Furthermore, poor housing quality can cause psychological stress and can also negatively affect self-esteem and family self-sufficiency. Some factors that may be causing this mental stress include anxiety about structural hazards, worry and lack of control over maintenance & management practices, and fear of crime.

2.1 Soldiers Housing Accommodation

Soldiers housing accommodations are called barracks. Barracks are "large buildings or groups of buildings used to house soldiers" (Delgado-Howard, 2018). Barracks are greatly unique from other housing types. In Barracks, soldiers have been itinerant wards housed while they execute a particular function under the control of a paternalistic entity. Barracks housing is by nature very different from other types of housing in that its design evolved in response to a temporary and highly controlled activity by a group of people in service to a specific placed-based function separate from where they originated from. The major objectives of barracks housing accommodation for soldiers are to ensure safe, habitable, and sufficient housing for soldiers, allow unfettered control and command by the units, and reduce off-post housing allowance and associated costs.

Furthermore, Military Barrack could also be seen as a supervised living accommodation consisting of shared facilities and essential service amenities for the community of military personnel who use it. It is normally built and owned by military institutions, provided for inexpensive chargeable rooms, and administered to accommodate military men and women alike. Likewise, soldiers barrack are housing types specifically designed to accommodate both commissioned and non-commissioned officers, such as a 'live-in' residential college, boarding house, or other purpose-built development containing soldier/soldiers units with other essential service facilities such as good water supply,

electricity, study areas, communal lounge and kitchens amongst others. Similarly, a soldier barrack accommodation can also be referred to as a building that contains a dwelling unit occupied by two or more soldiers. This form of housing can also be referred to as “other ranks” hall of residence or soldier accommodation or soldiers’ barrack or ‘boarding house’ (Renaud, 2000).

A quality barrack is the creation of a special environment in which military personnel live and carry out their activities. Samuel (2005); Ishiyaku et al. (2019) described housing as an enclosed space that is intended to be permanent or at least, last for a considerable time and big enough for human habitation. In Nigerian military institutions, soldiers are usually accommodated in residential buildings known as “barracks” in which structures are proportionally segmented into measured living spaces and usually on a highly subsidised rent. Electricity and water are generally provided by military authorities. There are numerous reasons why military institutions provide barrack accommodation. For instance, the provision of affordable and suitable soldiers’ accommodation for use by young people intending to or who are currently serving military institutions remains a key challenge of high demand and short supply which is further exacerbated by high rental costs outside the barracks. Also, the challenge of non-commissioned officers who may need to subsist on limited financial capacity creates an increased demand for affordable and suitable soldier accommodation on barracks. In addition, on-barracks soldier housing caters to soldiers’ housing needs in accomplishing academic, living, and social goals during their life span in the military (Riley, Kokkarinen & Pitt, 2010). The idea of building other rank barracks is based on the model of building conventional family housing.

Nevertheless, Amole (2009) informs that this form of housing represents a special type of housing for several reasons. First, soldiers’ barrack is a major form of accommodation for military institutions that are in a transitory stage of life. Second, this type of housing has very peculiar characteristics, different from the single-family house and the apartment building for single persons which are the common forms of housing. Thirdly, the setting of soldiers’ housing is usually the barrack environment rather than the normal urban setting, but the buildings do take the form of the urban building as most military institutions are situated in the urban Centres and even when not, they are still made to have a form that resembles the urban area.

The basic factors which determine the relative habitability of soldiers’ barrack are recognised as elements of essential housing services quality, being broadly interpreted to include physical facilities and services (Chukwu, 2001). Elements of essential housing/services quality cut across structural stability, meaningful planning of spaces & facilities to promote adequate security and psychological satisfaction in the use of houses, spaces, and facilities. Classification of such factors should guide judgment on measures adequate to relative habitability of soldiers’ barrack. Research has shown that factors such as family size and composition, stage in the life cycle, income, level of education, age, and the number of children do influence condition and the relative satisfaction of people with housing (Khozaei, Hassan & Khozaei, 2010).

However, for the soldiers who live in a barrack with good housing conditions and essential service quality, the diminution of their freedom is extended from purely military matter to other areas of life like mealtime, visiting and visitor hours, as they were separated most of the time from their parents, kin, and non-competing peers. Ulyan (2015) reported that the suitability of the barrack accommodation to the needs of soldiers is essential for accommodation programs to be the judge with good building conditions, service quality, and success.

Furthermore, Ulyan (2015) stated that barracks with good housing condition and service is shelter and central to the existence of soldier during barrack life. Barrack tend to save more money than non-residential soldiers who are to pay something, no matter how small, for commuting to and from the office.

For a barrack housing condition to be assessed in terms of its relationship with morale and social life, there are always tangibles to be looked at. These tangibles are physical elements of services that can be seen, touch, and feel which are used by users to evaluate the condition as well as quality. This is housing accommodation includes the physical elements/attributes of the housing comprise the provision of services such as water supply, electricity supply, roads, sewers, waste disposal centres, and many more. Ziethaml & Bitner (2003) defined tangibles as the “physical appearance of facilities, personnel, communication materials, equipment, etc”. They further explained that service providers mostly use the physical elements of their services to increase their image, show their quality to their users, and provision continuity.

2.2 Challenges of Barrack Accommodation Management

The challenges and opportunities inherent in barrack accommodation usually manifest themselves from the management. Management in its original sense was defined by Adeyemi (2011) as the creation of conditions that will bring about the optimum use of resources available with filled efficiency. Malo (2009) opined that property management is essentially concerned with the decision to develop, maintain and improve or replace buildings or provide the framework for satisfying human needs.

Property management has also been defined as the prudent organization of human and material resources to achieve defined objectives. Another outlook considers property management as a sophisticated skill that requires thorough management and budgeting knowledge in addition to technical know-how to be able to maintain the building in acceptable condition (Ibem & Amole, 2010). From the foregoing, it can now be seen that there are certain inherent prospects, untapped opportunities in barrack housing management that can be effectively and economically utilised by

good soldiers' barrack management. Ibem and Amole (2010) said that "the efficient management of buildings in military institutions is an integral part of the administrative task, adequate and accurate information should be available on the type, condition, quality and mode of existing accommodation and how they are used over time".

2.3 Social Life/ Quality of Life

Social life deals with the quality of life of soldiers and how they interact with the people, their families, and the environment. Social life is reflected in the degree of (dis)satisfaction soldiers experience with their living experience (Marshall & Meiselman, 2006). Improving soldiers' social life entails "providing safe, affordable places to live, military installations provide quality of life programs such as on-post services like health, recreation, child care and schools, commercial areas, and employment-related services" (Delgado-Howard, 2018). Such services improve soldiers' satisfaction and boost their morale. Delgado-Howard (2018) compiled the soldiers' social life indices to includes enough room that can comfortably entertain people, the module with enough room to entertain guests, people to hang out with in the barracks, spending time with loved ones, ability to date while living in barracks, favourable barracks policies, and living in barracks' preference.

The social life of people deals with their socio-economic characteristics. Various studies linked socio-economic features with housing conditions. For instance, Liyue (2008), in a survey conducted in six cities in Fujian Province, point out that the individual characteristics including age, sex, educational attainment, and income of the floating population are related to their housing conditions in the cities, with educational attainment and income exerting positive effects. Besides, the migration of their family members with them plays an active role in improving their housing conditions, and those moving together with their spouses and children usually have better housing conditions than those who do not allow. Furthermore, fewer independent variables concerning individual characteristics and family background are significant. Some variables (sex, spouse, and migration situation of their spouses and children) significantly affect their housing conditions, while others (marital status, age, occupation, and income) do not.

Nicol (2006), in his work on eight European cities, identified a definite relationship between damp/mouldy homes and anxiety/depression and migraine/frequent headaches from the group of chronic illnesses; diarrhoea and cold/throat illnesses from the group of acute illnesses; and asthma, wheezing, eczema, watery eyes/eye inflammation, headaches from the list of symptoms. He, however cautioned that this relationship does not imply cause and effect. Many illnesses appear to be mental conditions, and even the physical symptoms are of the sort which could be regarded as being the emotional response to circumstances – such as feeling trapped in poor housing.

It is evident that current awareness of the housing-health-relationship varies from country to country, this is due to housing stock differences and climatic conditions and a product of different policies and scientific knowledge. For instance, the UK has recognised that safety hazards represent a major housing and health problem in its housing stock (Raw & Hamilton, 1995). This is a result of matching and analysing health, safety, and house condition datasets. However, a housing and health symposium arranged by WHO in June 2001 showed that next to the awareness, the priority of problems differs strongly from country to country, as they are influenced by cultural, social, economic, building, climatic, and geographic factors (WHO, 2001). Therefore, solutions to reduce or remove hazards will vary internationally depending on the cause and building factors in a different peculiar environment.

A study by Jiboye (2010) in three residential zones of Osogbo, Nigeria, on the relationship between housing quality and socio-demographics of household heads revealed a significant relationship between household size and housing quality. He found that in the core area almost 80% of the households include 6 persons or more. This, in the author's opinion, is an important reason why housing quality in the city's core area is poor compared with other residential areas in the town. Speaking on the relationship between housing quality and the health of residents, Fabiyi & Garuba (2015) studied the spatial pattern of cardiovascular disease burden in Ibadan City, focusing on differences among neighbourhoods. The study showed a high concentration of cardiovascular disease burden in the urban centres and especially in the neighbourhoods with high population densities.

Akinbamiro (2012) found a significant relationship between the health status of residents and housing quality measured in terms of age of the building, waste disposal method, frequency of collection, management of wastewater, type of toilet, use of the toilet, walling materials, type of roofing materials, adequacy of electricity, type of kitchen and state of repairs of building in Odi-Olowo residential district, Oshogbo, Osun State, Nigeria. He recommended that public health campaigns, wider coverage of waste removal agency and public sector interventions in the form of improving access to housing funds for the rehabilitation, renovations, and redevelopment.

Agbor et al. (2016) assessed the quality of the housing environment in Ikom Urban, Cross River State, Nigeria. The study revealed a positive relationship between the quality of the housing environment and the socio-economic characteristics of the residents and established that out of the four socio-economic variables, the only occupation correlates negatively with the quality of the housing environment. All the other variables such as monthly income, level of education, and household size correlate positively and significantly with the quality of the housing environment. Expectedly, the socio-economic characteristics correlate significantly among themselves. The distribution of income was closely linked with the occupational status of residents.

Toyobo, Muili & Ige (2011) investigated the socio-economic characteristics of residents and housing quality. The results revealed that there is a significant difference between socio-economic characteristic and housing quality. This is

responsible for a different form of houses in the study area. The income and educational background of residents determine the quality of housing. Therefore, adequate efforts should be made by development control at local planning authorities for effective upgrading programs. Omole (2010) in Akure assessed Housing Condition and Socio-Economic Lifestyles of Slum Dwellers and revealed that the occupational and income distributions are closely related. The nature of occupation determines their level of income. Findings also showed that a large number of the housing stocks in the areas of study have relatively low habitability, which directly affects the state of health, socio-economic wellbeing, and emotional stability of the residents.

Olugbamila & Adeyinka (2016) studied the socio-economic characteristics of residents and their utilisation of available healthcare facilities in the Owo Local Government Area of Ondo State, Nigeria. In this study, it was determined that there is a significant relationship between the socio-economic characteristics of residents and their utilisation of healthcare facilities. In addition, there is a significant difference between socio-economic characteristic and housing quality. Education and annual income have a positive significant relationship with the building occupied. Bamidele (2013) reported that education and annual income have a positive significant relationship with the building occupied. The type of occupation of the respondents has a positive significant relationship with the building occupied. However, sex and household size have no significant relationship with the type of building occupied.

Hulse et al. (2011) asserted that having a home, inappropriate living housing, and belonging to a place all have a role to play in social inclusion/exclusion. All these are affected by the government policies and the preferences and actions of individuals/households over time, consequently, this is referred to as housing processes. It is widely known that people can be excluded from housing and can also be excluded from society through housing processes. For instance, living in poor quality accommodation, living in housing types or neighbourhoods that are unsafe, and being restricted to accessing housing in areas with poor transport links or few job prospects, or living in places with inadequate facilities and poor access to services.

On the other hand, interdependencies between individual decisions and the decisions and characteristics of others within a neighbourhood are referred to as social interactions. In most given environmental situations, the decisions of one individual will be influenced by the behaviour and characteristics of others. From a sociology literature point of view, social interactions can be seen as an agent's interactions with his/her neighbourhood as being composed of two factors: contextual and endogenous. The first (contextual) refers to those factors that are group-specific and based on the characteristics of the group members. The second (endogenous) refers to how agents are affected by the contemporaneous behavioural choices of group members. These alternative factors are illustrated in the context of residential neighbourhoods, which represent an important leading case in social interactions (Hulse et al., 2011).

The impact on individual behaviour itself (the objective outcome of the decision process) of these social interactions refers to the influence of solidly established social norms on that behaviour. There is little doubt that individuals' satisfaction (subjective outcome) with the above-given behaviour (objective outcome) will also depend on what one achieves compared to other individuals. Another frequent approach considers social interactions. At a community level, it was argued that economic development is closely related to the importance of social capital since the presence of social networks increases trust, decreases transaction costs, and makes information and innovation more fluent. These results may certainly offer new insights into the determinants of housing satisfaction (Hulse et al. 2011).

2.4 Soldiers' Morale

The concept of morale is abstract and has different meanings to different people depending on the context in which it is used. Morale can be defined as the “individual or collective psychological state resulting in a strong positive mobilisation and enthusiasm to achieve a task” (Foret, 2006). Morale is not a given and has an intangible quality. It cannot be monitored solely by what an individual or group says, nor simply by what they do; morale is a state of mind expressed in varying degrees through language and behaviour. Jones (2012) offered some definitions of morals. Firstly, morale is seen as a ‘positive state of mind derived from inspired political and military leadership, a shared sense of purpose and values, well-being, perceptions of worth and group cohesion. This definition entails the cognitive expression of one state of mind through improved performance in his assigned responsibility. Secondly, morale should be defined ‘not by what a person thinks or says, but by what he does and how he does it; it was ‘the state of conduct and behaviour of an individual or group’. The two definitions are synonymous because morale has to do with transforming the state of mind into an actionable form that can be felt and recognised by others. However, the first definition is more encompassing than the latter.

Soldiers' morale, like the civilians, deals with the soldiers' state of mind which is measured by faithfulness to a cause (Ulio, 2016). However, unlike civilian morale, certain morale is for the military distinctly. Such military morale deals with the soldier's attitude toward duty. It develops with the soldier's command over himself. It is a spirit that becomes dominant in the individual and also in the group. Whether the soldier has physical comforts or suffers physical hardships may be a factor but is seldom the determining factor in making or unmaking his morale. A cause is known and believed in; knowledge that substantial justice governs discipline; the individual's confidence and pride in himself, his comrades, his leaders; the unit's pride in its own will; these basic things, supplemented by intelligent welfare and recreation measures and brought to life by a spirit of mutual respect and co-operation, combine to weld a seasoned

fighting force capable of defending the nation. Military morale, as a soldier understands it, is both a quality and a condition of the mind, of the body, of the spirit.

Various studies established the relationship between soldiers' morale, social life, and housing condition. Examples of such studies include that of (Delgado-Howard, 2018) who explores the relationship between housing situation, satisfaction, the social realm, and soldiers' outcome. The study argued that there is a link between military housing and social life, which ultimately keep the soldiers focused and resilient hence high morale. He also argued that barracks housing design would benefit from evaluating other aspects of design that may also impact satisfaction. Such interventions help stakeholders and policymakers in improving soldiers' quality of life which ultimately improves their morale. Degriff, O'Neal, & Mancini (2016) also submitted that military morale is related to family support well-being and the housing condition. This submission conforms to the Delgado-Howard (2018) in the sense that both housing conditions and social life are related positively to soldiers' morale.

Robinson (2005) equally pointed out that housing quality (condition) improves soldiers' readiness and increases their morale. He also submitted that high environmental quality significantly influences residential satisfaction, as was the feeling of having choices over where they lived and expectations of improvement. The research also found that those that have more problems with their housing have lower morale. Thus, this finding shows that housing conditions and soldiers' morale are intertwined. Lukefahr (2002) reported that there are many complaints across military housings from sagged ceilings to buckled floors including broken asbestos and living in replete houses. Patched roofs continue to leak and septic systems continue to overflow. Many homes simply need to be demolished. Such devastating housing condition raises fears of poor war-fighting ability and have a huge impact on whether or not soldiers will remain in the service, demoralise the soldiers and hurt reenlistment. This report indicated that housing condition is strongly related to the morale of the soldiers. Similarly, soldiers' morale is related to their social life (Jones, 2012).

3. Methodology

The study adopted exploratory and descriptive design. A survey research strategy that uses a questionnaire as the instrument of data collection was adopted in this research. The study covers non-commissioned officers' dwelling units whereby the target respondents are the junior non-commissioned officers of the study area from each of the selected apartments. A Non-Commissioned Officer is a Military officer who has not earned a commission and usually obtains their position of authority by promotion through the enlisted ranks. The probability sampling method was employed in this study to provide fair inference and enable statistical statements made about the size of sampling errors. As such, the total population size for this study was 774. Against this population, the total sample size is 260 (two hundred and sixty), which questionnaires were administered as recommended by Bartlett, Kotlik & Higgins (2001). Data collected was analysed using correlation analysis.

4. Results

The results of EFA analysis in Table 1 show that values for Kaiser-Meyer-Olkin (KMO) measures of sampling adequacy is .829, greater than 0.50, indicating factorability of the correlation matrix of the constructs. The total variance explained by the constructs is 66%. The value for the Bartlett test of sphericity is 1946.658. This shows that Bartlett's test of sphericity is large and significant ($p<.05$), which means that the variables are related. The factor loadings for each item; CL1 (.778), CL2 (.804), CL3 (.853), CL4 (.762) CHL1 (.713) CHL2 (.795), FL1 (.735), FL2 (.857), FL3 (.737), FL4 (.755) SL1, (.733), SL2 (.810), SL3 (.612), SL 15 (.502) are all more than 0.5 Except SO1, SO9, SO10, and SO15, which were removed because of low factor loading.

Table 1- EFA for housing condition, soldiers' social life and morale construct

Construct	Component				Kaiser-Meyer-Olkin (KMO)	Bartlett's Test of Sphericity	Total Explained	Variance
	1	2	3	4				
Social life	CL1	.778			.829	1946.658***	66.769%	
	CL2	.804						
	CL3	.853						
	CL4	.762						
	CH1		.713					
	CH2		.795					
	FL1			.735				
	FL2			.857				
	FL3			.737				
	FL4			.755				

FL5	.824
SL1	.733
SL2	.810
SL3	.612
SL15	.502

Table 2 - Factor analysis for soldiers social life construct**Rotated Component Matrix^a**

	Component			
	Community life	Family life	Soldiers life	Children life
CL3	.853			
CL2	.804			
CL1	.778			
CL4	.762			
CL15	.502			
FL2		.857		
FL5		.824		
FL4		.755		
FL3		.737		
FL1		.735		
SL2			.810	
SL1			.733	
SL3			.612	.573
CHL2				.795
CHL1				.713

Table 2 above was determined through factor analysis in order to arrive at the principal components to be used in the analysis for simplicity and clarity rather than using all the fifteen individual variables which may be cumbersome. Accordingly, correlation analysis was carried out to assess the relationship between housing conditions, soldiers' social life, and morale in the study area. The levels of significance for all inferential statistical tests were established at 0.05. The magnitudes of relationships reported were interpreted using Burris (2005) descriptors, With coefficients >.69 as Very Strong, .50 to .69 as Substantial, .30 to .49 as Moderate, .10 to .29 as weak, and .01 to .09 as Negligible.

Table 3 below presents the correlation coefficient results between variables, the results indicate that there is a positive and significant but weak relationship between community life and physical attribute with $r = .196$, $p=.003$, community life, and neighbourhood attributes also indicate a positive and significant but moderate relationship with $r = .326$, $p=.000$ while the correlation between community life and building services attributes shows a strong, positive and significant relationship with $r=.579$, and $p=.000$. A weak and negative but insignificant relationship was recorded between family life and physical attribute with $r = -.036$, and $p=.585$. The correlation between family life and neighbourhood attributes was also weak and negative though the relationship was insignificant with $r= -.054$, with $p=.410$. The correlation between family life and building services attributes was also positive and insignificant but weak with $r=.017$, with $p=.789$. Moreover, a weak and negative but insignificant relationship was recorded between soldier's life and physical attributes with $r= -.033$, and $p=.609$, soldier's life, and neighbourhood attributes show a negative and weak correlation although significant with the value of $r= -.177$, $p= .005$ while soldiers life and building services attributes has also recorded an insignificant relationship but negative and weak with $r = -.025$, with $p=.689$ and finally, children's life and physical attributes have a negative and weak but significant correlation with $r= -.152$, and $p=.017$, children's life, and neighbourhood attributes have a negative and weak but significant relationship with $r= -.165$, $p=.008$ while children's life and building services attribute also records a weak and negative but insignificant relationship with $r= -.101$ and $p=.104$ respectively.

Table 3 - Correlation between housing condition and soldiers' social life (n=194)

		Physical attributes	Neighborhood attributes	Building service attributes
Community life	Correlation Coefficient	.196**	.326**	.579**
	Sig. (2-tailed)	.003	.000	.000
Family life	Correlation Coefficient	-.036	-.054	.017
	Sig. (2-tailed)	.585	.410	.789
Soldiers life	Correlation Coefficient	-.033	-.177**	-.025

	Sig. (2-tailed)	.609	.005	.689
Children life	Correlation Coefficient	-.152*	-.165**	-.101
	Sig. (2-tailed)	.017	.008	.104

* Correlation is Significant @ 0.05 level (2-tailed)

** Correlation is Significant @ 0.01 level (2-tailed)

A correlation analysis was carried out to assess the relationship between physical attributes, neighbourhood attributes, and building service attributes on soldiers' morale in the study area. The results are presented in Table 4 below.

Table 4 - Correlation between housing condition and soldiers' morale (n=194)

			Physical attributes	Neighborhood attributes	Building services attributes
Kendall's taub	alertness	Correlation Coefficient	-.054	-.189**	-.050
		Sig. (2-tailed)	.393	.003	.423
	service	Correlation Coefficient	-.118	-.140*	-.050
		Sig. (2-tailed)	.062	.024	.418
musters	Correlation Coefficient	-.026	-.124*	.035	
	Sig. (2-tailed)	.686	.049	.579	
parades	Correlation Coefficient	.040	-.057	-.001	
	Sig. (2-tailed)	.527	.365	.990	

* Correlation is Significant @ 0.05 level (2-tailed)

** Correlation is Significant @ 0.01 level (2-tailed)

The relationship between physical attributes, neighbourhood attributes, and building services attributes on soldiers' morale was assessed using the Pearson product-moment correlation coefficient. The results show that there is an insignificant, negligible, and negative correlation between the two variables of physical attributes and alertness at $r = -.054$, with $p = .393$. Also, there was a weak, negative but significant correlation between the neighbourhood attributes and alertness variables at $r = -.189$, $p = .003$. However, there was also a negligible, negative, and insignificant correlation between the Building services attributes and alertness variables at $r = -.050$, $p = .423$. The results also show that there is a weak, negative and insignificant correlation between the two variables of physical attributes and service at $r = -.118$ and $p = .062$. Also, there was a weak, negative but significant correlation between the Neighborhood attributes and service variables at $r = -.140$, with $p = .024$. However, there was also a negligible, negative, and insignificant correlation between the Building services attributes and service variables at $r = -.050$, $p = .418$.

Conversely, the results also indicated that there is a negligible, negative and insignificant correlation between the two variables of physical attributes and musters at $r = -.026$, $p = .686$. Also, there was a weak, negative but significant correlation between the Neighborhood attributes and musters variables at $r = -.124$, $p = .049$. Nevertheless, there was also a negligible but positive and insignificant correlation between the Building services attributes and musters variables at $r = .035$, $p = .579$. However, the results also indicated that there is a negligible, insignificant positive correlation between the two variables of physical attributes and parades at $r = .040$, $p = .527$. Also, there was a negligible insignificant negative correlation between the Neighborhood attributes and parades variables at $r = -.057$, with $p = .365$. However, there was also a negligible, negative but insignificant correlation between the Building services attributes and parades variables at $r = -.001$ and $p = .990$.

5. Discussion and Conclusion

The correlation result between physical housing attributes, neighbourhood attributes, and building services attributes on soldiers' social life indicated different findings: There is a significant positive but weak relationship between community life and physical housing attributes conditions of the barracks (Table 3). This result is in line with existing findings contained in National housing policy (1991) and Osuide (2004) which stated that housing embraces all the social services and utilities that go to make a community or neighbourhood a liveable environment. The result is

also in tandem with the suggestion by Ilesanmi (2010), who assessed the physical characteristics of some buildings and revealed a no of building defects and aspects of housing in which maintenance intervention repairs and renovation were considered urgent. This is intended to improve the soldiers' community social life. Furthermore, community life and neighbourhood attributes show a significant positive but moderate relationship (Table 3). Also, this finding confirms that of Ibem & Amole (2011) which found overall housing quality adequate but mainly indicated that it is the neighbourhood facility that made the house quality inadequate, while the housing attributes were, in general, found to be fair. Inferring from above, it shows that any improvement or decline in the quality of neighbourhood amenities will have a corresponding effect on the quality of soldiers' community life.

Community life and building services attributes indicate a strong positive and significant relationship (Table 3), is in line with the findings of Kath H. et al (2011) which opined that housing is a combined article that satisfy so many needs of human beings that includes dwelling, a space for a social gathering with family and friends alike for the attainment of the aspired social ladder. It also corroborates the assertion of Ulyan (2015) who stated that a barrack with good condition and services is shelter and central to the existence of soldier barrack life. Chukwu (2001) also indicated that physical facilities and services are the most recognised elements of essential services quality that determined the relative habitability of soldiers' barracks. Consequently, it indicates that improvement in building service attributes will improve the soldiers' community life as a whole. Soldiers' life and neighbourhood attributes have a significant but weak and negative correlation (Table 3). These research findings are in contravention to the assertion by McDonald & MacMillan (2007), which claimed that housing neighbourhood attributes could positively or negatively influence housing and by extension, the social life of the occupants. Consequently, in this case, the neighbourhood attributes failed to influence the soldiers' social life.

Children's life and physical attributes show a significant negative but weak relationship, while children's life and neighbourhood attributes also recorded significant but weak and negative relationships (see Table 3). Consequently, this result affirms the views of Eziyi & Amole, 2010, Aribigbola, (2001), Jiboye, (2010) & Oladapo (2006) all considered housing as an integral part of human settlement that fulfills the basic need, profound impact on the quality of life, health, welfare as well as productivity of man, socio-cultural and behavioural characteristics of the user. The finding is also in line with the study conducted by Harker (2007) which showed that housing conditions and overcrowding could have a significant impact on children's immediate and long-term effects on health, education, safety, and behaviour. In furtherance to this, Green (2011) in another study came with a similar conclusion that physical housing conditions such as the presence of roaches, plumbing defects, and heating/cooling problems contribute significantly to mental health dysfunction such as being depressed, feeling worried, feeling sad, feeling helpless, and feeling emotionally upset by the occupants.

The correlation result between physical attributes, neighbourhood attributes, and building services attributes on soldiers' morale indicated another result. The relationship between housing condition and soldiers' morale with three variables of alertness, service, and musters all recorded significant and negative but weak correlation with neighbourhood attributes (see Table 4). The result is at variance with the findings of Baqucyan et al. (2015), that environment in which the housing is located is important, access to amenities, level of community safety, cohesion in the area, the status of the people attached to housing as well as environmental pollution is very important neighbourhood features that must be considered. Findings are also not in line with (Aluko, 2011) who posited that home is part of a neighbourhood and should be viewed in the community setting, facilities for education, transport, worship, health care, shopping, and recreation which are all factors to be considered when making housing choices. (Delgado-Howard, 2018) opined that improving soldiers' social life entails "providing safe, affordable places to live, military installations provide quality of life programs such as on-post services like health, recreation, child care, and schools, commercial areas, and employment-related services". Such services improve soldiers' satisfaction and boost their morale which is also inconsistent with the result of the findings. The findings, therefore, indicate that soldiers' morale can neither be affected nor influenced by whether neighbourhood amenities/facilities are either in good or poor condition.

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References

- Adejumo, A. A. (2008). Some thoughts on affordable and social housing in Nigeria. Prototype buildings
- Ademiluyi, A. I., & Raji, B. A. (2008). Public and private developers as agents in urban housing delivery in Sub-Saharan Africa: The situation in Lagos State. Humanity & Social Sciences Journal, 3(2), 143-150

Adewunmi, Y., Omirin, M., Famuyina, F and Farinloye, O. (2011) Journal of environmental sciences post-occupancy evaluation of postgraduate hostel facilities. PP: 106-125

Aluko, O. (2011). The effects of location and neighbourhood attribute on housing values in metropolitan Lagos. Ethiopian Journal of Environmental Studies and Management, 4(2), 69-82

Amole, D. (2009). Residential satisfaction in students' housing. Journal of Environmental Psychology, 29(1), 76-85

Anayochukwu, O. B. (2011). Urban housing financing in the South-Eastern states of Nigeria: problems and prospects. Journal Sustainable Development in Africa, 13(8), 268-282

Balchin, P. N., Bull, G. H., & Kieve, J. L. (1995). Urban land economics and public policy. Macmillan International Higher Education

Byun, G., & Ha, M. (2016). The factors influencing residential satisfaction by public rental housing type. Journal of Asian architecture and building engineering, 15(3), 535-542

Carroll, T. M., Clauretie, T. M., & Jensen, J. (1996). Living next to godliness: Residential property values and churches. The Journal of Real Estate Finance and Economics, 12(3), 319-330

Chau, K. W., Ng, F. F., & Hung, E. C. (2001). Developer's good will as significant influence on apartment unit prices. The Appraisal Journal, 69(1), 26

Danquah, J. A., Attippoe, J. A., & Ankrah, J. S. (2014). Assessment of residential satisfaction in the resettlement towns of the Keta basin in Ghana. International Journal Civil Engineering, Construction and Estate Management, 2(3), 26-45

Daramola, S. A., Alagbe, O. A., Aduwo, B., & Ogbiye, S. A. (2005). Public-private partnership and housing delivery in Nigeria. Proceedings of African Union of Architects Congress (pp. 23-28)

Degriff, A. N., O'Neal, C. W., & Mancini, J. A. (2016). The significance of military contexts and culture for understanding family well-being: parent life satisfaction and adolescent outcomes. Journal of Child and Family Studies, 25(10), 3022–3033. <http://doi.org/10.1007/s10826-016-0471-0>

Delgado-Howard, C. (2018). Better barracks for single soldiers: an exploratory study of unaccompanied personnel housing at fort hood, TX (Doctoral dissertation, State University of New York at Buffalo)

Elgin, J. E. (2010). The impact of neighbourhood characteristics and support on well-being, housing satisfaction, and residential stability for people with a mental illness

Ezimuo, P. N., Onyejiaka, C. J., & Emoh, F. I. (2014). Sources of real estate finance and their impact on property development in Nigeria: A case study of mortgage institutions in Lagos metropolis. British Journal of Environmental Research, 2(2), 35-58

Hulse, K., Reynolds, M., & Yates, J. (2014). Changes in the supply of affordable housing in the private rental sector for lower income households, 2006–11. AHURI. Melbourne & Sydney, Australia, AHURI

Hutchison, R. (Ed.). (2009). Encyclopedia of urban studies. Sage Publications

Ibem, E. O. Amole O. O. (2011). Assessment of the qualitative adequacy of newly constructed public housing in Ogun State, Nigeria. Property Management, 29(3), 285-304

Iheduru, O. C. (2015). Organized business and regional integration in Africa. Review of International Political Economy, 22(5), 910-940

Ilesanmi, A.O. (2010). Post-Occupancy evaluation and residents' satisfaction with public housing in Lagos, Nigeria. Journal of Building Appraisal 6, 153-169

- Ishiyaku, B., Milala, S. I., & Inusa, I. (2019). Measure of satisfaction: post service evaluation of national youth service corps (NYSC) scheme. *Journal of Business and Management Studies*, 1(1), 1-6
- Ishiyaku, B. (2016). Evaluation of Nigerian public housing performance using occupants' experience and satisfaction (Doctoral dissertation, Universiti Tun Hussein Onn Malaysia)
- Jiboye, A. (2010). Evaluating users' household size and housing quality in Osogbo, Nigeria. *Ethiopia Journal of Environmental Studies and Management*, 3(2), 77-85
- Jim, C. Y., & Chen, W. Y. (2009). Value of scenic views: Hedonic assessment of private housing in Hong Kong. *Landscape and urban planning*, 91(4), 226-234
- Kain, J. F. & Quigley, J. M. (1970). Measuring the value of housing quality, *Journal of the American Statistical Association*, 65, 532-548
- Kim, K. H., & Renaud, B. (2009). The global house price boom and its unwinding: an analysis and a commentary. *Housing Studies*, 24(1), 7-24
- Konadu-Agyemang, K. (2001). A Survey of housing conditions and characteristics in Accra, and African City. *Habitat International*, 25, 15-34
- Lukefahr, B. D. (2002). Privatisation efforts for resolving our military housing shortfalls: does this make sense from a well-being perspective?. *Army War Coll Carlisle Barracks PA*
- Lundquist, J., & Xu, Z. (2014). Reinstitutionalising families: Life course policy and marriage in the military. *Journal of Marriage and Family*, 76(5), 1063-1081
- Marshall, D. W., & Meiselman, H. L. (2006). Limited Choice : An exploratory study into issue items and soldier subjective well-being. *Journal of Macro marketing*, 26(1), 59–76. <http://doi.org/10.1177/0276146705285700>
- Nazire, H. (2017). A study on characteristics of informal settlements and effects of upgrading from aspects of houses, land acquisition, and social factors in Kabul City, Afghanistan
- Nelson J.P. (1978). Residential choice, hedonic prices, and the demand for urban air quality. *Journal of Urban Economics* 5(3), 357-369
- Nwaka, G. I. (2005). The urban informal sector in Nigeria: towards economic development, environmental health, and social harmony. *Global Urban Development Magazine*, 1(1), 1-11
- Ogundahunsi, D. S., & Adejuwon, S. A. (2014). Housing condition and health relationships in Ijeda-Ijesa and Iloko-Ijesa, Osun State, Nigeria. *Global Journal of Human–Social Science: B Geography, Geo-Sciences, Environmental Disaster Management*, 14(7), 1-8
- Ojo, I. C. & Oloruntoba, K. (2012). Public housing provision and users satisfaction in Ondo State Nigeria. *British Journal of Arts and Social Sciences* 8(1) 103-111
- Robinson, K. (2008). Residential satisfaction of military personnel living in privatised and non-privatized housing (Doctoral dissertation, University of Georgia)
- Sagada M.L (2009). The impact of Ahmadu Bello University Main campus on staff housing and student accommodation in samara village Zaria. Unpublished PhD thesis, Ahmadu Bello University Zaria, Nigeria
- Baqutayan, S. M., Raji, F., & Ariffin, A. S. (2015). The impact of housing conditions on the emotion, behaviour, and psychological wellbeing of middle-income groups. *Journal of Sustainable Development*, 8(8), 262
- Toppo, D. R.(2015) The tragedy of American supremacy. CMC Senior Theses. 1141. http://scholarship.claremont.edu/cmc_theses/1141
- Kama, U., Yakubu, J., Bewaji, P., Adigun, M. A., Adegbeye, O., & Elisha, J. D. (2013). Mortgage financing in Nigeria. Occasional Paper No. 50 Central Bank of Nigeria

Ulio, J. A. (2016). Military morale. *American Journal of Sociology*, 47(3), 321–330

Wapwera, S. D., Parsa, A. & Egbu, C. (2011). Financing low-income housing in Nigeria. *Journal of Financial Management of Property and Construction*, 16(3), 283-301

World Bank (2014). *World Development Report*, Washington D.C